Ektron Reference

Ektron 8.7

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Ektron Reference

Release Notes

Web version of the Ektron Reference

http://documentation.ektron.com/cms400/v8.7/Reference/Web/EktronReferenceWeb.html

Web version of the Release Notes

http://documentation.ektron.com/current/ReleaseNotes/ReleaseNotes_WebHelp.htm

For the latest version of this manual, go to

http://www.ektron.com/Documentation/Ektron-CMS/

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Getting Started with Ektron

Ektron manages the life cycle of content, from creation to approval and publication. It helps your organization set up a process for overseeing changes to a website, indicate the status of content within that life cycle, and inform the next approver that it is their turn to review the content.

Business users, such as marketing or public relations professionals, can author, manage and publish Web content, build and deploy Web forms, and collect and leverage visitor information. The editor supports the industry's best in-context editing environment, ensuring user adoption and project success.

People interact with your Ektron website in different ways. Some people operate in different roles, and sometimes different roles overlap in activity. For example, a developer uses PageBuilder to create page structures and content authors use PageBuilder to build a page in those structures. Similarly, some administrators and developers may perform installation and set up actions.

The major roles for people interacting with your website are as follows:

- **Content Author**—creates content for your website and may edit the content in context on the Web page, or modify content in the Workarea. Content authors can have specialized roles and permissions, such as a *discussion board administrator*.

    - *Editing in Ektron* on page 207
    - *Creating New PageBuilder Pages* on page 661
    - *Editing Content on a PageBuilder Page* on page 665
    - *Displaying Content on Your Website* on page 348
    - *Managing Content* on page 273
    - *Working with Ektron Content* on page 287
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    - *Storing Files in the Library* on page 333
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    - *Working with Calendars* on page 514
    - *Assigning and Managing Tasks* on page 1027

- **Administrator**—manages the website including access to all content, taxonomies, users, rules, and settings.

    - *Setting Up Your CMS Folder Structure* on page 241
    - *Managing Content* on page 273
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    - *Using Menus* on page 753
    - *Using Taxonomies* on page 777
    - *Using Breadcrumbs* on page 819

- **Developer**—writes API code, modifies ASPX pages, creates wireframe templates with PageBuilder, and create widgets to customize your website.

For information about developing a Web strategy, see *Ektron's Mobile-Driven Web Experience* on page 133.

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2

Installing Ektron

For information about the system requirements for the current release, see the System Requirements. If your system does not conform to these requirements, you should upgrade before installing or upgrading Ektron.

IMPORTANT: Each deployment has unique requirements. Ektron recommends that you engage with a Certified Ektron Partner when making decisions about the needs of your specific production environment.

This section also contains the following topics.

License Keys

IMPORTANT: Read the Ektron Perpetual License Agreement before installing Ektron Software.

Ektron controls the usage through a license key, a unique code assigned to your domain. Your license key is included in the email that is sent when you request or purchase Ektron.

When you login to a website that contains Ektron, it checks the license key(s) against the domain.

If the URL of a valid license key matches the URL of the site being accessed, the Workarea appears.

If no valid license key is found for the URL of the site being accessed, Ektron is disabled and you must log in the with Builtin account to change the License Key.

If you have a broken license key or a license key with an incorrect base URL, an error message appears in the Ektron Login window. The message states, "Error: A license violation has occurred and the application is presently locked. Please see your administrator."

If this message appears, you can login with the Builtin account and reenter your license key. If the message continues to appear and you are sure you have a valid key, contact Ektron Support.

This section also contains the following topics.

Domains in which You Can Use a License Key

The license key is assigned to your base URL, which is typically your domain name. For example, if your domain name is `www.mycompany.com`, the license key follows this pattern: `www.mycompany.com(expdate)(Modifiers)?1234567890`.

Each domain name requires its own license key. For example, to support the domain names, `www.mycompany.com`, `sales.mycompany.com` and `support.mycompany.com`, you need 3 license keys.

When you purchase a license key, be sure to register a domain name, not an IP address. For example, register `www.mycompany.com`, not `192.168.0.1`.

Although Ektron supports IP addresses, the domain that you license becomes the required URL in the browser address. For example, if you register `192.168.0.1`, you would need to access the site as `http://192.168.0.1/somedirectory/myloginpage.aspx`.

Because users would typically not identify a Web page by its IP address, you should register the domain name instead.

Using Ektron without a License Key

For evaluation purposes, when you install Ektron, you do not need a license key. During the installation process, leave the License Key field blank and click **Next** on the License screen. This lets you use Ektron as localhost.

Inserting the License Key

If you download the executable (.exe) file, you are prompted to enter a license key during installation. Otherwise, you can enter it by choosing **Workarea > Settings > Setup** and clicking **Edit** and then add the license key to the **License Key(s)** field.

Upgrading a License Key

If you upgrade Ektron and want to replace the old license key with a new one, choose **Workarea > Settings > Setup** and click **Edit**. Next, add the license key to the **License Key(s)** field. On the other hand, if you want to add new keys *in addition to* old keys, create a comma-delimited list of keys in the **License Key(s)** field.

When cutting and pasting license keys, keep the full license key intact without adding or deleting characters. License keys that are changed in any way render Ektron inoperable.

License Key Format

A license key typically begins with a base URL (domain name, computer network name, or IP address) followed by descriptor tags, a question mark, a series of numbers, a hyphen and one or 2 digits signifying release number. For example:

```
dev.mysite.com(exp-2010-10-25)(modifiers)(users-
10)?51510837796786063064924334416-XX
```

License keys cannot contain spaces or line breaks. The following tables shows license key modifiers.

Version Modifier

- **ST** (Standard key)—All Ektron features other than the following features in this list.
- **PR** (Professional key)—In addition to standard features:
  - Personalization
  - XLIFF Support
  - Document Management
  - Social Networking
  - Analytics

- **EN** (Enterprise key)—In addition to standard features:
  - eSync
  - Multi-site

Option Modifiers

- **M*n*** (Multi-site)—*n* indicates number of sites; can be optionally purchased with Standard or Professional key or part of an Enterprise version.
- **S** (eSync)—can be optionally purchased with Professional key or part of an Enterprise version
- **E** (eCommerce)—can be optionally purchased with Standard, Professional or Enterprise version
- **XML** (eWebEditPro)—Support for eWebEditPro + XML; standard part of every license

Installing Ektron

By default, the installation places files in 2 server locations:

- `C:\Program Files\Ektron\CMS400vXX`: sample and minimal databases, documentation, utilities, setup files for creating additional sites
- `C:\Inetpub\wwwroot\`*`site root`*: bin folder, Web Services, scripts, supporting files, uploaded files and images, graphics used in Ektron, CustomAPI, and so on.

> **NOTE:** The bin folder stores Ektron's binary executable files. .NET automatically searches this folder for .dll files.

During installation, the ASPNET or IIS_WPG and IUSR users are given permission to create folders in these directories:

- `C:\Inetpub\wwwroot\[Your Site]\uploadedfiles`
- `C:\Inetpub\wwwroot\[Your Site]\uploadedimages`

This section also contains the following topics.

Before You Install

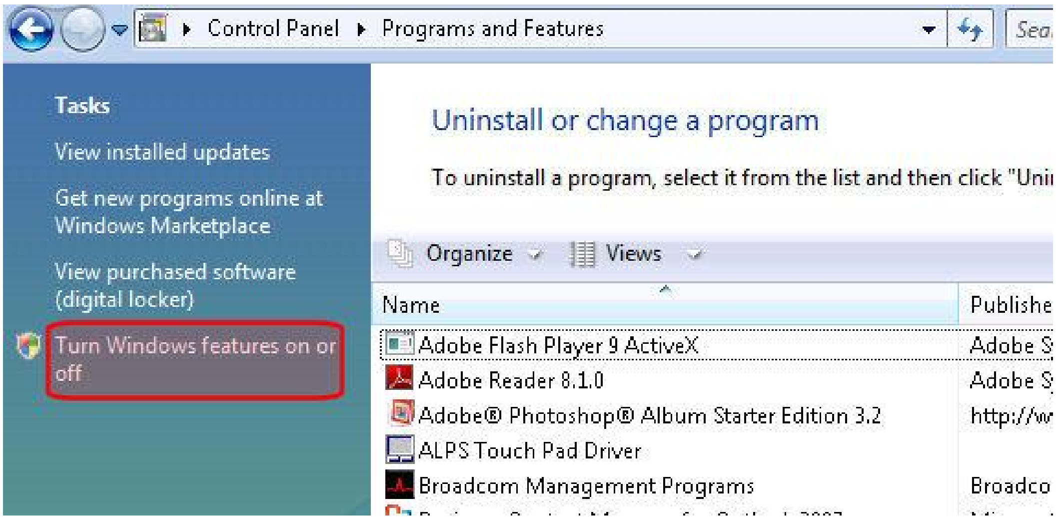
1. Create a folder for the site. Make sure the drive and folder to which you install your Ektron website have sufficient space. Anticipate future needs, since the site is likely to grow over time.
2. Make sure that Internet Information Server (IIS) is installed on your server. See *Creating Multiple Websites on a Single Server* on page 86.
3. Install and configure your Web Application Server. For more information, see Microsoft ASP.net.
4. If you are setting up one website that uses multiple Ektron servers and points to a single database server, make sure both servers connect to the same database. This configuration ensures that membership user registrations, forum/blog posts, statistics,

and so on, are the same on both servers. For more information, see *Installing Ektron* on page 9.

5. Decide which search provider you will use. See Also: *Setting Up Search for Your Website* on page 861
   If you will use any Microsoft search provider, install it. See Also: *Setting Up a Microsoft FAST Search* on page 899; *Setting Up Microsoft Search Server 2010* on page 871

IMPORTANT: If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe`. See Also: *Setting Up Microsoft Search Server 2010 Express* on page 864

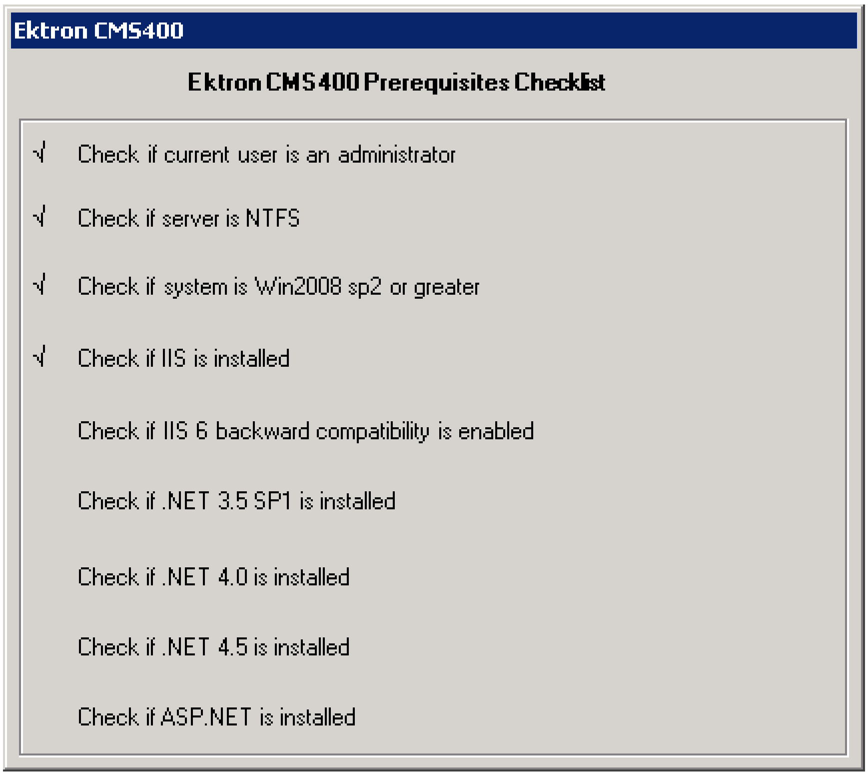
6. Enable IIS 6 metabase compatibility and ASP.NET. To do that:
   a. From the Windows Control Panel, choose **Programs and Features**.
   b. From the left panel, choose **Turn Windows Features On or Off**.



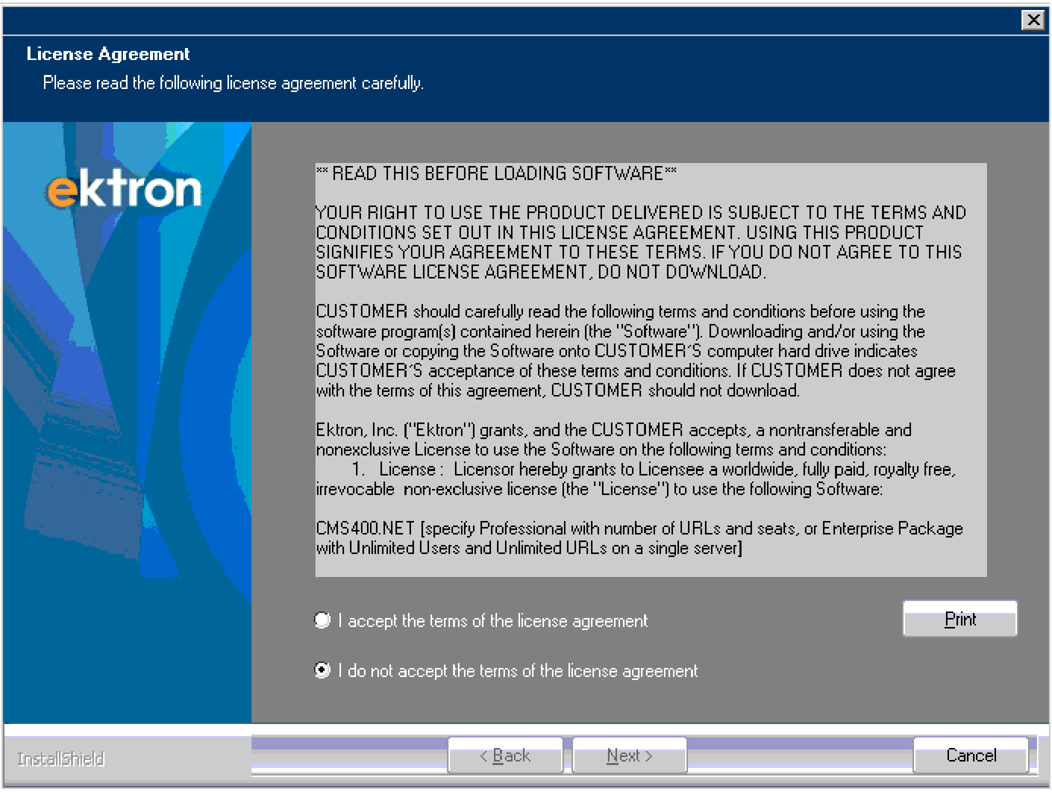
   c. Click to open **Internet Information Services > Web Management Tools > IIS 6 Management Compatibility**.
   d. Check **IIS Metabase and IIS 6 configuration compatibility**.
   e. Click to open **Internet Information Services > World Wide Web Services > Application Development Features**.
   f. Check **ASP.NET.**
   g. Click **OK**.
7. Obtain a license key from Ektron. Send email to license@ektron.com.

Installing the CMS Base

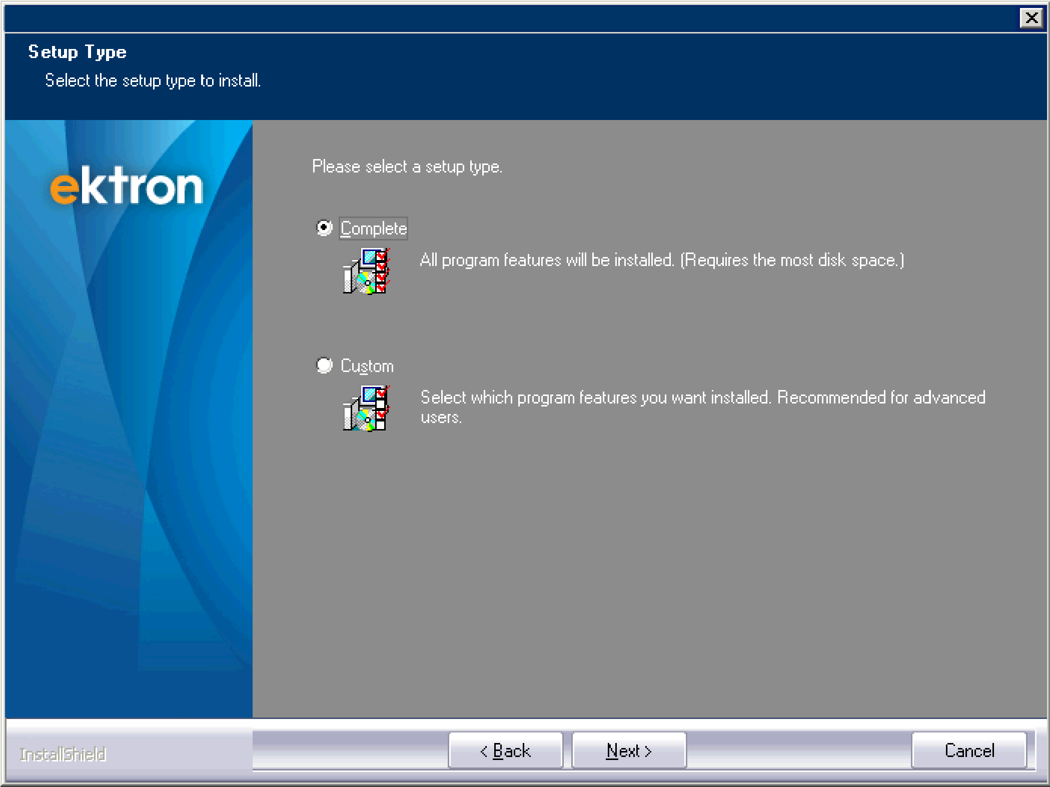
1. Contact your Ektron account manager to obtain a link to download Ektron 8.7. See Also: Contact Ektron.
2. Double click the downloaded CMS400Base*releasenumber*.exe file.
3. Ektron verifies that your server has all required components. You must install any missing ones before you can continue.



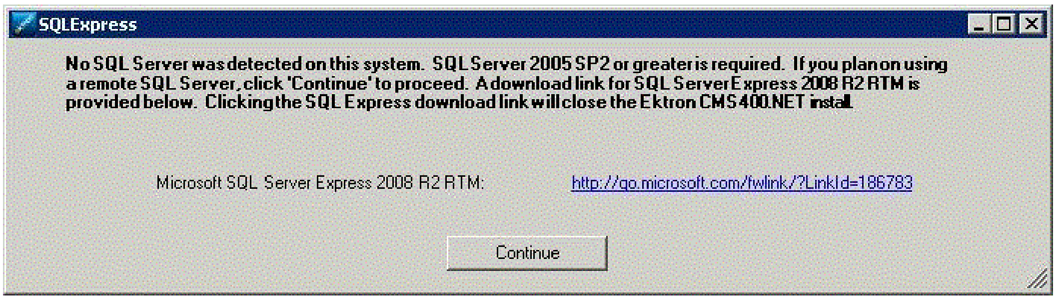
4. A screen displays Ektron's License Agreement. Please read it and click **I Accept**. If you do not accept, the setup ends.



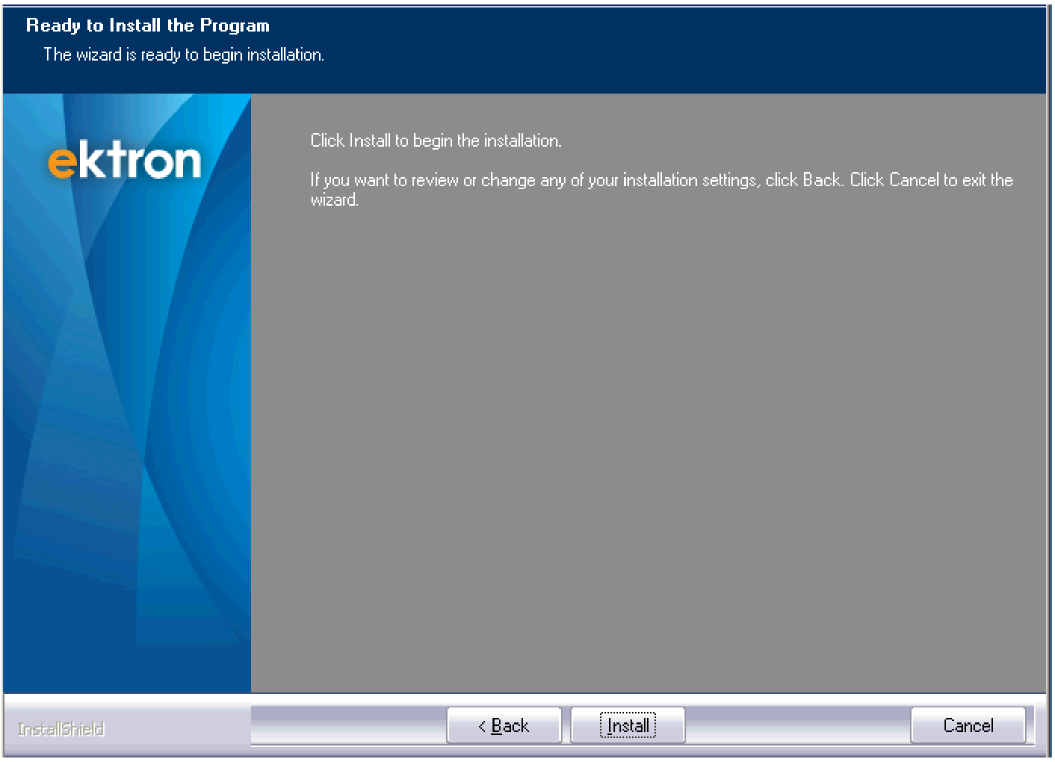
5. Select **Complete** to install all components. Or, select **Custom** to choose which components to install. You can also choose where to install them.



6. When you click **Next**, the install checks for SQL or SQL Express on the server. If SQL is not installed, a dialog prompts you to install SQL Express.
7. If you will use a remote SQL server, click **Continue**. If you plan to use SQL Server on this computer, click the link on the message to install SQL Server Express 2008 R2 RTM. If you do, the Ektron installation terminates. After installing SQL Server Express, restart the Ektron installation.

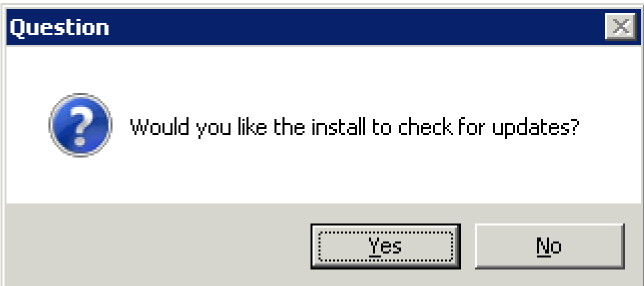


8. The **Ready to Install the Program** screen appears. Click **Install**. The installation program copies files to the `C:\Program Files` folder.



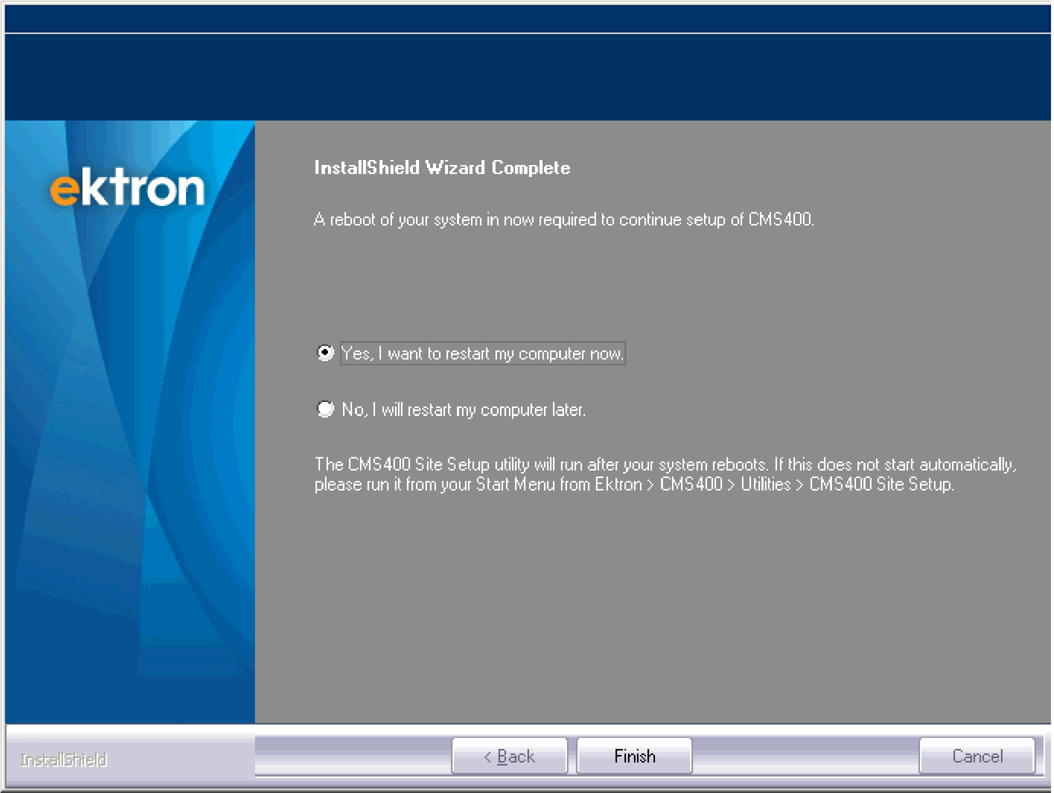
IMPORTANT: After completing the installation, you should further configure your permissions based on your network security model before using Ektron.

9. Click **Yes** to check for updates. This verifies that you have the latest version of Ektron.



10. You might be prompted to restart your server. If so, you should restart now.

IMPORTANT: If this dialog appears, do not run the site setup until the system reboots.



After you install Ektron, the `web.config` file is updated as follows.

- ek_sitePath—*webroot/siteroot*
- ek_buildNumber—current build number of Ektron
- ek_cmsversion—current version of Ektron
- Connection String—information about the database's connection to Ektron.

See Also: *Managing the web.config File* on page 67

Installing a Site

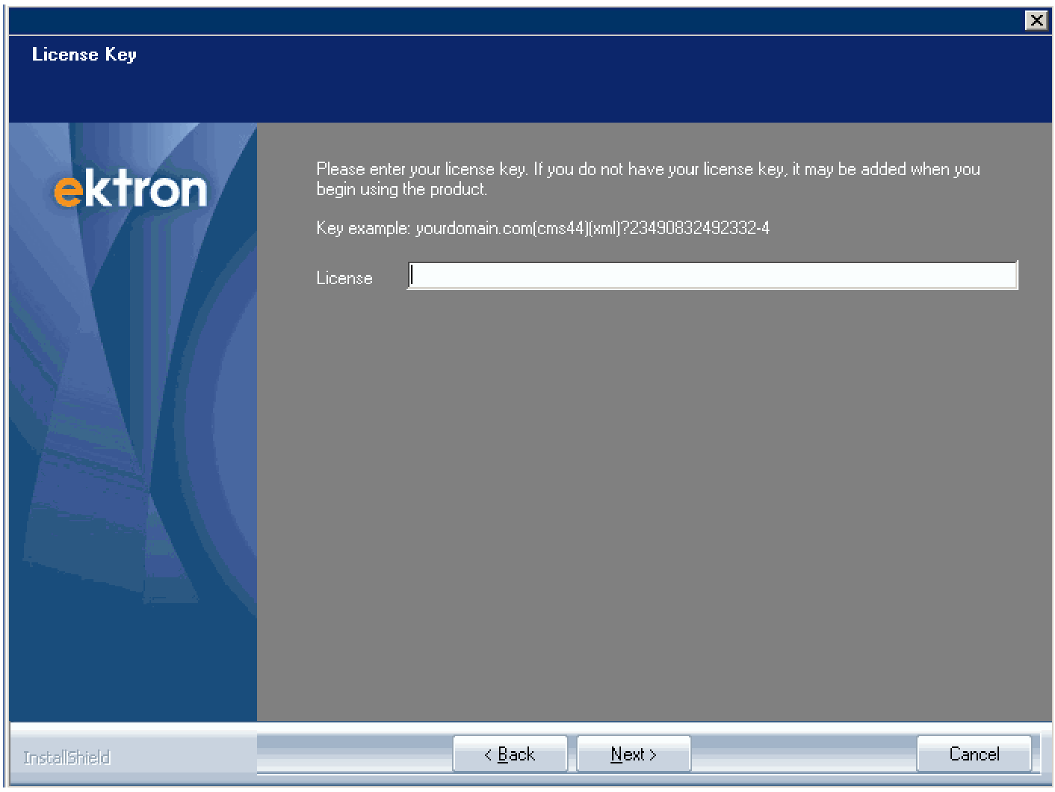
NOTE: Continue with these steps after completing *Installing the CMS Base* on page 13.

The installation copies the following folders from `C:\Program Files\Ektron\CMS400vxx` to the Web root folder you specify:

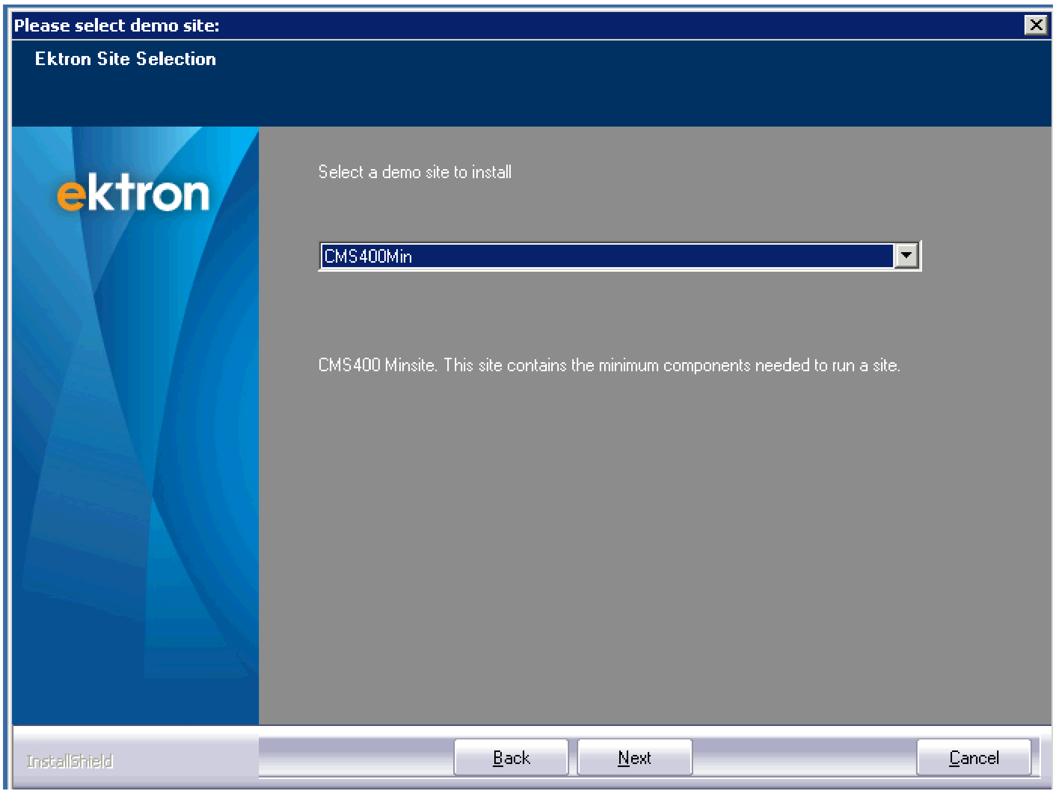
- BIN
- workarea
- documentation
- uploaded files and uploaded images
- a login page
- the Visual Studio solution file

1. You can create a new site manually by clicking the `cms400sitesetup.exe` file located in `C:\Program Files\Ektron\CMS400vxx\Utilities\SiteSetup` or by choosing **Start > Programs > Ektron > CMS400vXX Utilities > CMS400 Site Setup**. The Setup Type screen appears.

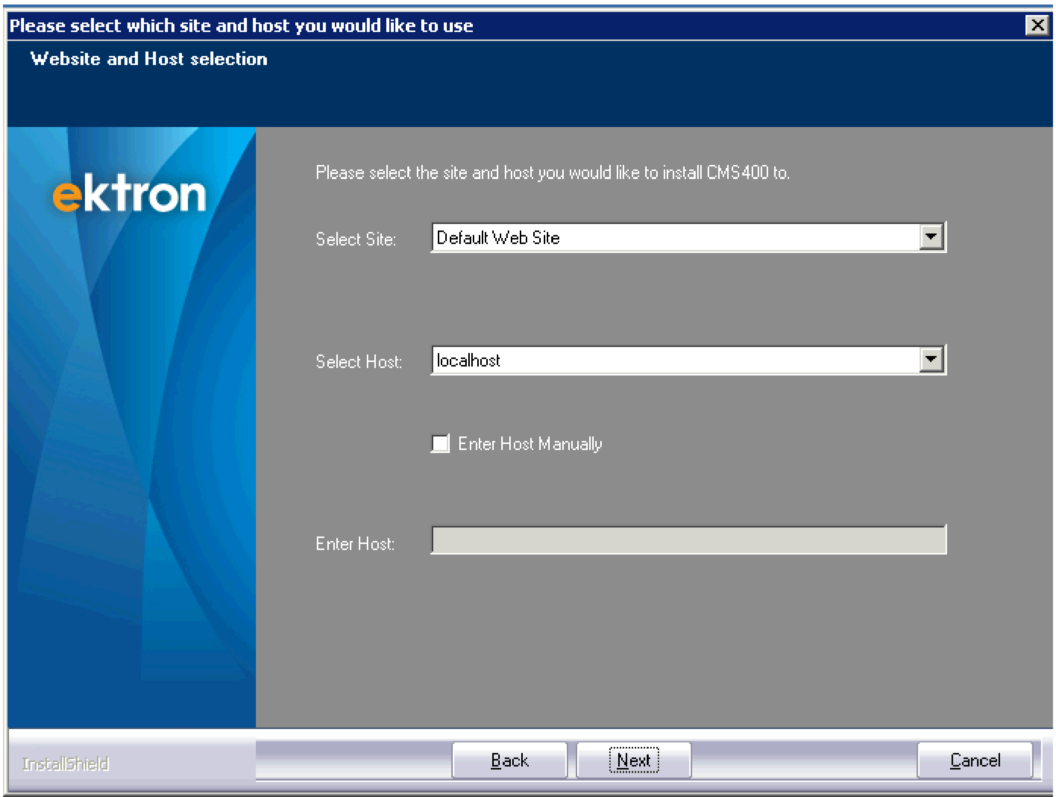
2. Choose an option and click **Next**.
    - **CMS400 Full Installation**—For setting up a new site installation.
    - **CMS400 Upgrade—**For upgrading existing site's database and site files.
    - **CMS400 Database Setup—**For setting up a new site database. Site files, such as .aspx pages, are not included in this setup.
3. In the **License Key** field, enter your primary license key for Ektron. License keys are typically emailed to your organization when you request a copy of the application. When cutting and pasting a license key, keep the full license key intact without adding or deleting characters. If you do not have license keys now, you can insert them later.



4. You can select a site to install. This screen does not appear the first time you run the site setup for a starter site. If you run it again and have multiple sites, this dialog box appears.



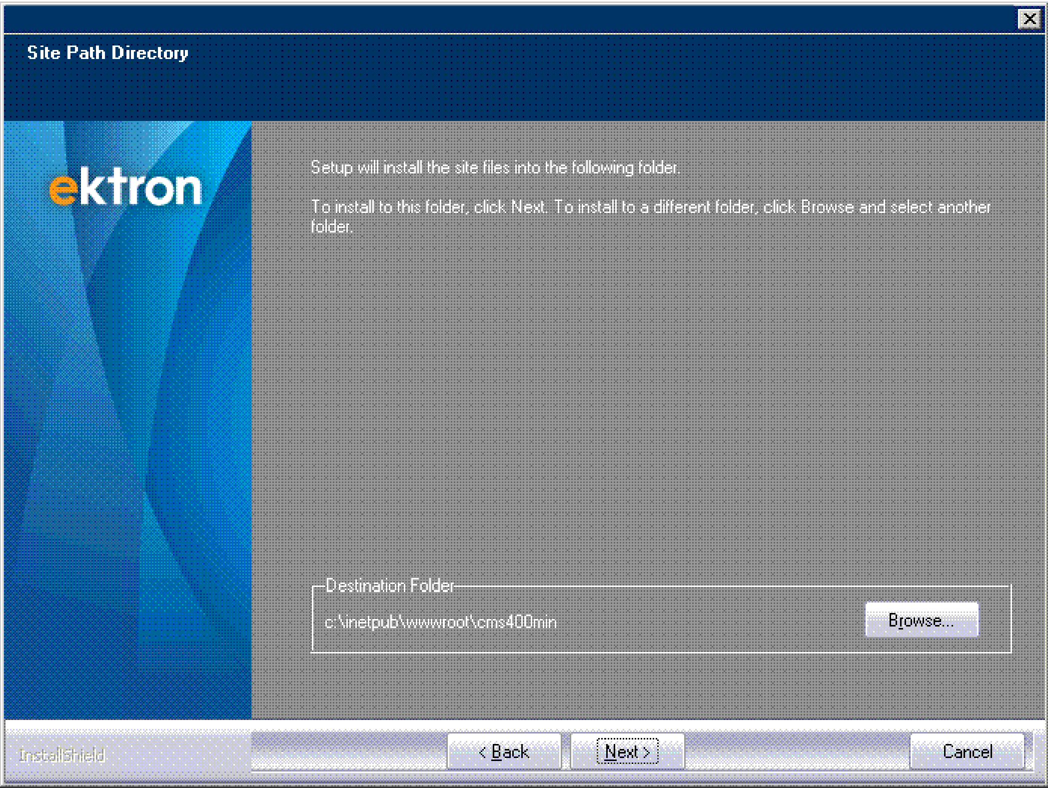
5. If your server operating system accommodates multiple websites (for example, Windows Server 2008), select the site to which you want to install Ektron from the drop-down list. Otherwise, accept the default.



6. Enter the destination folder for the site. If your website resides in a folder other than the default, click **Browse** and navigate to that folder. The default reflects your selection in the previous dialog.

WARNING! Do not install under another application's folder within the Web root.

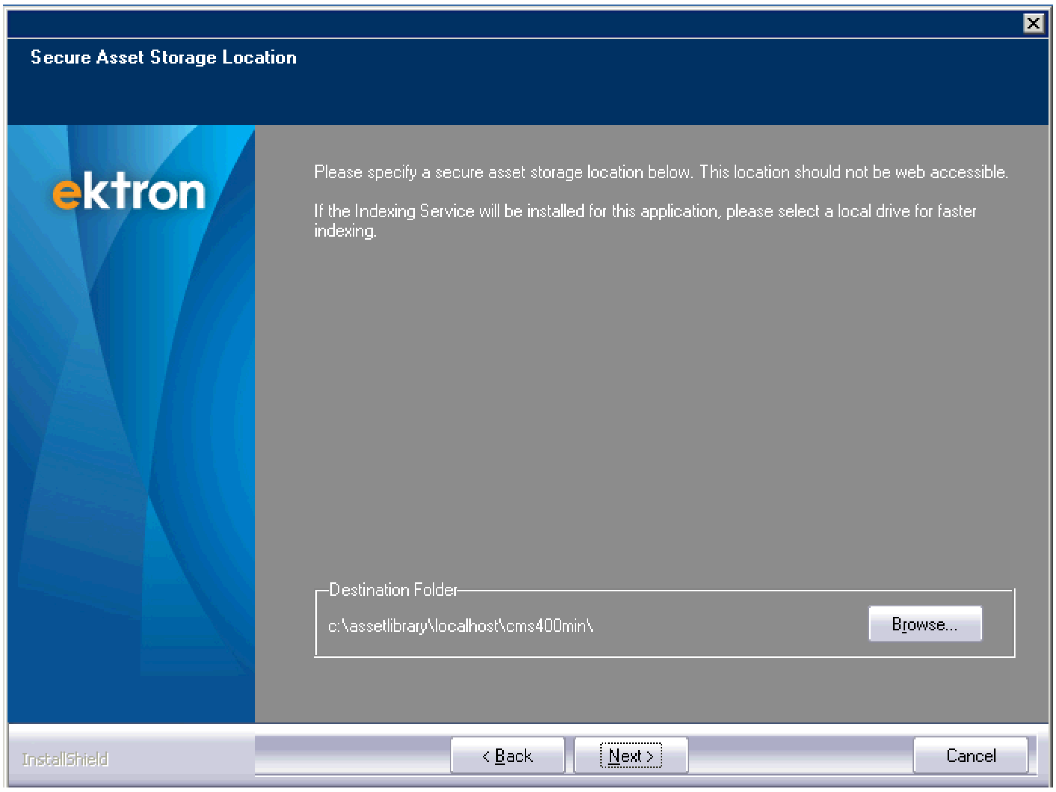
IMPORTANT: Ektron does not support the installation of nested sites, each having its own `web.config` file. Nested sites can disrupt Ektron features, such as Aliasing, Menus, and eSync.



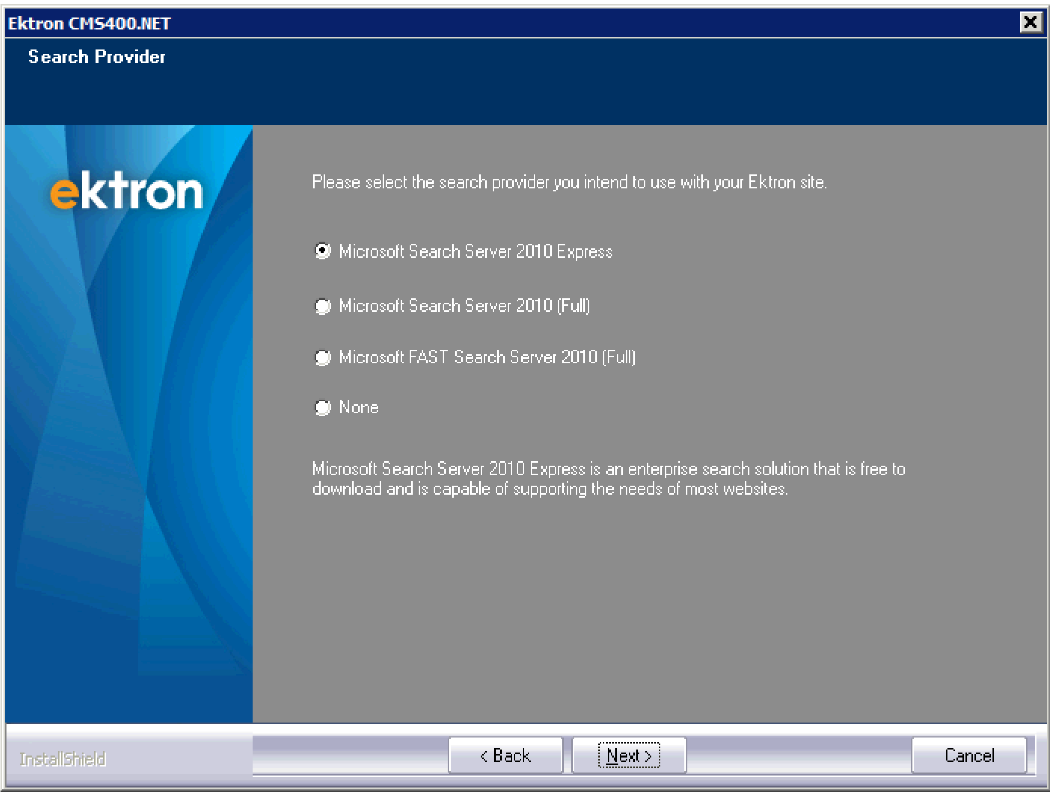
7. Enter the path of the Secure Asset Location. The Site Options screen appears.

IMPORTANT: If you plan to load balance several servers, make sure this path is the same for all servers in the cluster. See Also: *Balancing the Load on Your Servers* on page 89

NOTE: Be sure the drive to which you install the asset library has sufficient storage space plus room for growth.



8. On the Search Provider screen, determine which search provider you will use with Ektron.



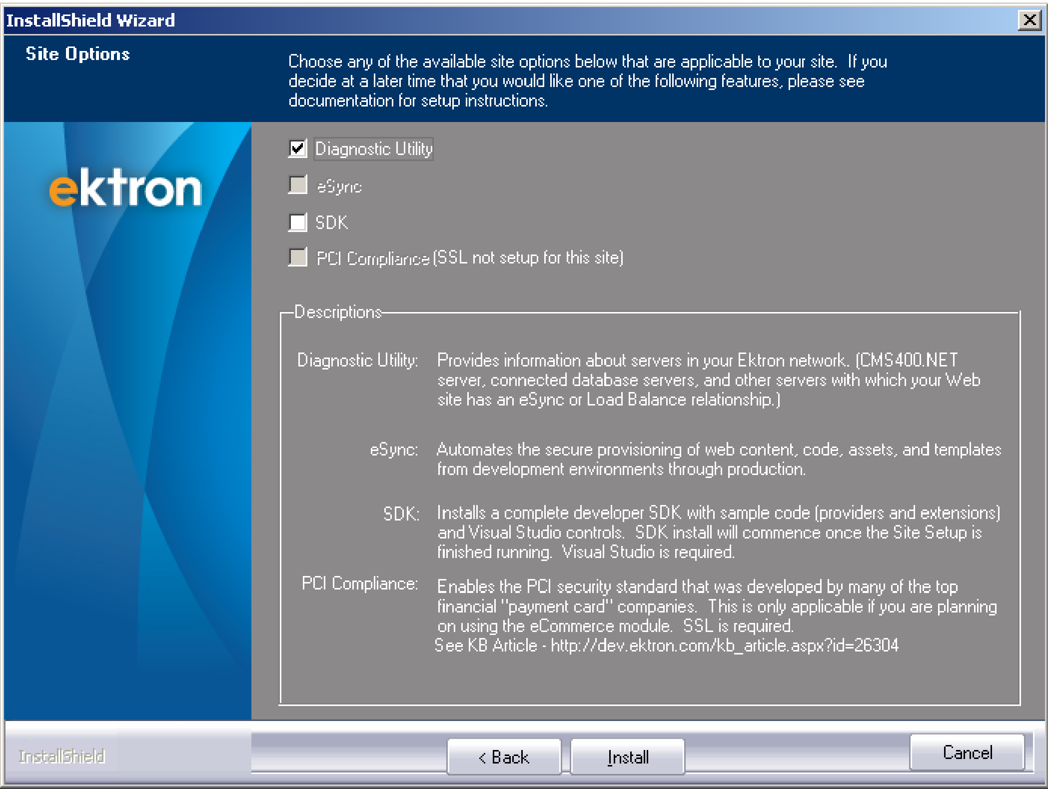
See Also: *Setting Up a Microsoft FAST Search* on page 899; *Setting Up Microsoft Search Server 2010* on page 871

IMPORTANT: If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe`. See Also: *Setting Up Microsoft Search Server 2010 Express* on page 864

9. On the Site Options screen, check each option you want to install. Boxes are grayed out if an option is not available.

   See Also:

   - *Diagnostics Utility* on page 1883
   - an eSync security certificate. See Also: *Managing eSync Security Certificates* on page 1521
   - *Using Ektron's Developer SDK* on page 1633



NOTE: eSync is only available if the eSync modifier is in your license key. **SDK** is only available if Visual Studio 2010 is installed on your server.

10. After choosing, click **Install**. The Moving Files dialog appears, and the following things happen.
    - files are copied to the site
    - permissions are set for the site's directories
    - ASPNET, IIS_WPG, or Network Service user and IUSR are given permissions to the directories
    - the site is set up to use .NET 4.0
    - `web.config` settings are configured
    - IIS is configured

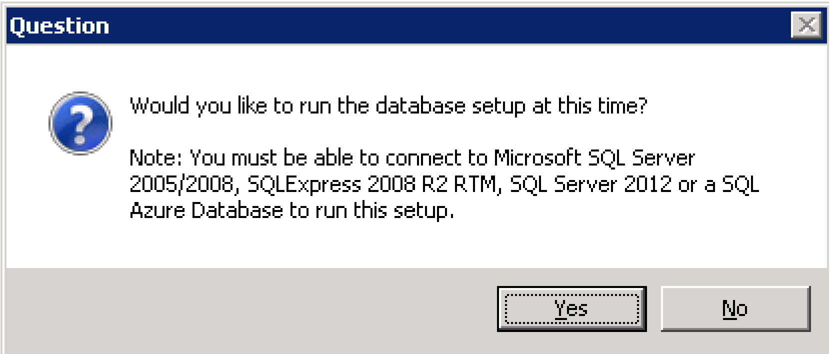
Setting up a Database

NOTE: Continue with these steps after completing *Installing a Site* on page 17.

Your database contains information such as users and content blocks. The database setup program:

- checks for SQL or SQL Express server. If either is installed on your server, an appropriate database is set up.
- loads database tables
- updates the `web.config` file with information about your database connection, based on your responses

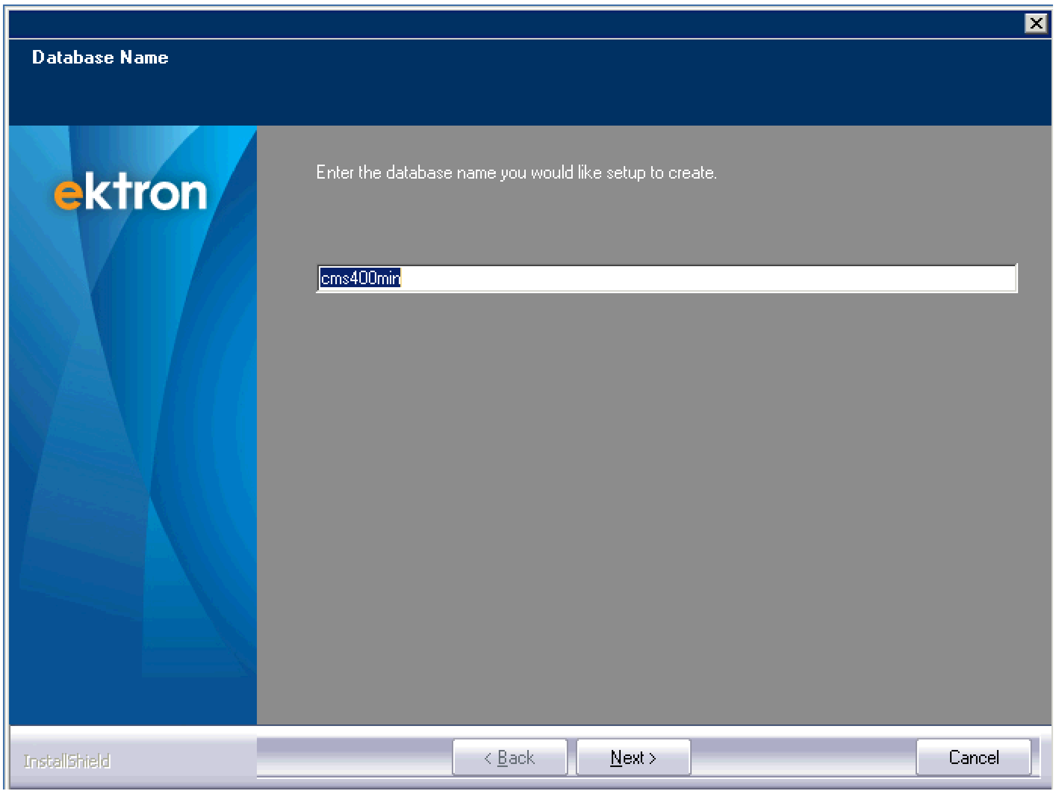
1. You are asked if you want to set up a database. Click **Yes**.



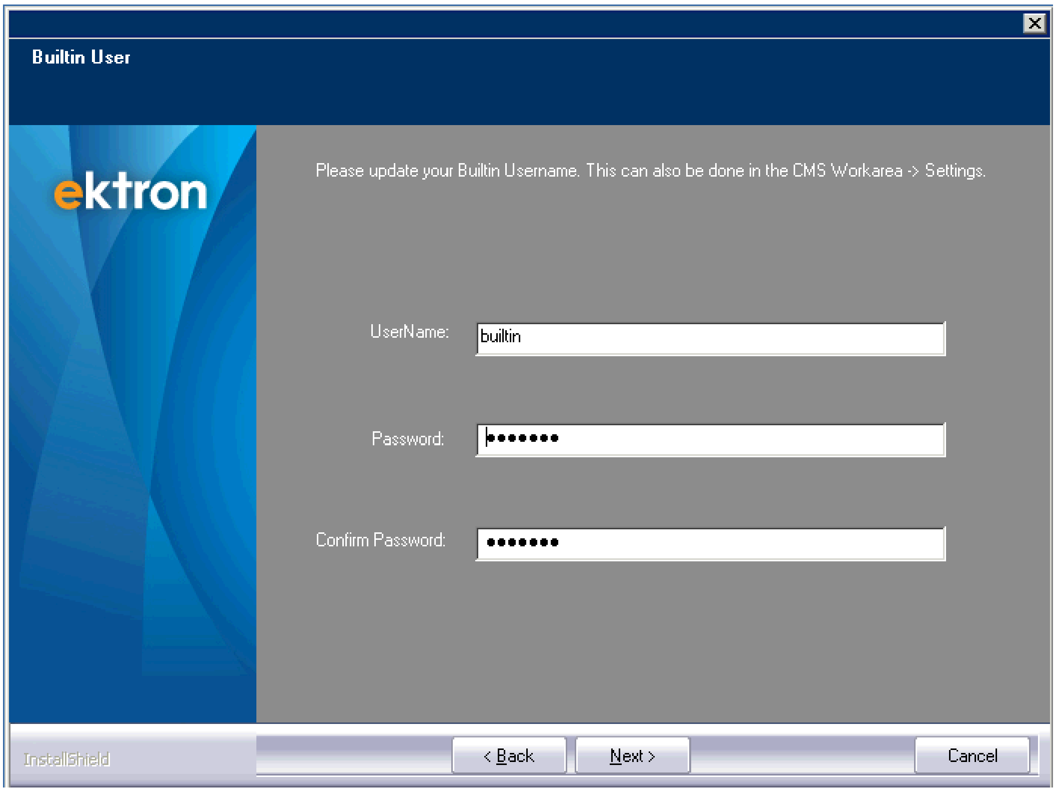
If you are using a separate database server, you need the following information:

- database server host name or IP address
- if the database server is on the same domain as the application server, it must support NT or SQL authentication
- if the database server is on a separate domain from the application server, it must support SQL authentication
- you must have database administrator or database creator privileges

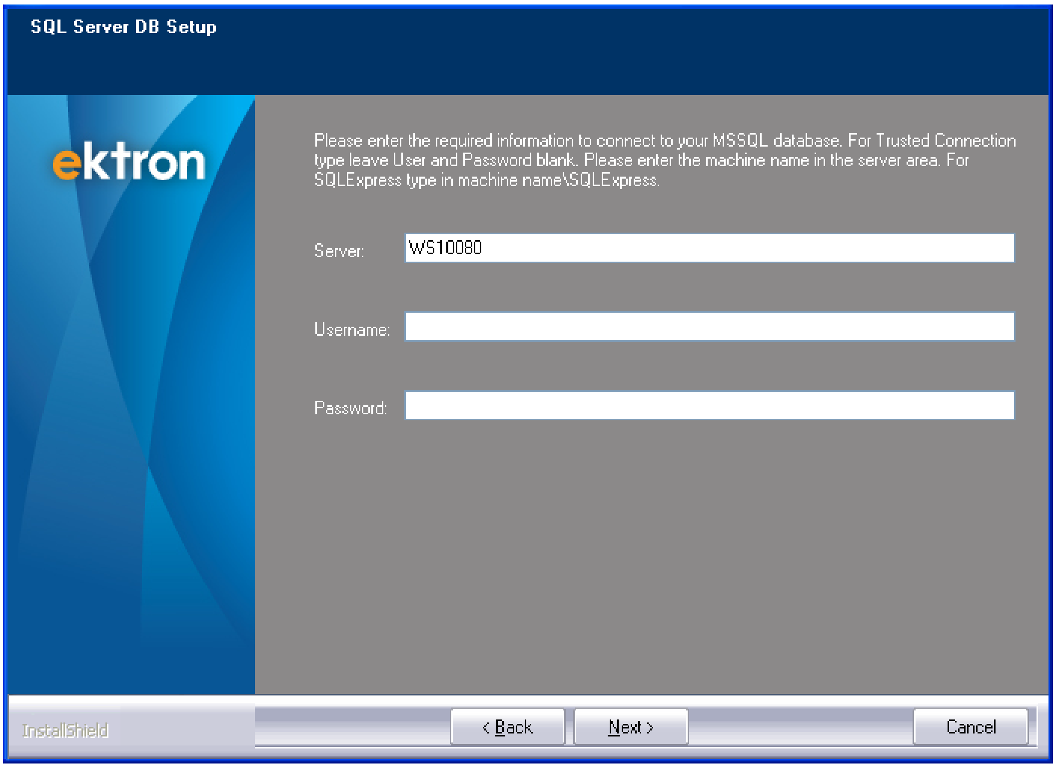
2. Enter the name of the database you are creating.



3. Enter the builtin user's password. For information about the builtin user, see *Getting Started with Ektron* on page 5.



4. Click **Next**. The SQL Server DB Setup screen appears and prompts for database connection information.

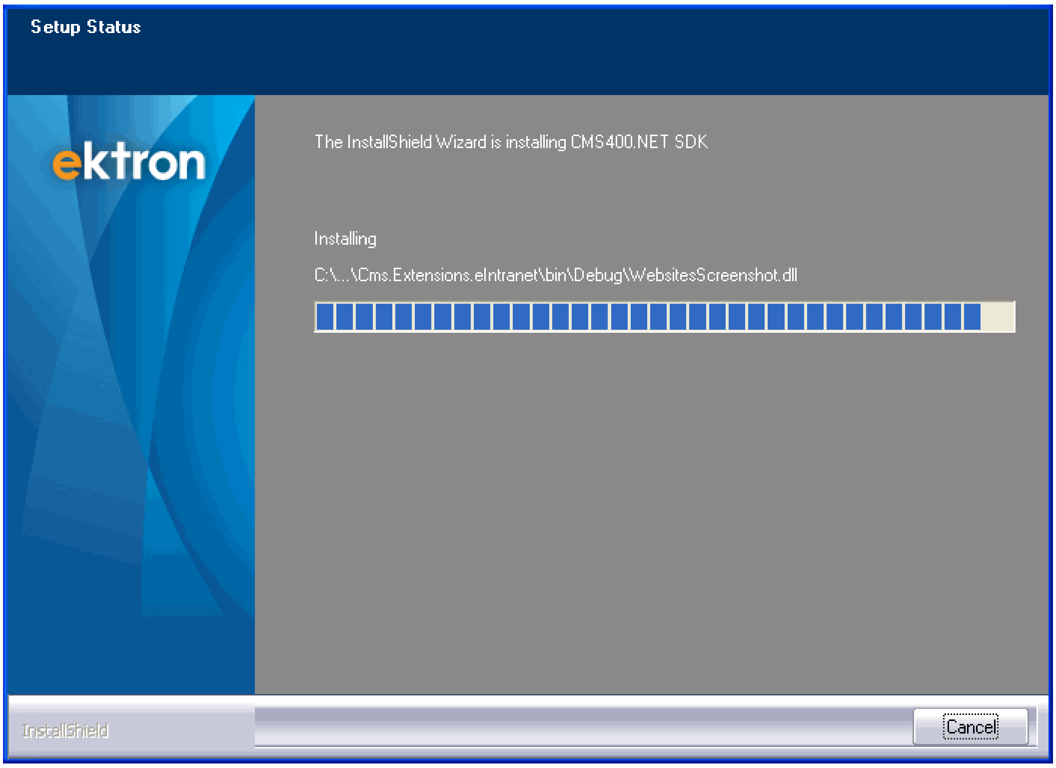


- **Server**—List the database server on this system. To setup the database on this server, accept the default. Otherwise, enter a SQL or SQL Express server that already exists. For SQL, this would typically be **(local)** if it's installed on the local server. Otherwise, enter the Server's name. For SQL Express enter **(local)\SQLEXPRESS**.
- **Username—**Enter the username you will use to access the database.
- **Password—**Enter the password you will use to access the database.

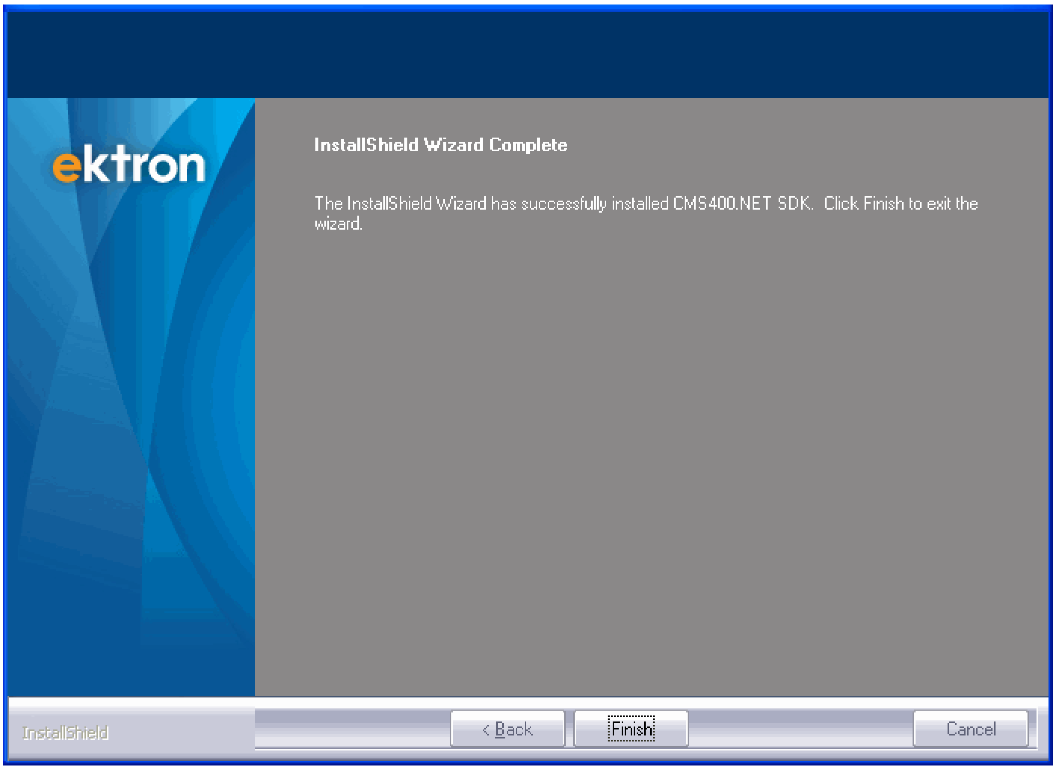
NOTE: If you want to use NT authentication, leave the username and password blank. This will set up a trusted connection.

After you complete the screen, the setup verifies the database connection information. If the database name already exists, you are asked to assign a different name. When a connection is made and the name is available, the installation program creates a database using the provided information.

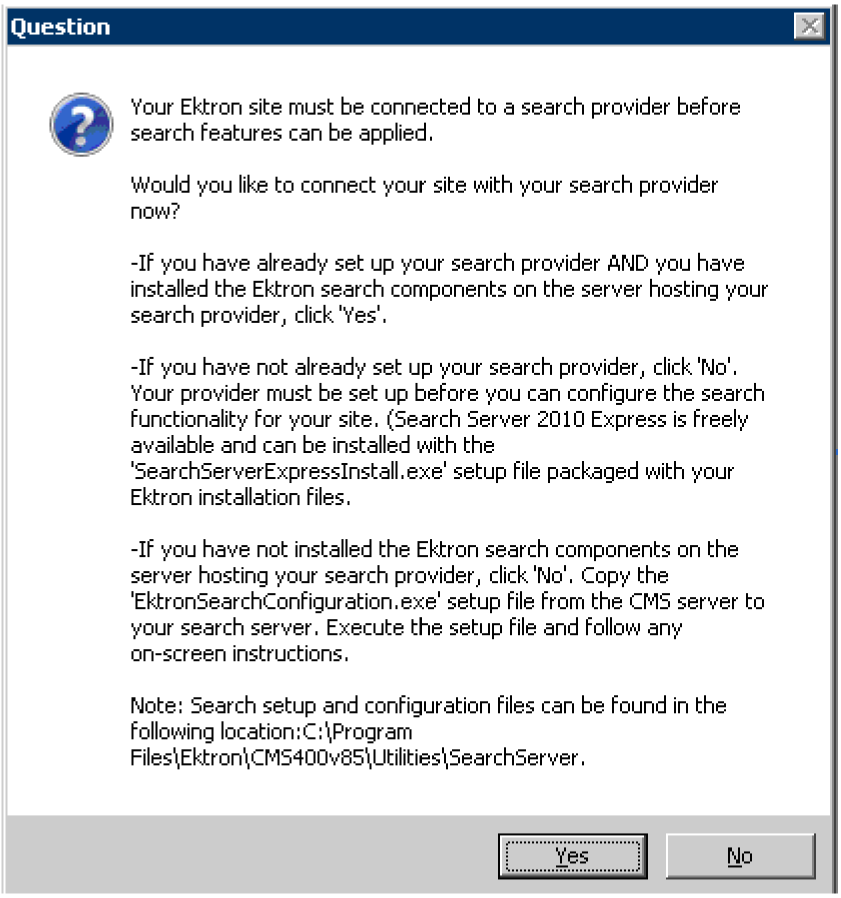
5. Click **Install** to begin the installation. The Setup Status screen appears.



6. When the SDK install is finished, the following screen appears. Click **Finish**. The site and database setup portion of the install is complete.



7. If you selected a search provider in *Setting Up Search for Your Website* on page 861, the following screen appears.

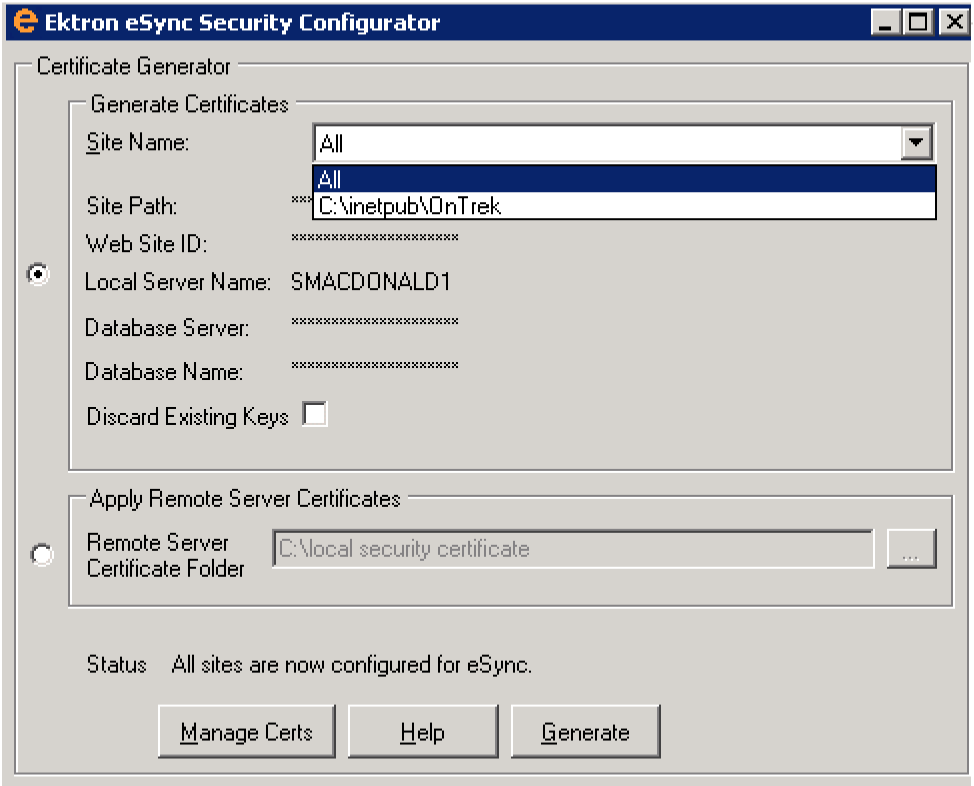


- If you set up a search provider and installed Ektron search components, click **Yes**. (This would typically be the case when an Ektron site on the server is already using search).
- If you have not set up a search provider, click **No**. After completing the Ektron installation, install the search provider. Then, go to `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\Ektron.Cms.Search.Configuration.exe` to configure Ektron to work with the search provider. See Also:
  - *Setting Up Microsoft Search Server 2010 Express* on page 864
  - *Setting Up Microsoft Search Server 2010* on page 871
  - *Setting Up a Microsoft FAST Search* on page 899
- If you set up a search provider but have not yet installed Ektron search components, click **No**. Complete the Ektron installation then go to `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\Ektron.Cms.Search.Configuration.exe` to configure Ektron with a search provider. See Also: *Managing a Microsoft Search Server* on page 925.

> **IMPORTANT:** If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe`. See Also: *Setting Up Microsoft Search Server 2010 Express* on page 864

8. If your Assets folder will have more than 50 PDF files, you should *Install Foxit PDF Filter* on page 937 to speed up the indexing of PDF files.

9. If you checked the **eSync** box in Step 9 of *Installing a Site* on page 17, the following dialog appears.



To learn about eSync security certificates, see *Part 2: Generate and Copy Security Certificates* on page 1484.

Troubleshooting Installation Issues

Error: Failed to Create Directory

The possible cause and solutions are as follows:

- User does not have permission to create objects—Grant user permission to create objects. For information on how to, read IIS Security help topic "Setting NTFS Permissions for a Directory or File."
  `http://localhost/iishelp/iis/htm/core/iidfpsc.htm`
- IIS is not installed—Make sure IIS is installed on the server.
- Host is not localhost—Install Ektron on localhost machine only.

Error: Configuration Error

If Ektron requires .NET 4.0, but you server has a previous version of the Microsoft .NET framework, Install the .NET 4.0 framework.

Installing Ektron on Several Servers

Perform these steps on the development server.

1. Download and run the Ektron installation file, `CMS400Basevversionnumber.exe`.
2. In Windows Explorer, create a folder to be used for development (for example, `c:/cmsdev`).
   a. At the **Setup Type** page, select **CMS 400 (Complete)**.
   b. On the Site Setup screen, at the **Select Site** drop-down, select the site you created in Step 3, **dev.example.com**. At **Select Host**, select the host you entered for dev.example.com.
   c. On the Site Path Directory screen, browse to the `C:\cmsdev` folder.
   d. On the **Host screen**, enter **http://dev.example.com** or an IP address. A window prompts you to define the Asset Storage Location. Enter **C:\assetlibrary\cmsdev** and **C:\assetcatalog\cmsdev**. The Database Setup utility begins. (See *Setting up a Database* on page 23.)
3. Run the Site Setup utility by choosing **Start > Programs > Ektron > Utilities > CMS400 Site Setup**. This installs the site on the development server. (See *Installing a Site* on page 17.)
   a. Enter your database name, **cmsdev** to continue the example. (Do not leave it as **localhost**.)
   b. Enter your database server information, then the host, user and password. The database is created. The site is ready for use.
   c. Open Internet Explorer and go to `http://dev.example.com/login.aspx` to test the site.
   d. Log in to make sure the database is working.

Using the steps, install sites to your staging and production servers.

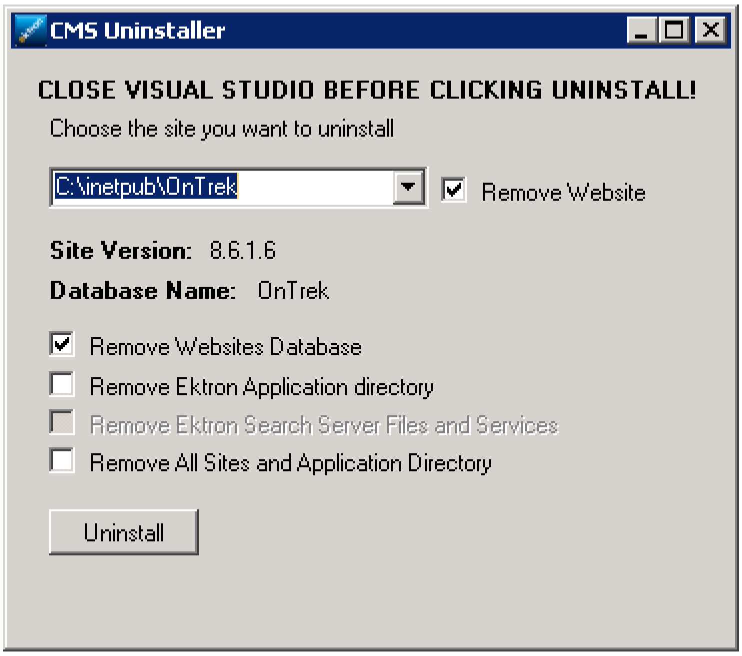
Uninstalling Ektron

Uninstalling removes all Ektron files from your server. You might want to do this if you installed Ektron, experimented with it, and now want to remove that version and install a clean, new version.

IMPORTANT: Do not use the Windows Add/Remove programs utility to uninstall Ektron. Use the uninstall utility instead.

To uninstall Ektron:

1. Close all programs that are using your Ektron website. Close all Ektron files.
2. Go to `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities`.
3. Copy the CMS uninstaller folder to your desktop.
4. From that folder, run CMSUninstaller.exe. You can uninstall specific websites, the Ektron application directory, or all Ektron files.



Effect of Removing a Website

When you uninstall a website, the following happens.

1. The IIS and Indexing Service stops.
2. The website's database is deleted.
3. The website folder's files are deleted.
4. The IIS and Indexing Service starts.

Effect of Removing a Website's Database

If you check the **Remove Websites Database** box, the site database is removed.

Effect of Removing the Ektron Application Directory

If you check the **Remove Ektron Application directory** box, the following items are removed.

- All Ektron services
- These Program Files (x86)\Ektron directories (if they exist)
  - CMS400vx5
  - CMS400vx0
  - CMS400v76
  - CMS400v75
  - CMS400v70
  - Dms400
  - EktronWindowsService40
  - EktronWindowsService30
  - EktronWindowsService20
  - EktronWindowsService
  - EktronCmsFileHelperService
  - EktronNotificationServices
  - Plugins
  - CMS400SDK
- Various system directory files
- These registry entries
  - Everything under Software\Ektron
  - All StarterSite keys
  - SDK install key
- The base installer key

Removing Search Server Files and Services

If you check the **Remove Ektron Search Server Files and Services** box, the services and files that Ektron uses for Microsoft Search Server are removed. (This action does not remove Microsoft Search Server 2010).

Removing All Sites and Application Directory

If you check the **Remove All Sites and Application Directory** box, all Ektron files are removed.

NOTE: After you complete the uninstall, you may need to manually remove the AssetLibrary, EktronSearchData directories.

Removing Third-Party Programs

To remove all third-party applications required to run Ektron, go to Windows **Control Panel > Uninstall a Program** and remove these programs.

- Your search provider (for example, Microsoft Search Server 2010)
- SQL 2008 R2 Reporting Services Sharepoint 2010 Addin
- Microsoft Sync Framework 2.1 SDK
- Microsoft Visual C++ 2010 x64 Redistributable

- Microsoft Filter Pack 2.0
- Microsoft Visual C++ 2008 Redistributable
- MSXML 4.0 SP2 Parser and SDK
- Microsoft Visual C++ 2005 Redistributable (x64)
- Microsoft Server Speech Recognition Language = Tele (enUS)
- Adobe PDF iFilter for 64bit platforms
- Microsoft Chart Controls for Microsoft .NET Framework 3.5
- Microsoft Server Speech Platform Runtime (x64)
- Microsoft ASP.NET 2.0 AJAX Extensions 1.0
- Microsoft .NET Framework 4 Extended
- Microsoft .NET Framework 4 Client Profile
- Microsoft Sync Services for ADO.NET v2.0 (x64)
- Microsoft Report Viewer Redistributable 2008 SP1
- Microsoft Office 2003 Web Components

NOTE: Some applications may have been installed before you installed Ektron.

Installing Help Files on a Local Server

Beginning with Ektron Version 8.5, Ektron online help files reside in an Ektron-hosted Web server instead of a folder on your Web server. If you block your users' workstation access to the Internet, help files are not available, and users see an error when they click the help button. To remedy this issue, either change the firewall to allow access to the internet, or install help files locally.

Step 1: Download and Install the Help Folder on your Web Server

1. Copy the following path into a browser:
   `http://downloads.ektron.com/software/released/CMS400/v87/Help/v870_help.exe`.
2. Download the file to your Ektron server, typically to the download folder.
3. In the download folder, click `v870_help.exe`. A wizard appears.
4. Choose the website for which you will install help.
5. On the Help File Directory screen, choose a folder to which you want to install help, typically `inetpub/wwwroot/`*`yourwebsite`*`/Workarea`. You can install help to any website folder.

Step 2: Change Your Website's web.config File

1. Edit your website's *siteroot*/`web.config` file.
2. Find `ek_helpDomainPrefix`.
3. If you installed the help folder to this website's Workarea folder, remove the path value. For example

```
<add key="ek_helpDomainPrefix" value=""/>
```

If you installed help to any other folder, replace the default value with the complete URL to that folder.

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3

Upgrading to Version 8.7

The upgrade procedure copies Ektron's latest features to your Web server. Ektron is installed to its own folder, `C:\Program Files (x86)\Ektron\CMS400v87`. This means it can coexist with previous versions on the same machine—the template directories are independent.

If you are upgrading from version 8.0 or higher, follow the instructions in this section. If you are upgrading from an earlier version and need assistance, please contact Ektron technical support.

For information about the system requirements for the current release, see the Ektron System Requirements. If your system does not conform to these requirements, you should upgrade your system before installing or upgrading Ektron.

Consider the following information before upgrading:

- **Warning!** During the upgrade procedure, your website's Bin, Workarea and Documentation folders are removed. Any customized files in these folders will be lost. Only store custom files in these folders when absolutely necessary. Even then, keep a backup file in another folder.
- **Warning!** If you are in an eSync environment, you **must** perform a full synchronization before and after upgrading. See *Running eSync* on page 1532 in *Synchronizing Servers Using eSync* on page 1473.
- **Important!** You cannot upgrade Ektron sample or starter sites because they are designed to demonstrate the product's latest features, so each version is uniquely created to support a release.
- **Important!** Each deployment has unique requirements. Ektron recommends that you engage with a Certified Ektron Partnerwhen making decisions about the needs of your specific production environment.

This section also contains the following topics.

The Site Setup utility uses files in the `CMS400vxx` base folder to create and upgrade Ektron sites. The base folder contains these subfolders.

- `AssetManagement`—Folders and files for the Document Management Functionality
- `Bin`—Required .NET assemblies
- `CMSServiceUpdate`—Files to update your services
- `CommonFiles`—Application Global Resources, Web References and Starter Application files
- `Documentation`—Documentation. The site setup procedure copies this directory to the `workarea` directory when setting up a site.
- `EktronAsyncProcessor_Service`—Files needed to add Asynchronous Processor for Web Alerts
- `StarterSites`—Files for starter sites that have been added
- `StudioHelp`—Files for adding API help to Visual Studio
- `SyncUpdate`—Files to update eSync

- `Utilities`—Utilities for
  - database upgrade
  - database application strings update
  - email encrypt password tool
  - a setup SharePoint Portal
  - Document Management Registration tool
  - Load Balancing service files
- `Workarea`—Scripts used for the Workarea

NOTE: The contents of this folder are later copied to a website folder, typically in the Web server's Web root. The sample provides a good way to learn how to work with an Ektron site.

Upgrade Overview

The upgrade procedure performs these tasks.

1. Installs new files to new directories. See Also: *Installing the CMS Base* on page 13
2. Removes the following folders (and their subfolders) *from* and copies new folders *to* your site directory.
   - bin
   - workarea
   - Documentation

   WARNING! Any customized files in these folders will be lost. So, only store custom files in these folders when absolutely necessary. Even then, keep a backup of customized files in another folder.
3. Updates the `web.config` file.
4. Updates your databases using the upgrade and language update utilities.

   NOTE: The upgrade automatically starts the IIS and Search services.

Performing the Upgrade

1. If you have not done so already, install a Search provider. You *must* use an external search provider if you want to use search with Ektron. See Also: *Setting Up Search for Your Website* on page 861

   IMPORTANT: If your server uses Windows 7,the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe`. See Also: *Setting Up Microsoft Search Server 2010 Express* on page 864
2. Copy the Assets folder.

   NOTE: This step is only relevant if you are using Microsoft Search Server 2010 on a server that is different from your Ektron server.

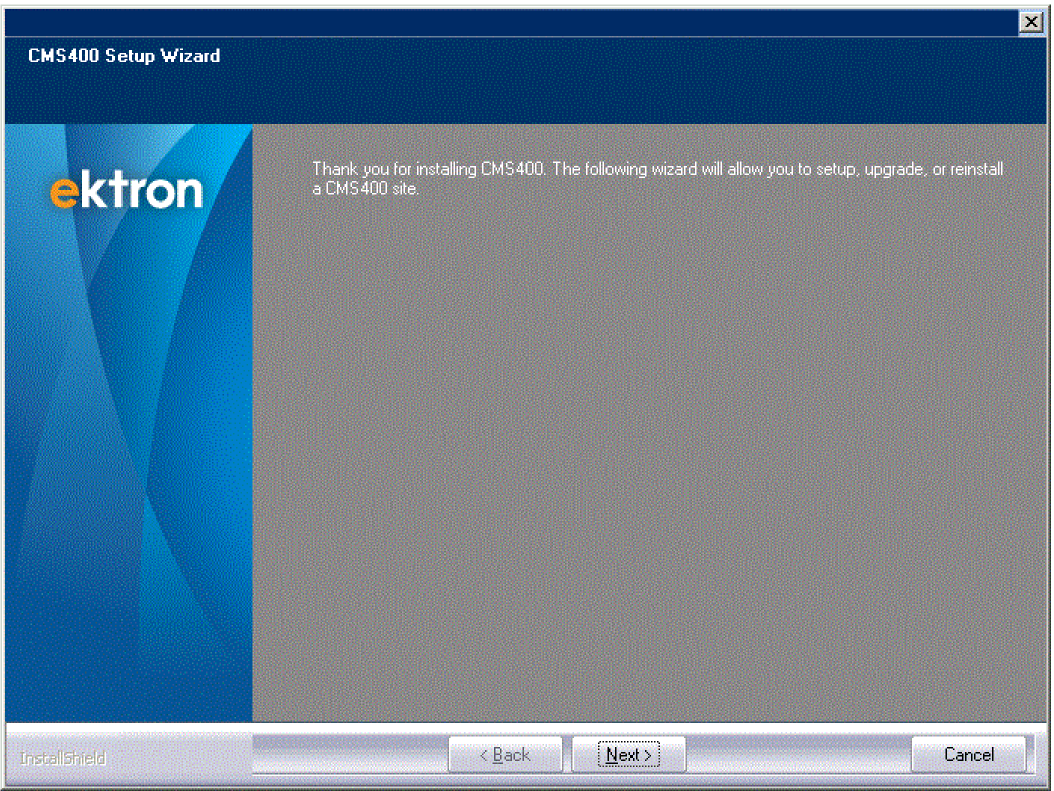
   BEST PRACTICE

In general, do not install Microsoft Search Server 2010 on a server that also hosts Ektron. Only install both programs on the same server in a development environment.

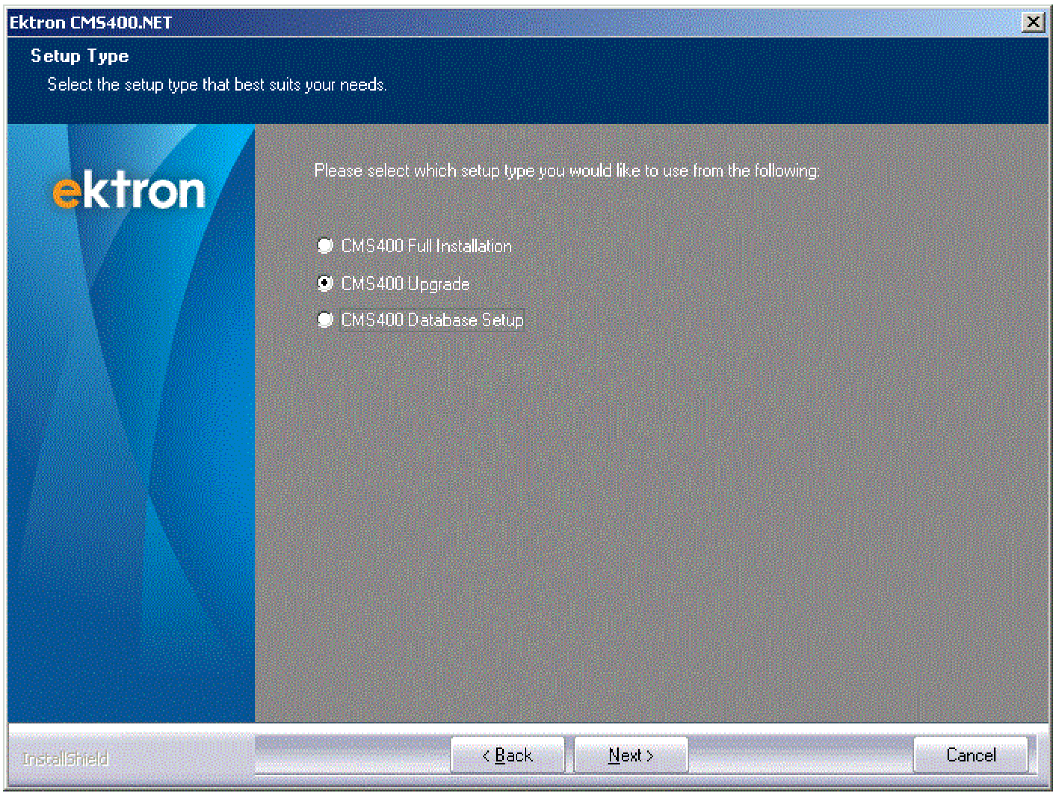
For Microsoft Search Server 2010 to index your Ektron assets, they must be copied from the Web server to the Search Server. This process is handled in the background once your site is up and running. However, if your site has a large number of assets, the initial copy may get clogged. To avoid this problem, inspect the size of your Ektron site's Assets folder. If it exceeds 1 gigabyte, follow these steps. Failure to do so may result in errors.

a. Create a folder on your search server to hold the assets. The folder's path must match the path to your Ektron site's Assets folder and include `EktronSearchData` between `C:\` and the beginning of the path.
   For example, if your site's Assets folder is `C:\inetpub\wwwroot\OnTrek85\Assets`, create a folder on your Search Server named `C:\EktronSearchData\inetpub\wwwroot\OnTrek85\Assets`.
b. Copy the Assets folder from your Ektron site folder to the Search Server folder you created in Step a.

3. Follow the steps of the installation procedure, *Installing the CMS Base* on page 13, which instruct you to install Ektron and restart your server. Continue to the step below when the Site Setup Selection appears.
4. The Setup wizard appears. (If this screen does not appear, launch it by following this path from the Windows Start menu: **Start > Programs > Ektron > CMS400vxx > Utilities > Site Setup**

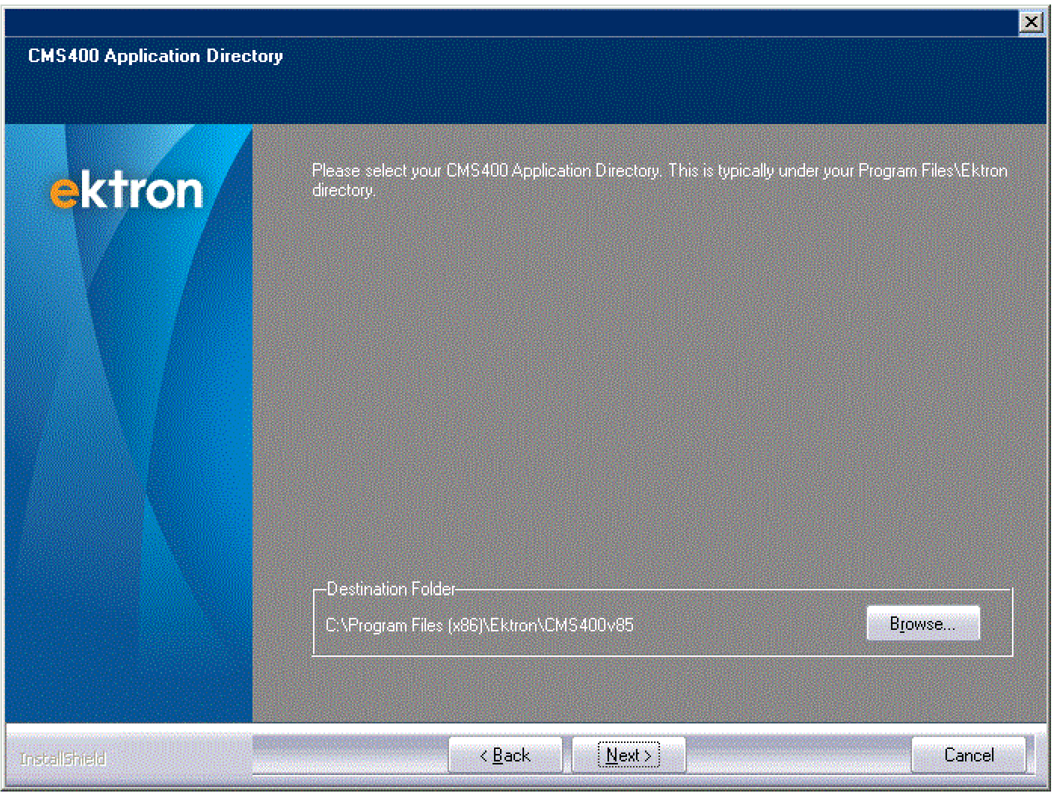


5. The Setup Type screen appears. Choose **CMS400 Upgrade** and click **Next**.

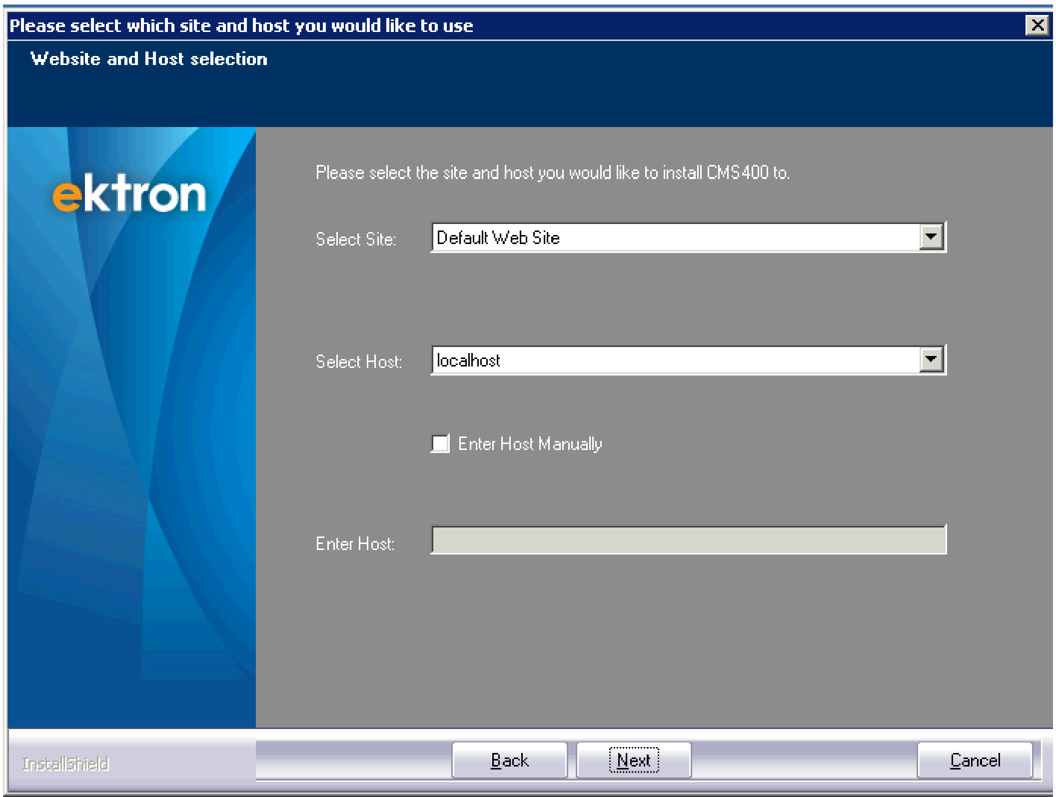


6. Choose an application directory. If you are not sure, use the default (`C:\Program Files\Ektron\CMS400vxx`). This directory stores Ektron components and utilities.

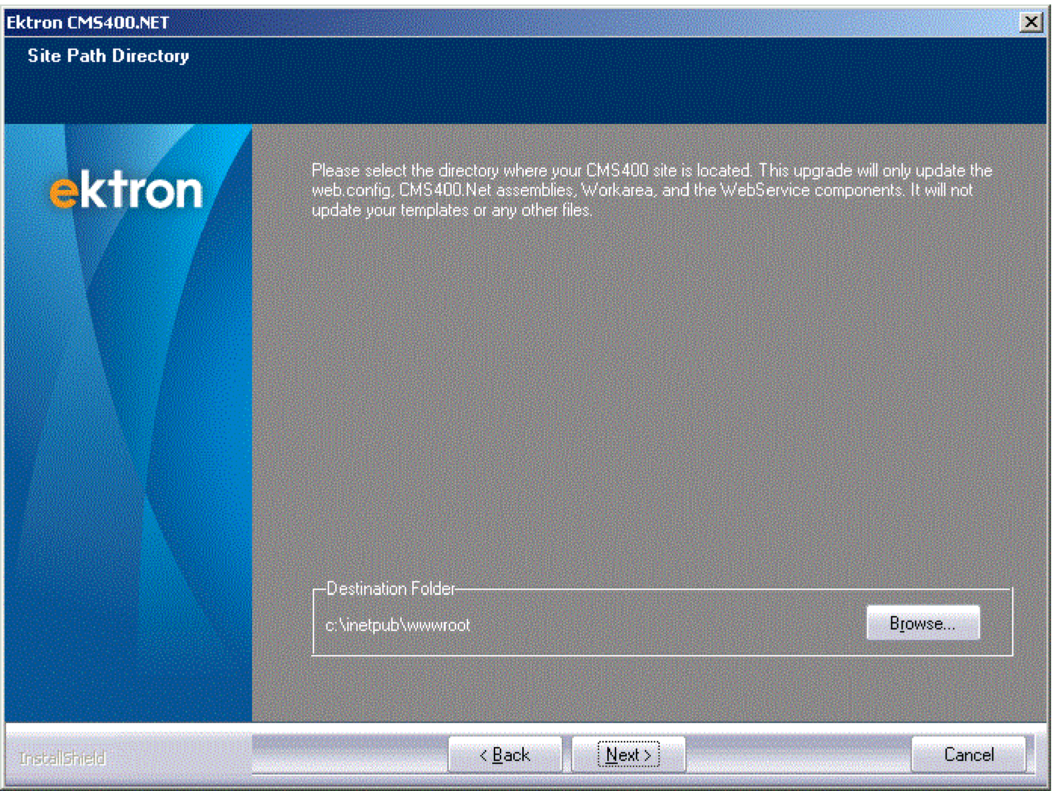
NOTE: This dialog only appears if the Setup cannot detect the location of the site's application directory.



7. If your server operating system accommodates multiple websites, select the site to which you want to upgrade Ektron from the drop-down list. Otherwise, accept the default.

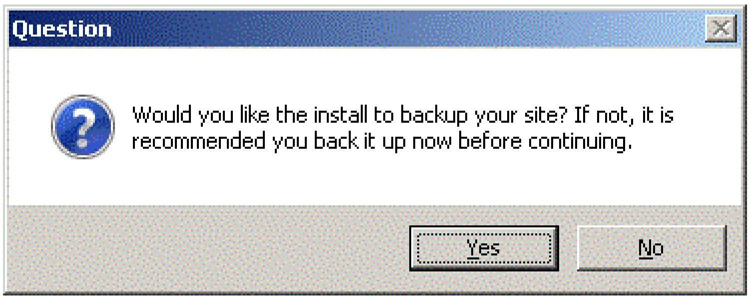


8. Select the path of the website you are upgrading. Note that the upgrade only updates the `web.config` file, Ektron assembly files, and Web Service/Workarea components. It does not update your templates nor other files not mentioned above.

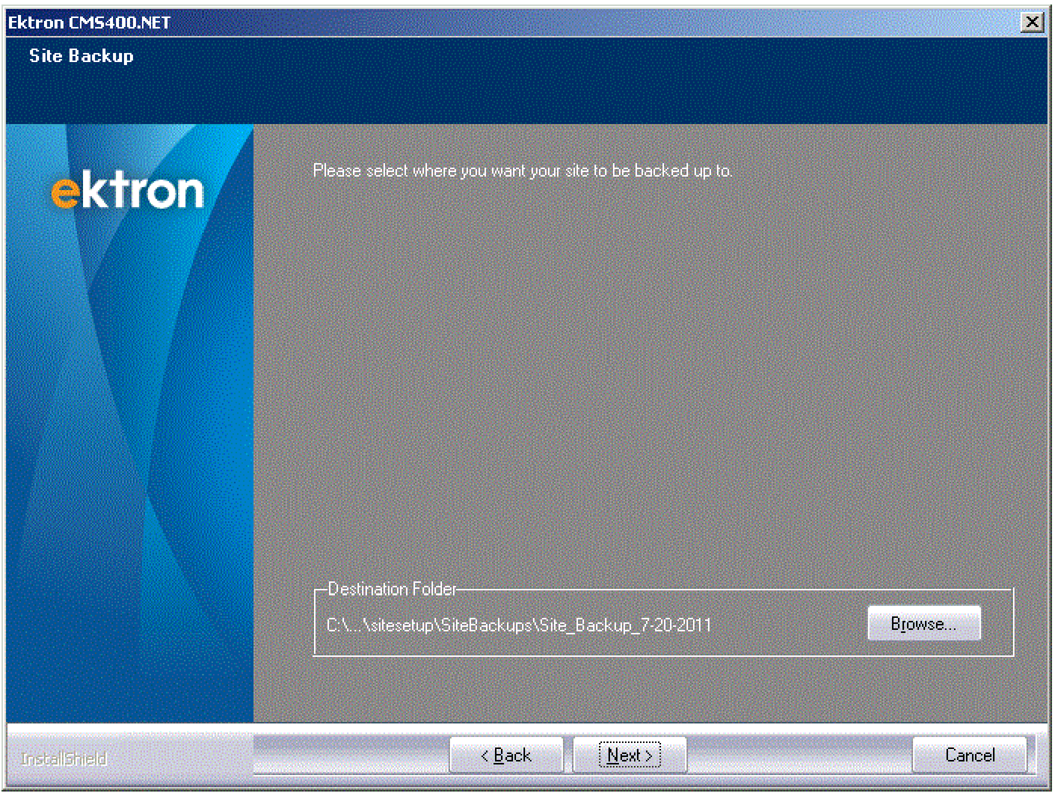


9. The message below appears. Click **Yes** to back up your site.

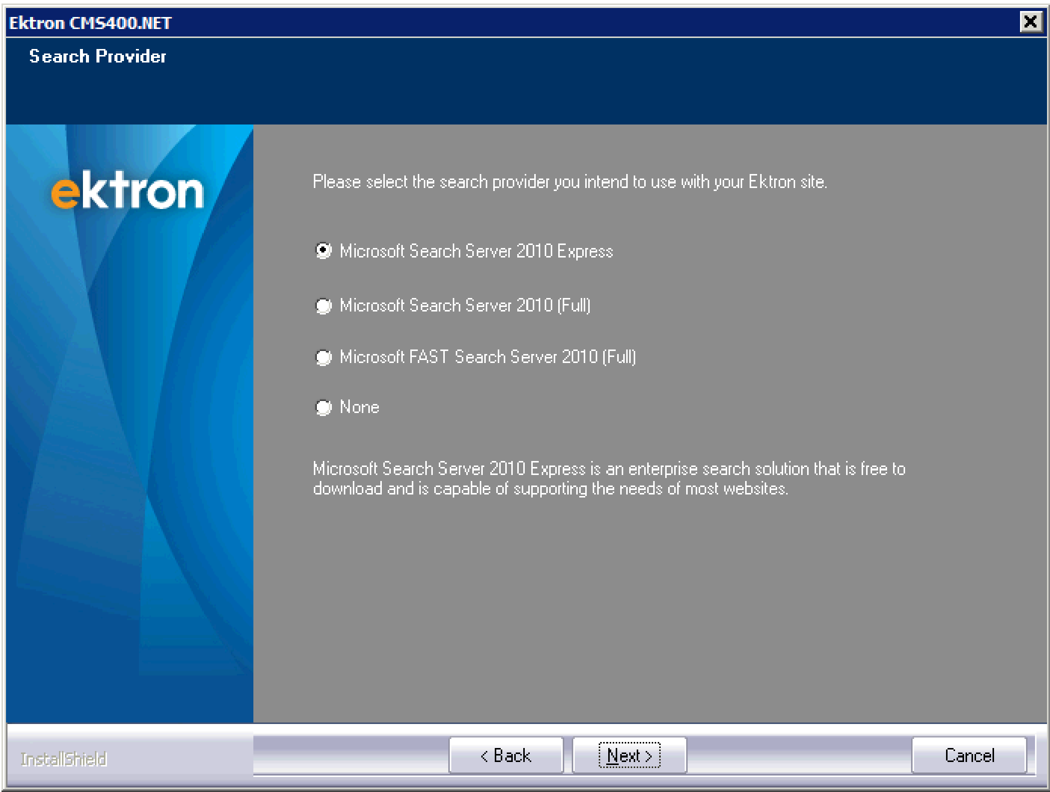
WARNING! Ektron strongly recommends backing up your site before continuing the upgrade. If you choose **No** and the upgrade fails, you cannot revert the files to their original state.



10. If you choose to back up your site, a dialog asks where to store the backup.



11. On the Search Provider screen, determine which search provider you will use with Ektron.

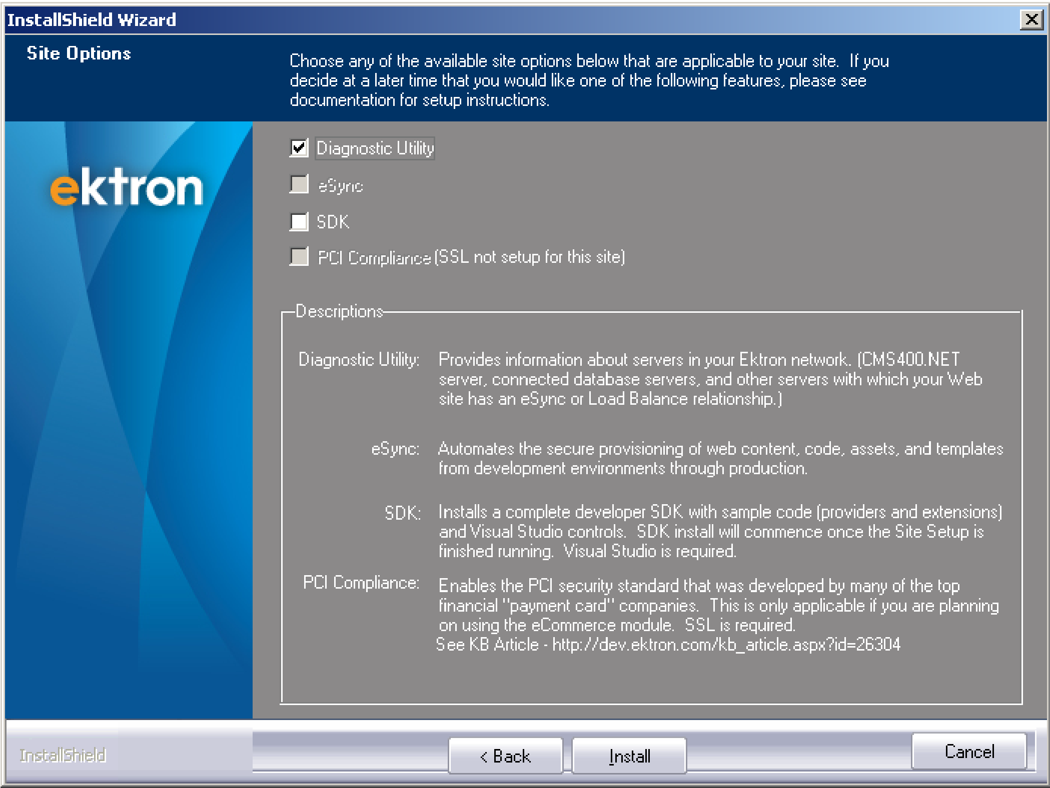


See Also: *Setting Up a Microsoft FAST Search* on page 899; *Setting Up Microsoft Search Server 2010 Express* on page 864

IMPORTANT: If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe`.

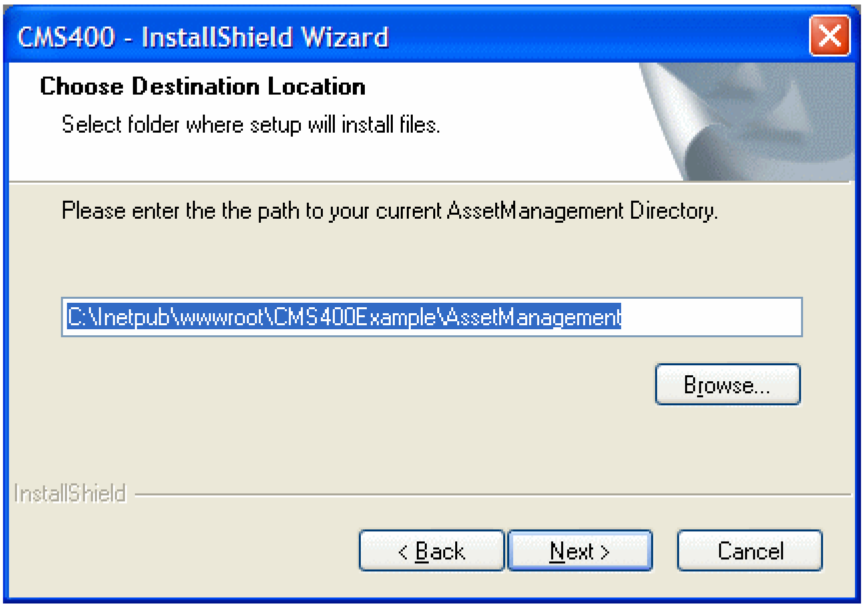
12. The Site Options screen appears. Check the box next to each option you want to install. Boxes are grayed out if an option is not available for your site. See Also:
    - *Diagnostics Utility* on page 1883
    - an eSync security certificate. See Also: *Managing eSync Security Certificates* on page 1521.
    - *Using Ektron's Developer SDK* on page 1633
13. After choosing, click **Install**.

NOTE: eSync is only available if you have the eSync modifier in your license key.**SDK** is only available if Visual Studio 2010 is installed on your server.



14. You are asked if you want to update your *siteroot*`/widgets` directory. Click **Yes** to install the latest widgets. Be sure to rename any customized widgets in that folder. If you do not rename them, they will be overwritten.
15. You are notified that files are moving to the starter site directory. The Choose Destination Location screen appears.
16. Enter the path to your AssetManagement Directory.

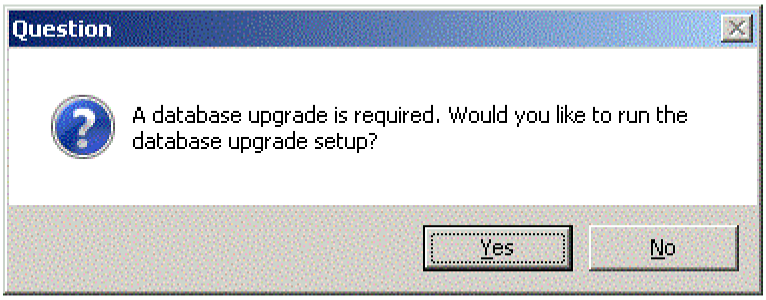
NOTE: This dialog appears only when the setup cannot find the AssetManagement directory.



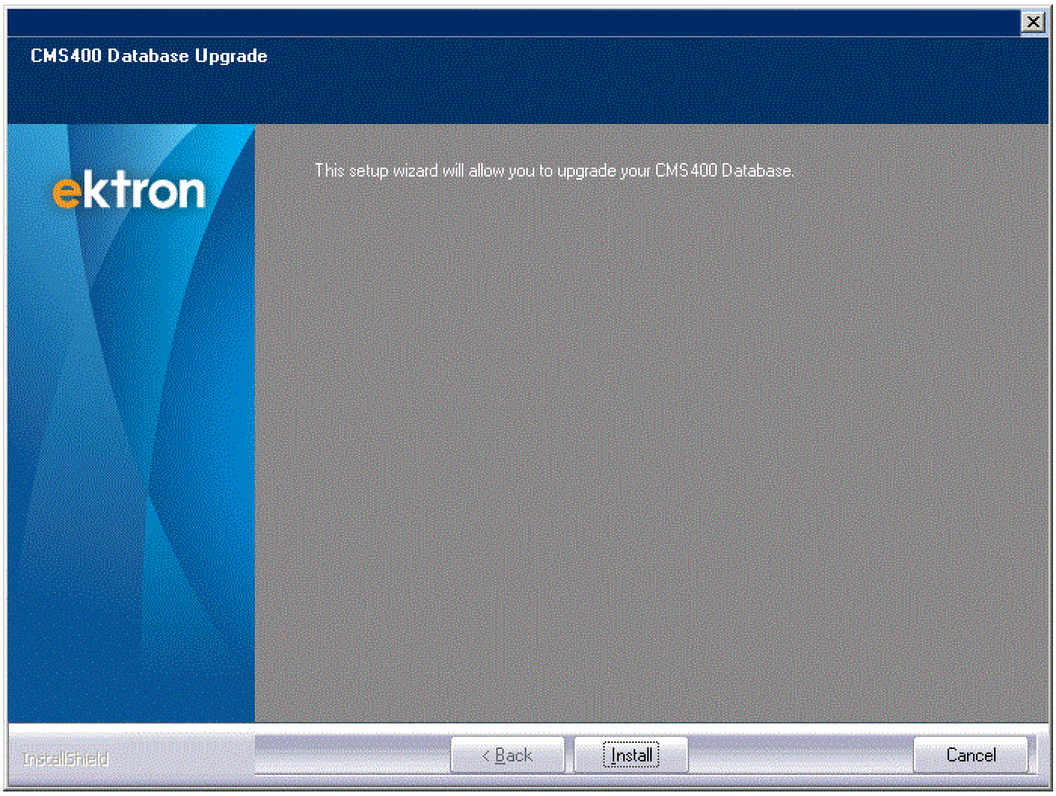
17. If you chose to do so, your site is now being backed up. Next, the bin, Workarea and other files are updated. Any missing permissions or Index catalogs are added.

WARNING! The previous version's bin and Workarea folders are removed from your website. Any customized files within these folders are lost. Do not store custom files in them unless absolutely necessary. Even then, always keep a backup file in another folder.

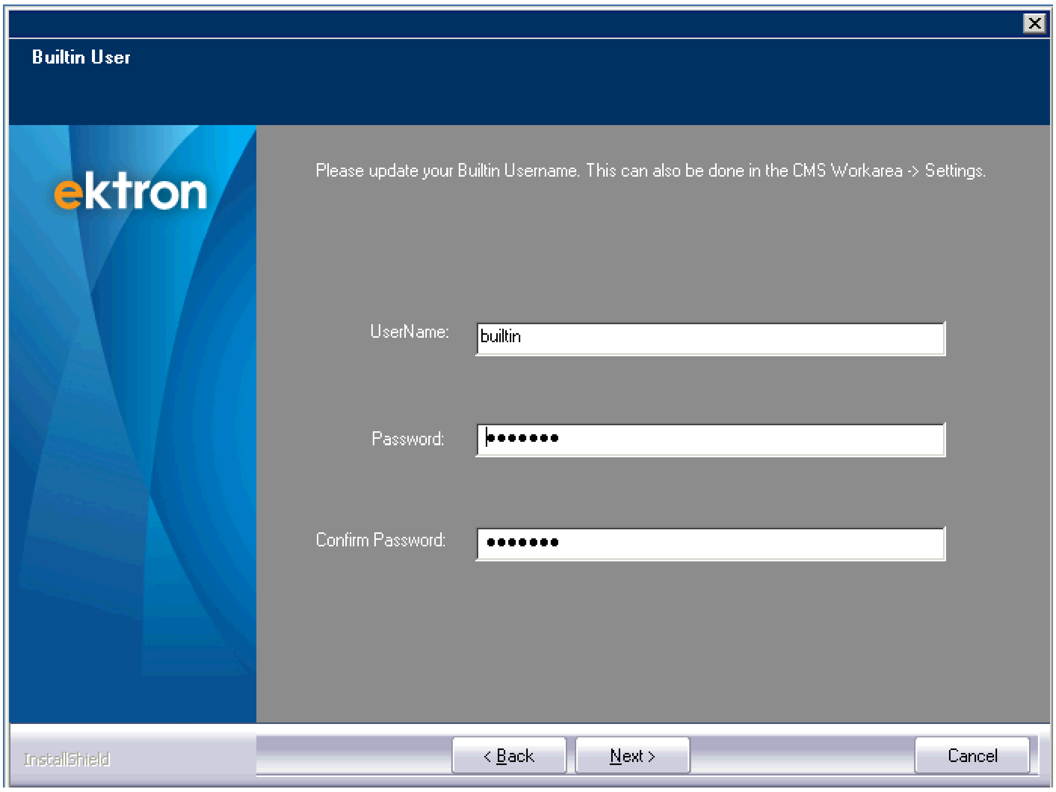
18. Your `web.config` file is updated with information needed to run Ektron. If other applications use the `web.config` file, the upgrade does not affect their sections.
19. A dialog asks if you want to upgrade the database. Select **Yes** to upgrade. If you select **No**, the site will not work properly until the database upgrade has been run. To upgrade the database at a later time, run the Site Setup and select **Database Upgrade**. The site setup is located in **Start > Programs > Ektron > CMS400vxX > Utilities > CMS400 Site Setup**.



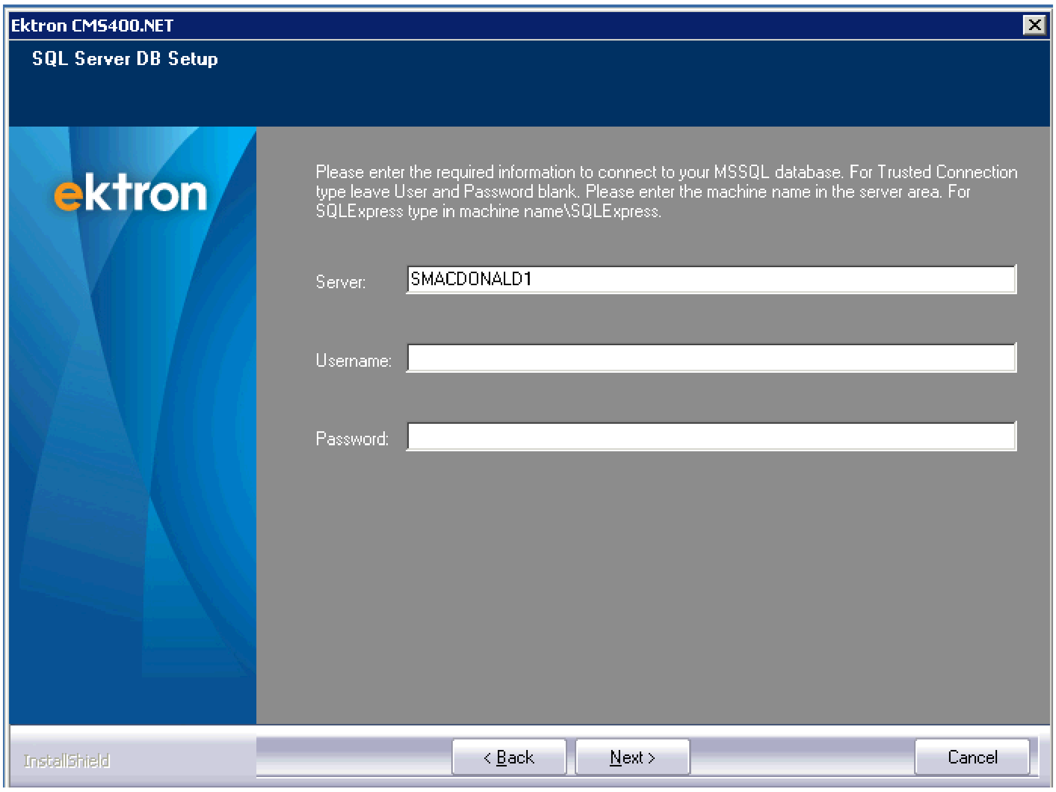
20. If you selected yes, the Database Upgrade Wizard appears. Click **Install**.



21. Enter the builtin user's name and password. For information about the builtin user, see *Getting Started with Ektron* on page 5.



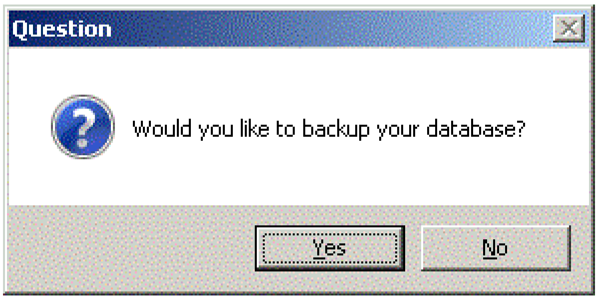
22. This screen prompts for database connection information.



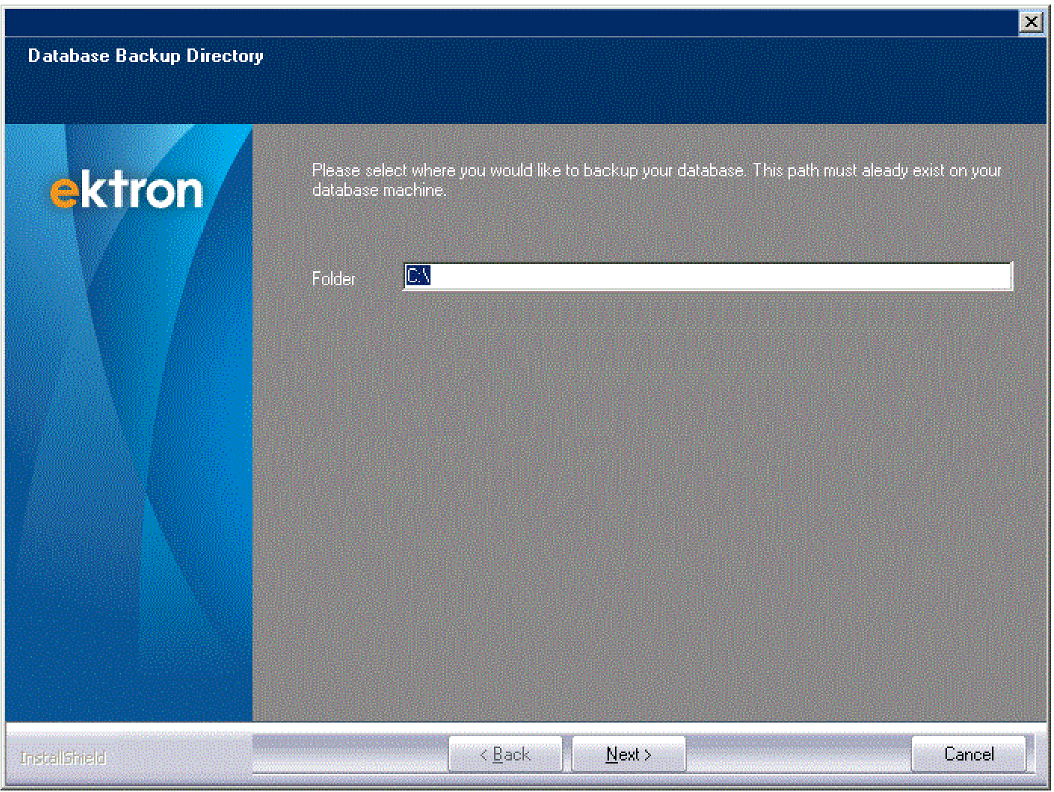
Server—List the database server on this system. To set up the database on this server, accept the default. Otherwise, enter a SQL or SQL Express server that already exists. For SQL, this would typically be **(local)** if it's installed on the local server. Otherwise, enter the Server's name. For SQL Express, enter **(local)\SQLEXPRESS**.

NOTE: This dialog appears if you are using SQL Authentication. If you are using Windows Authentication, skip to the next step.

23. A dialog appears asking you to back up your database. See Also: *Backing Up Databases on page 48*

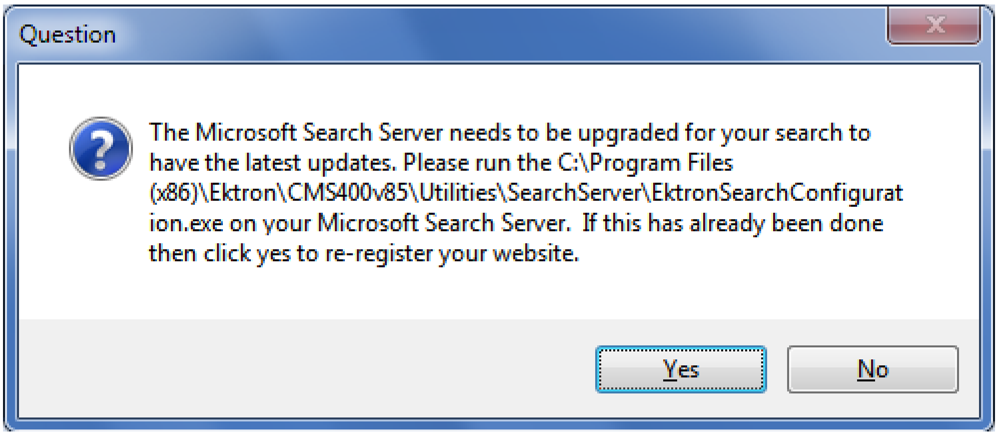


24. If you clicked **Yes**, select the location of your database backup. If this path does not exist on your database machine, the backup will fail. Otherwise, skip to the next step.



IMPORTANT: If the backup fails, the following message appears: *Warning! The install could not backup your database. Please manually back it up now before continuing.* In this case, you should manually back up your database before clicking **OK**. See Also:

25. If your license key was not generated for the 8.x Release, you are prompted to enter an 8.x license key. If you do not have an 8.x license key:
    - Complete the upgrade.
    - Obtain an 8.x license key from Ektron (send email to license@ektron.com).
    - Log in as builtin user. See Also: *Getting Started with Ektron* on page 5
    - Insert the key into the **Settings > Configuration > Setup** screen's **> General** tab **>License Key(s)** field.
26. If you selected a search provider in *On the Search Provider screen, determine which search provider you will use with Ektron.See Also: Setting Up a Microsoft FAST Search on page 899; Setting Up Microsoft Search Server 2010 Express on page 864If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from C:\Program Files\Ektron\CMS400vxx\Utilities\SearchServer\SearchServerExpressInstall.exe.* on page 42, the following screen appears.



- If you set up a search provider and installed Ektron search components, click **Yes**. (This would typically be the case when an Ektron site on the server is already using search).
- If you have not set up a search provider, click **No**. After completing the Ektron installation, install the search provider. Then, go to `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\ Ektron.Cms.Search.Configuration.exe` to configure Ektron to work with the search provider. See Also:
  - *Setting Up Microsoft Search Server 2010 Express* on page 864
  - *Setting Up Microsoft Search Server 2010* on page 871
  - *Setting Up a Microsoft FAST Search* on page 899
- If you set up a search provider but have not yet installed Ektron search components, click **No**. Complete the Ektron installation then go to `C:\Program Files(x86)\Ektron\CMS400vxx\ Utilities\SearchServer \Ektron.Cms.Search.Configuration.exe` to configure Ektron with a search provider.

See Also: *Managing a Microsoft Search Server* on page 925.

IMPORTANT: If your server uses Windows 7, the only supported Search provider is Search Server Express. In this case, first install Ektron then install the version of Search Server Express available from `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\ SearchServerExpressInstall.exe`.

27. If your Assets folder will have more than 50 PDF files, you should *Install Foxit PDF Filter* on page 937 to speed up the indexing of PDF files.

After upgrading your site and rebuilding the solution, you are ready to use Ektron.

If you did not run the database upgrade or language update during the installation, you need to do it manually. The next sections explain how to do that.

Backing Up Databases

To protect the information in your database, you should back it up before upgrading. During the upgrade, Ektron attempts to create a backup of your database. If that fails, use the following MSDN link for instructions on backing up and restoring your database via SQL Server.

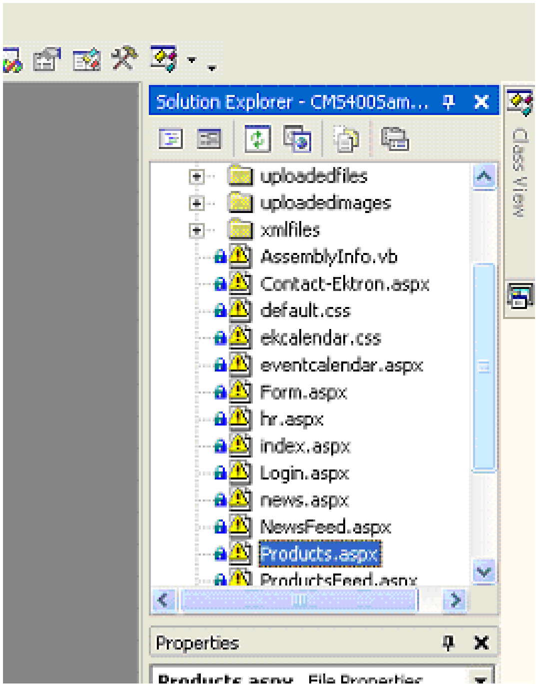
- Backup SQL Server

NOTE: Links to options for restoring the backed-up database are provided at the bottom of the MSDN resources.

Before restoring an SQL database, either stop the Ektron Windows service or force all connections closed. You need to do this because the Ektron Windows Service accesses the database. To view and update the status of the service, go to **Computer Management > Services and Applications > Services**. For more information, see *Ektron Windows Service* on page 1877.

Troubleshooting Upgrade Problems

Problem 1: After upgrade, Ektron does not load properly. Also, an error icon appears next to your templates when you open the project in Visual Studio.NET, as illustrated below. The problem is that your .NET references need to be updated.



Solution 1: To verify the problem, open the Ektron solution file in Visual Studio.NET (`webroot\siteroot\cms400sitename.sln`; for example, `cms400Intranet.sln`) and look at the template files. If your references are broken (as shown in the sample screen on the left), delete all Ektron references. Then, add new references with the same name from the `webroot\siteroot\bin` folder.

Problem 2: When viewing a page containing Ektron server controls or API calls, the page returns a fatal error **Compiler failed with Error Code 2000**. Detailed compiler output may say **Fatal error BC2000: compiler initialization failed unexpectedly: The filename, directory name, or volume label syntax is incorrect**. This error message might appear after an upgrade.

Solution 2: To remove the error message, open up your site's .sln file in Visual Studio. Then, rebuild the solution using the **Build > Rebuild** solution menu option.

In this case, the error can be resolved by correcting the database settings in `web.config`.

NOTE: To use SQL Authentication with Microsoft SQL server (as opposed to Windows Authentication), you must have the database 'Security' properties set to allow "Windows and SQL Authentication." After changing this setting, you must restart SQL Server for it to take effect.

Problem 3: After upgrading from Ektron version 4.8 or earlier, Metadata is no longer applied or required when adding or editing content.

Solution 3: In Ektron version 4.8 or earlier, Metadata is applied globally. In later versions, metadata is applied to each folder individually. Child folders can inherit the metadata from a parent folder or they can have their own metadata settings. To set the metadata settings back to global:

1. In the Workarea, click the site root folder.
2. Next, choose **View > Folder Properties**.
3. Click **Edit Properties**.
4. Click the **Metadata** tab.
5. Check the all of the appropriate check boxes for **Assigned** and **Required** Metadata.
6. Click **Save**.

If you have not broken inheritance on any of the folders, your metadata settings are applied globally.

4

Securing Ektron

WARNING! Securing your Ektron site is critical to you and to anyone using your site. Failure to implement security measures can make your site vulnerable to cyber-attacks and other security threats. You should complete the actions in this section to make Ektron as secure as possible.

Security updates are available for Ektron versions 8.02, 8.5, 8.6, 8.6.1, 8.7, and 9.10, including all service packs from 8.02 to 9.10 SP1. For information, see Security Update 3.

Complete the actions in this section to secure Ektron.

- Change the passwords for the Admin and Builtin users.
- Update browsers to take advantage of advances in technology (including security).
- Apply available service packs and updates for CMS, .NET, and Windows.

See Also: *Additional Security Measures* on page 59.

This section also contains the following topics.

Changing the Admin Password

IMPORTANT: You should create your own Administrator user and delete the Admin user. Also, delete unnecessary users from Ektron.

1. In the Workarea, choose **Settings > Users**.
2. Click the **Admin** user.
3. Click **Edit Users**.
4. Enter the new password in the Password and Confirm Password fields.
5. Click **Save**.

Changing the Builtin Password

NOTE: If you changed the builtin user password during the site setup, you do not need to change it again. See *Getting Started with Ektron* on page 5 for additional information. Also, the “builtin” user does not appear in the Users list. This user appears on the application setup screen.

1. In the Workarea, choose **Settings > Configurations > Setup**.
2. Click **Edit**.

3. Find the Built In User field.
4. Enter the new password in the Password and Confirm Password fields.
5. Click **Update**.

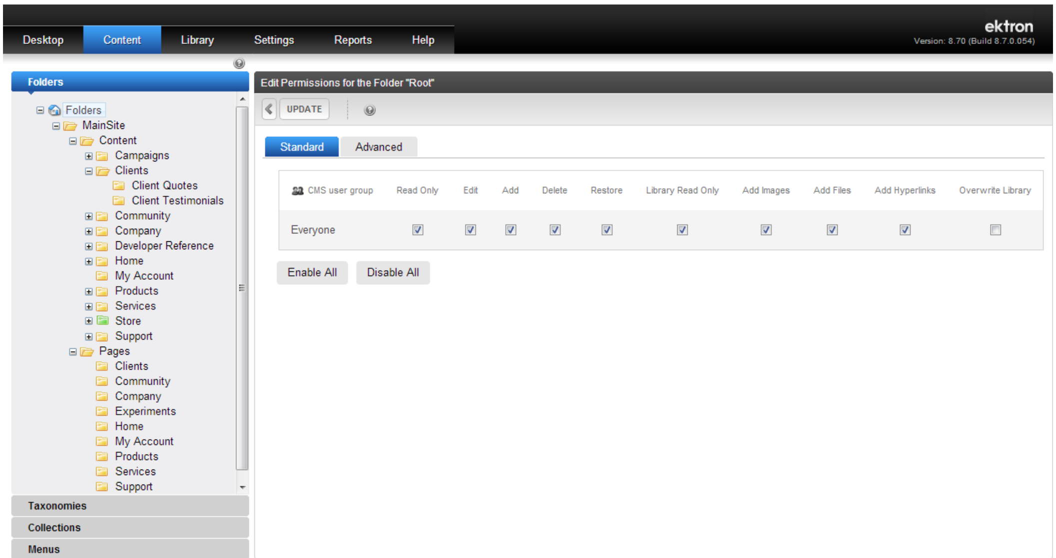
NOTE: If you cannot sign in to Ektron because the builtin user password was changed and you do not know the new password, use the `BuiltinAccountReset.exe` utility. This resets your Ektron user / password to Builtin / Builtin. This utility is located in `C:\Program Files\Ektron\CMS400`*`versionnumber`*`\Utilities`.

Changing the Everyone Group Permissions

By default, the root folder in Workarea provides the Everyone Group with all permissions except Overwrite Library. You should review the permission needs of the Everyone Group when you add a folder. See Also: *Managing Folder Permissions* on page 257

1. Go to **Workarea > Folders > Folders**. The View Contents for Folder "Root" appears.
2. Choose **View > Properties**.
3. Choose **View Permissions** ( ). The View Permissions for Folder "Root" appears.
4. Click on the **Everyone** group. The Edit Permissions for Folder "Root" appears.

—Image—



5. Check the permissions that you want and click **Update**.

Removing Sample Users and Sample Membership Users

Ektron includes some sample users and sample membership users for evaluation and demonstration purposes. Remove these users when they are no longer needed.

- *CMS users* have access to the Workarea and can be content authors, administrators or developers. These people count towards the number of users in your license.

- *Membership users* are typically people who only interact with your website but have limited privileges to Ektron. They cannot use the Workarea and do not count towards the number of users in your license.

NOTE: Some users in the following lists might not appear in your User list. Also, you might have sample users that appear in your users lists. This depends on the version of the software you have installed.

Ektron Users—See Also: *Managing Users and User Groups* on page 1099

- **jedit**
- **tbrown**
- **jsmith**
- **vs**

Membership Users—See Also: *Membership Users and Groups* on page 1161

- **jmember**
- **member@example.com**
- **north**
- **supermember**
- **west**

Removing Ektron Users

1. In the Workarea, choose **Settings** > **Users**.
2. Check the box next to each user that you want to remove.
3. Click **Delete** ( ).
4. Click **OK**.

Removing Membership Users

1. In the Workarea, choose **Settings > Community Management > Memberships > Users**.
2. Check the box next to each user that you want to remove.
3. Click **Delete** ( ).
4. Click **OK**.

Disallowing Group User Accounts

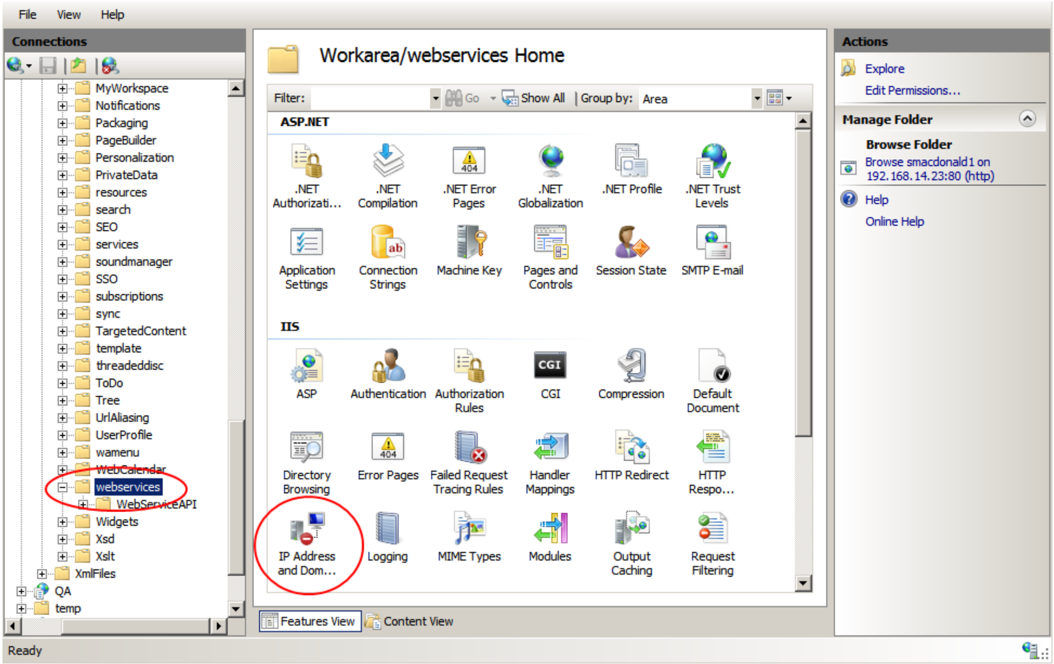
A *group account* is an account that more than one person uses to log in to Ektron using the same username and password. This is a serious security issue because it prevents you from tracking user activities in your Workarea. Group accounts violate Ektron's license agreement.

Securing WebServices

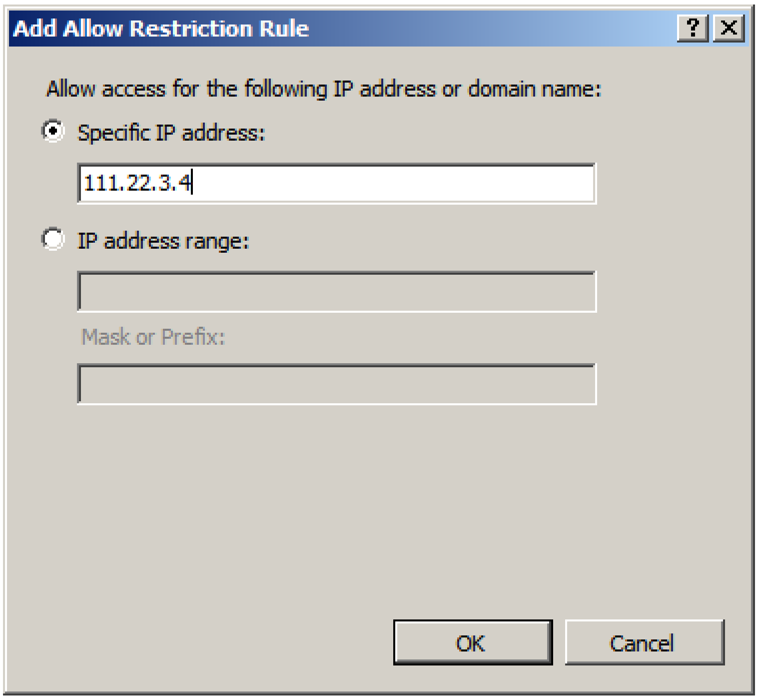
You need to restrict Web services to specific IP addresses in IIS 7.

1. Run INETMGR (**Start > Run** then type `INETMGR`); IIS Manager appears.
2. Go to ***Your Website* > Workarea > webservices**.

3. Double click on **IP Address and Domain Restrictions**.

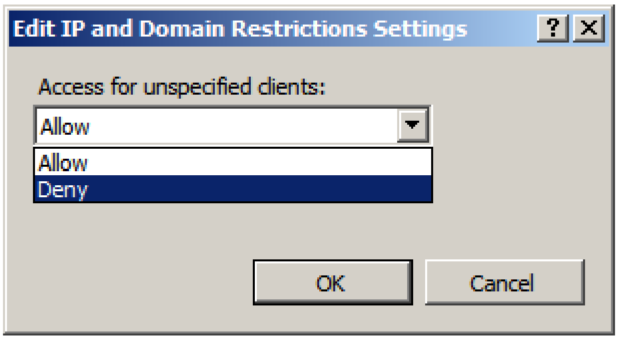


4. In the Action pane, click **Add Allow Entry**. The Add Allow Restriction Rule dialog box appears.
5. Select **Specific IP Address** and enter the IP address of the Web server and then click **OK**.



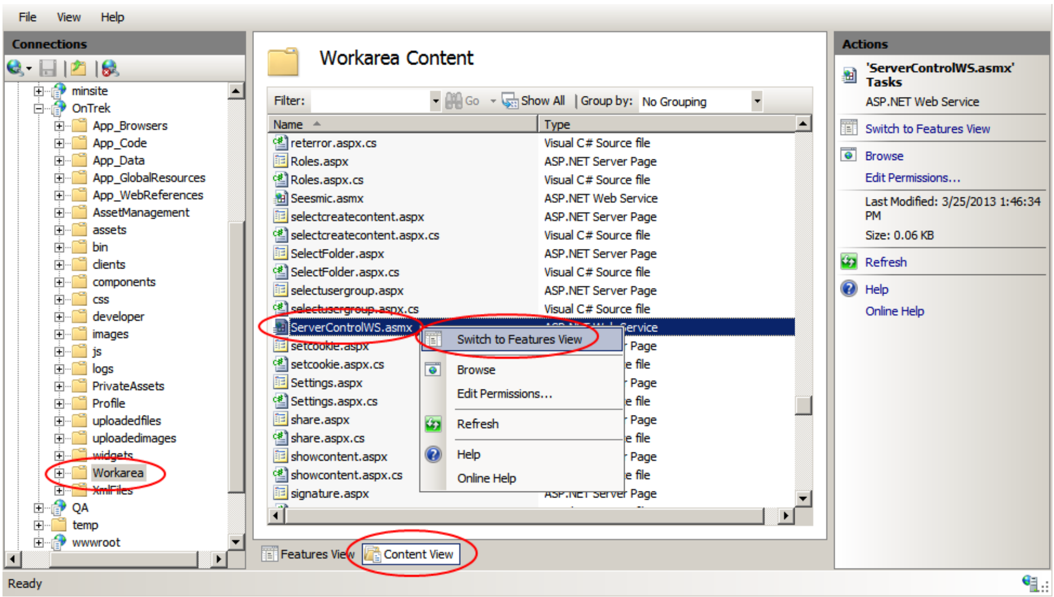
6. In action pane, click **Edit Feature Settings**. The Edit IP and Domain Restrictions Settings dialog box appears.

7. Choose **Deny** from the drop-down and click **OK**.

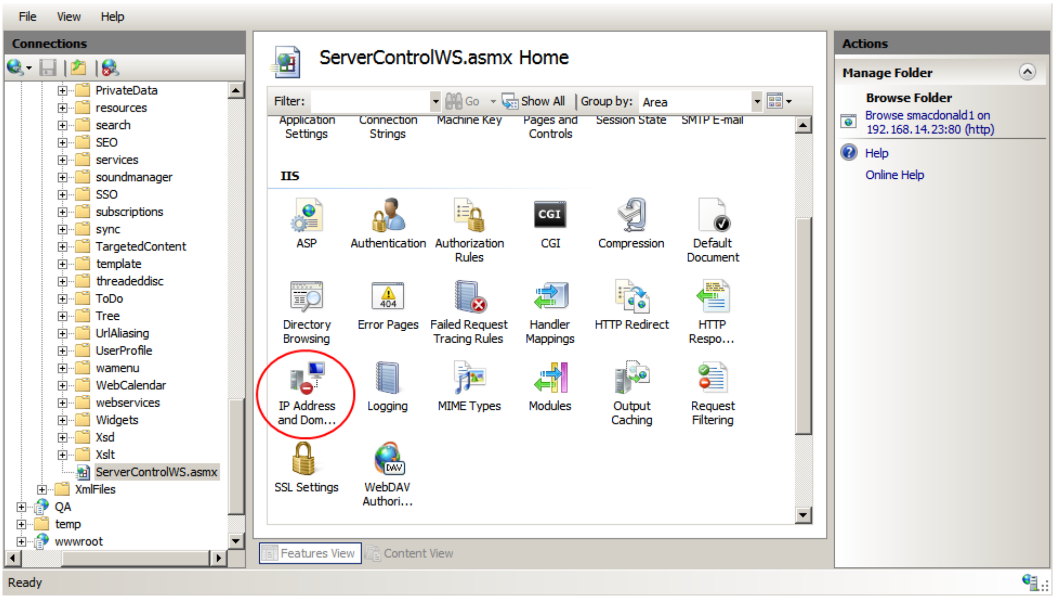


Securing ServerControlWS.asmx

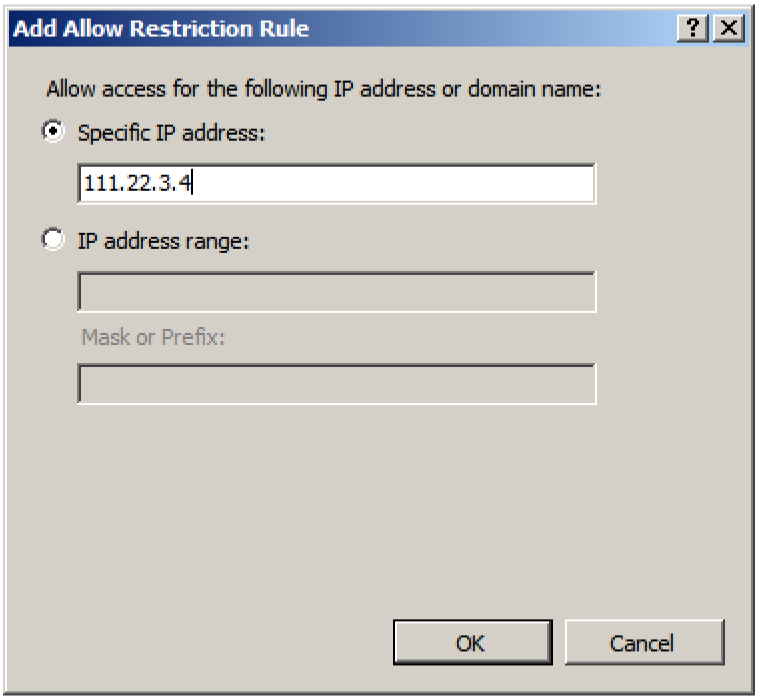
1. Run INETMGR (**Start > Run** then type `INETMGR`); IIS Manager appears.
2. Go to ***Your Website* > Workarea**.
3. Click **Content View** at the bottom of the window.
4. Right click **ServerControlWS.asmx** and choose **Switch to Features View**.



5. Double click on **IP Address and Domain Restrictions**.

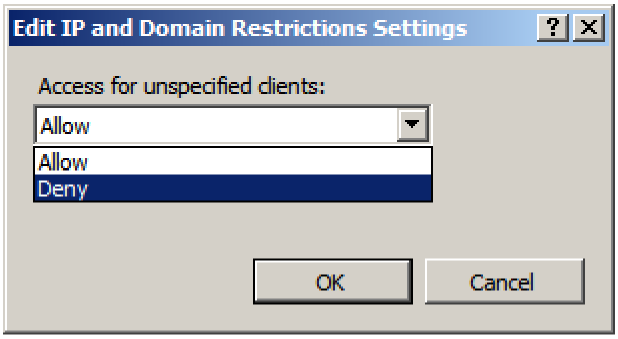


6. In the Action pane, click **Add Allow Entry**. The Add Allow Restriction Rule dialog box appears.
7. Select **Specific IP Address**.
8. Enter the IP address of the Web server and then click **OK**.



9. In action pane, click **Edit Feature Settings**. The Edit IP and Domain Restrictions Settings dialog box appears.

10. Choose **Deny** from the drop-down and click **OK**.



Securing Assets and User Folders

As of version 8.50, user data is no longer indexed directly under the Assets folder. The /users/ folder may expose user data, such as your users email addresses, when browsing to this folder. Prevention was made within the Ektron handlers to address this issue in version 8.00, but you should review and remove the following folder [site root]\Assets\users if you have version 8.50 or later. If the users folder exits, you should delete it.

Defining the Default File Types for Assets

Enable only the types of files that your website needs to support.

1. Go to **Workarea > Settings > Configuration > Asset Server Setup**.
2. Click on **Edit File Types** ( ).
3. Add or remove the file types that your website needs, and click **Save** ( ).

Enabling Firewall Use

- Only open port 80 for standard websites. If you enable SSL, open port 443 also.
- If you need FTP, open port 21, but restrict access to IP addresses that need to FTP access to your server. The same applies for SFTP, FTPES, SSH for their respective ports.
- Do not open remote desktop ports, SQL ports, SMTP ports, or any other port unless absolutely necessary. Instead, use a VPN tunnel through the firewall for access to these services. Even FTP can be made accessible through a VPN tunnel.

Setting Up SSL

Ektron strongly recommends configuring a secure socket layer (SSL), especially if you are using Active Directory integration. SSL encrypts user names and passwords during transmissions to the server that are otherwise sent as clear text to the Ektron server.

If your Web server does not have an SSL certificate installed, you need to install one. When you set up an SSL certificate and configure Ektron to use it, the login page is launched in a Secure Socket Layer. This section explains how to set up SSL for Ektron.

- To enable SSL, open your site's web.config file and set <add key="ek_UseSSL" value="false" /> to true.

- To set up SSL in IIS, see How to Set Up SSL on a Server.

Additional Security Measures

The following best practices are also recommended.

- Knowledge Base Article: Best Practices for Securing Ektron CMS400.Net
- Encrypt cookies in `web.config`.

```
<add key="ek_EnableCookieEncryption" value="true" />
```

- Enable Captcha for new user signup and other membership features. Captcha prevents automated tools from creating unwanted data and traffic on your site. Set the Membership server control's EnableCaptcha property to true. See *Membership Properties* on page 1777.
- Do not use IIS on a domain controller.
- Install needed services only (for example, FTP, www, SMTP, NNTP).
- *Never* use virtual directories across servers.
- *Never* install websites on the system drive.
- On all FTP sites, and WWW sites as needed, enable IP filtering. Use Ipsec filters to accomplish this. See How to configure TCP/IP filtering in Windows 2000.
- Remove NTFS write permissions wherever possible. See How IT Works: NTFS Permissions.
- Configure a default website with extremely secure settings (for example, Require SSL, Integrated Windows authentication only, accessible from only one IP, NTFS permissions to none on an empty home directory, and so on), then stop the site. This results in a broken default website that 80% of hackers will blindly attack instead of your real website.
- Configure websites so that the host header matches the site's DNS name. Do this for both HTTP and HTTPS. Do not configure the default website with host header. This should prevent 90% of automated hacking tools from working by sending them to your crippled default website. To do this:
  1. Open IIS Manager.
  2. Right-click your website icon.
  3. On the Web Site tab, click **Advanced**.
  4. Click the IP Address then **Edit**.
  5. Enter the host header in the Host Header field.
  6. Click **OK** to save.
- Enable IIS auditing.
- Enable W3 extended logging. Verify that the logged information is appropriate. Consider enabling the following items:
  - Date and time
  - IP address of client
  - IP address of server
  - Server port
  - Username
  - HTTP method used to access your site

- URI Stern
- URI Query
- Status of request

See Extended Log File Format and W3C Extended Log File Format (IIS 6.0)

- Set permission for IIS logs to system and local administrators only
- Remove write permissions to hklm\software for non-admin accounts.
  - Administrators & System: **Full**
  - Everyone: **Read/Execute**
- Restrict NTFS permissions to all executables on system.
  - Administrators & System: **Full**
  - Users: **Read/Execute**
  - IUSR account: execute permissions sparingly

See How IT works: NTFS Permissions

- Restrict NTFS permissions to any script interpreters, such as Perl.
  - Administrators & System: **Full**
  - Everyone: **Read/Execute**
  - IUSR account: execute permissions sparingly
- Ensure Everyone has read-only permissions for these directories
  - Web root
  - %systemroot%
  - %systemroot%\system32
  - %systemroot%\system32\inetsrv
  - %systemroot%\system32\inetsrv\asp
  - %systemroot%\program files\common files\

Setting Up Ektron

This section also contains the following topics.

Setting Up Development and Staging Environments

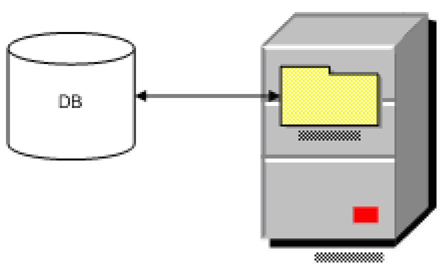
You can set up your Ektron website in the following ways. You decide which configuration is the best fit for your particular situation.

This section also contains the following topics.

Virtual Staging

Use Ektron's approval process and scheduled publishing of content to manage when content goes live.

Case 1: Virtual Staging

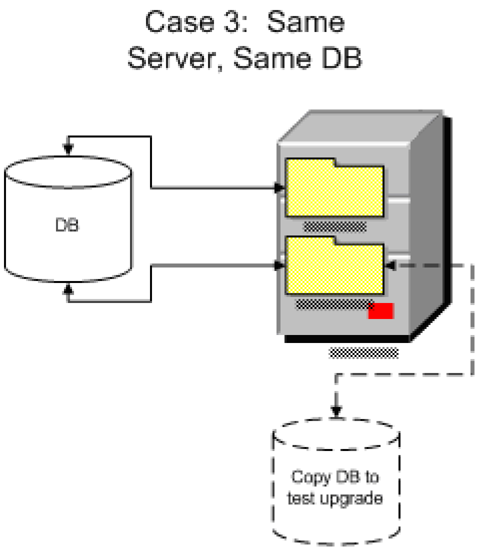


Staging is accomplished through Ektron CMS workflow process.

- Best choice when changes to templates and library files are infrequent
- No special implementation guidelines; just an installation on one server
- When upgrading this type of site, make a temporary copy of the site (both display layer and database) on a separate server to test the upgrade

Same Server, Same Database

- Production and development/staging sites use separate copies of Ektron but reside on same server and point to same database
- Ektron’s settings, managed content, and library files are identical between sites



To set up this configuration:

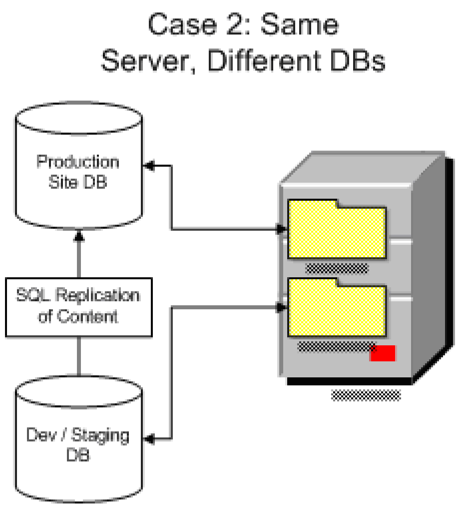
- To maintain file paths between sites:
  - Create separate websites in IIS.
  - Assign different ports to the production and development/staging sites. For example, the production site is `http://www.example.com`, and the development/staging site is `http://www.example.com:8080`.
- Both sites must use the same pathing relative to the Web root. For example, `www.example.com\Workarea\applicationAPI.asp` and `dev.example.com\Workarea\applicationAPI.asp`.
- Because both sites use the same database, editing and publishing content on one site affects the other site. As a result, the development/staging server always has the freshest content.
- Make the Ektron`uploadedimages/` and `uploadedfiles/` folders IIS virtual directories that point to the same physical directory.
- Template changes must be copied between sites. The best way to copy site templates and other assets is eSync. This is described in *Synchronizing Servers Using eSync* on page 1473.
  - If eSync was not implemented and changes to these items are infrequent, you can manually copy them.

To test and QA an upgrade, make a temporary copy of the site’s display layer on a separate server connected to the development/staging database.

If the development/staging database is the master, back it up before upgrading.

Same Server, Different Databases

- Production and development/staging sites use separate copies of Ektron’s display layer, reside on same server, but point to different databases
- Changes to content, configuration, or library files made in one site must be copied to other site

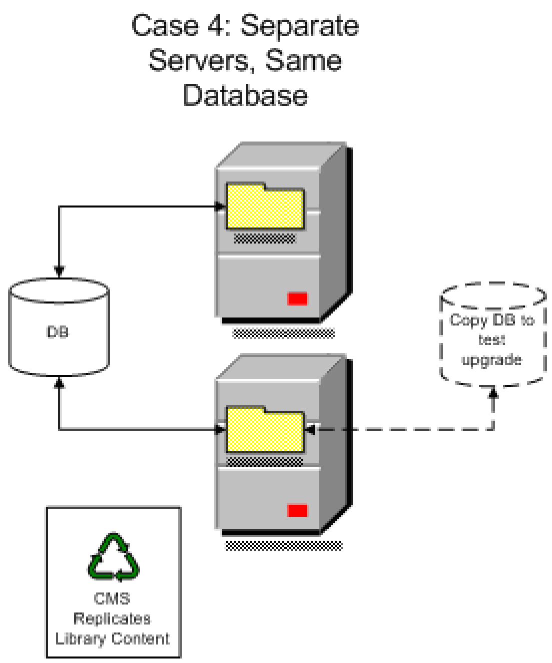


To set up this configuration:

- To maintain file paths between sites:
  - Create separate websites in IIS.
  - Assign different ports to the production and development/staging sites. For example, the production site is `http://www.example.com`, and the development/staging site is `http://www.example.com:8080`.
  - Separate the databases for isolation.
  - One database is the master, and the other is a copy
  - Only edit content in the site connected to the master database
  - Remove the Ektron login page from the site connected to the copy database
- To copy the Ektron database, your best choice is Ektron’s eSync feature. This is described in *Synchronizing Servers Using eSync* on page 1473.
- If you have not implemented eSync, copy site content using a replication tool for the database.
  - **SQL Server 2008 SDK Replication**: See SQL Server Replication
- Library files—Make sure the Ektron `uploadedimages/` and `uploadedfiles/` folders IIS virtual directories point to the same physical directory.
- Templates and other file system assets—The best way to move these is eSync. If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product such as Microsoft Application Center.
- Upgrading Ektron—To test an upgrade, make a temporary copy of the site’s display layer on a separate server connected to the development/staging database. If the development/staging database is the master, back it up before upgrading.

Separate Servers, Same Database

- Production and development/staging sites reside on separate servers, which point to the same database.
- Ektron settings, content, and library files are identical between sites.
- Changes to templates must be copied between servers.

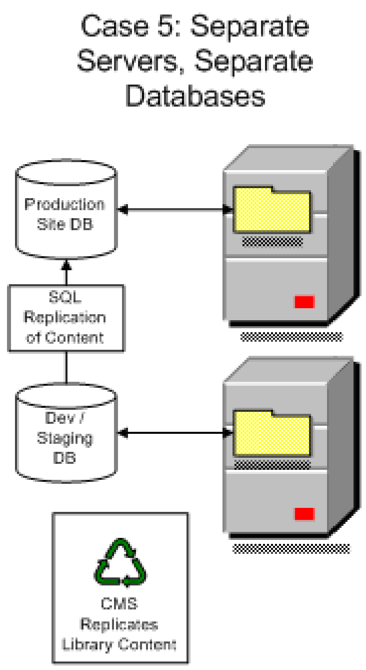


To set up this configuration:

- Configure Ektron’s Load Balancing feature to copy uploaded images and files between the servers.
- The best way to move site templates and other assets is eSync. This is described in *Synchronizing Servers Using eSync* on page 1473.
  - If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product like Microsoft Application Center.
- When upgrading Ektron:
  1. Back up the file system of the development/staging server.
  2. Make a temporary copy of the production server database.
  3. Switch the development/staging site to use the copy.
  4. Test and QA the upgrade on the development/staging server.

Separate Servers, Separate Databases

- Production and development/staging sites are installed to separate servers and point to different databases
- Changes to content, configuration, or files must be copied between sites.



To set up this configuration:

- Both sites must have the same pathing relative to the Web root, for example, `www.example.com\Workarea\applicationAPI.asp` and `dev.example.com\Workarea\applicationAPI.asp`.
- Separate the databases for isolation.
  - One database is the master, and the other is a copy
  - Only edit content in the site connected to the master database
  - Remove the Ektron login page from the site connected to the copied database
- The best way to copy site templates and library files is eSync. This is described in *Synchronizing Servers Using eSync* on page 1473.
  - If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product like Microsoft Application Center.
- To copy the Ektron database (containing HTML and XML content), your best choice is Ektron's eSync feature.
  - If you have not implemented eSync, copy site content using a replication tool for the database, such as **SQL Server 2008 SDK Replication**. See SQL Server Replication
- Make sure the Ektron`uploadedimages/` and `uploadedfiles/` folders IIS virtual directories point to the same physical directory.
- When upgrading Ektron:
  1. Back up the file system of the development/staging server
  2. Make a temporary copy of the production server database
  3. Switch the development/staging site to use the copy
  4. Test and QA the upgrade on the development/staging server

Copying the Site and Database to Other Servers

When your project is ready to be tested in house, move the site to a staging server. When the project is ready to go live, move the site to a production (live) server. You can use the same database for all environments. Back up that database often to keep it safe. Alternatively, create a separate database for each server.

To create new environments:

1. On the same server or a separate server, create new folders for Ektron: `C:/cmsstage` and/or `C:/cmsproduct`.
2. In IIS, create a new domain for each server. `http://stage.example.com` points to `c:/cmsstage` and `http://www.example.com` points to `c:/cmsproduct`.
3. If all environments are on the same server, you do not need to copy other folders. But, if you are using a separate server for each environment, copy the `c:/assetcatalog` and `c:/assetlibrary` folders to the other servers.
4. For the database, access the SQL manager and make a backup of the development database. Then, create new databases for staging and production. Finally, restore the backup of the development database to the staging and production databases.
5. In the staging and production environments, open `web.config`. Then, update the database connection information so that it points to the new databases.
6. Test the staging and production environments.

Setting Up the Certificate for IIS 7

See Configuring Internet Server Certificates (IIS 7).

Updating web.config to Use SSL

1. Open the `siteroot/web.config` file.
2. Find these settings.

```
<add key="ek_UseSSL" value="false" />
<add key="ek_SSL_Port" value="443" />
```

3. Set `ek_UseSSL` to **true**.

> **WARNING!** If `ek_UseSSL` is **true**, but you did not install the certificate to the Web Server, you cannot log into Ektron.

4. Set the `ek_SSL_Port` to `443` (unless you specified another SSL port).
5. Find the following line: `<add key="WSPath" value="http://server name/site name/Workarea/ServerControlWS.asmx" />`
6. Change http to http**s**.
7. Save and close the file.

Managing the web.config File

Ektron's `web.config` file lets you control many key functions of your content management system. When you install Ektron, `web.config` is placed into *`webroot/siteroot`*.

If your server is currently running another .NET application, you must merge that `web.config` file with this one. To distinguish Ektron's tags, they begin with `ek_` and reside within the `<appSettings>` tags of the `web.config` file.

The following sections show the settings in the `web.config` file.

Analytics

- See *Google Web Analytics* on page 626 and *Templates* on page 606.

Connection Strings

For SQL Server—Use this connection string to define an SQL server.

- **name**—`ektron.DbConnection`
- **providerName**—`System.Data.SqlClient`
- **connectionString**—this part of the connection string contains the following element.
- **server**—the name of the database server to which Ektron is installed. If installed locally, the value is localhost. This value is set during installation, at the Host screen.
- **database**—use the name of the database.
- **Integrated Security**—use True or False. **True**—use integrated security.
- **user**—If required, specify the username used to connect to the DSN. This user account must have at least read and write permissions to the database.

  NOTE: This value can be blank if you are using Windows authentication.

- **pwd**—If required, specify the password for the username given. It should match your database name.

  NOTE: This value can be blank if you are using Windows authentication.

  IMPORTANT: After changing any database settings, you must stop and restart the Ektron Windows Service. See Also: *Ektron Windows Service* on page 1877

appSettings

- **ek_appName**—The name of the application, CMS400. You typically would not change this value.
- **ek_appPath**—This element is prefixed by the ek_sitePath value and describes the location of the workarea folder. This file stores external applications (such as eWebDiff), templates, and the images folder.
- **ek_appImagePath**—The folder that stores the images within Ektron, such as toolbar icons. Only change this value if you need to move the images folder to another location. This value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to `webroot/cms400Min/workarea/`. So, by default, this folder is set to `webroot/cms400Min/workarea/images/application/`.
- **ek_appXSLTPath**—The folder that stores XSLTs. Only change this value if you need to move the XSLT folder to another location. This value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to `webroot/cms400Min/workarea/`. So, by default, this folder is set to `webroot/cms400Min/workarea/Xslt`.
- **ek_buildNumber**—This value is set by the installation program. You typically would not change it.

- **ek_cmsversion**—This value is set by the installation program. You typically would not change it.
- **ek_LDAPMembershipUser**—Integrate membership users with LDAP or Active Directory. Set the value to **True** for Membership Users to be authenticated using LDAP/AD.
- **ek_RedirectFromLoginKeyName**—Provides a mechanism to return from the login page to the previous page, specify the query string key-name. By default the value is **RedirectUrl**. Currently, the redirect works in 2 instances.
    1. When a user tries to use a forum but is not logged in, it sends them to a login page and returns them. The value in this key used in conjunction with the `ek_RedirectToLoginURL` key sends the user from a forum page to a login page and back to the previous page.

       For example, a user tries to reply to a forum post, but the user is not logged in. The user is sent to the login page and then returned to the original page.
    2. When a user sends a private message to another user or group administrator from the SocialBar server control, the user is returned to the page where the user clicked private message once the message is sent.

       For example, you visit a community group's page and click **Private Message Admin**. You are directed to the private message screen. When you click **post**, you are returned to the community group's page. For additional information, see *Server Control Reference* on page 1636.
- **ek_RedirectorInstalled**—Turns the redirector on or off. Turning the redirector on enables the option of aliasing the URL of your website. The default is **False**.
    - **True**—Aliasing turned on
    - **False**—Aliasing turned off

  See Also: *Creating User-Friendly URLs with Aliasing* on page 835
- **ek_RedirectorManualExt**—Set a comma-delimited list of Web page extensions for which you will create aliased pages. For example, `.aspx`, `.htm`, `.html`. By default, the list contains **`.aspx`**. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

  NOTE: You can enter one or more extensions. Each extension must begin with a period, and the last extension must be followed by a comma (,).
- **ek_RedirectToLoginURL**—The URL of the login page to automatically redirect to when a site visitor is not logged in as a user or membership user.
- **ek_sitePath**—The location of Ektron relative to the Web root. This value is set during installation at the Site Path Directory screen. If you move Ektron to another folder, you must update this value.
- **ek_TreeModel**—Choose whether or not to use Ajax for the folder tree in the Workarea.
    - **0**—use the legacy folder tree in the Workarea.
    - **1**—use Ajax for the folder tree in the Workarea.

    NOTE: This key has been removed from the `web.config` file. However, you can still use this key by adding it between the `<appSettings>` tags. For example, `<add key="ek_TreeModel" value="0">` changes the folder tree in the Workarea back to legacy.
- **ek_workareaDateFormat**—Choose how you want to display dates in some areas of the Workarea.

    - **long**—for example, Tuesday May 21, 2013
    - **short**—for example, 5/21/2013
- **ek_xmlPath**—The location of the xmlfiles directory. The `ek_sitePath` path is prefixed to this location. You would only change this value if you want to move the location of the xml files relative to the Web root.
- **GoogleMap**—Enter connection information for using Google Maps with the Mapping feature in Ektron. See Also: *Server Control Reference* on page 1636
- **VirtualEarthMap**—Enter connection information for using Bing Maps for Enterprise with the Mapping feature in Ektron. See Also: *Server Control Reference* on page 1636

Images

These images appear before the user signs in, so cannot be stored in the database. Update as needed. Their location is set in the `ek_appImagePath` variable. See Also: ek_appImagePath.

- **ek_Image_1**—close button 

- **ek_Image_2**—small login button 

- **ek_Image_3**—big login button 

SMTP server configuration

See *Installing Ektron* on page 9

- **ek_SMTPPass**—The password set up to send and receive email
- **ek_SMTPPort**—The port your system uses to retrieve email
- **ek_SMTPServer**—The server that processes email
- **ek_SMTPUser**—The username set up to send and receive email

Mail Format

- **ek_MailFormat**—The format of the email created in Ektron.**HTML** generates email in HTML format, while **Text** generates plain text email.

SSL Support

See *Setting Up Ektron* on page 61

- **ek_SSL_Port**—SSL port used by Web server.
- **ek_UseSSL**—Determines if server will use SSL for security

Active Directory Server Configuration

See *Using Active Directory with Ektron* on page 1127

- **ek_ADAdvancedConfig**—Enable Active Directory advanced configuration.
- **ek_ADEnabled**—Whether Ektron uses Active Directory support.
- **ek_ADPassword**—Password for the Active Directory server.
- **ek_ADUsername**—User name for the Active Directory server.
- **ek_AUTH_Protocol**—The directory access protocol used with the Active Directory feature. The default value is LDAP. Other protocols are GC (global catalog) and WINNT.

Menu Settings

- **ek_MenuDisplayType**—Determines the appearance of the content menu that appears within every content block after the user signs in.

NOTE: This setting only works if `ek_UserMenuType` is set to zero (0).

- **0**—Horizontal—menu icons are arranged horizontally
- **1—**Vertical—menu icons are arranged vertically and include the tooltip text

- **ek_UserMenuType**—Determines the appearance of the content menu that appears within every content block after the user signs in.
  - **0**—New dynamic menu—only appears when user moves cursor over content block
  - **1**—Old classic menu—always appears
  - **2**—Menu without borders—a silver pin head appears above content that has a menu available. Hovering over this pin produces a menu.

  See Also: *Working with Ektron Content* on page 287

Multilingual Settings

- **ek_DefaultContentLanguage**—Sets the 4 digit, decimal representation of the default content language. For example, American English is 1033. See Also: *Setting the Default Language* on page 1061
- **ek_EnableMultilingual**—Enable or disable multilingual content support.
  - **1**—enable
  - **0**—disable

  See Also: *Enabling/Disabling Support for Multiple Language Content* on page 1059

- **ek_ServerURL**—Mainly used in Web services to determine a remote server location. For example, in a Web farm environment, the content server can reside in a remote location. In this case, the developer's content is replaced with this value, so all `<img src="”…/>` and `<href….` references point to server named here instead of the local one.

Machine Translation

Lets you enter the path to the Google Translation Service API key. See Also: *Enabling Machine Translation* on page 1072

Miscellaneous Settings

- **ek_assetPath**—The folder that stores assets. Only change this value if you need to move the Assets folder to another location. Note that this value is prefixed by the `ek_appPath` value. By default, `ek_appPath` is set to *webroot*`/CMS400Min`. So, by default, this folder is set to *webroot*`/CMS400Min/assets`.
- **ek_BatchSize**—The number of files that can be uploaded at one time. The default is **4**, but it can be any non-negative number.

NOTE: Users can upload any amount of files. The system handles them 4 at a time.

- **ek_CacheControls**—Enable or disable caching for Ektronserver controls. See Also: *Caching with Server Controls* on page 1629
  - **0**—Disable
  - **1**—Enable
- **ek_EditControlMac**—Defines the editor used by a Macintosh operating system user.
- **ek_EditControlWin**—Defines the editor used by a Microsoft Windows operating system user. Choice are:
  - **ContentDesigner**—Use the eWebEdit400 editor. This editor does not require an ActiveX installation on the user's computer.

  - **eWebEditPro**—Use the eWebEditPro editor. This editor requires an ActiveX install on the user's computer.
  - **Aloha** (default)—This editor is installed by default. See Also: *Editing in Ektron* on page 207
- **ek_EnableMessageBoardEmail**—Set to **True** to enable e-mail notification when a user posts a message to a user or community group's message board. If true and a user posts to another user's message board, the board's owner is notified. If true and a user posts a message to a community group's message board, all group members are notified. This setting does not affect content messages. See Also: *Sending Notifications to a Community* on page 1194
- **ek_helpDomainPrefix**—The path to the help files. By default, help files are located on an external server and the path is

  `http://documentation.ektron.com/cms400/v[ek_cmsversion]/webhelp`

  Change this path if you install help files on local servers. See Also: *Installing Help Files on a Local Server* on page 32.
- **ek_InvitationFromEmail**—The "From" email address used when a user sends an Invitation. Invitations are emails that are sent to non-system users asking them to join your site. See Also: *Invite* on page 1751 server control.
- **ek_LinkManagement**—This setting determines if Ektron uses linkit.aspx when inserting a quicklink. By default, it is set to `false`. If set to `true`, when a user inserts a quicklink, Ektron inserts a *special link* instead of a quicklink. A special link determines the correct quicklink to use when a site visitor clicks it. For example, a user adds a content block to folder A. A quicklink to that content is `a.aspx?id=10`. Later, if an administrator changes the folder's template but doesn't update the quicklink within the content block, the quicklink is broken. To avoid this problem, enable link management.
- **ek_LogFileName**—Path to the log file name for the message queue
- **ek_loginAttempts**—Ektron has a login security feature that, by default, locks out a user after 5 unsuccessful attempts to log in. See Also: *Getting Started with Ektron* on page 5
- **ek_LoginScreenWidth**—The width of the login screen in pixels. You may need to widen the screen if you are using Active Directory and database names are long.
- **ek_PageSize**—This setting determines the maximum number of items that can appear on a page before it "breaks." When a page breaks, additional entries appear on another screen, and the following appears near the bottom of the list:

  Page 1 of 2

  [First Page] [Previous Page] [Next Page] [Last Page]

  NOTE: The above text changes depending on the page you are viewing.

- **ek_QueueName**—Path to the message queue.
- **ek_ShowWorkareaRetErrorReferrer**—Choose whether to enable referrer debug information on the RetError.aspx page.
  - **True**—enable
  - **False**—disable
- **ek_ToolBarFormatTag**— This setting only applies *after* a user signs in to your site. Change this setting if the colored border that surrounds content looks wrong. (The border color indicates the content's status.) By default, `<table>` tags create the border. If the

border looks wrong or inappropriate, change setting to **div**. If you do, `<div>` tags are used to draw the border instead of `<table>` tags. This change typically solves the problem.

- **ek_WorkareaLibSearchResultMode**—Sets the Workarea Library search-results mode.
  - **text**—returns a text only version of the library search results.
  - **mixed**—returns text and images associated with library search results.
  - **graphical**—returns a images associated with library search results.
- **ek_XliffVersion**—Define the XLIFF version to use when exporting files. See Also: *Exporting Content to XLIFF* on page 1072
- **WSPath**—Determines the location of the Web services page used by the server controls at design time.

system.diagnostics

- **LogLevel**—Enter a numeric value that determines the level of message logging. By default, diagnostic messages are logged in the Event Log. Choices are:

  1—Error: log errors.

  2—Warning: log errors and warnings.

  3—Information: log errors, warnings and informationals.

  4—Verbose: Everything is logged.

ektronCommerce

See *Conducting eCommerce* on page 1279

- **ek_ecom_ComplianceMode**—When set to true, your site is Security Compliant. This means the Workarea is encrypted in an SSL session and Logging is started.
- **ek_ecom_DefaultCurrencyId**—Select the default currency and enter its Numeric ISO code. This should be done before creating your product catalog.

  WARNING! Do not change the default currency or measurement system after your eCommerce site is live.

  See Also: *The Default Currency* on page 1308
- **ek_ecom_TestMode**—When set to true, payments are sent to a test gateway instead of the actual one.
- **ek_MeasurementSystem**—Select whether to use English or Metric measurements for your packages. See Also: *Configuring Packages* on page 1330

mediaSettings

See Also: *Managing Multimedia Assets* on page 318

- **application/x-shockwave-flash**—Define the relationship between the Shockwave Flash mime type and the Flash player.
- **audio/mpeg**—Define the relationship between the MPEG audio mime type and the Windows Media Player.
- **audio/x-ms-wma**—Define the relationship between the MS-WMA mime type and the Windows Media Player.

- **audio/x-realaudio**—Define the relationship between the realaudio mime type and the Real player.
- **audio/x-wav**—Define the relationship between the WAV mime type and the Windows Media, Quicktime and Real players.
- **audio/x-wav-default**—Define the relationship between the WAV default mime type and the Windows Media Player.
- **Flash-CLSID**—The class ID for the Flash player.
- **Flash-Codebase**—Location of the code base plug-in for Flash player.
- **Quicktime-CLSID**—The class ID for the Quicktime player.
- **Quicktime-Codebase**—Location of the code base plug-in for Quicktime player.
- **Realplayer-CLSID**—The class ID for the Real player.
- **Realplayer-Codebase**—Location of the code base plug-in for Real player.
- **video/mpeg**—Define the relationship between the MPEG video mime type and the Windows Media Player.
- **video/quicktime**—Define the relationship between the Quicktime mime type and the Quicktime player.
- **video/x-avi**—Define the relationship between the AVI mime type and the Windows Media, Quicktime and Real players.
- **video/x-avi-default**—Define the relationship between the AVI default mime type and the Quicktime player.
- **video/x-msvideo**—Define the relationship between the msvideo mime type and the Windows Media, Quicktime players.
- **video/x-msvideo-default**—Define the relationship between the msvideo default mime type and the Windows Media Player.
- **video/x-ms-wmv**—Define the relationship between the MS-WMV mime type and the Windows Media Player.
- **video/x-realvideo**—Define the relationship between the realvideo mime type and the Real player.
- **WindowsMedia-Codebase**—Location of the code base plug-in for Windows Media Player.
- **WindowsMedia-CLSID**—The class ID for the Windows Media Player.

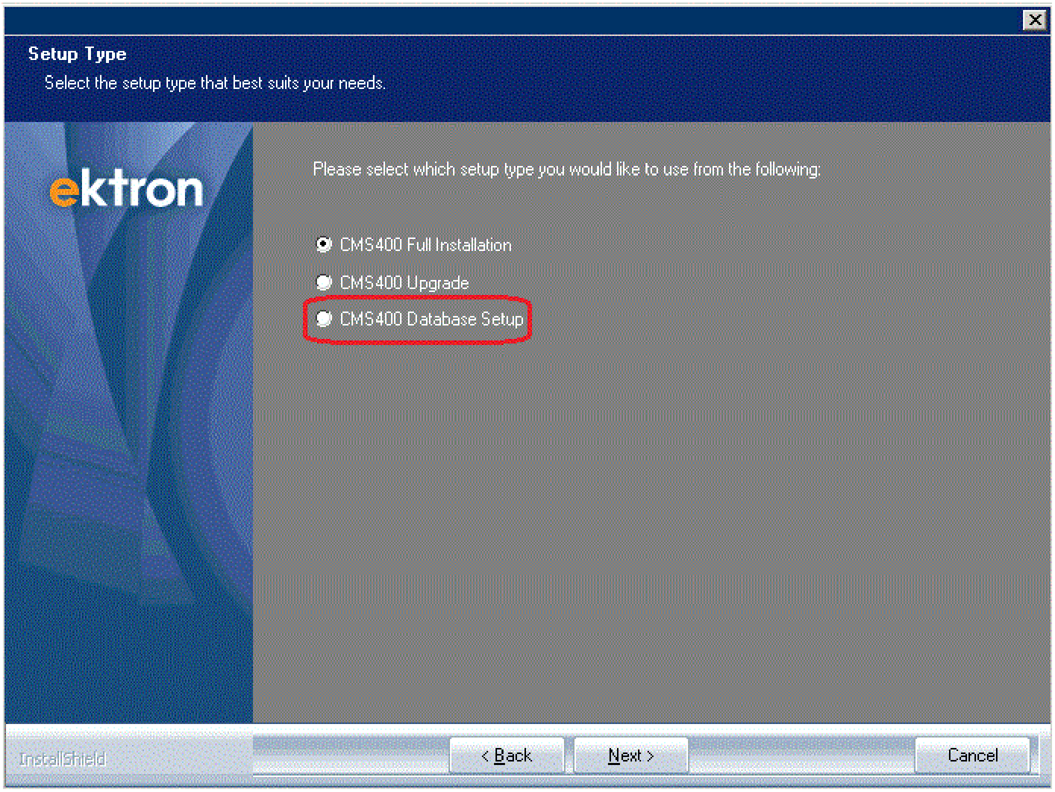
Miscellaneous

- **HttpHandlers**—This section sets how the URL Aliasing feature handles URLs with certain extensions. If you have any extension you do not want aliased, add it below the following line using the same syntax.
  ```
  add verb="*" path="*.png" type="URLRewrite.StaticFileHandler,
  Ektron.Cms.URLRewriter" />
  ```
- **maxRequestLength**—This setting determines the maximum size of files that can be uploaded to your server. The default setting is 204,800 kilobytes, or 200 MB. Enter the desired value in kilobytes. To convert megabytes to kilobytes, go to OnlineConversion.com.
- **session state**—mode—determines the storage option for session data. Ektron supports all session-state modes listed in this article: Session-State Modes.

Setting Up an Additional Site

After installing Ektron, it is easy to create another site. While creating the new site, you can create a sample or minimal site and database. To create a site for your content, you typically install a minimal site and database, then create your Web page templates. Later, add users and content.

1. Set up New Site.
   a. Create a new folder in the Web root folder to contain the site files.
   b. Choose **Start > Programs > Ektron > CMS400 > Utilities > SiteSetup** from the Windows Start menu.
   c. Follow the steps for creating a new site, as described in *Setting Up Ektron* on page 61. When prompted to select a folder to which you want to install the files, choose the folder you created in Step 1.
2. Set up New Database. After installing an Ektron site, it is easy to create a new database. You can create either a sample or minimal database. When creating a database for your content, you typically install a minimal database.
   a. Choose **Start > Programs > Ektron > CMS400 > Utilities > SiteSetup** from the Windows Start menu.
   b. On the Setup Type screen, choose **CMS400 Database Setup**.



   c. Follow the steps for creating a new database, as described in *Setting Up Ektron* on page 61.
3. Create Project in Visual Studio.NET. To work with the new site in Visual Studio.NET, you must create a new project for it. To do that:
   a. Navigate to the folder that contains the new site.
   b. Double click Ektron’s solution file. If you are using the minimal database, the file is `CMS400Min.sln`.

At this point, you can build the project and log in. If you cannot log in because you have not set up the license key, use the builtin account: by default, the username is builtin and password is builtin.

IMPORTANT: You should only use the builtin account temporarily. As soon as possible, you should insert the license key and log in under a user name assigned in Ektron.

To learn about creating templates and using server controls, see *Working with Ektron Server Controls* on page 1605.

Supporting Multi-Site Configurations

Ektron's multi-site support feature lets you set up and manage several websites under one CMS. (The multi-site support feature does not support multiple databases.) You can manage content in the additional site the same way you work with content in the root site. You log into a root site then begin editing content in the additional site. Regardless of which site you are using, you can use the common library to insert hyperlinks, images, files, and quicklinks.

IMPORTANT: Place any file (such as an XSLT file) that needs to be shared among sites in a multi-site environment in a virtual folder. Also, you cannot create a hyperlink within content, a collection, menu, and so on to a form that resides in another site.

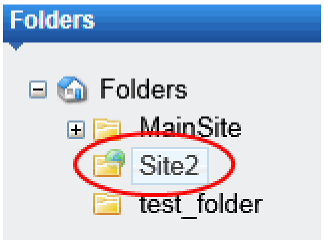
PREREQUISITES

- All sites reside on the same server
- Each site requires a multi-site license key. To purchase additional licenses, contact Ektron sales.

Advantages of multi-site configurations:

- The URL can indicate the nature of the site to visitors
  - www.example.com
  - support.example.com
  - forums.example.com
- All sites can share a single database
  - common content, but appear within their own site and templates
  - the library of images and files. These files can be stored once; authors can insert them into content from any site.

In the Workarea, sites appear in Ektron's folder structure, and their icon is a globe. A folder to which a production domain is assigned is a *domain folder*. Links to content in a domain folder are activated via `linkit.aspx`, which redirects to the appropriate domain name and uses the appropriate template for the folder or content.



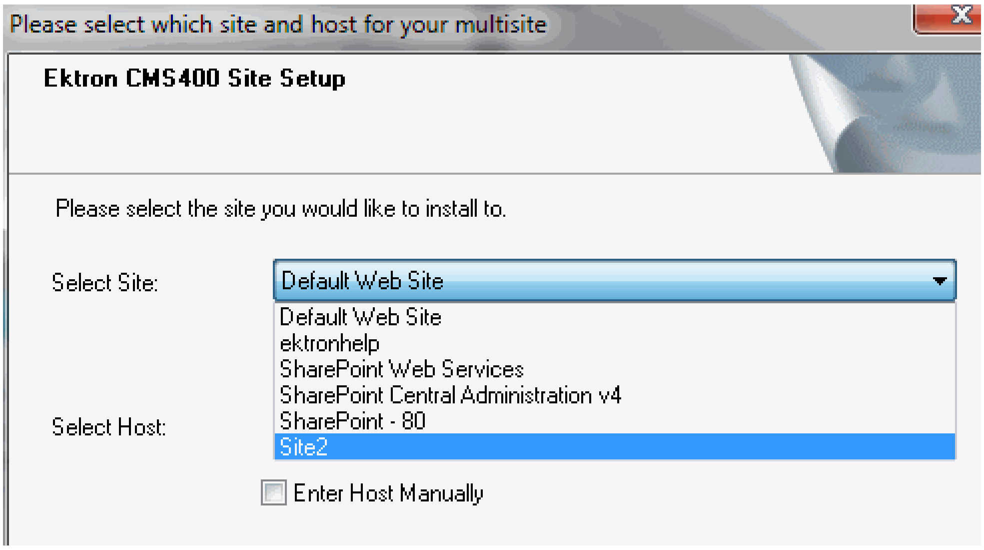
There are 2 ways to install multi-site support. (The automatic setup is easy to use and minimizes issues.)

- *Automatic Multi-Site Setup* below
- *Manual Multi-Site Setup* on page 79

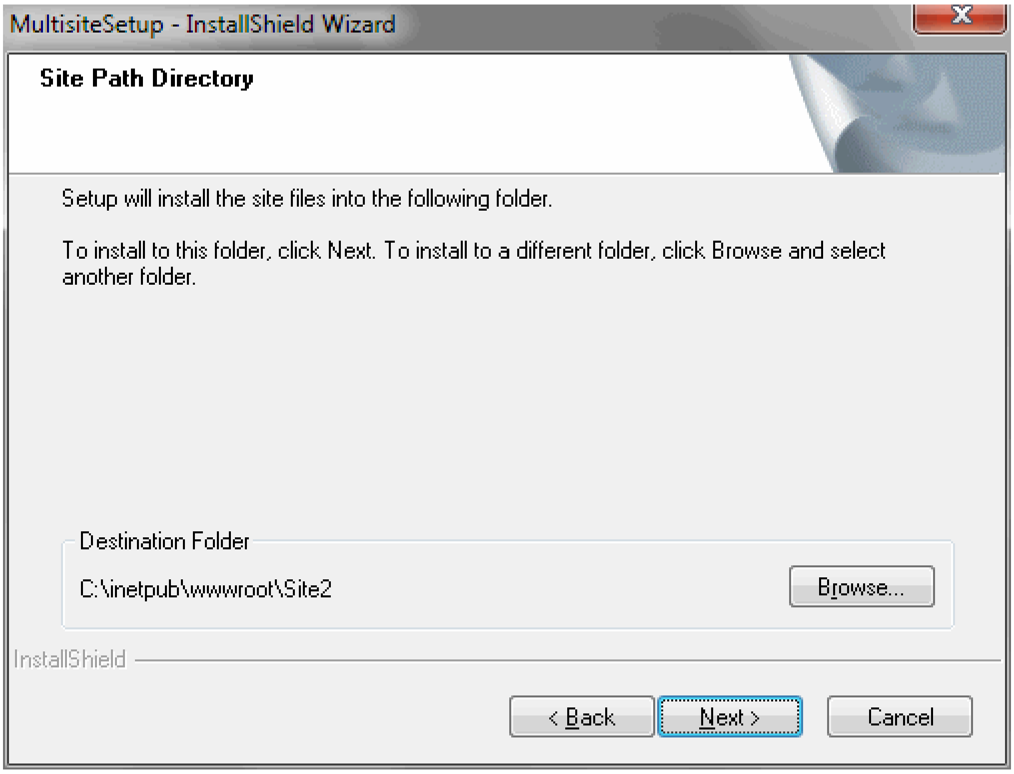
Automatic Multi-Site Setup

IMPORTANT: Before creating a multi-site configuration, you must have installed an Ektron website. All installed folders must remain in that site. The original site *cannot* have virtual folders.

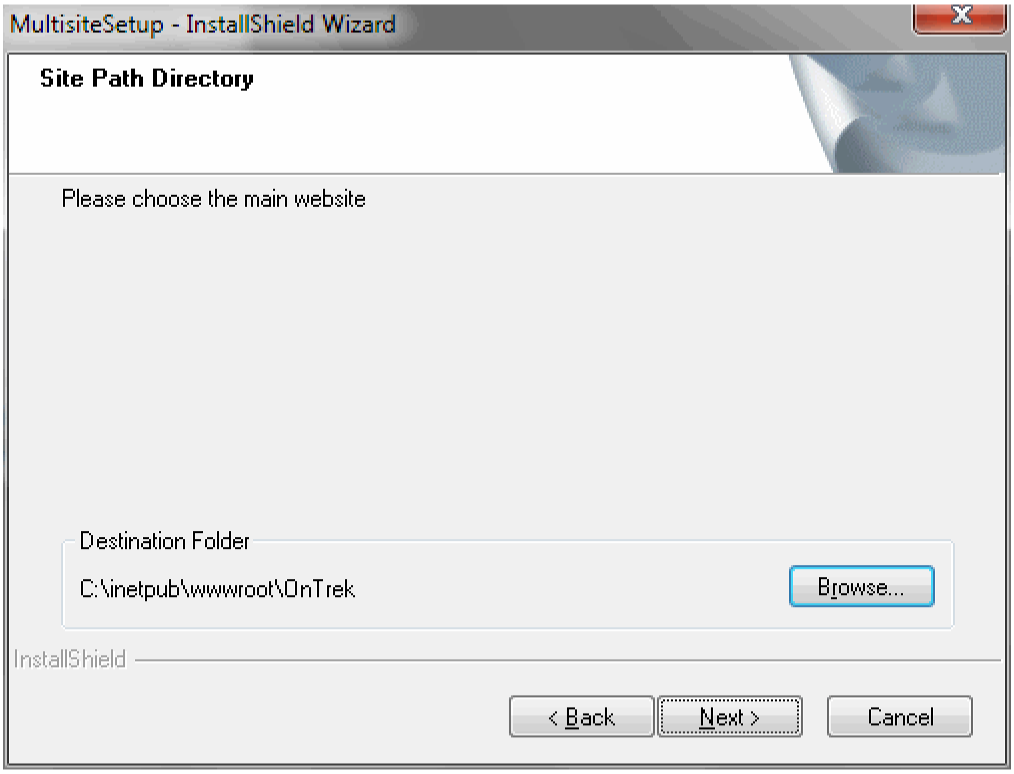
1. Create each new site in IIS. Convert each site folder to an application. See http://www.iis.net/learn/manage/creating-websites.
2. Run the Multi-Site Setup Wizard.
   a. Double click `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\MultiSiteInstall\Multisite.exe`.
   b. Use the pulldown to select the site you created in Step 1.
   c. Select your host.



d. Enter a path to the new site.



e. Identify your main website; that is, the site to which this multi-site is being added.



f. When prompted to add a multi-site key, click **Yes**.

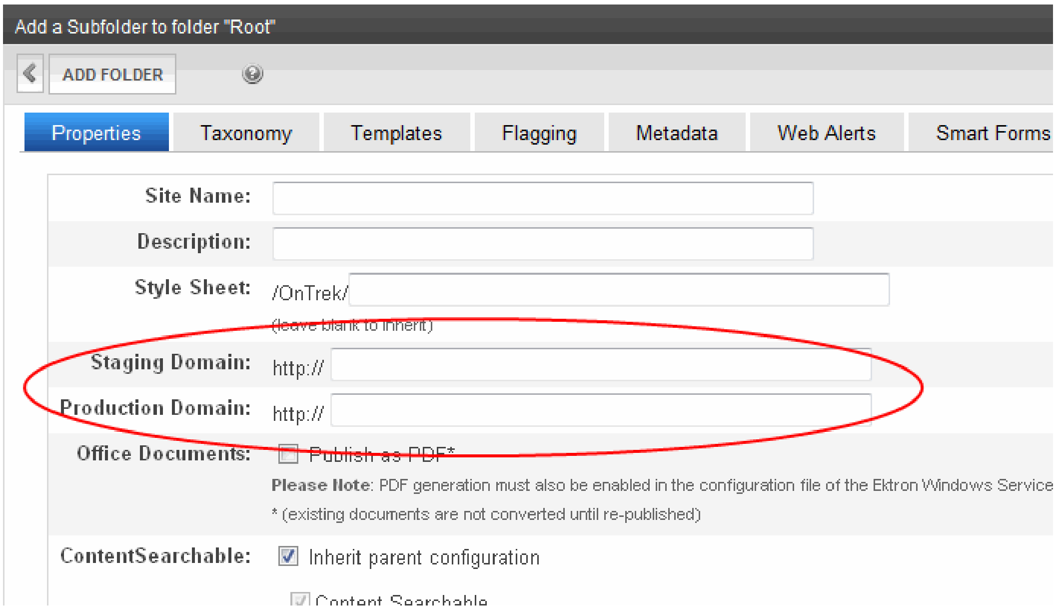
g. Enter a license key for the new site. This step copies the new site's license keys to the database.

h. Enter information about the new site's database.
i. Follow the remaining screens in the wizard.

3. Assign multi-site capabilities in Ektron.
   a. Log in the Workarea.
   b. Click **Content**.
   c. Click the site root folder.

   NOTE: Site folders must reside within the site root folder.

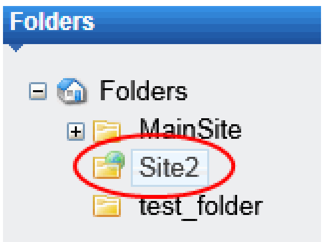
   d. On the View Contents of Folder screen, create a new top-level site folder for each site by choosing **New > Site**.
   e. Assign site folder properties as you did for the root folder. The Multi-site Configuration fields appear on the lower section of the screen.



   f. In the **Staging Domain** field, insert your staging domain.

   IMPORTANT: Production and staging URLs must be unique across multi-sites. In other words, in a multi-site configuration, one site's production or staging URL cannot be the same as another site's production or staging URL.

   g. In the **Production Domain** field, insert your production domain.
   h. Click **Add Folder**. Within Ektron, new sites are indicated by a globe icon.



Manual Multi-Site Setup

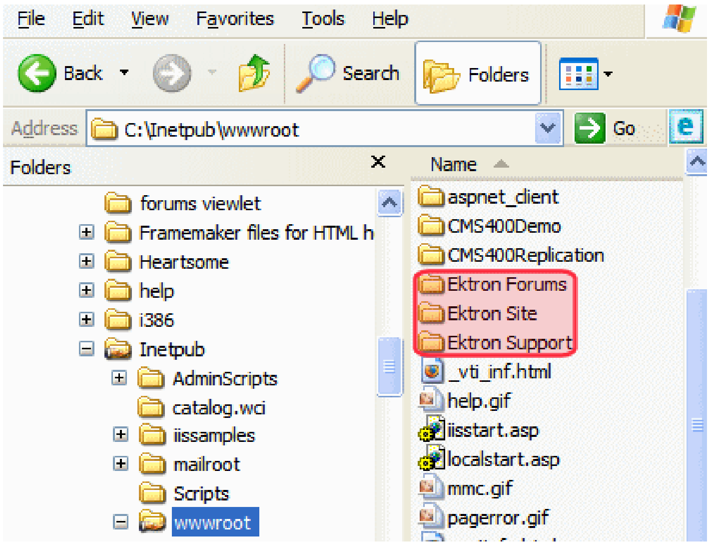
Ektron provides a utility (`Multisite.exe`) that automatically completes Steps 1 and 2 for you. If you run this utility, you only need to complete Step 3. The utility is located `C:\Program Files\Ektron\CMS400vxx\Utilities\MultiSiteInstall`.

1. Create New Folders in the File System.

   IMPORTANT: Before creating a multi-site configuration, you must have installed an Ektron website. All installed folders must remain in that site. The original site *cannot* have virtual folders.

   a. Using Windows Explorer, navigate to the `C:\Inetpub\wwwroot` folder.

   b. Create a new folder for each site.



   c. Copy the following Ektron files and folders from the original site to the new, multi-site folder.
      - all individual files (not subdirectories)
      - all `.config` files in all directories under the site root
      - these subdirectories:
        - bin
        - WorkArea
        - widgets
        - App_Code
        - AssetManagement
        - App_GlobalResources

   d. Within each new site folder, open the `web.config` file and update the `ek_sitePath` and `WSPath` elements with your Ektron site path.

      For example, if your Ektron site is in the website root, enter slash (/). If it is in a subdirectory of the website, enter the subdirectory name. For example, if the website root is `C:\inetpub\wwwroot` and you have a subdirectory called CMS400Min, enter `CMS400Min` as the site path.

2. Create new sites in IIS. Convert each site folder to an application. See http://www.iis.net/learn/manage/creating-websites.

3. Create Virtual Folders in IIS.

   In IIS, for each new website, create one new virtual folder for the following shared folders:

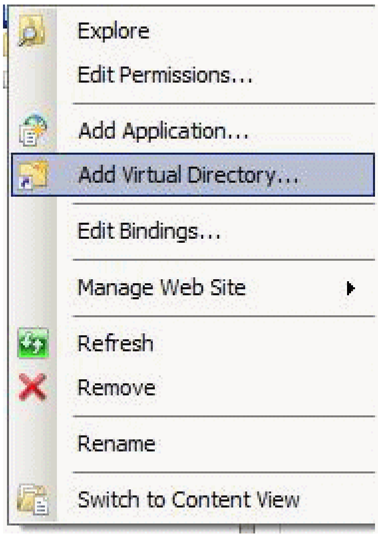
   - assets
   - privateassets
   - uploadedfiles
   - uploadedimages

   These folders are created when you install Ektron. If you did a normal installation, they reside under the site directory. For example, `C:\Inetpub\wwwroot\`*`siteroot`*`\uploadedimages`.

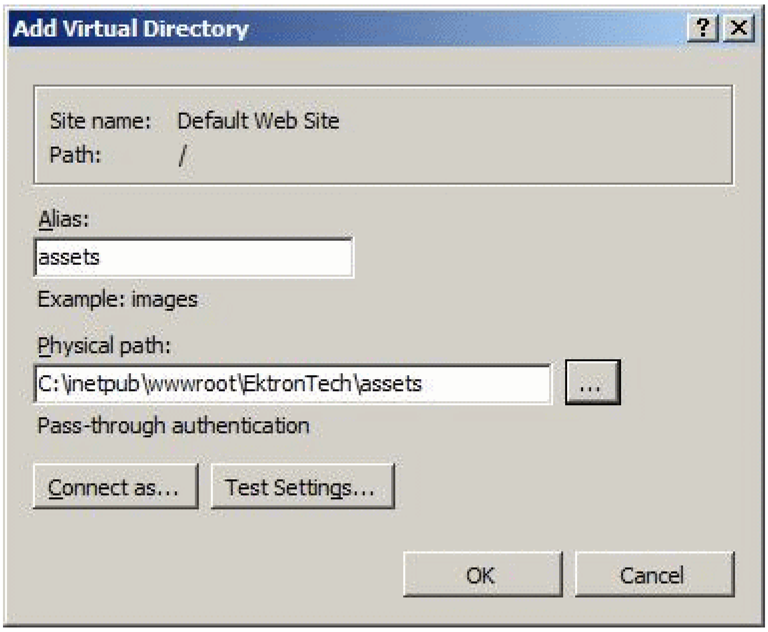
   To create virtual versions of these folders, see the following section.

Creating Virtual Folders in IIS 7

a. In IIS, select the new site folder you created.
b. Right click the mouse and choose **Add Virtual Directory**.



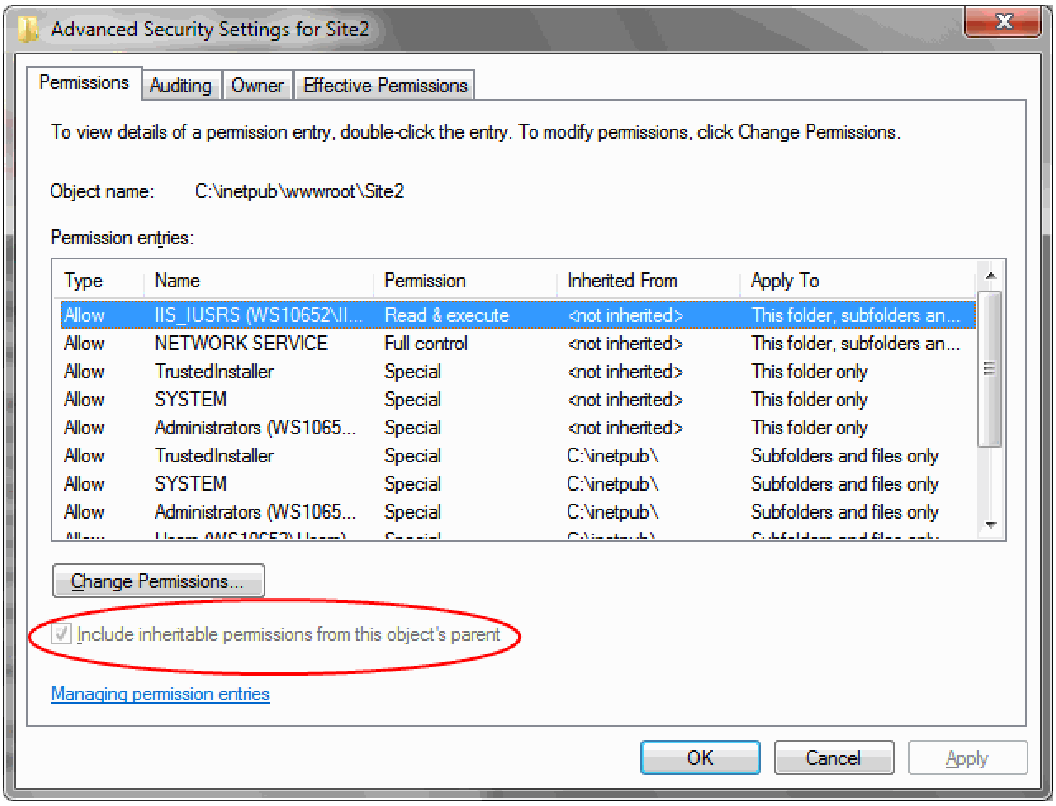
c. Identify the corresponding subfolder in the root folder.



d. Follow this procedure for all folders: assets, privateassets, uploadedfiles, uploadedimages.

4. Set file system permissions on new folders.
   a. Using Windows Explorer, navigate to the new folder(s) you created in *Setting Up Development and Staging Environments* on page 62.
   b. Right click the folder and click **Properties**.
   c. Click the **Security** tab.
   d. Click **Advanced**.

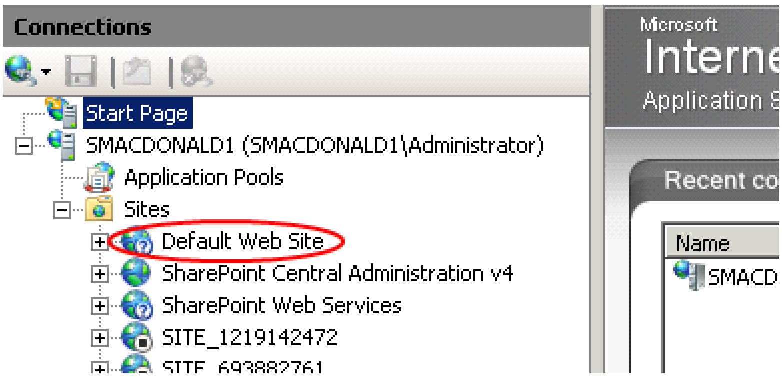
e. Check **Include Inheritable Permissions from this object's parent**.



5. Install the `aspnet_isapi.dll` file.

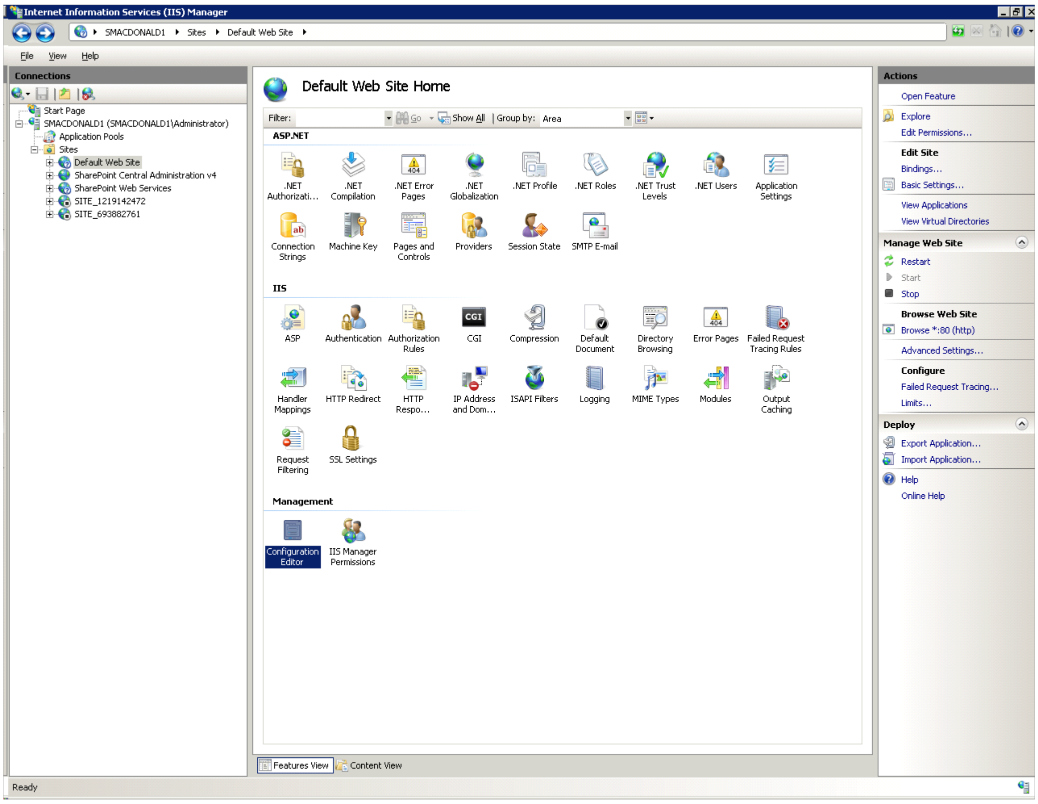
Installing the aspnet_isapi.dll File in IIS 7

a. In the Connections window, select your application.

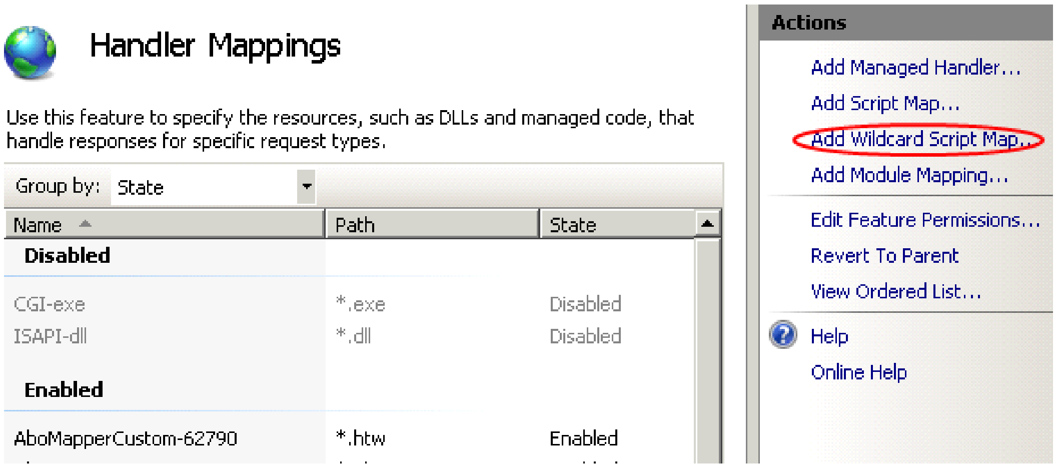


b. Make sure that the Features view is selected.

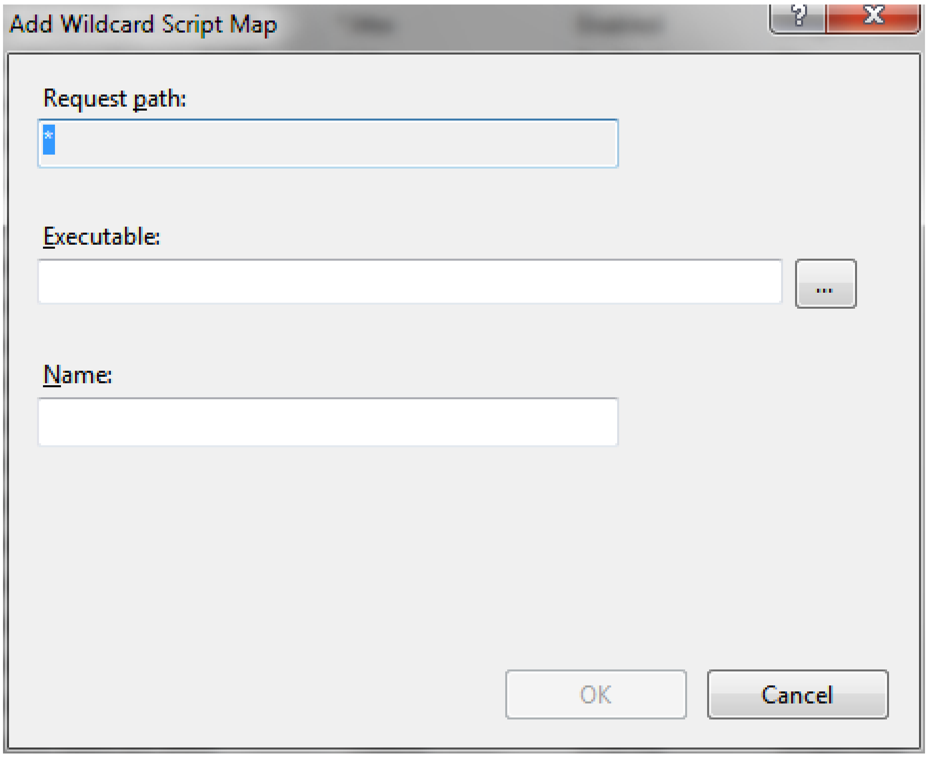
c. Double-click **Handler Mappings**.



d. Click **Add Wildcard Script Map**.



e. The **Add Wildcard Script Map** dialog appears.



f. In the **Executable** field, browse to `C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll`.

g. Enter a name.

h. Click **OK**.

6. Assign multi-site capabilities in Ektron.

   a. In the Workarea, click **Content**.

   b. Click the site root folder.

   NOTE: Site folders must reside within the site root folder.

   c. Create a new top-level site folder for each site by choosing **New > Site**.

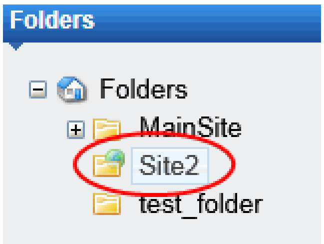
   d. Assign site folder properties as you did for the root folder. The Multi-site Configuration fields appear on the lower section of the screen.

   e. In the **Staging Domain** field, insert your staging domain.

   IMPORTANT: Production and staging URLs must be unique across multi-sites. In other words, in a multi-site configuration, one site's production or staging URL cannot be the same as another site's production or staging URL.

   f. In the **Production Domain** field, insert your production domain.

g. Save the screen. In Ektron, new domains are indicated by a globe icon.



Creating Multiple Websites on a Single Server

NOTE: This text is adapted from Microsoft's IIS help.

IIS lets you create multiple websites on a single server.

This section also contains the following topics.

Before Adding a Website

Adding a website to a server requires careful preparation before running the Website Creation Wizard. Consider these recommendations.

- Review the methods of hosting multiple websites, and determine which one is appropriate for your environment.
- Multiple websites can use the same IP address. But if you decide to use a unique IP address for the new website, obtain a static IP address from your organization or ISP. Then, configure the server's TCP/IP settings.
- If you use a host header name to identify the new website, select a unique name. On a private network, the host header can be an intranet site name. But on the Internet, the host header must be a publicly available Domain Name System (DNS) name, such as support.microsoft.com. Register a public DNS name with an authorized Internet name authority.
- Update your name resolution system (typically DNS) with a new record that contains the new IP address and site name. For more information, see Domain Name Resolution in IIS help.
- Standard Internet services use TCP port 80 by default. It is not recommended to use any other port for HTTP services.

  If you use a non-standard TCP port number to identify a new website for special situations (such as a private website for development/testing), select a TCP port number above 1023. In this way, the number does not conflict with well-known port numbers assigned by the Internet Assigned Numbers Authority. (For more information about IANA and port assignments, see List of TCP and UDP port numbers.)
- Use Windows Explorer to create a home directory for the content. Create subdirectories to store HTML pages, image files, and other content as needed.

To organize home directories for multiple websites on one server, create a top-level directory for all home directories, then subdirectories for each site.

You can create a home directory

- on the local server
- as a uniform naming convention (UNC) path on a network share
- as a URL that redirects clients to a different Web server

You can also create virtual directories that map to physical directories. For more information, see “Setting Home Directories” and “Using Virtual Directories” in IIS help.

- Determine whether to generate the website’s identification number incrementally or from the website name.
- Create a home page that clearly identifies the new site.

Adding a Website

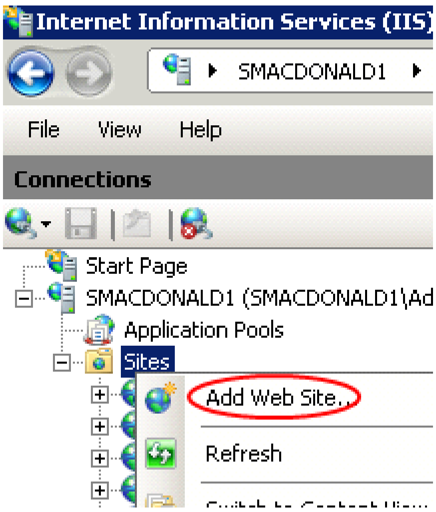
IIS provides 2 methods for adding a new website.

- The Website Creation Wizard
- The `iisweb.vbs` command-line script

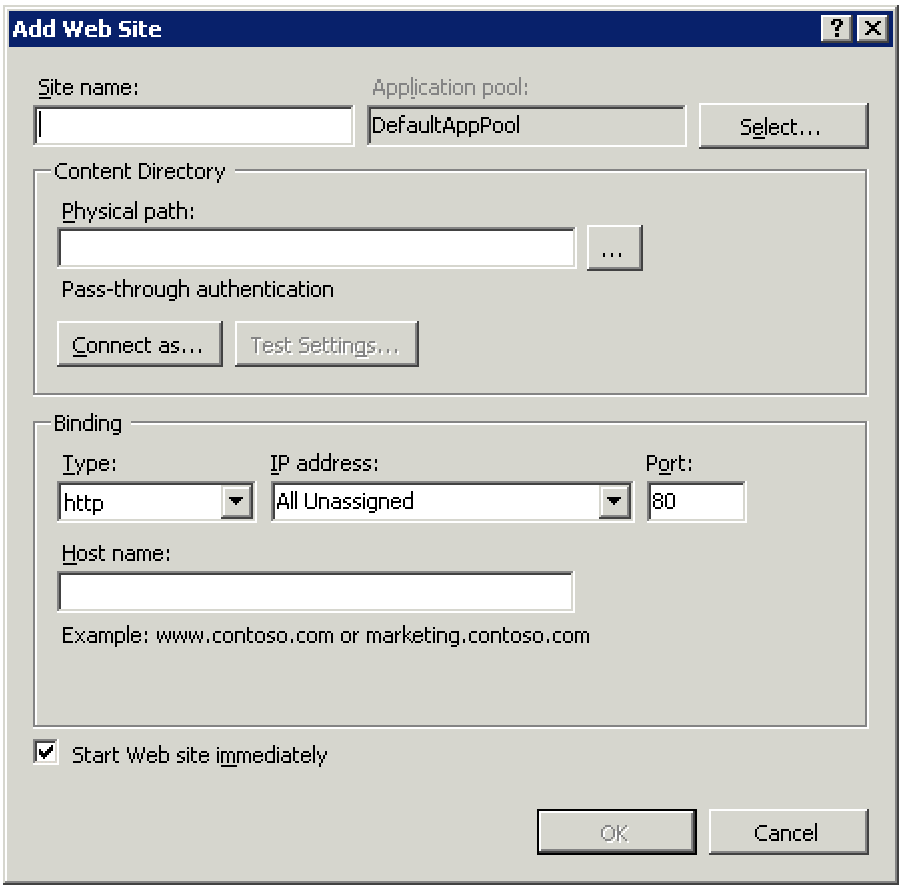
IMPORTANT: You must be a member of the Administrators group on the local computer to perform the following procedure (or procedures), or you must have been delegated the appropriate authority. As a security best practice, log on to your computer using an account that is not in the Administrators group, and then use the Run as command to run IIS Manager as an administrator. From the command prompt, type runas /user:administrative_accountname "mmc %systemroot%\system32\inetsrv\iis.msc".

Using Website Creation Wizard with IIS 7

1. In IIS Manager, expand the local computer, right-click the **Sites** directory, and click **Add Web Site**.



2. Click **Next**. The following dialog appears.



- **Site Name**—Enter the website name.
- **Application Pool**—Click **Select** if you want to select a different application pool than the one listed in the **Application Pool** box. If you do, the Select Application Pool dialog box appears. Select an application pool from the list and then click **OK**.
- **Physical path**—Enter the physical path to the website's folder. Or, click the browse button (...) to navigate the file system and find the folder.If the physical path that you enter is to a remote share, click **Connect as...** to specify credentials that have permission to access the path. If you do not use specific credentials, select the **Application user** (pass-thru authentication) option in the Connect As dialog.
- **Type**—Select the protocol for the website from the **Type** list.
- **IP Address**—The default value in the IP address box is **All Unassigned**. If you must specify a static IP address for the website, type the IP address in the IP address box. **All Unassigned** refers to IP addresses assigned to a computer but not a specific site. The default website uses all IP addresses not assigned to other sites. Only one site can be set to use unassigned IP addresses for a given port number. For more information on how sites are identified, see Creating Multiple FTP Sites in IIS help.
- **Port**—Enter a port number. The TCP port is assigned to port 80 by default. To use a nonstandard port number to create a unique identity for a private website, enter a new port number above 1023.

- **Host name**—Optionally, enter a host header name for the website.If you are adding additional sites to a single IP address by using host headers, you must assign a host header name containing the full name of the site, for example, www.ektron.com.
- **Start website immediately**—Check this box if you do not have to make any changes to the site and want it to be immediately available.

Adding a Website with a Command Line Script in IIS 7

To add a site, use the following syntax:

```
appcmd add site /name: string /id: uint /physicalPath:
  string /bindings: string
```

The variable **name***string* is the name, and the variable **id***uint* is the unsigned integer that you want to assign to the site. The variables **name***string* and **id***uint* are the only variables that are required when you add a site in Appcmd.exe.

NOTE: If you add a site without specifying values for the **bindings** and **physicalPath** attributes, the site will not be able to start.

The variable **physicalPath***string* is the path of the site content in the file system.

The variable **bindings***string* contains information that is used to access the site, and it should be in the form of `protocol`**/**`IP_address:port:host_header`. For example, a website binding is the combination of protocol, IP address, port, and host header. A binding of `http/*:85:` enables a website to listen for HTTP requests on port 85 for all IP addresses and domain names (also known as host headers or host names). On the other hand, a binding of `http/*:85:marketing.contoso.com` enables a website to listen for HTTP requests on port 85 for all IP addresses and the domain name `marketing.contoso.com`.

To add a website named contoso with an ID of 2 that has content in c:\contoso, and that listens for HTTP requests on port 85 for all IP addresses and a domain name of marketing.contoso.com, type the following at the command prompt, and then press **Enter**.

```
appcmd add site /name: contoso /id:2 /physicalPath: c:\contoso
/bindings:http/*:85: marketing.contoso.com
```

See Also: Appcmd.exe (IIS 7).

Balancing the Load on Your Servers

Load Balancing has 2 purposes:

- Provides redundancy for your website—if one server fails, a second can still handle requests
- Balances requests—distributes requests across multiple servers

To enable load balancing, set up several servers that include the same files.

IMPORTANT: The physical path to the Ektron website *must* be the same on all servers being load balanced. Also, sticky sessions must be enabled.

Then, purchase load balancing equipment to evenly distribute content requests among the servers. Whenever an image or file gets uploaded to your website, regardless of the Web server the user is working on, the asset is replicated on both servers.

The client browser is unaware that more than one server is involved. All URLs point to a single website. The load balance software resolves them.

Ektron provides different strategies for load balancing *library images and files* and DMS *assets*.

See Also: *eSync in a Load Balanced Environment* on page 1556

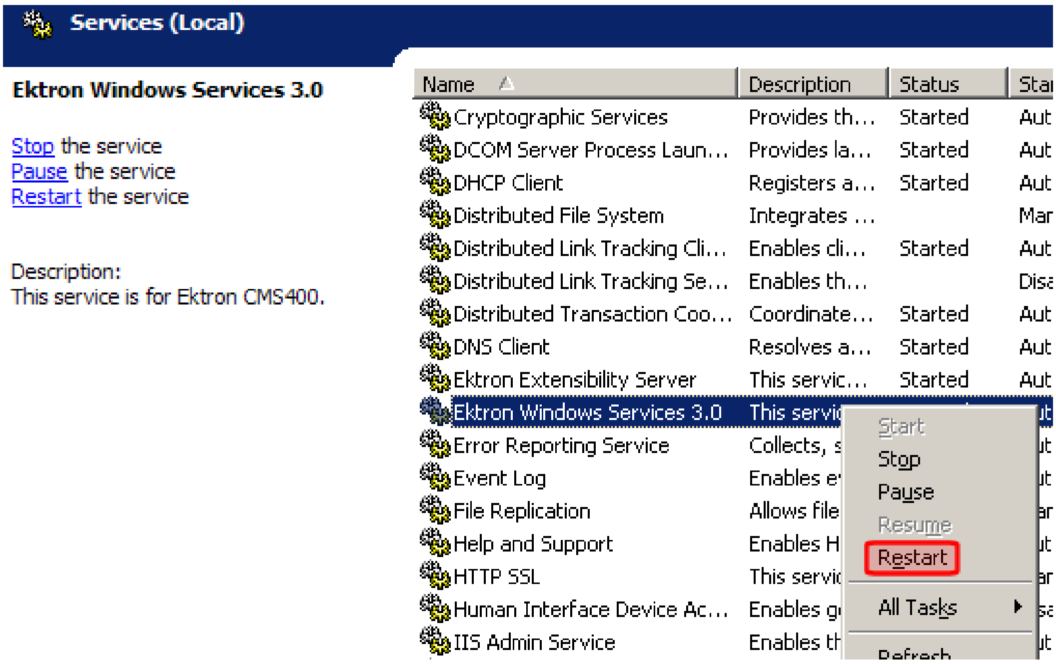
This section also contains the following topics.

Load Balancing Library Images and Files

Library load balancing is important when your configuration consists of 2 or more websites that share one database. Library files are not saved in the database but in the site root folders `uploadedfiles` and `uploadedimages`.

To support load balancing, library files on all servers must be identical. To maintain this state, whenever a user uploads an item to the library, it is replicated on all other servers. After following the setup instructions, whenever an image or file is added to the library of one server, it is copied to the corresponding folder on other servers in the configuration.

1. Open the file `C:\Program Files\Ektron\EktronWindowsService40\Ektron.ASM.EktronServices40.exe.config` using a word processor such as Notepad.
2. Set the value of the `LibraryLoadBalanced` property to 1.
3. Set the value of the `LoadBalServerCount` property to the number of servers in your load balance cluster.
4. Save the config file.
5. Restart the Ektron Windows Service.



See Also: *Ektron Windows Service* on page 1877

Load Balancing Assets

Asset load balancing is important when your configuration consists of 2 or more websites that share one database. Ektron balances requests to work with assets from multiple servers by ensuring that each server has a copy of every asset.

After setting up asset load balancing, any asset added to one server is copied to the corresponding folder on other servers in the configuration. There is no limit to the number of servers that can be load balanced.

The following list shows the load balance settings summary on all servers.

`<webroot>\AssetManagement.config`

- LoadBalanced=1
- (0 to disable)

`c:\Program Files\Ektron\Ektron.ASM.EktronServices40\ Ektron.ASM.EktronServices40.exe.config`

- LibraryLoadBalanced=**1**
- LoadBalServerCount=**x**

Where **x** is the number of servers in load balanced configuration

To set up load balancing for assets, follow these steps on *all servers that are load balanced together*.

1. Within the site root folder, open the `AssetManagement.config` file using a word processor such as Notepad.
2. Change the value of the `LoadBalanced` element to **1**.
3. Save the config file.
4. Open the following file using a word processor such as Notepad:
   `C:\Program Files\Ektron\EktronWindowsservice40\ Ektron.ASM.EktronServices40.exe.config`
5. Set the value of the `LibraryLoadBalanced` property to 1.
6. Set the value of the `LoadBalServerCount` property to the number of servers in your load balance cluster.
7. Save the config file.
8. Update these files for each server in the load balance cluster.
9. Sign on to Ektron. This action sets up the load balance software in the database.

Refreshing Load Balanced Files

PREREQUISITE

You must be an Administrators group member.

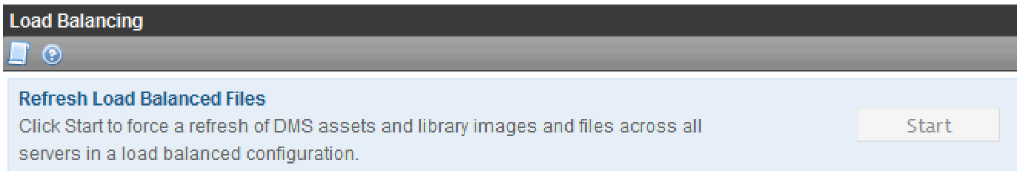
Asset and Library files may become out-of-date or lost due to equipment failures, power outages, or other events. In addition to your Load Balance system, Ektron provides a way to refresh the files contained in the DMS Assets folders and Library Files and Images folders.

NOTE: Open Port 8732 on load balanced servers for load balancing refresh to work properly.

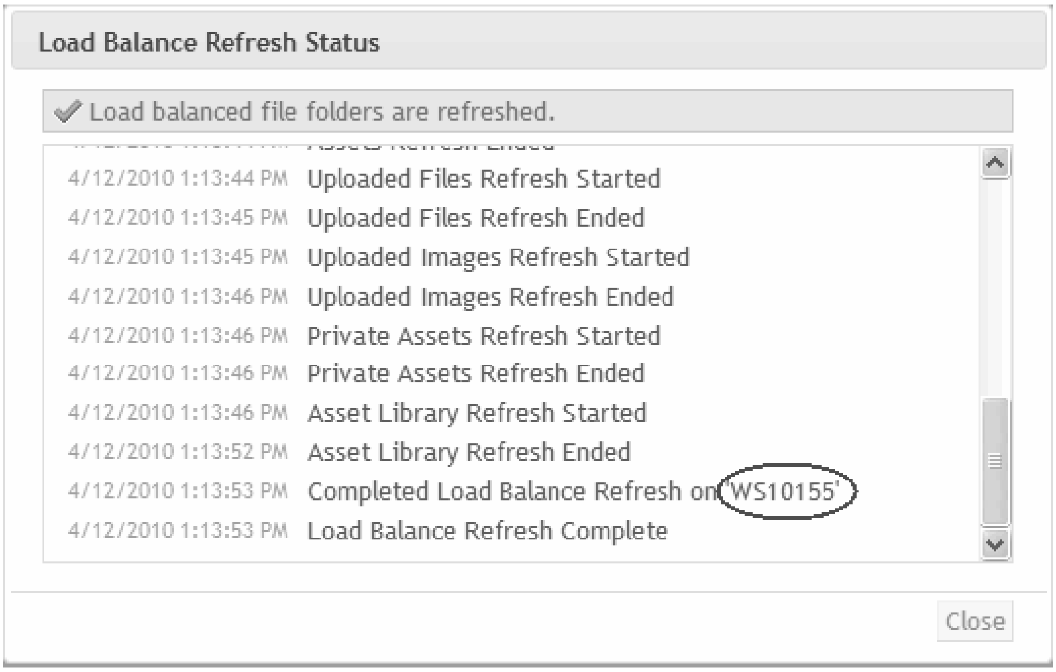
IMPORTANT: Previously, Ektron used Port 6079 for communication between load balancing servers. Starting with version 8.01, this port is no longer used and can be closed in your firewall.

To refresh the load balanced files:

1. In the Workarea, go to **Settings** > **Configuration** > **Load Balancing**. The page looks like this.



2. Click **Start**. A status screen appears.



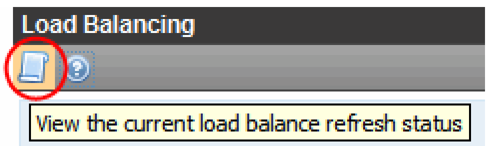
3. Verify that the status screen shows servers you expect to be refreshed. Server name *WS10155* is circled in the example.

   IMPORTANT: If you click **Start** and the screen quickly returns and files do not refresh, or if a server is missing from the status list, check your Load Balancing settings in `Ektron.ASM.EKtronServices40.exe.config`.

4. Click **Close** when finished viewing the status.

Load Balancing Status

To check the Load Balancing Status, click the Scroll button.



The Status screen shows the Load Balancing screen showing either the previous refresh or the current refresh in progress.

Setting Up a User for the Ektron Database

The installation automatically sets up user permissions based on data collected during setup. However, if there is a problem with user permissions, this section describes how to install manually.

NOTE: If you are using SQL Authentication, you only need to set up the SQL user. If you are using Windows Authentication, you need to set up IUSR and an IIS_WPG or Network Service user.

1. In the SQL Server Management Studio, select **Security > Logins**.
2. Right click and select **New Login**.
3. On the Login dialog, click **Search** to the right of the **Login name** field.Network Service
4. Select your server.
5. Enter **ASPNET**, **IIS_WPG**, or **Network Service** user (depending on your Windows version).
6. Click **Add** then **OK**.
7. Select your Ektron database. Then, assign permission to read and write to that database.
8. Run the grant permission script.

   NOTE: Before doing this, review your users and their permissions. Adjust as necessary for your configuration. Also, if you use Windows Authentication and all users are domain users (and the database administrator wants it this way), you may not have to perform this step.

   a. Open SQL Server Profiler.
   b. Choose **File > Open**.
   c. Open `C:\Program Files\Ektron\CMS400vnn\Utilities\SiteSetup\Database\cms400_permissions.sql`. (*nn* represents the release number)
   d. Within that file, replace `[MACHINENAME or DOMAINNAME\USERNAME]` with your domain name, backslash (\), and ASPNET (the ASP.NET machine account). For example, `[ws10080\ASPNET]`.

      NOTE: If you are using Microsoft Windows 2003 Server or Microsoft Widows Vista, the user is `IIS_WPG`. For example, `[ws10080\IIS_WPG]`. If you are using Microsoft Windows 2008 Server or Windows 7, the user is `Network Service`.

   e. Click **Execute Query** ( ).
   f. Replace the text between square brackets with your domain name, backslash (\), and the IIS Internet Guest Account. For example, `[ws10080\IUSR_ws10080]`. Click **Execute Query** ( ).
   g. If using SQL server authentication, replace the text between square brackets with the SQL server authentication name only. Do not include the domain name. Click **Execute Query** ( ).

Setting up the SMTP Server

Microsoft's SMTP service sends an email to notify a user when a task (such as approving a content block or submitting a form) was performed or needs to be performed. This section explains how to enable email notification in Ektron.

This section also contains the following topics.

NOTE: To learn about email notification for Web Alerts, see *Administering Web Alerts* on page 1567.

To process email, Ektron uses CDOSYS. Using Simple Mail Transport Protocol (SMTP) and the Network News Transfer Protocol (NNTP) standards, CDOSYS enables Windows applications to route e-mail and USENET-style news posts across multiple platforms. CDOSYS lets authors create and view sophisticated emails using HTML and data sources.

NOTE: If the SMTP server that processes email does not find CDOSYS installed, it tries to use CDONTS as a mail server protocol.

For CDOSYS to work, set up the SMTP server on your Ektron server or a remote system that sends and receives email. Generally, it is good practice to run SMTP on a server separate from your Web server. However, your Web server must relay the email messages to your SMTP server.

NOTE: To access an SMTP server on a local or remote system, consult your organization's email administrator.

- **Local**—Before setting up an SMTP server locally, install IIS. SMTP server settings on a local system are something like this:

```
"ek_SMTPServer" value="localhost"
"ek_SMTPServer" value="127.0.0.1"
"ek_SMTPServer" value="myname"
```

- **Remote**—Set up an SMTP server on a remote system. SMTP server settings on a remote system are something like this:

```
"ek_SMTPServer" value="smtp.example.com"
"ek_SMTPServer" value="example.com"
```

Use this article to configure SMTP in IIS7: Configuring SMTP E-mail in IIS 7

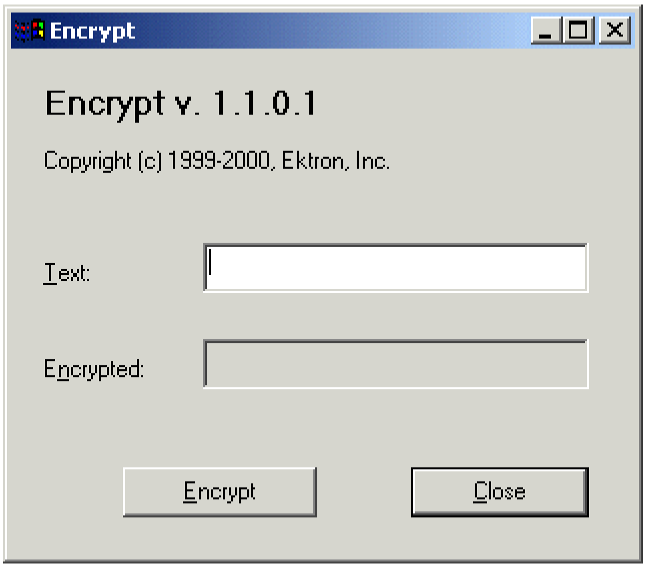
Next, configure Ektron to use SMTP.

1. Open the `siteroot/web.config` file.
2. Move to the section of the file that has these settings. (See *Managing the web.config File on page 67*.)

```
<!-- SMTP Server configuration -->
<add key="ek_SMTPServer" value="localhost" />
<add key="ek_SMTPPort" value="25" />
<add key="ek_SMTPUser" value="" />
<add key="ek_SMTPPass" value="" />
```

3. Set the `ek_SMTPServer` value.

4. Set `ek_SMTPPort` to the port your system will access to retrieve email. In most cases, the port is set to 25. If that is not the case, see your System Administrator.
5. Set `ek_SMTPUser` to the username that is set up for the SMTP Server to send and receive email. Typically, the username takes the form of an email address, such as `"ek_SMTPUser" value="yourname@example.com"`.
6. This retrieval of email is based on how basic authentication is set up for you. You do not need a username when using a local SMTP server. Check with your System Administrator for details.
7. If you are using a remote system for accessing email, you must provide an authenticated username before you can send or receive email.
8. Set the `"ek_SMTPPass"` value to the password that is set up for the SMTP server to send and receive email. This password is based on the basic authentication. By default, Ektron only accepts encrypted passwords.
9. To encrypt the password, Ektron provides a password encrypting tool.
   a. Open `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities`
   b. Run `EncryptEmailPassword.exe`. The Encrypt Utility dialog appears.



   c. Enter your SMTP password in the **Text** field.
   d. Click **Encrypt**. The screen displays an encrypted password in the **Encrypted** field.
   e. Copy the encrypted password and paste it into the `web.config` file's `"ek_SMTPPass" value`.

SMTP Error Messages

When submitting a form or a content block in an approval process, if you get an error message listed below, it is generated by the SMTP server on which you set up the mail system, *not* by Ektron.

- The Transport failed to connect to the server. [CBR SendMail R1] [CBR R65] [DIO R 36]
- The server rejected one or more recipient addresses. The server response was: 550 5.7.1 Unable to replay for yourname@example.com [CBR SendMail R1] [CBR R1] [DIO R36]

Automatic email Notification

Ektron's automated system sends email to proper users when an action has been, or needs to be, performed. See Also: *Customizing Ektron email with Variables* below.

Email is generated when any of the following actions takes place.

- Submitted to be published—email sent to next approver
- Submitted to be deleted—email sent to next approver
- Published to website—email sent to author
- Declined to be published or deleted—email sent to author

To be notified of these actions, the following criteria must be met:

- Valid system email address
- Enabled email notification
- User email address
- User email notification enabled

These values are set in the Edit User screen. See Also: *Managing Users and User Groups* on page 1099

The Tasks feature also has automatic email notification. See *Setting Up Task Types and Categories* on page 1031.

Customizing Ektron email with Variables

Ektron can send email notification to users, informing them that actions have taken place or are requested of them. For example, a content contributor receives an email that the contributor's content was published. These emails are stored in resource files, where each email consists of one string for the subject and one for the body. Each message is called in the presentation layer by its message title. Ektron does not support HTML email, however the message text is fully customizable.

The body of an email can include variables, located between **@** symbols. Ektron replaces them with the information for that instance of the email. For example, **@appContentTitle@** in the following sentence is replaced with the email's title.

- Before: The content "**@appContentTitle@**" has been deleted.
- After: The content "Home Page Content" has been deleted.

You can customize the emails, move the variables, add text, rewrite and reorganize.

- Before: "**@appContentTitle@"** has been deleted from the XYZ website.
- After: "About Us" has been deleted from the XYZ website.

Carriage Return/Line Feeds are represented by **@appCRLF@**. These cause the email to move down one line. For example:

- Before: The content was approved.**@appCRLF@**Thank you!
- After: The content was approved.

  Thank you!

Ektron email Variables

Ektron email variables are specialized for the type of email message you need to send.

- Notify CMS users
  - **@appApprovalList@**—The current approval list that the content block must pass through.
  - **@appChangeDateTime@**—The date and time changes will be updated on the website.
  - **@appComment@**—Displays the comments for the content block.
  - **@appContentLink@**—The link to the content block on the website.

    NOTE: You must be logged in to see the changes.

  - **@appContentTitle@**—The title of the content block.
  - **@appCRLF@**—A carriage return.
  - **@appDeclinerFirstName@**—The first name of the user who declined the content block.
  - **@appDeclinerLastName@**—The last name of the user who declined the content block.
  - **@appDeletionDateTime@**—The date and time the content will be deleted from the website.
  - **@appEmailFrom@**—The address of the email sender.
  - **@appEmailTo@**—The address of the email recipient.
  - **@appFolderPath@**—The location of the content block in the Ektron folder tree.
  - **@appPassword@**—Displays the account password for ResetPassword and RequestResetPassword message types.
  - **@appSubmitterDateTime@**—The date and time the content block was submitted.
  - **@appSubmitterFirstName@**—The first name of the user who submitted the content block.
  - **@appSubmitterLastName@**—The last name of the user who submitted the content block.
- Notify discussion board users—Discussion board email
  - **@appForumUrl@**—The forum's URL.
  - **@appHostUrl@**—The host site's URL.
  - **@appPosterDisplayName@**—The display name of the person who posted.
  - **@appPosterId@**—The integer ID of the person who posted.
  - **@appPosterProfileUrl@**—The profile URL for the person who posted.
  - **@appPostMessage@**—The text of the message posted to the discussion board.
  - **@appPostUrl@**—The URL of the post on the website.
  - **@appRecipientDisplayName@**—The display name of the email recipient.
  - **@appRecipientEmail@**—The email address of the email recipient.
  - **@appRecipientFirstName@**—The first name of the email recipient.
  - **@appRecipientId@**—The email recipient's integer ID.
  - **@appRecipientLastName@**—The last name of the email recipient.
  - **@appTopicId@**—The integer ID of the topic.
  - **@appTopicTitle@**—The title of the topic.

- Invite users to participate in a community group—Community group email
  - **@appFriendDisplayName@**—The recipient's name.
  - **@appFromUserDeleted@**—Token message is from a user that was deleted.
  - **@appFromUserDisplayName@**—The name of the user from whom the private message was sent.
  - **@appFromUserID@**—The ID of the user from whom the private message was sent.
  - **@appGroupName@**—The group a person is being invited to join.
  - **@appInvitedEmail@**—The recipient's email address.
  - **@appInviteId@**—Appends the invite ID to the registration URL. For example:

    Click `<a href=http://www.example.com/register.aspx&fInvId=@appInviteId@>here</a>` to accept.
  - **@appMessage@**—The Message field of the private message (message body text).
  - **@appOptionalText@**—Text a user types into the **Optional Message** box on the Invite server control.
  - **@appPrivateMessageID@**—The CMS ID for the particular private message.
  - **@appSenderName@**—The sender of the invitation.
  - **@appSubject@**—The Subject field of the private message.
  - **@appToUserDisplayName@**—The name of the user receiving the message.
  - **@appToUserID@**—User ID of the user receiving the message.
  - **@appToUserMessageID@**—The CMS ID of the recipient's message object.
- Notify a subscription list of users through a Web Alert—Web alert email
  - **@appComment@**—The comments for the content block.
  - **@appContentLink@**—The link to the content block on the website.

    NOTE: You must be logged in to see the changes.
  - **@appContentTitle@**—The title of the content block.
  - **@appContentURL@**—The URL of the content, from the quicklink and domain.
  - **@appCRLF@**—A carriage return. Moves text down one line.
  - **@appSubmitterFirstName@**—The first name of the user who submitted the content block.
  - **@appSubmitterLastName@**—The last name of the user who submitted the content block.
  - **@appSubscriptionNames@**—Comma separated list of subscriptions that a user selected.

    You can insert these membership variables into the confirmation message.
    - **@appActivateId@**—Account ID
    - **@appAvatar@**—Avatar
    - **@appDisplayName@**—Display name
    - **@appEmail@**—email address
    - **@appFirstName@**—First name
    - **@appLastName@**—Last name

- **@appSignature@**—Signature
- **@appUserName@**—UserName

email Notification Variables

The list shows variables you can use to customize email messages. When the email is sent, the corresponding description replaces the variable.

- **@appApprovalList@**—The current approval list that the content block must pass through.
- **@appChangeDateTime@**—The date and time changes will be updated on the website.
- **@appComment@**—Displays the comments for the content block.
- **@appContentLink@**—The link to the content block on the website.

NOTE: You must be logged in to see the changes.

- **@appContentTitle@**—The title of the content block.
- **@appCRLF@**—A carriage return.
- **@appDeclinerFirstName@**—The first name of the user who declined the content block.
- **@appDeclinerLastName@**—The last name of the user who declined the content block.
- **@appDeletionDateTime@**—The date and time the content will be deleted from the website.
- **@appEmailFrom@**—The address of the email sender.
- **@appEmailTo@**—The address of the email recipient.
- **@appFolderPath@**—The location of the content block in theEktron folder tree.
- **@appPassword@**—Displays the account password for ResetPassword and RequestResetPassword message types.
- **@appSubmitterDateTime@**—The date and time the content block was submitted.
- **@appSubmitterFirstName@**—The first name of the user who submitted the content block.
- **@appSubmitterLastName@**—The last name of the user who submitted the content block.

Default Ektron email Messages

- Approved Content Awaiting Go Live Date

  Message Title: email subject: content changes approved.
  Message Text: Content changes have been approved.

- Approved Content Published Immediately

  Message Title: email subject: content has been changed.
  Message Text: Content changes have been made.

- Decline Approval Request

  Message Title: email subject: approval request declined.
  Message Text: Content approval request declined.

- Deletion of Content Approved

  Message Title: email subject: content deletion approved.
  Message Text: Deletion of content has been approved.

- Immediate Deletion of Content

  Message Title: email subject: content has been deleted.
  Message Text: Content has been deleted.

- Send Approval Message

  Message Title: email subject: request for approval.
  Message Text: Request for content approval.

Sending Instant email

In addition to automatic email, Ektron lets you email a user or user group from many screens. An email icon ( ) next to a user or group name or on the toolbar indicates your ability to do this. Screens in the following Ektron features support instant email.

- Tasks
- Approvals
- Reports

When you click one or more user/group names then the toolbar's email icon, the email screen appears.

NOTE: The email software must be configured for your server. See *Setting up the SMTP Server* on page 93.

When the email screen appears, the following information is copied from Ektron into the email.

- **To**—User you selected to receive email. If the user does not have a valid email address, an error message appears. If you then insert a valid address, the email is sent. If you specify a group to receive the message, as long as one group member has a valid email address, all group members with valid addresses receive the email. You can edit and add recipients.
- **From**—User signed on to Ektron. You cannot edit this field.
- **Subject**—If the email message is linked to content, its title appears. You can edit this field.
- **Body of message**—If the email message is linked to content, a content link appears. You can edit this field.

Managing Logins and Passwords

This section describes how to log in and out, restrict login attempts, and manage passwords.

You must acquire the following before you can log into Ektron and manage website content.

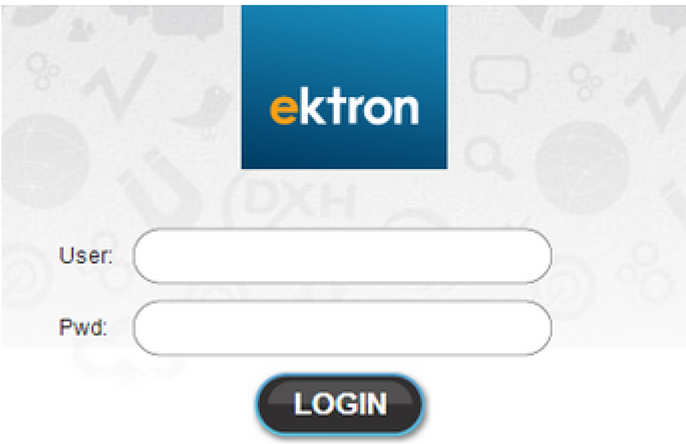
- URL (Web address) of your website
- Username and password

This section also contains the following topics.

Logging into an Ektron Website

To sign on to an Ektron site:

1. In your Web browser, navigate to the URL of your Ektron website. Your system administrator provides this.
2. Click the **Login** button. The Login dialog box appears.

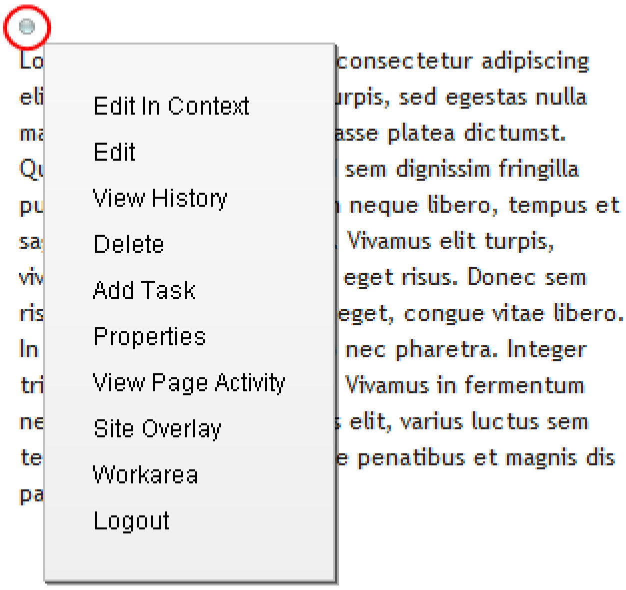


3. Enter your username and password.

   If you are using one of Ektron's sample sites, you can use any of 3 standard users that demonstrate Ektron's flexible user-permissions model.

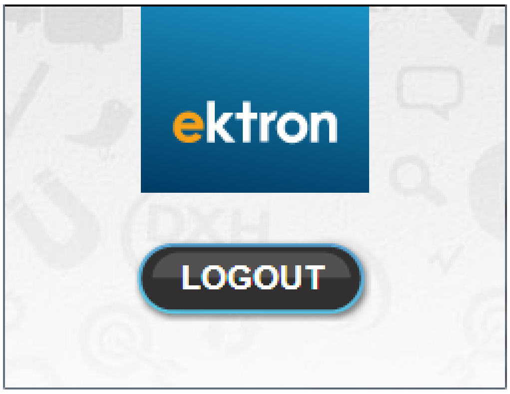
- **Administrator**—Username: `admin`; Password: `admin`; Permissions: All
- **Standard user**—Username: `jedit`; Password: `jedit`; Permissions: Basic (for example, add/edit content, manage library files, and so on)
- **Membership user** —Username: `jmember`; Password: `jmember`; Permissions: Read-only permission to private content

4. Click the **Login** button. The Web page appears. When you are logged in, the content is either surrounded by a border or has an access point ( ) in the top left corner of the content.



Logging Out

1. Click **Logout** from the content menu, or  on the Web page. The Logout confirmation box appears.



2. Click **Logout**. You return to the Web page from which you logged out. However, it is in standard view, not Ektron view.

Restricting Login Attempts

Ektron has a login security feature that locks out a user after 5 unsuccessful attempts to log in on one computer. You control login security by changing the `ek_loginAttempts` element in the `web.config` file.

- any number between 1 and 254—The number of unsuccessful login attempts after which the user is locked out
- 0—Lock out all users
- -1—Disable feature; unlock all locked users
- -2—Lock out Ektron users only; membership users can log in

Changing the Number of Unsuccessful Login Attempts

If a user unsuccessfully tries to log in 5 times, this error appears: **The account is locked. Please contact your administrator**. Afterwards, even if the user enters the correct password, the user is locked out.

NOTE: You can change the error message text in the resource file. See Also: *Translating the Workarea* on page 1086.

To change the number of login attempts prior to lockout, edit the `ek_loginAttempts` element in the siteroot/`web.config` file. For example, to allow 3 unsuccessful logins before lockout, change the `value` to **3**. You can enter a value of up to **254**.

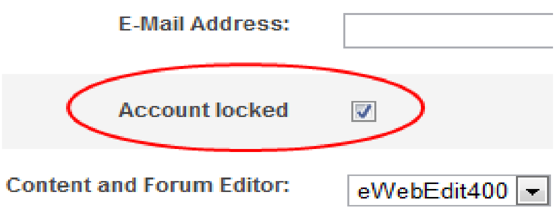
Disabling the Login Attempts Feature

To disable the Login Attempts feature, set the value of the `ek_loginAttempts` element in the `web.config` file to **-1**. If you do, any user can try to log in as many times as the user wants. The error message never appears, and the user is not prevented from entering a password.

NOTE: Setting the `ek_loginAttempts` element in the `web.config` file to **-1** unlocks all locked accounts.

Unlocking a Locked Account

When an account is locked out, the **Account Locked** field is checked on the Edit User screen.



To unlock the account, an administrator user (or a user assigned to the user-admin role) accesses the Edit User screen and unchecks the box. At this point, the user can sign in again.

NOTE: To unlock *all* users, set the `ek_login Attempts` element in the *siteroot*/`web.config` file to **-1**. See Also: *Disabling the Login Attempts Feature* above.

Manually Locking a User from Signing On

You can use the **Account Locked** field to manually lock a user out of Ektron.

1. Go to the Edit User screen.
2. Identify the user.

3. Check the **Account Locked** field.

That user cannot sign in until either you uncheck the box or change the value of the `ek_loginAttempts` element in the `web.config` file to **-1**.

Preventing Ektron Users from Signing On

To lock out all Ektron users, set the `ek_loginAttempts` element in the `web.config` file to **-2**. If you do, only membership users can sign in.

NOTE: The builtin user cannot sign in if `ek_loginAttempts` is set to **-2**.

Preventing All Users from Signing On

To lock out all users (including membership users), set the `ek_loginAttempts` element in the `web.config` file to **0**. If you do, no one can sign in to Ektron until you change the value.

NOTE: The builtin user cannot sign in if `ek_loginAttempts` is set to **0**.

Changing Images Used for Logging In and Out

You can change the images used for the login and logout buttons. To do so:

1. Move the new images to the following folder: *siteroot*\Workarea\images\application.
2. Open the `web.config` file in your website's root directory.
3. Change the images in this section of the file:

```
<add key="ek_Image_1" value="btn_close.png" />
<add key="ek_Image_2" value="btn_login.png" />
<add key="ek_Image_3" value="btn_login_big.png" />
```

NOTE: You must update the images and `web.config` whenever you upgrade Ektron.

Resolving a Problem with the Login Screen

You may find that in certain browsers, the login screen occupies the entire browser window instead of just a small box. Browsers such as Internet Explorer 8 and Firefox have a feature called tabs. When the login window pops up, it may appear as a new tab. You can change this behavior by turning off tabs within the browser.

Managing Passwords

This section's topics relate to managing passwords.

Editing the Builtin Username and Password

The builtin user is an emergency user to use if you cannot log into Ektron as an administrator. The builtin username and password are defined in Ektron's setup screen.

1. From the Workarea, choose **Settings > Configuration > Setup**. The Application Setup screen appears with the General tab showing.
2. Click **Edit** to modify the settings.
3. Locate the **Built In User** fields.

4. Change the username or password or both.
5. Click **Update**.

The builtin user can log in to Ektron whether or not Active Directory or LDAP is enabled. The builtin user's default username/password combination is `builtin/builtin`. For security reasons, change them during installation.

If you log into the Workarea as the builtin user, you can access only the following screens on the **Settings** tab.

- Active Directory
- Asset Server Setup
- Setup
- User
- User Group

WARNING! Use the builtin user only to correct a bad or expired license key. It is not designed for regular Ektron operations. If you try to edit content while signed in as a builtin user, you will generate errors.

If the builtin user password was changed and you don't know it, you cannot sign in. In this case, use the BuiltinAccountReset.exe utility, which resets the username/password to `builtin/builtin`. This utility is located in `C:\Program Files\Ektron\CMS400`*`versionnumber`*`\Utilities`.

Enforcing a Password Change Every 90 Days

Ektron has a password security feature that forces an administrator or user with the Commerce Admin role to change the password at least every 90 days. This feature is only enabled if the `ek_ecom_ComplianceMode` key in the site's `web.config` file is set to `true`.

When you go 85 days without changing your password, a dialog box appears upon the next log-in, asking you to change the password. If you do not want to do so at that time, click **Skip**. You can this for the next 5 days. After 90 days have passed, you *must* change your password before you can log into Ektron.

Enforcing Login After Time of Inactivity

Ektron has a password security feature that automatically logs out an administrator or user with the Commerce Admin role after 15 minutes of inactivity. Activity is based on requests made to the server.

This feature is enabled when the site's `web.config` file's `ek_ecom_ComplianceMode` key is set to `true`. In addition, if you are using *IIS7*, the line in red below needs to appear between the `<modules>` tags in the `web.config` file. This line is a part of the default install. You should make sure it has not been removed.

```
<modules>
  <add name="MyDigestAuthenticationModule"
type="Ektron.ASM.EkHttpDavHandler.Security.DigestAuthenticationModule,
    Ektron.ASM.EkHttpDavHandler" />
  <add name="ScriptModule"
    type="System.Web.Handlers.ScriptModule, System.Web.Extensions,
    Version=1.0.61025.0, Culture=neutral,
    PublicKeyToken=31bf3856ad364e35" preCondition="integratedMode" />
  <add name="EkUrlAliasModule" type="UrlAliasingModule"
```

```
    preCondition="integratedMode" />
</modules>
```

Enforcing a Minimum Password

Ektron has a password security feature that forces an administrator or user with the Commerce Admin role to use at least 7 characters in a password. Further, the password must contain at least one alphabetic and one numeric character.

This feature is enabled only when the `ek_ecom_ComplianceMode` key in the site's `web.config` file is set to `true`.

Enforcing a No-match Password

Ektron has a password security feature that forces an administrator or user with the Commerce Admin role to create a password that does not match the person's previous 4 passwords. This feature is enabled only when site's `web.config` file has the `ek_ecom_ComplianceMode` key is set to `true` and the `ek_ecom_PasswordHistory` key is set to at least 4.

You can set `ek_ecom_PasswordHistory` to a number higher than 4 if you want a higher level of security. If you set this key to less than 4 and the `ek_ecom_ComplianceMode key` is set to `true`, Ektron enforces at least 4.

Creating a Custom Password Strategy

The Ektron password validation provider lets developers create custom password validation strategies for Ektron. These providers can enforce custom password rules inside the system, beyond the out-of-box capabilities.

This section explains how to create a custom password validation provider for Ektron.

1. Create a class library project in Visual Studio.
2. Import the namespaces you need. Add references to:
   - Ektron.Cms.Commerce
   - Ektron.Cms.Common
   - Ektron.Cms.ObjectFactory
   - Microsoft.Practices.EnterpriseLibrary.Validation.dll
   - System.Configuration
   - Ektron.CMS.User
   - Ektron.CMS.DataRW
3. Add the following using statements.

```
using System;
using System.Collections;
using System.Configuration.Provider;
using Microsoft.Practices.EnterpriseLibrary.Validation;
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Commerce;
using Ektron.Cms.Commerce.PasswordValidation.Provider;
using System.Collections.Generic;
```

```
using System.Text;
using System.Text.RegularExpressions;
```

4. Change the namespace to `Ektron.Cms.Extensibility.Commerce.Samples`, rename your class to `CustomPasswordProvider`, and inherit from the `Ektron.Cms.Commerce.PasswordValidation.Provider.PasswordValidationProvider` class and the `Ektron.Cms.Commerce.IPasswordValidation` interface.

```
namespace Ektron.Cms.Extensibility.Commerce.Samples
{ public class CustomPasswordProvider :
  Ektron.Cms.Commerce.PasswordValidation.Provider.PasswordValidationProvider,
  Ektron.Cms.Commerce.IPasswordValidation
```

5. Add the following constructor.

```
#region constructor, member variables
public CustomPasswordProvider() { }
#endregion
```

6. Add `GetRegexFor` methods required by the `PasswordValidationProvider` base class. These methods return the RegExs that will validate passwords in Ektron for specific user types.
   - **GetRegexForMember—**Returns one or more regular expressions used for client side validation of *membership users*, along with corresponding error messages to be used when client-side validation fails.
   - **GetRegexForAuthor—**Returns one or more regular expressions used for client side validation of Ektron *authors*, along with corresponding error messages to be used when client-side validation fails.
   - **GetRegexForCommerceAdmin—**Returns one or more regular expressions used for client-side validation of *eCommerce administrators*, along with corresponding error messages to be used when client side validation fails.
   - **GetRegexForAdmin—**Returns one or more regular expressions used for client-side validation of Ektron *administrators*, along with corresponding error messages to be used when client side validation fails.

NOTE: This example enforces a minimal requirement for authors/members, and adds a length and diversity requirement for administrators.

```
#region public methods
public override string GetRegexForAdmin()
{ return "[/.{7}/, Password must contain at least seven characters]
    " + ",[/[0-9]+/,
  Password must contain at least one number]
    " + ",[/[a-zA-Z]+/,
  Password must contain at least one alphabetical character]
    " + ",[/^[^ \t'\"%#]+$/,
  Password cannot contain spaces, tabs, single-quotes,
    double-quotes, percent-signs, or pound-signs]";
}
public override string GetRegexForAuthor()
{ return "[/.{1}/, Password too short]" + ",[/^[^ \t'\"%#]+$/,
  Password cannot contain spaces, tabs, single-quotes,
    double-quotes, percent-signs, or pound-signs]";
}
public override string GetRegexForCommerceAdmin()
{ return "[/.{1}/, Password too short]" + ",[/^[^ \t'\"%#]+$/,
```

```
  Password cannot contain spaces, tabs, single-quotes,
    double-quotes, percent-signs, or pound-signs]";
}
public override string GetRegexForMember()
{ return "[/.{1}/, Password too short]" + ",[/^[^ \t'\"%#]+$/,
  Password cannot contain spaces, tabs, single-quotes,
    double-quotes, percent-signs, or pound-signs]";
}
#endregion
```

7. Implement the `ValidateFor` methods, which use the regexs to validate passwords. We use the generic function `Validate` to which we pass parameters.

```
public override ValidationResults
  ValidateForAdmin(string password)
  { return Validate(password, GetRegexForAdmin());
  }
public override ValidationResults
  ValidateForAuthor(string password)
  { return Validate(password, GetRegexForAuthor());
  }
public override ValidationResults
  ValidateForCommerceAdmin(string password)
  { return Validate(password, GetRegexForCommerceAdmin());
  }
public override ValidationResults
  ValidateForMember(string password)
  { return Validate(password, GetRegexForMember());
  }
protected ValidationResults
  Validate(string password, string regexErrorMessage)
  { ValidationResults results = new ValidationResults();
    string regex, errorMessage;
    string[] parts;
    string[] raw = regexErrorMessage.TrimStart('[').TrimEnd(']')
      .Split(new string[] { "],[" }, StringSplitOptions.None);
    foreach (string combined in raw)
    { parts = combined.Split(new string[] { "/," },
        StringSplitOptions.None);
      regex = parts[0].Trim('/');
      errorMessage = parts[1].Trim().TrimStart('"').TrimEnd('"');
      if (!Regex.IsMatch(password, regex))
      { results.AddResult(new ValidationResult(errorMessage,
        this, "", "", null));
      }
     }
  return results;
  }
```

8. Tell the system whether to enforce password expiration on users. There are 2 requirements.
   - **PasswordExpirationEnabled**—Enabled password expiration globally, which allows the RequiresPasswordExpiration to be called.
   - **RequiresPasswordExpiration**—Returns whether password expiration is enforced for a user.

NOTE: The system handles password expiration dates. Setting **PasswordExpirationEnabled** and **RequiresPasswordExpiration** tells Ektron to check and enforce those values.

NOTE: When compliance mode is on, password validation cannot be disabled.

```
public override bool PasswordExpirationEnabled()
{ return RequestInformation.CommerceSettings.ComplianceMode;
}
public override bool RequiresPasswordExpiration(long userId)
{ return (userId == 1);
}
```

9. Build the project, and copy the assembly to the Ektron site's bin directory.
10. Register the provider, and direct Ektron to use it. The *siteroot*/`web.config` file lets you manage password providers within Ektron.
    - Locate the `passwordValidationProvider` section in the `web.config` file.
    - Add a reference to the class created earlier in the `<providers>` key.
    - Change the defaultProvider attribute, as shown below.

```
<passwordValidationProvider
  defaultProvider="CustomPasswordProvider">
<providers>
  <add name="CustomPasswordProvider"
    type="Ektron.Cms.Extensibility.Commerce.Samples
      .CustomPasswordProvider, CustomPasswordProvider" />
</providers>
</shipmentProvider>
```

Logging in through Facebook

Facebook Login, an alternative to Ektron's standard login, lets users log in using their Facebook username and password instead of creating an Ektron username and password. Here is an example of Facebook Login control.

This control lets Membership and Ektron users log into an Ektron website. If users have an Ektron user profile, they can be prompted to link the Facebook username and password with that profile.

Facebook Login allows log in only—it provides no other Facebook features, such as viewing profiles or sending messages.

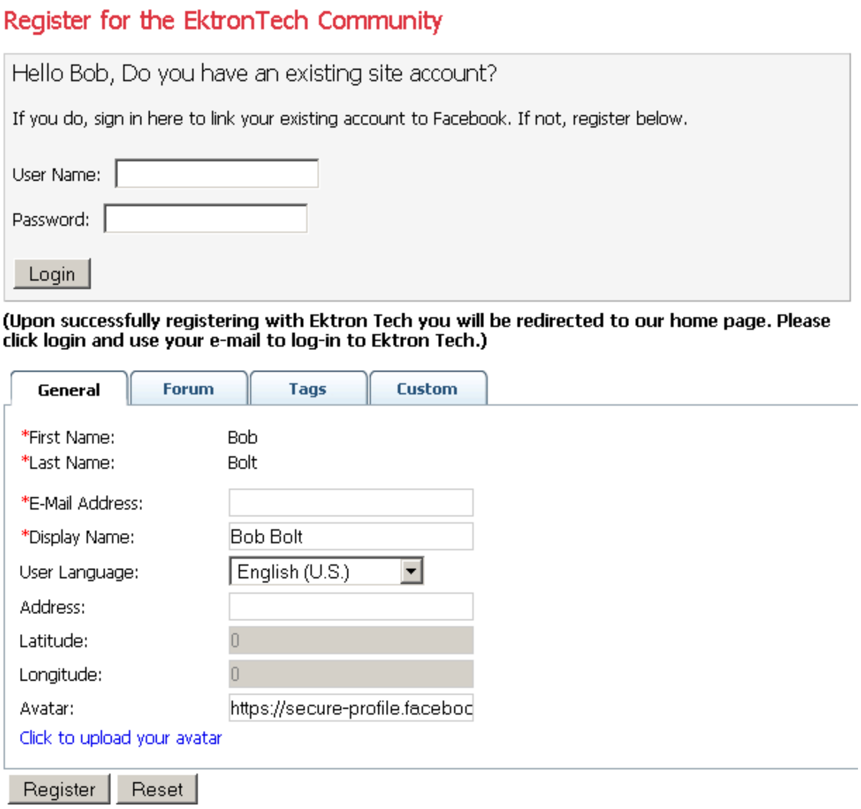
NOTE: The Facebook Login feature does not support Active Directory.

The OnTrek starter site includes a samples of a Facebook Login.

NOTE: The user experience is enabled only after a developer sets up the feature. See Also: *Setting Up Facebook Login* on page 111

If a user clicks a Facebook Login button but is not logged into Facebook, the following screen appears.

When you complete this screen or if you are already logged into Facebook, you are forwarded to a page that prompts you to register with or log into Ektron.



This screen asks if you have a membership account. If so, do you want to connect this Facebook username and password with the Ektron account? If you agree, you will access your membership account via the Facebook Login with Facebook credentials from now on. If you do not have a membership account, complete the lower half of the screen. This is the same screen that new members use to create Ektron accounts. From then on, you can click the Facebook Login button to log into Ektron using a Facebook username and password.

When you log out of Ektron, that action does not log you out of Facebook. Conversely, if a user logs out of Facebook, you are not logged out of Ektron.

NOTE: Facebook often caches information in your browser. If you see JavaScript errors or other odd behavior, clear the browser cache, close all browser windows, and try again.

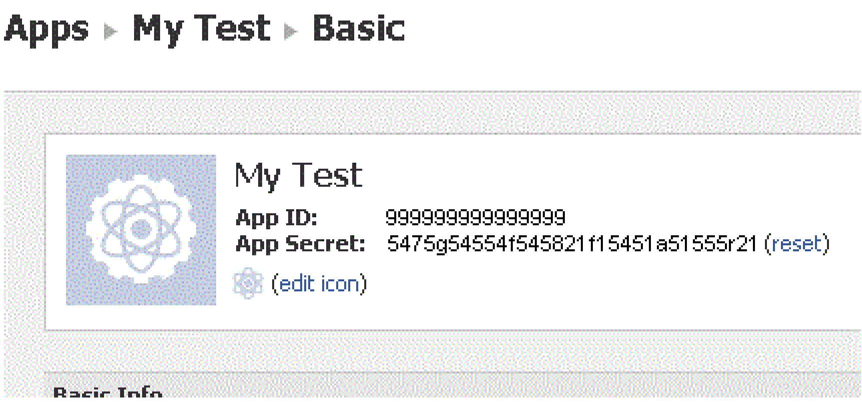
Setting Up Facebook Login

To set up the Facebook Login feature:

Step 1: Connect Facebook to Your Ektron Website

Follow these steps to obtain Facebook keys, paste them into the `web.config` file, and identify your site to Facebook.

1. In you do not have one, create a Facebook account. Go to `www.facebook.com` and follow the sign up instructions.
2. Sign in to the Facebook Developer site.
3. Click **+Create New App**.
4. Enter an **App Name** and **APP Namespace** for your application. The name cannot include `facebook` or any variations, such as `FB`. Click **Continue**. A new screen appears, showing your **App ID** and **AppSecret**.



5. Open your website's *root folder*/`web.config` file.
6. Copy the Facebook keys into these `web.config` elements.
   - **APP ID**—`ek_FacebookApiKey`
   - **App Secret**—`ek_FacebookSecret`

   NOTE: Keys shipped in Ektron sample sites are for localhost. Also, make sure the Facebook keys were generated for the host header/URL to which you're applying them. And, if you are testing secure site setup, verify that the `web.config` element `ek_useSSL` is `true`.

7. Save and close `web.config`.

   NOTE: After you update `web.config` with Facebook keys, wait a few minutes before logging into the Ektron site via the Facebook Login server control.

8. Return to the Facebook **Basic** screen.
9. Under **Select how your app integrates with Facebook**, click **Website**.

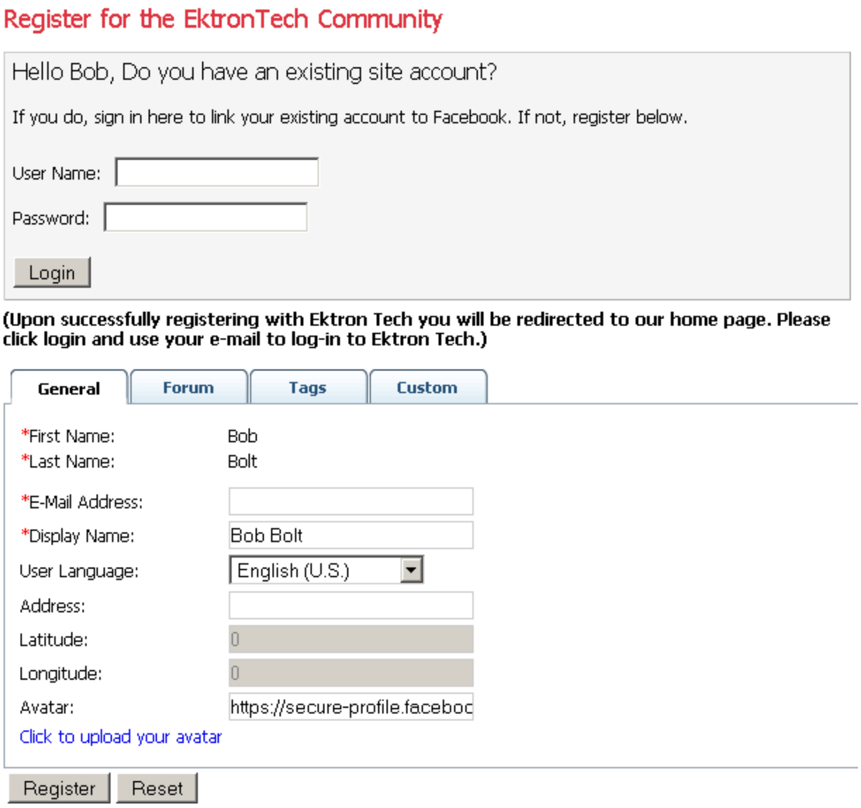
10. In the **Site URL** field, enter your website's URL.
    - for a public site, enter its URL. For example, **http://www.example.com**.
    - for a shared server or if you are accessing the site from a remote machine, use the IP address. As examples, **http://192.168.14.10**, **http://192.168.14.10/QA**
    - for a local server, use localhost. As examples, **http://localhost**, **http://localhost/EktronTech**
11. Save and close the Facebook screen.
12. After setting up your application, you can return to this screen at any time to view the keys, edit the **Site URL**, etc.

Step 2: Create or Modify a Facebook Login/Signup Page

A Facebook form appears if a user clicks a Facebook Login button and is not currently logged into Facebook.

The form is created by Facebook, not Ektron. You can customize parts of it, such as the title and site image, using Facebook's Application settings.

When the user completes the form, the user is forwarded to an Ektron form that prompts the person to register or log in to Ektron.



You specify which form appears via the Facebook Login server control's `SignupTemplate` property.

The logic to connect a Facebook user with an Ektron account (circled) is not part of the Facebook Login server control. However, sample code for that functionality is included in the Ektron Tech sample site's `register.aspx` page.

Alternative to Redirecting to the Signup Form

If you do not want to redirect the user to a signup form after Facebook login, you can hook the `Ektron_FacebookNewMemberLoggedIn` JavaScript event and do whatever you want with it. For example, you could raise a modal dialog with a short signup form. .

Step 3: Place the Facebook Login Server Control on a Page

1. In Visual Studio, open the template onto which you want to place a Facebook Login server control. See Also: *Working with Ektron Server Controls* on page 1605
2. Drag and drop the control.
3. Use the following information to complete its properties.

   The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

   - **Authenticated** (String)

     Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
   - **FacebookButtonText** (String)

     Enter the Facebook Login button text. The default is **Connect with Facebook**.
   - **Hide** (Boolean)

     Hides or displays the output of the control in design time and run time.
     - **True**—Hide the control output.
     - **False**—Display the control output.
   - **InstructionDetail** (String)

     Enter additional text that appears above the Facebook Login button. The default is **Sign in using your Facebook account.**
   - **InstructionHeader** (String)

     Enter text that appears above the Facebook Login button. The default is **Sign in using your Facebook account.**
   - **Language**

     Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
   - **SignupTemplate** (String)

     Enter the path to the template that appears after a user completes the Connect with Facebook screen.

You can customize the markup for the form using the LoginTemplate and LogoutTemplate server controls.

Using Facebook Connect Extension with the Targeted Content Widget

Facebook Login lets you retrieve the following Facebook profile information, using Facebook Connect Extension.

- Age
- Gender
- Marital Status

- Likes
- Employment

See Also: *Using Widgets* on page 711

Modifying Setup Information

NOTE: Only Administrator Group members can view and edit the Application Setup screen.

You must complete this before any user can access your Ektron website.

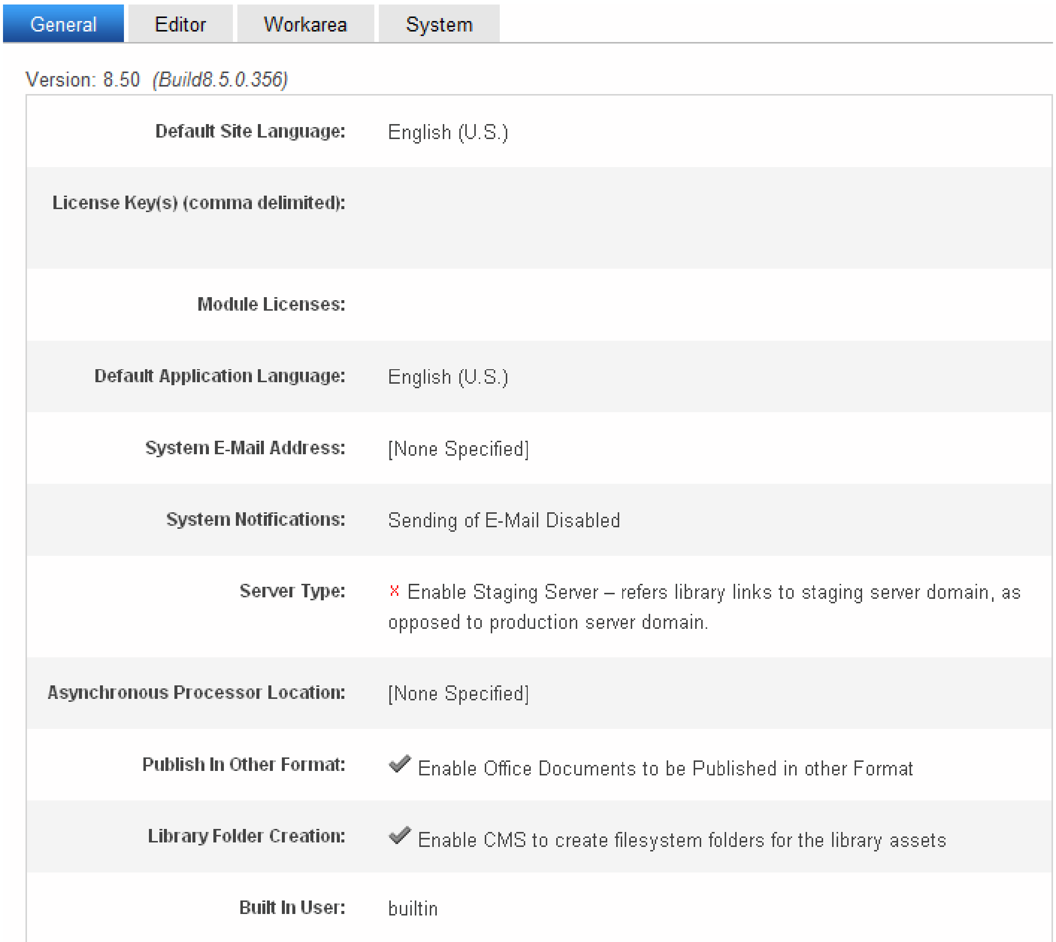
In **Workarea > Settings > Configuration > Setup**, you can enter or edit information for the Ektron website including:

- License keys
- Default language
- Summary sizes
- email notification
- Physical library folders on file server
- Builtin user information
- Editor options
- Work page size settings

The Application Setup screen appears. Click **Edit** to modify the settings.

This section also contains the following topics.

General Tab



- **Version**—This number shows the Ektron version and build numbers. This number is important to know if you place a call to Ektron Support.
- **License Key(s)**—Enter the license key sent to you from Ektron.
- **Module Licenses**—Enter the license key for WebImageFX that was sent to you via email.
- **Default Application Language**—Select a default language for Ektron. This user's language determines the screens and messages that appear in Ektron. In the user profile, you can set any user's language to **system default**. Each user set to system default uses the language assigned here.

> **NOTE:** Do not confuse the default application language with the ek_ DefaultContentLanguage variable in `web.config`. For more information on that, see *Setting the Default Language* on page 1061.

- **System E-mail Address**—Enter a valid email address. This address will appear in the **From** field in the notification emails. See Also: *Installing Ektron* on page 9
- **Server Type: Staging Server**—Check this box if you want your library links to refer to the staging server domain, as opposed to the production server domain. This would help you verify that the linked items exist on the staging server. See Also: *Automatic Multi-Site Setup* on page 77

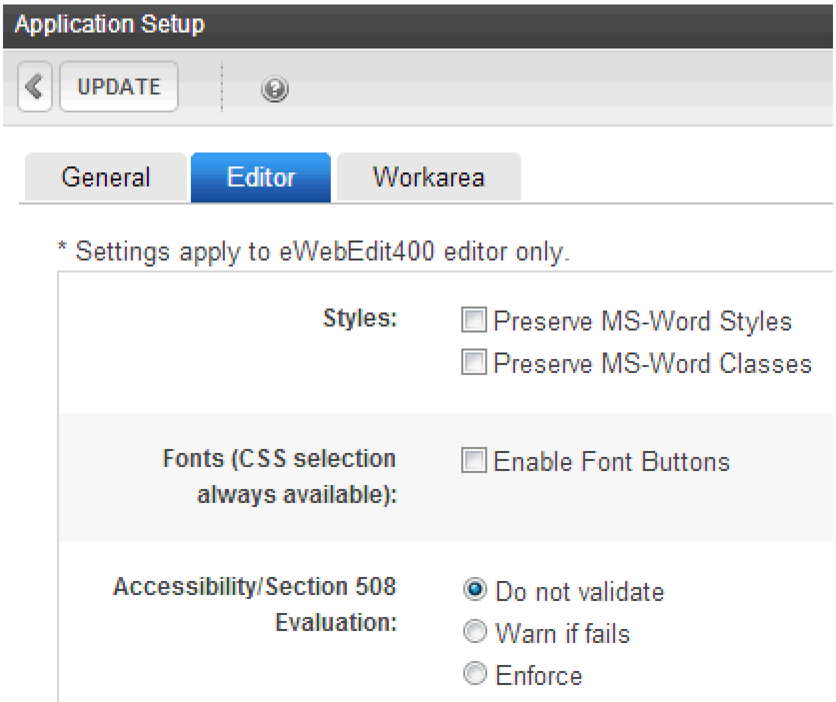
> **NOTE:** Checking this box disables the Web Alerts feature on your server.

- **Asynchronous Processor Location**—If your site uses the Web Alerts feature, enter or update the location of the asynchronous processor Web Services file. The default location is "[none specified]." See Also: *Setting Up Message Queuing and the Asynchronous Processor* on page 1572
- **Enable Office documents to be published in other format**—Check the box to allow Ektron to render Office documents in PDF format. When a checked, PDF generation is available for individual folders.See Also: *Working with Assets in the Document Management System* on page 310
- **Enable CMS to create file system folders for library assets**—Check the box if you want to create physical folders on your file system server that match the Ektron library folder tree. See Also: *Creating File System Folders with Ektron* on page 119
- **Builtin User**—Edit the username and/or password for the built in user. By default, the username and password combination is **builtin/builtin**.

WARNING! Ektron strongly urges you to change the default password assigned to the builtin user. Opportunities to do this are presented during installation and in the above field.

Editor Tab

IMPORTANT: Editor tab settings apply only to the eWebEdit400 editor.



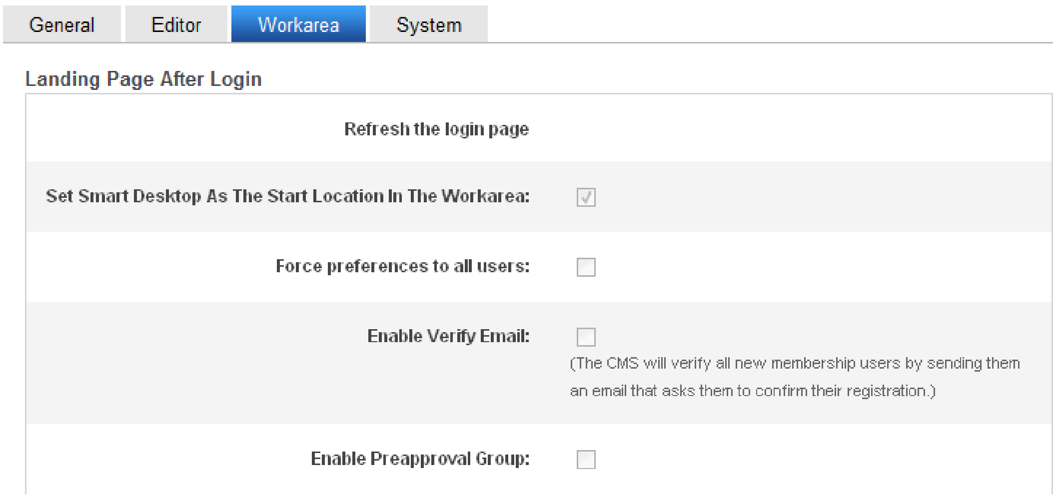
- **Preserve MS-Word Styles**—When Microsoft Word content is pasted into the editor, it removes some Word styles by default. Check this box if you want to prevent the editor from removing them.

NOTE: Ektron does *not* recommend enabling this feature.

- **Preserve MS-Word Classes**—Similar to styles, when Microsoft Word content is pasted into the editor, it removes some Word classes by default. Check this box if you want to prevent the editor from removing them.

- **Enable Font Buttons**—Checking this option displays the following font-related buttons on the editor toolbar:
  - Font Face
  - Font Size
  - Font Color
  - Font Background Color
- **Accessibility/Section 508 Evaluation**—If your editor is **eWebEdit400:**

Workarea Tab



The following fields change the default Web page after sign-in and the default Workarea page. The default values are automatically applied to all new users, and to all existing users when you upgrade. Normally, you can modify these values for any user via the Edit User screen. But, you can force these values on all users, removing the ability to personalize them.

- **Landing Page After Login**—If you want one page in your website to appear after users sign in, enter the URL to that page. You can click **Select Page** to browse to the landing page. The last published version of the page appears. If the page has never been published, nothing appears. By default, the page from which the user logged in reappears.

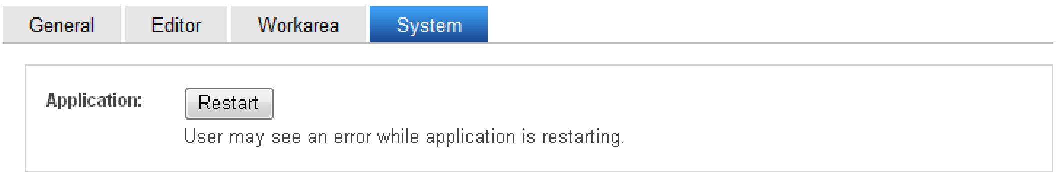
  IMPORTANT: If you are logging in from the OnTrek sample site, this field is ignored. OnTrek has its own landing page after login, regardless of this setting.

- **Set Smart Desktop as Start Location in the Workarea**—If you want the Smart Desktop to appear as soon as a user enters the Workarea, click this box. By default, the user sees the Smart Desktop after sign in. If you leave this box blank, when a user enters the Workarea, the folder of the content specified in the user profile at the **Landing Page after login** field is displayed.
- **Force Preferences to all users**—To force these settings on all Ektron users, check this box. If you do, users can see the values in the user profile screen but not change them. If you leave this box blank, users can personalize these values in their User Profile.
- **Enable Verify Email**—Check this box if users should be notified whenever they subscribe to an email notification list. See Also: *What Happens if Verification email is Used* on page 1587

IMPORTANT: When using the Checkout Server Control on an eCommerce site, the **Enable** setting must be unchecked. Otherwise, new users will receive an error message when they sign-up using this control. See Also: *Checkout* on page 1673

- **Enable PreApproval Group**—Use this field to enable Automatic Task Creation. See Also: *Setting Up an Automatic Task for Pre-approving Content* on page 1043

System Tab



Use this button to clear Ektron's cache, which recycles the application pool. For example, you updated the `web.config` file but cannot yet see the changes.

Under certain circumstances, Ektron's support group may instruct you to click this button.

Administrators would use this button if they cannot access the hosting servers yet need to reset their website. The button is an alternative to submitting a request to their IT department or hosting company.

Impact on Ektron

After you click **Restart**, the first request takes longer than usual since the application needs to recompile. Subsequent requests should be processed normally.

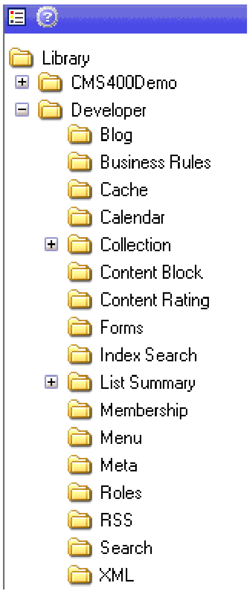
To minimize the impact on site visitors, visit your home page immediately after the restart, so that your request is the first "hit."

See Also: Managing Application Pools in IIS 7

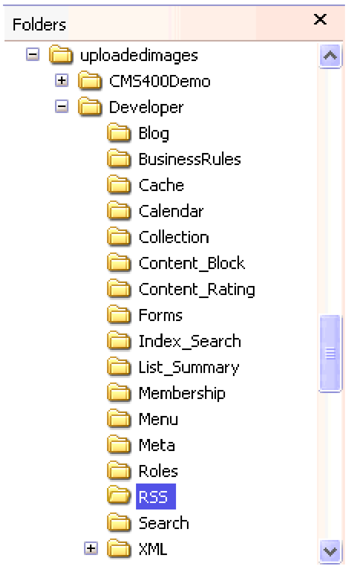
Creating File System Folders with Ektron

If this option is enabled, each time you create a new content or library folder in Ektron, a corresponding physical folder is created on the file system to organize library files on your file server. The following image shows a library folder tree and its corresponding system folder structure.

Ektron CMS400 folder tree



File server folder tree



NOTE: If you are upgrading, the installation does not create sample website folders on the file server. You must add these folders manually. However, all folders that you create are also created on the file server when enabled.

6

Migrating Your Site to Ektron

This chapter explains how to migrate your website to Ektron, as follows.

- What to copy to your website
- Setting up and deploying templates

Before You Migrate

- Ektron requires a physical installation of the product. If you do not have physical access to the machine, someone with access to the machine must run the install. For more information, see *Installing Ektron* on page 12.
- After you install Ektron, verify that it is properly installed by using the starter site. By default, the sample website is located at the following address on the machine to which Ektron is installed.

  ```
  http://localhost/siteroot/default.aspx
  ```

  If you can browse the starter site and it works properly, Ektron is properly installed.

  BEST PRACTICE

  You should keep a working version of the starter site to help you debug problems. For example, if you encounter errors on your site, you can refer to the starter site to see if the same errors occur. If they do, that may indicate a problem with the installation. If they do not, the installation is probably OK and an external factor is causing the problem.

Setting up Your New Site

NOTE: You can use the Site Setup utility to perform these tasks by choosing **Start > Programs > Ektron > CMS400 > Utilities > Site Setup**. See *Installing a Site* on page 17.

1. Copy Application Core Files—Copy the application core files from the `siteroot/workarea` folder into your site's folder. These files operate the workarea, library, and content functions.
2. Set up the Database—Because the content is stored in a database, you need to create one. To learn how to set up a database, see *Setting up a Database* on page 23.
3. Modify Application Parameters—After you install and create the Ektron database, modify the `web.config` file that installed to the directory to which you installed Ektron. Edit that file and update the information between the <ConnectionString> tags to point to your: server, database, user, and pwd.

   NOTE: If you are using SSL, the settings you need to modify are explained in *Installing Ektron* on page 9.

4. Create a Login Page—You can either copy the one from the starter site or create your own. See Also: *Login* on page 1763 server control
5. Log In
   a. Browse to the login page you created and click **Login**. A login dialog box opens asking for a username and password.
   b. Enter the default username (**admin**) and password (**admin**) and click **Login**. You are logged into Ektron.

6. Modify Configuration Settings—After you log in, click **Workarea**. From there, you can modify the configuration settings.
   - Setting Up Active Directory—If plan to use Active Directory, configure this now. The settings for Active Directory can be found in the **Settings > Configuration** folder. Refer to *Using Active Directory with Ektron* on page 1127.
   - Modifying the Setup Screen—The Ektron setup section is located under the **Settings > Configuration** folder. The setup section lets you configure items such as your license key, style sheet support, max summary size, and default language. See *Getting Started with Ektron* on page 5.
   - Setting up Metadata—Ektron includes extensive metadata support. Settings for metadata definitions can be found under the **Settings > Configuration** folder in the Workarea. You can have as many metadata definitions as needed. See *Working with Metadata* on page 369 for more information.
   - Setting up Smart Forms—You can also set up your Smart Forms. You create XML files externally or via the Data Designer. Next, a Smart Form is assigned to content blocks and folders. See *Working with Smart Forms* on page 423 for additional information.
7. Create Ektron Users—If you are not using Active Directory support, add your users manually. The maximum number of users is determined by your license key. For instance, if you purchase a 10-user license, you can enter 10 users. If you exceed the licensed number of users, you may get locked out of Ektron. Every user must belong to a group. When you first add a user, the user is automatically added to the Everyone group. You can create more user groups and add users to them as desired. For more information, see *Managing Users and User Groups* on page 1099.
8. Configuring Content and Forms Folders—Next, create folders to organize content blocks and forms. Create as many folders as you want. Each folder level can go as deep as you want.

   Keep your folder structure simple so it's easy for your users to navigate. Organize folders in a way that makes sense to the users who will navigate through them. So, you may have 6 or so top level folders, and each folder may go 4 or so deep.

   This folder structure is replicated under the Library folder.

   As you create folders, you can assign a default template and style sheet. The default template is used when a new content block is created and Ektron creates a Quicklink that points to the new content block. If you do not provide a default template, it is inherited from the parent folder.

   After creating the folders, assign permissions and approvals to them. Permissions can be assigned to a user or a user group. The same is true for the approval process.

   BEST PRACTICE

   Limit permissions for the "Everyone" group, as this gives every user permissions to that content. Similarly, you should limit the "Everyone" group's inclusion in the approval chain if you want to restrict which users can publish content.
9. Create your Templates—Now you can create your templates. Templates contain the look and feel of the site. Masthead, navigation, and footer graphics are all part of the template. Use server controls to insert Ektron content into a template. For a list of

server controls, see *Working with Ektron Server Controls* on page 1605.

BEST PRACTICE

Because dynamic templates include URL parameters, make each main landing page and other important pages static tags. This makes it easier for you to remember if you need to provide that link to someone.

For instance, each main landing page from your home page could use the static tag. Then, as you go deeper into that section, subsequent pages use a dynamic tag.

10. Migrate or Create Content—You can create or migrate your content. If you are migrating content from an existing site, add a new content block, and cut and paste the content into the Ektron editor.

    NOTE: All images and files must be uploaded and inserted into the content separately.

11. Deploy the content—Deployment from development to production is as simple as moving the files over. To properly deploy your new Ektron website:
    a. Copy all assets (templates, images, files, and so on) from your development box to your production machine.
    b. Move the database. You have 2 choices
        - point your data source on the production machine to the database you were using.
        - copy the database, move it to your production box, and point a data source to that.
12. Optionally, For email notification to work in Ektron, make sure the SMTP service is setup and running in IIS, and that it points to a valid mail server. See *Installing Ektron* on page 9 for additional information.

7

Ektron's Marketing Optimization Suite

Marketing departments are constantly challenged to deliver greater business results on the Web—leads, sales, downloads, donations, awareness and more. Yet marketers still deliver "one size fits all" Web experiences to customers and potential customers.

Site visitors have little patience for generic Web experiences that ignore the context of their visit. The opportunity for marketers is to connect content with context, to deliver personal Web experiences that deliver business results.

The Ektron Marketing Optimization Suite (EMOS) empowers marketers to create relevant, personalized Web experiences that deliver better business results. Engage customers with targeted marketing to drive them to take action. Maximize conversion rates through sophisticated multivariate testing. Analyze site performance by connecting your Web analytics data to your marketing teams in real time. Create business agility by empowering marketing with both data and tools with the Ektron Marketing Optimization Suite.

To learn more about the Ektron Marketing Optimization Suite, see Rapidly Test and Target to Optimize Results.

Components of Ektron Marketing Optimization Suite

Ektron's Marketing Optimization Suite consists of the following components of Ektron.

- *Analyzing Content* on page 601

  The Business Analytics feature lets you track statistics about visits to your website. You can use it to determine the following kinds of information:

  - how often your content was viewed
  - how many site visitors viewed for first time, and how many returned
  - the most popular referral pages (that is, the Web page from which visitors clicked to arrive on your site)

- *Setting Up Site Overlay* on page 655

  Site Overlay provides an easy-to-use visual map of popular links on a Web page, based on the frequency of clicks. When Site Overlay is enabled, each link on a page is represented by a horizontal bar graph. When you hover over the graph, you see its statistics. The following image shows menu links and the overlay bar graphs.

- *Using Widgets* on page 711

  The Targeted Content widget lets you personalize a site visitor's experience by providing content that matches their interests, thereby placing your site information in the context of your users. For example, the search keywords used to find your site might determine the best offer to show a prospect. Or, site members might explicitly state their interests by adding to their user profile or filling out a survey.

- *Optimizing Page Layout with Multivariate Testing* on page 695

  Multivariate testing lets you offer several variations of the same page, then measure site visitors' reactions to each variation. The one that generates the most conversions is automatically promoted to the design for that page, thereby maximizing your website's ROI.

- *Personalizing a Web Page* on page 825

  Personalization is fast becoming an integral part of websites like iGoogle and Facebook, and organizations see personalization as a way to make their sites "stickier" and more engaging. Ektron provides tools to let membership users personalize their experience on your site, bringing relevant information to their fingertips. By letting users add widgets, applications, and feeds to a website, Ektron provides a framework on which to easily build true, personalized portals.

- *Working with Ektron Server Controls* on page 1605

  The SEO server control analyzes your website for W3C compliance, what information Google has about the page, Alexa rankings, image alt text, keyword density and metadata. SEO lets you know how (and if) you have set these values.

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8

Ektron's Social Business Software

Social Business changes everything.

- how employees collaborate, enabling better communication, innovation, and productivity
- customer support, allowing customers to support each other in vibrant online communities.
- commerce, providing authentic customer-driven ratings and reviews that build trust.

Is your company ready for the social revolution?

With Ektron Social Business Software, create vibrant social communities for employees and customers. Socialize key business processes including Sales, Support, Marketing, and Innovation. Ektron Social Software powers many well-known customer communities, delivering enhanced customer satisfaction and loyalty. Social is not a feature, it is a business strategy. Implement your social strategy with Ektron Social Business Software.

To learn more about Social Business Software, see Drive Customer Engagement and increase Brand Loyalty and Awareness.

Components of Ektron Social Business Software

Ektron's Social Business Software consists of the following components.

- *Working with Discussion Boards* on page 536 (includes Forums and Message Boards)

  The discussion board feature provides topic discussions on your website. A site or membership user with Add Topic permission creates a topic and posts a starter question. Site visitors can then reply. Ektron supports an unlimited number of discussion boards. A discussion board consists of a hierarchy. The following example shows the hierarchy with sample data, to explain how each element is used.
- User Profiles

  A membership user can access his or her profile page only from the website. An Ektron user can access his or her profile from the Workarea or the website.
- *Activity Streams* on page 1231

  An activity stream is a series of chronologically-arranged notification messages describing activities within Ektron's Community Feature.
- *Working with Blogs* on page 491

  A blog is a form of online information sharing. You create a main blog post, and others can comment on it. Or, you can use a blog to create an online diary of everyday life. Your most recent blog post appears at the top with associated blogs following. Some blogs display a calendar on which days when blogs were created are highlighted.
- *User-Ranking of Content* on page 587
  - place a star-based scale on any page of your website
  - let users apply full or half-star rating increments and a comment
  - add reviews, depending on how the feature is used
  - moderate the review comments
  - display reviews and comments next to content for others to see
  - run reports to find the highest-rated content; tweak poorly-rated or reviewed content to achieve optimal ratings
  - control which reviews get posted through a moderation feature

- *Managing Community Groups* on page 1181

  Community groups are another aspect of a community sites. Group members can easily meet people with similar interests, such as *car racing* for example. Groups have similar features and functions to user features. For example, a community group can have a Message Board, Discussion Board, maintain a membership list, and keep a group journal. You can manage community groups from the website or the Workarea.

- *Sending Notifications to a Community* on page 1194

  Ektron's notification system creates and transmits a notification message to recipients through various agents, based on Ektron activities. The activities may be performed by a community group, membership user, or an Ektron user. For example, a membership user wants to notify colleagues whenever a documented is uploaded to the profile page. When this occurs, an Ektron event is triggered, which causes a notification agent to send an email to the person's colleagues.

- *Logging in through Facebook* on page 109

  Facebook Login, an alternative to Ektron's standard login, lets users log in using their Facebook username and password instead of creating an Ektron username and password.

- *Targeting Content with GeoIP Information* on page 1899

  GeoIP support lets you target your messaging to specific audiences based on current geographical location. Ektron uses a site visitor's IP address to detect the location. For example, your eCommerce website is having a special on snow blowers. That information is relevant to people in colder climates but of no interest to those living in the tropics. As another example, a site visitor uses a cell phone to find the nearest store location. In this case, Ektron Map server control displays a map of nearby stores based on the user's current latitude and longitude.

- *Creating Surveys and Polls* on page 407

  Surveys and polls can show ongoing results to site visitors after they submit their answers.

  Surveys and polls are a type of form. All of the same functionality is available and applies.

  - A *survey* is usually multiple questions and appears on your site for a longer time than a poll.
  - A *poll* is generally one question and appears on a site for a very short time: an hour or a day.

- *Micro-messaging* on page 1801 server control

  The Micro-messaging server control lets users post brief messages. It resembles micro-blogging services like Twitter.

- *SocialBar* on page 1845 server control

  The SocialBar server control lets users of a community website bookmark colleagues, community groups, and content. It provides access to Twitter, Facebook, YouTube, and so on.

- *TagCloud* on page 1848 server control

  The TagCloud server control shows a weighted list of tags assigned to users, community groups, content, or library items. Tag sizes are proportional to the number of times they are assigned. For example, there are 2 tags, *Software* and *Programming*. If the

Software tag is used 5 times and the *Programming* tag is used 2 times, the *Software* tag is approximately twice as large.

9

Ektron's Mobile-Driven Web Experience

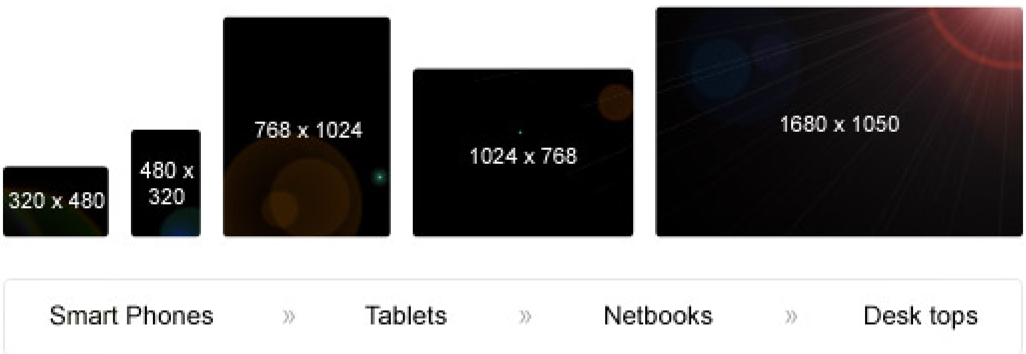
Web traffic from mobile devices is accelerating. Making your website available to mobile users is not enough. Your website must deliver the same, consistent level of experience to your mobile visitors as you do for those who visit your website on their desktop to ensure that your consumers are accessing information, products, and services from your website.

Mobile applications require different, more compact navigational aids, and content must fit into a smaller footprint. Mobile websites need "tap to call" options to take advantage of cellular technology, a robust search, flexible menus, and quick access to content. Tables and figures may need to be adjusted or reconfigured to avoid unnecessary "pinching" and scrolling.

This section also contains the following topics.

Developing a Multi-Channel Website Design

When you design and develop your website, you want to reach as many people as possible. People are using a wide variety of devices to access the Web.



When you evaluate your website, or where you want it to be, consider the following website strategies:

- **Foundational**—Educate your users about your purpose and products with little interactivity. Enable business users to publish content using content editing and management, approval chains, and publishing. Reduce site maintenance for IT and increase the number of visits to your website.
- **Tactical**—Facilitate content reuse, user-generated content, categorization, and page assembly. Create Smart Forms, taxonomies, online communities. Synchronize multiple sites. Develop pages, templates, surveys and polls, blogs, search, commenting and threaded discussions.

- **Strategic**—Embrace multi-channel delivery and support a richer customer experience with eCommerce, multi-channel, multi-site, multi-language, and video.
- **Engagement**—Continually analyze and customize the customer experience with personas, create touch-centric interaction for mobile devices, integrate with marketing automation, use multivariate testing, geolocation, device orientation, and activity streams to target content for what is relevant and meaningful to your site visitor. Customer Relationship Management systems can personalize the Web experience to drive revenue, deliver better business results, increase your brand awareness, and create customer loyalty.

Consider the following approaches to design.

- Separate Mobile Site Design
- Separate Mobile Template Design
- Responsive Web Design
- Responsive Web Design and Server Side Components (RESS)

Separate Mobile Site Design

If you have an existing website that you do not want to redesign, you can separate the content into 2 site architectures: 1 for desktop computers and 1 for mobile devices. You can target your content specifically for mobile devices, avoiding the complexity of developing device-conditional style sheets and manipulating existing content.

However, you will have to maintain 2 sites and ensure that they are synchronized (where applicable). You have to set up device recognition so that mobile device requests for your website are routed to your mobile (m-dot) site instead.

Also, having 2 sites can impact your SEO ranking negatively if content is found on both sites.

Separate Mobile Template Design

Separate templates, optimized for mobile, get rendered whenever somebody visits your site from a mobile device. This approach lets you define a unique mobile experience, without affecting the desktop experience, and create a mobile experience without having to undergo a complete website redesign. Loading of pages is more streamlined when you use separate templates instead of the responsive design approach because only the mobile content gets retrieved from the server; responsive sites often have extra content that is then hidden by CSS rules based upon the current device.

However, you must maintain more than 1 set of templates (for mobile and desktop experiences). Also, the server must detect whether a visitor is using a mobile device before rendering a mobile template, so a list of devices must be kept up-to-date. Fortunately, Ektron is able to keep the device list up to date for you. See *Updating the Wireless Universal Resource File* on page 150.

Responsive Web Design

You should consider a Responsive Web Design (RWD) when you have a high degree of overlap between the site visitor experience and content on many devices.

Responsive design provides an optimal viewing experience for devices of any size by adapting the layout of your pages with CSS3 media queries. The elements on your pages (including any images) must use relative units (percentages or ems) for sizing instead of fixed dimensions (pixels). This enables your site to expand and contract to the viewing size of any device.

Responsive design has a single code base, where other approaches require the use of separate mobile-specific templates to display your pages to mobile devices. While you may identify which of your content is "canonical" in a *Separate Mobile Site Design* on the previous page, the singular architecture and repository of a responsive design means that you have one authoritative source for SEO leading to higher rankings by search engines. (Multiple websites can dilute your ranking.) It also lets your site visitors use a consistent set of URLs without the issue of directing to the WWW or m(dot) site.

Many traditional websites require a complete redesign and implementation to change to a responsive site. Additionally, a complete redesign may require added time and effort to ensure that the user experience is mobile-friendly. You must weigh the costs of a redesign to gain the benefits of a single code base (long-term maintenance savings, SEO improvements, and so on).

Another issue to consider before creating a responsive website is that entire pages are loaded. If you have a lot of content on a page, it can impact the user experience. By contrast, if your site uses separate mobile templates, you can decide if some of that content should be loaded on certain types of devices.

Using Responsive Frameworks with PageBuilder on page 670 shows how to work responsive Web design into your PageBuilder pages.

Responsive Web Design and Server Side Components

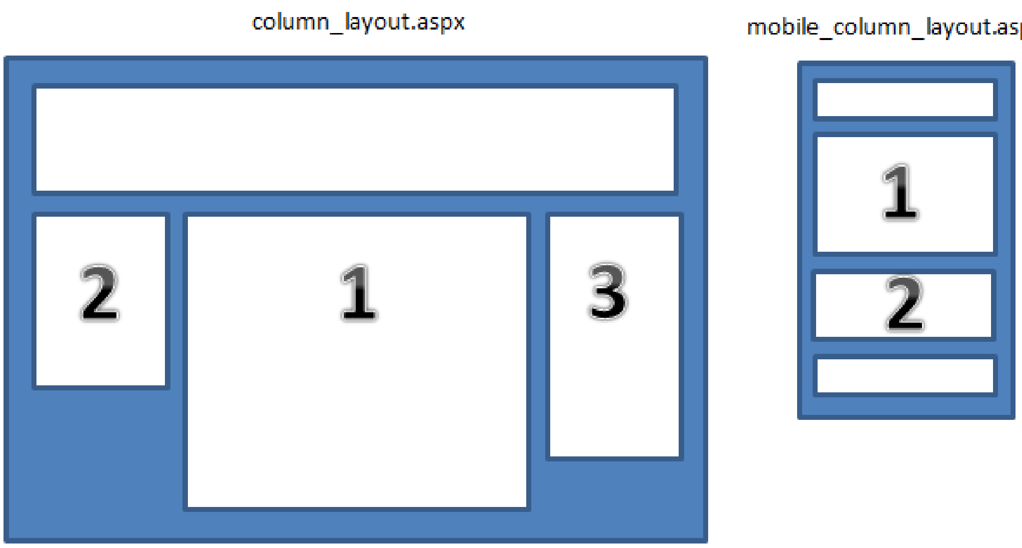
Responsive Web Design + Server Side Components (RESS) has the flexibility of responsive design while providing the granularity of device detection to deliver device-specific components.

Ektron supports the use of RESS by providing tools to display content and assets based on groups of devices, which can be added to your responsive pages. Of course, this responsive aspect means that your site needs to be redesigned, but once redesigned, these tools can provide the best of both approaches.

Using Responsive Frameworks with PageBuilder on page 670 shows how to work responsive Web design into your PageBuilder pages.

Using Mobile Templates

A template is a customized Web page format comprised of objects such as content blocks, list controls, menus, rotating banners, a search object, and videos. How you assemble the objects affects the user experience. Because of the smaller display size, templates for mobile devices may have a single column to eliminate horizontal scrolling, pinching, and zooming. You decide what is practical for each device by creating different templates instead of creating different content. Objects may have to be omitted or replaced with mobile-friendly objects. The following image shows PageBuilder templates for desktop and mobile devices. Note that the mobile template does not include content object 3. See *Developing Wireframe Templates* on page 676 for information about creating PageBuilder wireframe templates.



You should use the same dropzone IDs for both the mobile and desktop templates. Content does not display if a mobile template contains a dropzone ID that the corresponding desktop template does not have.

Ektron can detect specific characteristics of a mobile device, such as the differences between the *Android Droid X* and *Droid 2*. These characteristics help you determine how to render the user experience. For example, one device may support Flash technology and another may not.

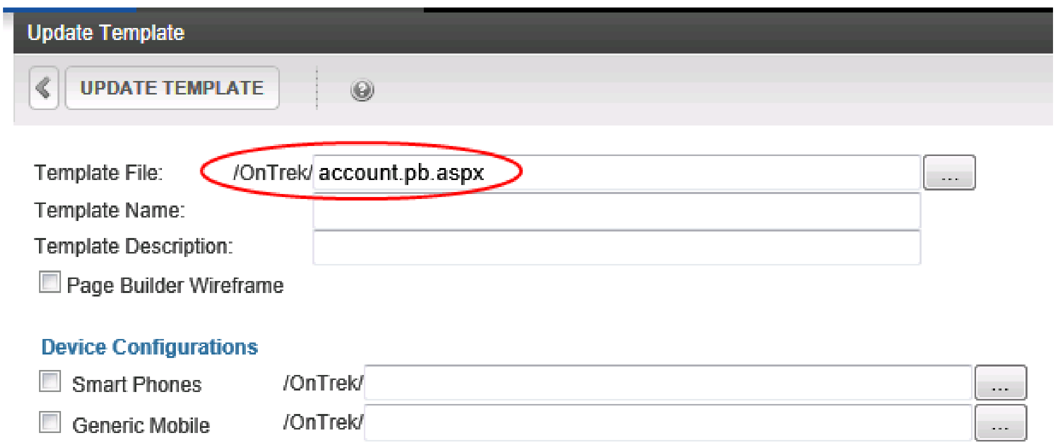
In any case, you want to ensure that your content on a mobile device is *elastic*, meaning that it can scale to the various sizes of displays. Use percentages instead of hard-coded pixel sizes for the mobile template. If you set PageBuilder dropzone width to 100%, the normal flow of the objects in the mobile browser cause them to stack from the top to the bottom.

Setting Up a Mobile Template

1. In the *site root*/web.config file, set **ek_EnableDeviceDetection** to **True**.

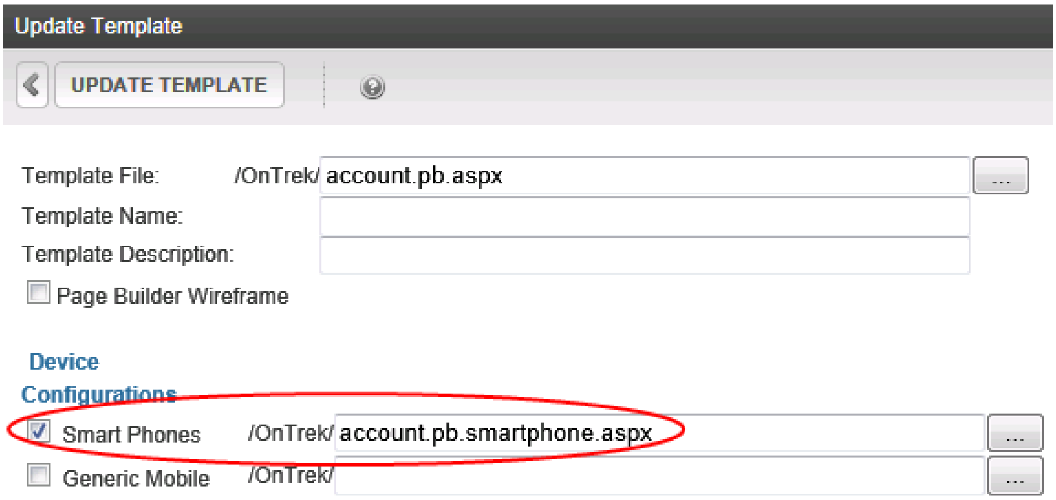
```
<add key="ek_EnableDeviceDetection" value="true">
```

2. Identify a template for which you want to create a mobile version, using the **Workarea > Settings > Configuration > Template Configuration** screen. Click any template to see its folder location relative to your site root.



3. Open Windows Explorer and locate that template in the *site root* folder.

4. Copy and save a mobile version of the template under a suitable name, for example, `account.pb.smartphone.aspx`.
5. Adapt the template for mobile use by changing column styles, removing unwanted navigation, images, headers, footers, adding components that help mobile users, and so on.
6. Create device configurations. Assign to each one any mobile devices that use the template you created. See Also: *Grouping Mobile Devices* on page 140.
7. Return to the Template Configuration screen and click the template you identified in Step 2.
8. Check every mobile **Device Configuration** for which you created a mobile template version. Then, for every checked configuration, click the ellipsis button ( ) to its right, navigate to and select the mobile template you created in Step 6.



Now, if a mobile device user accesses a page which uses that template, the mobile-enhanced template displays the content.

- To test mobile templates, preview your content within them. See *Previewing Content in a Mobile Template* below.
- Ektron uses the Wireless Universal Resource File (WURFL) file to obtain wireless device information. To learn how to view, update, and customize this file, see *Ektron's Mobile-Driven Web Experience* on page 133.
- To conditionalize Smart Form content based on user device, see *Ektron's Mobile-Driven Web Experience* on page 133.
- To use a mobile site visitor's geographic location to deliver relevant content, see *Using Geographic Data from a Mobile Device* on page 149.

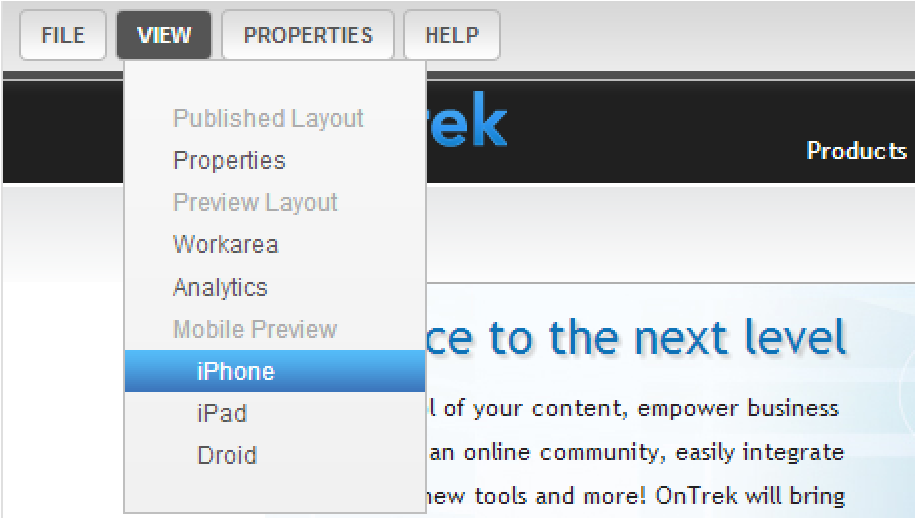
Previewing Content in a Mobile Template

You can preview content in mobile template to ensure the content fits within the screen resolution.

Previewing Mobile Content from a PageBuilder Page

1. Log into your Ektron website.
2. Navigate to PageBuilder page that you want to view as a mobile device user would.

3. From the PageBuilder menu, click **View > iPhone**, **iPad** or **Droid**.



4. The page redisplays, simulating the selected device.

Previewing Mobile Content within the Editor

1. Edit content in the editor.
2. Click **Preview** ( ).
3. Select a model from the **Device Configuration** drop-down and click **Preview**. The content displays in the selected template.

Specifying Device-Specific Content with Smart Forms

You can set up Smart Form configurations to recognize a user's device and, based on that information, display appropriate content. For example, if a user is *not* using a Smart Phone, show a complex display with rich graphics. If a user *is* using a Smart Phone, create a simpler presentation of the same fields without graphics. To learn about this capability, see *Inserting a Conditional Section* on page 434.

You can also designate some or all of an HTML form's postback message to be conditional upon a user's device. So, for example, the postback message for Smart Phone users can be much shorter than the message for users who are not using a mobile device. To learn more about this, see *Specifying Conditional Text in the Postback Message* on page 414.

Grouping Mobile Devices

You can accommodate a variety of mobile devices by grouping characteristics, such as display size. You can group devices for standard presentation and add refinements for specific devices. For example, a device configuration may consist of a *Smart Phones* group (Apple iPhone®, Samsung Galaxy Note™ II, Motorola® Droid RAZR MAXX HD, and so on) and a *Tablets* group (Apple iPad®, Google Nexus™ 10, Microsoft® Surface™, and so on).

With Ektron, you can group devices by model or operating system.

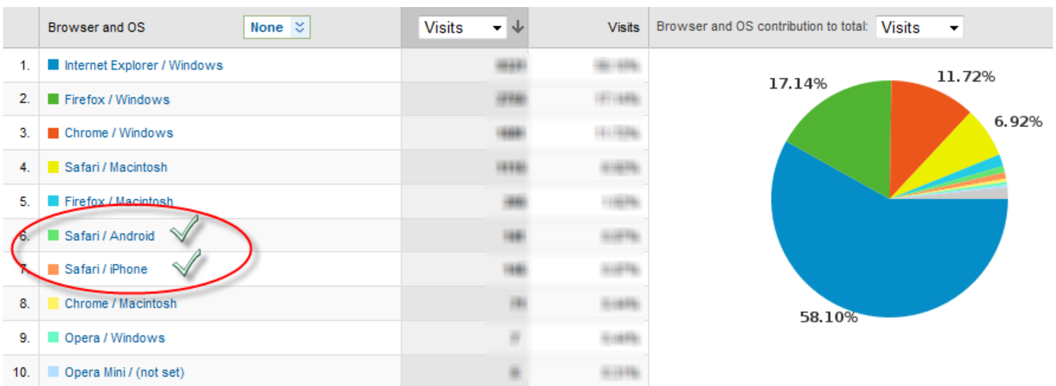
Grouping by model gives you more control over specifications, but it is quicker to group by operating system. You may want to first group by operating system, then only define models that do not work properly under an operating system configuration.

IMPORTANT: Because a device may be covered by several configurations, use the Reorder button to determine the order in which devices are checked. See Also: *Reordering a Device Configuration* on page 144

To determine which mobile devices to add to your device configurations, review your Analytics reporting to see which mobile devices are browsing your site. To see the Browser and OS report:

1. In the Workarea, select **Reports > Traffic Analytics > Visitors > Browser Capabilities > Browsers and OS**.
2. Modify the time period and rank if needed. For more information, see *Viewing Analytics Data* on page 622.

The following example shows that Android and iPhone mobile devices have browsed pages. You can create templates and device configurations to improve the experience of these visitors.



Adding a Device Configuration by Selecting Operating System

Each mobile device's definition includes an operating system. To reduce effort, you can create configurations by choosing one or more operating systems. When you do, each device using that OS is automatically included in the list. For example, you create a device configuration for all Android phones.

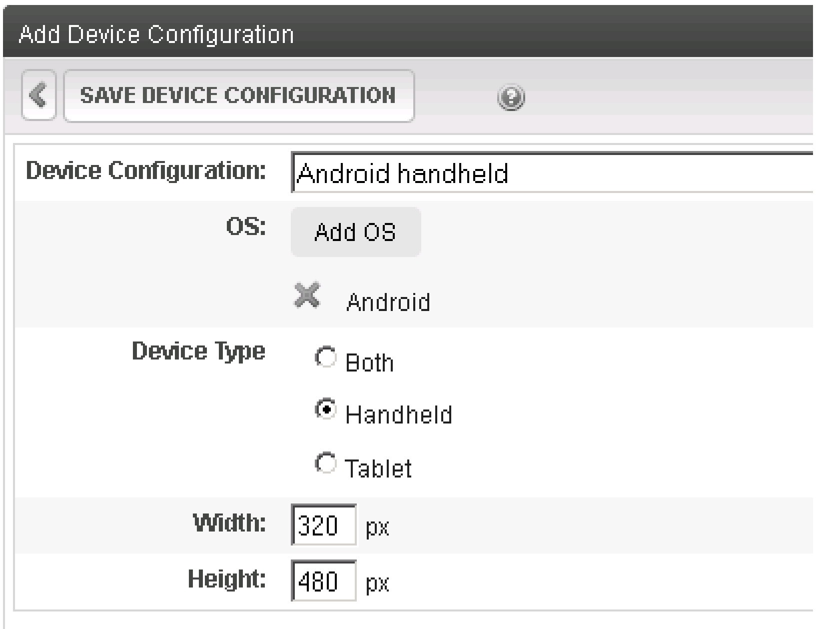
While defining a mobile device, you decide if the configuration applies to handheld devices, tablets, or both device types. You also specify a resolution (width and height). So, if two devices share an operating system but have different resolutions, create a separate configuration for each one.

PREREQUISITES

- You are a member of the Administrators group
- Device detection is enabled See Also: *Ektron's Mobile-Driven Web Experience* on page 133

To add a device configuration by selecting an operating system:

1. **Workarea > Settings > Configuration > Device Configurations**.
2. Click **Add Device Configuration (by OS)**.
3. In the **Device Configuration** field, enter a name for the configuration.
4. Click **Add OS**.
5. Select one or more operating systems for this configuration.
6. At the **Device Type** field, choose whether the configuration applies to handheld devices, tablets, or both device types.
7. Set the **Width** and **Height** of the device display in pixels.

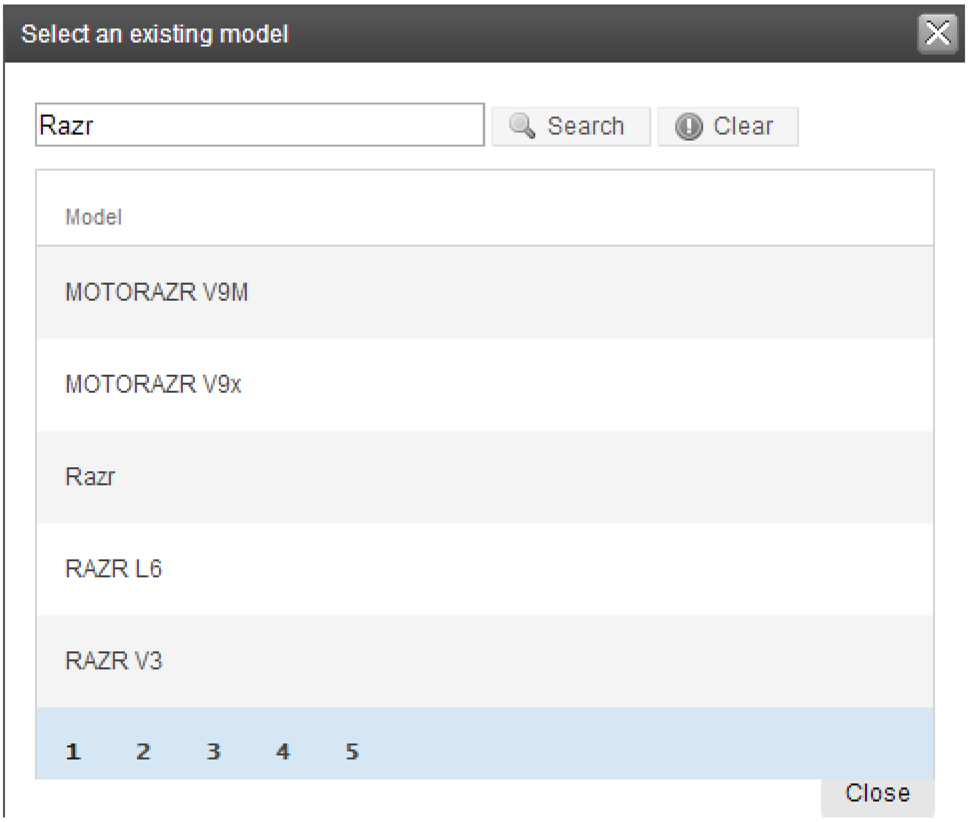


8. Click **Save Device Configuration**.

Adding a Device Configuration by Selecting Models

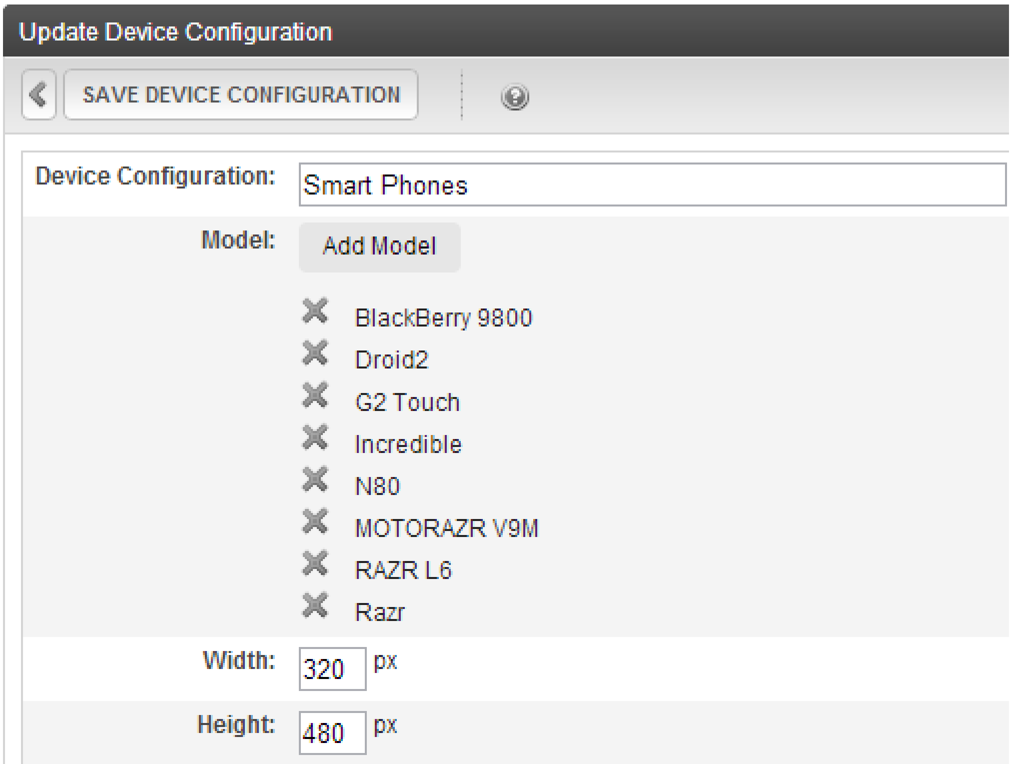
When adding individual devices to a configuration, group devices that share characteristics, such as Flash support and screen resolution. Since you will assign the configuration to a mobile template, make sure that all devices support the template's functionality.

1. **Workarea >Settings > Configuration > Device Configurations**.
2. Click **Add Device Configuration**.
3. In the **Device Configuration** field, enter a name for this configuration.
4. Click **Add Model**. The Selecting an existing model screen appears.



   a. Type a model in the field and click **Search**.
   b. Click on the model you want to add. Repeat this step for as many models that you want to add.

5. Set the **Width** and **Height** of the device display in pixels.



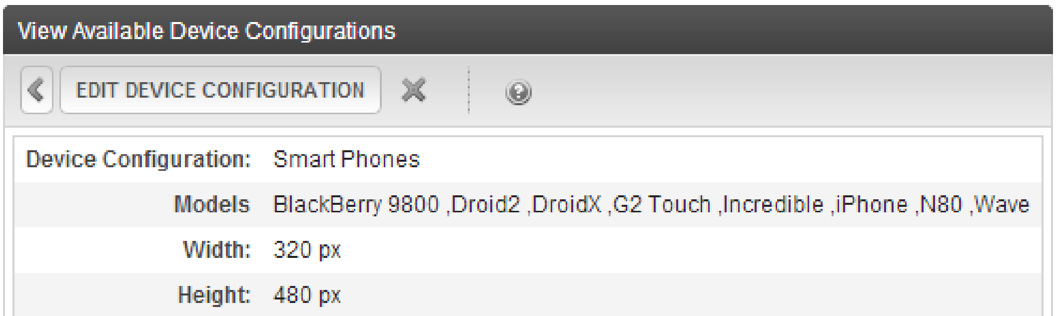
6. Click **Save Device Configuration**.

Editing a Device Configuration

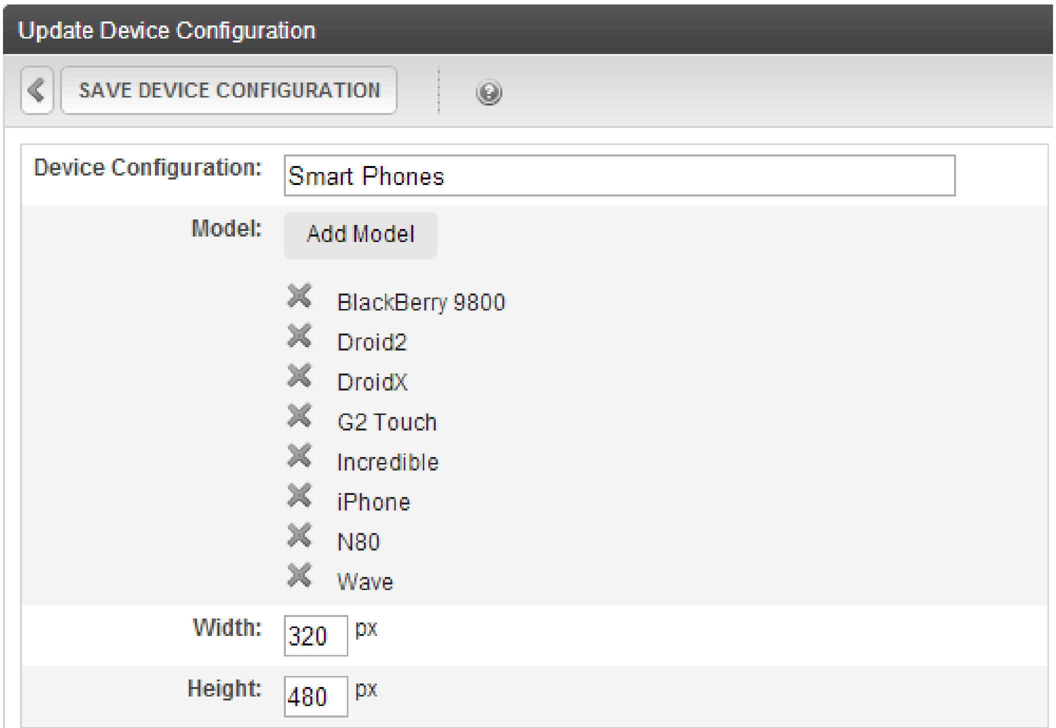
1. **Workarea >Settings > Configuration > Device Configurations**.
2. Click the configuration that you want to edit.

NOTE: You cannot edit the **Generic** and **Generic Mobile** configurations.

3. Note that the second line of the display indicates if the configuration was determined by operating system or model. You can only add or remove models or operating systems, depending on that setting.



4. Click **Edit Device Configuration**. The Update Device Configuration screen appears.



5. To remove any model or operating system from this configuration, click **X** to the left of its name.
6. Update the other fields on the screen as needed. For information on the fields, see *Ektron's Mobile-Driven Web Experience* on page 133.
7. Click **Save Device Configuration**.

Deleting a Device Configuration

NOTE: You cannot delete the **Generic** and **Generic Mobile** configurations.

1. **Workarea >Settings > Configuration > Device Configurations**.
2. Click **Delete** ( ).
3. Check the box next to configurations you want to delete.
4. Click **Delete** ( ).

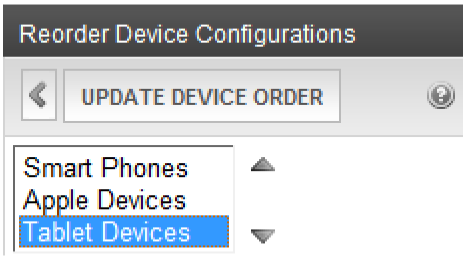
Reordering a Device Configuration

You can determine the first acceptable configuration that a device will use. To accomplish this, change the order of the device configurations.

For example, you configured an iPad in the AppleDevices and the Tablet Devices configurations. However, because AppleDevices is set for a small resolution, you want an iPad to use the Tablet Devices configuration (which has a larger screen). Reorder the devices so that Tablet Devices appears above AppleDevices.

1. **Workarea >Settings > Configuration > Device Configurations**.
2. Click **Reorder Device Configurations** ( ).

3. Click a configuration you want to move.



4. Click Up/Down ( ) to arrange the list to the desired order.
5. Click **Update Device Order**.

Applying Adaptive Image Resizing

Adaptive Image Resizing resizes images and helps you implement a caching strategy to enhance a user's mobile experience on your site. It includes the following features:

- Criteria to determine which images get resized
- A user-defined set of resolutions—Ektron renders the image in a device-appropriate resolution
- A *direct access* mode that lets a developer set an image to a predefined resolution

PREREQUISITE

To enable Adaptive Image Resizing settings, set **ek_EnableDeviceDetection** to **True** in *siteroot*/web.config.

```
<add key="ek_EnableDeviceDetection" value="true" />
```

Determining Which Images Get Resized

Two criteria determine which images get resized. Images must meet both criteria to be eligible for resizing.

- **Minimum File Size**—You can specify a minimum file size in KB. The default minimum is 80 KB—smaller files are not resized. To modify it, open the *siteroot*/web.config file and update the ImageSizeThresholdKB value.

```
<AdaptiveImageProcessorConfig ImageSizeThresholdKB="80"
  Level1CacheSize="5000" Level2CacheSize="500"
  Level2CacheItemThresholdKB="256" EnableL2Caching="true"
  DirectAccessQueryString="targetTypeID">
```

- **Folders—**Only images in specified folders and their subfolders can be resized. To do so, open the *siteroot*/web.config file and find the following section. The tilde character (~) represents your site root folder: ~/.

```
<IncludePathList>
  <!--Files in the specified path WILL be processed by resizer.
    The Include Path includes ALL sub-directories of the specified path--> |
  <IncludePath Path="~/uploadedimages" />
  <IncludePath Path="~/assets" />
</IncludePathList>
```

To include a folder, enter an `IncludePath` tag. For its `Path` property, enter the folder path within your site root folder (as shown in the examples). You only need to specify parent folders to include child folders.

Setting Image Resolutions

By default, `web.config` contains the following adaptive image resolutions:

```
<ImageResConfigs>
  <ImageResConfig TypeID="LowRes" MaxWidth="320" MaxHeight="480" />
  <ImageResConfig TypeID="MedRes" MaxWidth="1024" MaxHeight="768" />
</ImageResConfigs>
```

Ektron uses these settings to reduce images that exceed a device's resolution (as defined in the Device Configurations screen). See Also: *Ektron's Mobile-Driven Web Experience* on page 133. The image gets resized to the resolution of the user's device if the resolution is listed within the `<ImageResConfigs>` tags. If the device's resolution is not listed, the image gets resized to the next larger one.

For example, if a site visitor uses an iPhone (pixel resolution 320 x 480) and encounters an 706 x 534 image, Ektron resizes it to 320 x 242. If another visitor uses a Samsung Galaxy S (pixel resolution 480 x 800), the visitor sees the full image because the image (706 x 534) is smaller than the next larger breakpoint (1024 x 768); no resizing occurs.

In this example, you may need to identify a new breakpoint (say, between 320 and 1024) to accommodate other devices.

IMPORTANT: Review your site analytics to gain an understanding of the devices that are being used to view your site. To create a third `ImageResConfig` element to support *Samsung Galaxy S*. Modify the `<ImageResConfigs>` tags as shown in the following example.

```
<ImageResConfigs>
       <ImageResConfig TypeID="LowRes" MaxWidth="320" MaxHeight="480" />
       <ImageResConfig TypeID="SGalaxySRes" MaxWidth="480" MaxHeight="800" />
       <ImageResConfig TypeID="MedRes" MaxWidth="1024" MaxHeight="768" />
</ImageResConfigs>
```

After you make this change, on a *Samsung Galaxy S*, the 706 x 534 image is rendered as 480 x 363. You can insert as many `ImageResConfig` elements as you want to accommodate mobile devices.

Creating Image Copies in the Specified Resolution

After you enable device detection in `web.config`, as new images are added to specified Ektron folders, Ektron automatically creates versions of the image in specified sizes (described in *Setting Image Resolutions* above).

```
<add key="ek_EnableDeviceDetection" value="true" />
```

A new image filename consists of `ImageResConfig TypeID_original file name.extension`. For example, if the original image filename is `mytest.png`, and it is resized to specifications set in the `LowRes ImageResConfig` element, the new filename is `LowRes_mytest.png`.

If a mobile visitor views an image that was in Ektron *before* device detection was turned on, the image may be resized at that time. Ektron creates resized image versions in the same folder as the original image.

If you later view the image on any device with the same resolution range, the saved version is displayed. This practice enhances the performance of your mobile website. However, creating additional image versions also increases the number of files and storage space needed.

BEST PRACTICE

When planning an implementation of Adaptive Image Resizing, consider your future space requirements.

Adaptive Image Caching

Use caching to avoid expensive query storage.

PREREQUISITES

- You can edit `siteroot/web.config` on your Ektron server.
- In `siteroot/web.config`, set **ek_EnableDeviceDetection** to **true**.

To minimize the demand on your Ektron server, the Adaptive Image Resizing feature uses 2 caching strategies.

- *Level 1* caching stores only a filename, file size, and resolution. You determine the number of items that may be stored in Level 1 cache in the following `web.config` setting.

```
<AdaptiveImageProcessorConfig
  ImageSizeThresholdKB="80"
  Level1CacheSize="5000".....
```

  BEST PRACTICE

  The `Level1CacheSize` should approximate the number of image files in the included folders.

- *Level 2* caching stores the file's content as a byte array. A resized file is only saved to Level 2 cache if the resized file size is less than the value of `Level2CacheItemThresholdKB`.
  - To determine the number of items that you can store in Level 2 cache, set `Level2CacheSize`.
  - To enable or disable Level 2 caching, set `EnableL2Caching`.

```
<AdaptiveImageProcessorConfig
  ImageSizeThresholdKB="80"
  Level1CacheSize="5000"
  Level2CacheSize="500"
  Level2CacheItemThresholdKB="256"
  EnableL2Caching="true"
```

Adaptive Image Resizing caching works as follows:

1. A user on a mobile device accesses an Ektron Web page that uses Adaptive Image Resizing.
2. For every image file request, Ektron looks for it in Level 1 cache to determine if the image size exceeds the threshold.
   - If the cached item is found, the cached file information is used.
   - If the cached item is not found, Ektron queries the storage device for the file information and caches it.

3. For every qualified image request, if level 2 caching is enabled, Ektron searched Level 2 cache for the target file. If the file is found, the cached byte array is sent to the user's device. If the file is not found, Ektron sends the image from storage and caches the byte array (if the size does not exceed the defined limits).

BEST PRACTICE

Use the following formula to calculate memory usage for level 2 caching:

```
total memory used = Level2CacheItemThresholdKB * Level2CacheSize
```

For example: `256KB*500=128000KB=128MB` of maximum memory used by Level 2 caching.

Clearing Cache

To clear both Level 1 and Level 2 cache, use the **Clear Cache** button in the **Workarea > Settings > Configuration > Device Configurations** screen.

Resizing an Image with Direct Access Mode

PREREQUISITE

You must have 1 or more `<ImageResConfig>` tags within the `<ImageResConfigs>` tag in `web.config`.

Direct access mode lets you resize an image to any resolution set in the `<ImageResConfigs>` tags in `web.config`. See Also: *Setting Image Resolutions* on page 146. Unlike other Adaptive Image features, direct access mode does not consider the user's device, and ignores the value set by the `ek_EnableDeviceDetection` setting in `web.config`.

To apply direct access mode to an image (for example, so that the image displays in a maximum resolution of 320 x 480), use the following syntax:

```
<img src="uploadedimages/testfile.jpg?targetTypeID=LowRes"/>
```

The `targetTypeID` refers to an `<ImageResConfig>` tag with `TypeID=LowRes`.

```
<ImageResConfigs>
  <ImageResConfig TypeID="LowRes" MaxWidth="320" MaxHeight="480" />
  <ImageResConfig TypeID="MedRes" MaxWidth="1024" MaxHeight="768" />
</ImageResConfigs>
```

Changing the Query String Parameter Name

You can change the `targetTypeID` name. For example, to change the direct access mode query string parameter from `targetTypeID` to `DirectAccessTarget`, modify the `AdaptiveImageProcessorConfig` tag in `web.config` as follows.

```
<AdaptiveImageProcessorConfig
  ImageSizeThresholdKB="80"
  Level1CacheSize="5000"
  Level2CacheSize="500"
  Level2CacheItemThresholdKB="256"
  EnableL2Caching="true"
  DirectAccessQueryString="DirectAccessTarget">
```

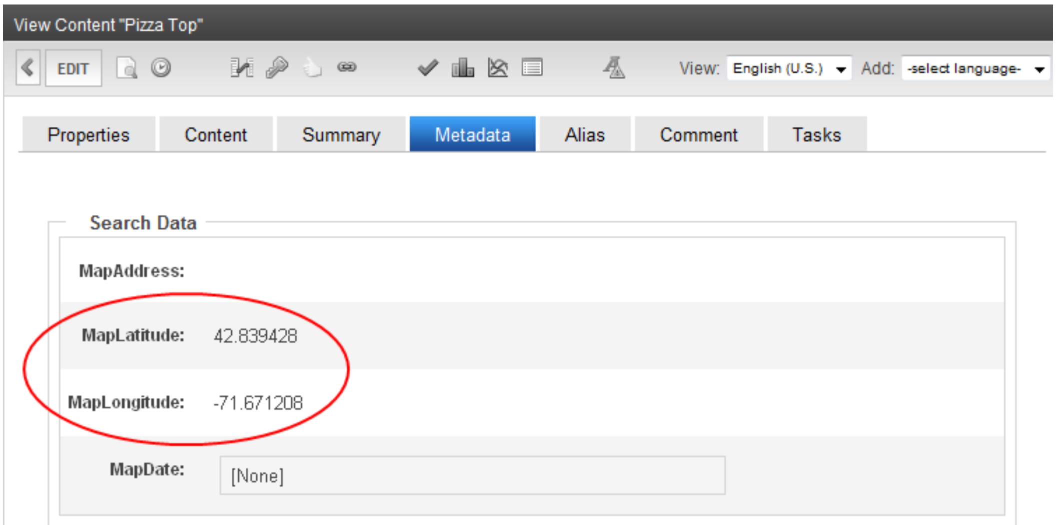
After you change the parameter, your syntax is as follows:

```
<img src="uploadedimages/testfile.jpg?DirectAccessTarget=LowRes"/>
```

Using Geographic Data from a Mobile Device

If your site visitor is on a mobile device, the geographic location of your site visitor becomes very important information. For example, if a mobile visitor is accessing your site, you can display nearby stores and special promotions. To create a geographically aware Web experience with Ektron, follow these steps.

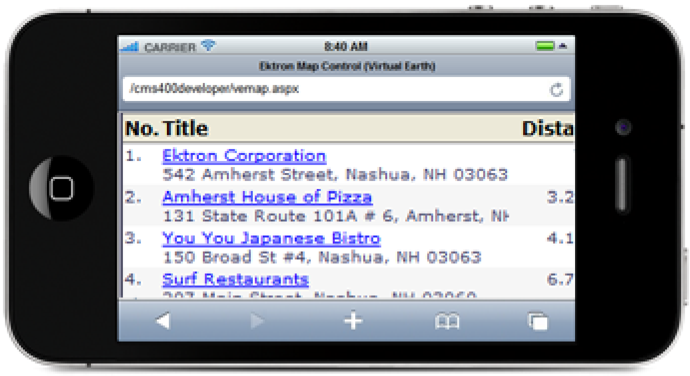
1. Create content with MapLatitude and MapLongitude geo-location metadata. This metadata is automatically added when you publish content with a street and city address in the MapAddress field.



2. Place the *Map* on page 1765 server control in a mobile device template.
3. Because of the size of a mobile device, you may want to rearrange the content list, map image, and search components provided by the Map server control. To do this, change the standard map EkML file. See *Controlling Output with Ektron Markup Language* on page 1905 and the sample file `[siteroot]/workarea/template/map/map.ekml`.

To learn more about using geolocation, see the *Map* on page 1765 server control and *Using the Map Server Control* on page 590.

After finishing the previous steps, use your mobile device (if it has GPS capability) to browse to the template that contains the map; it shows your location at the center of the map. For other mobile devices, the center of the map is the Latitude and Longitude coordinates set by the Map server control. Content locations appear as map pins, and the content list is sorted by distance from the current location (with GPS) or map center.



Updating the Wireless Universal Resource File

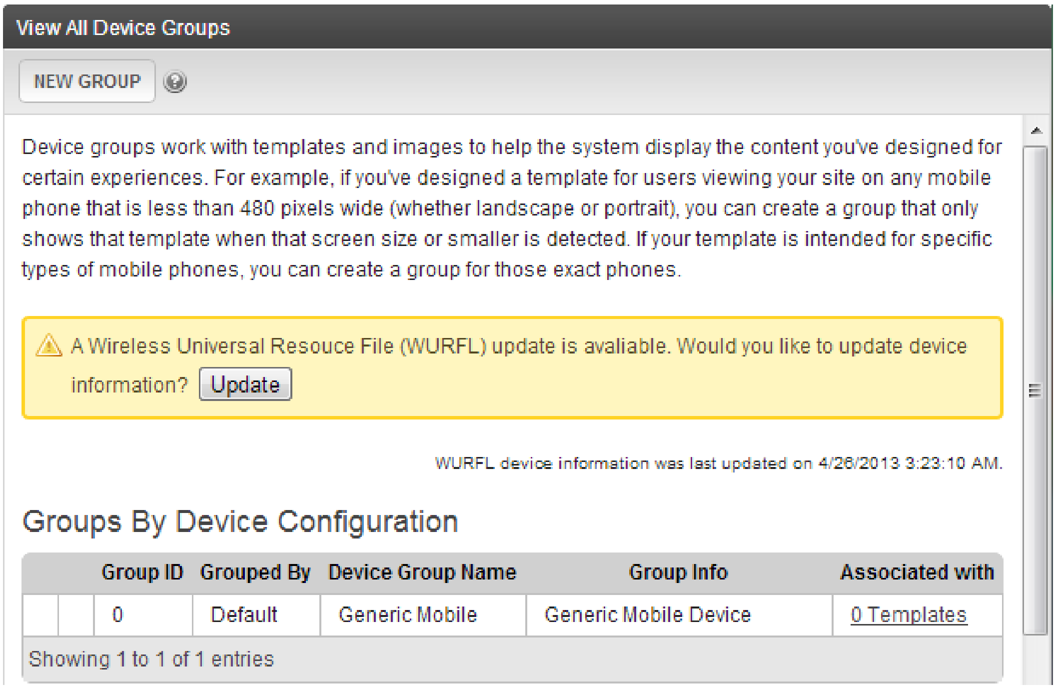
NOTE: The commercial license between Ektron Inc. and ScientiaMobile, Inc., the owner of WURFL, expired on April 3rd, 2016. You have the following options:

- Disable the WURFL data repository in your deployment so that you are not using WURFL in an unlicensed manner.
- Contact Scientiamobile, Inc. to obtain a license directly. ScientiaMobile, Inc. has provided a guide to transitioning.
- Replace the WURFL data repository with the 51 Degrees(TM) Lite library by 51Degrees.mobi, which is licensed under an Mozilla Public License open-source license agreement.

When a device requests information from a Web server, HTTP headers are passed to the server along with the image URL. The HTTP headers contain information that identifies the type of device that is doing the request. Because new mobile devices are being created every day, it is important for your website to detect these devices when they are available and present the appropriate experience to visitors who use these devices when they visit your site.

Each time a user clicks on the View All Device Groups folder, Ektron determines whether more recent device information is available.

1. Go to **Workarea > Settings > Configuration > Mobile Settings > View All Device Groups**. If your WURFL file is not up-to-date, you are given the opportunity to update it.



2. Click **Update**.

Additional Mobile Information

- Should You Consider an M(dot) Site Strategy for Mobile?
- Mobile-friendly: The mobile web optimization guide
- Mobile HTML5
- The Mobile Revolution: Move Beyond Mobile Friendly and Engage Mobile Visitors
- Mobile First, Last, and Always: 5 Responsive Design Sites on Ektron
- Why Adaptive Imaging is a Big Deal
- Adaptive Images: How They Impact Social Media and SEO
- Breakpoints: Planning for Different Device Sizes
- Why Responsive Design Changes the Game for Website Templates
- The Value of a Responsive Design: Who Really Benefits?
- Which Responsive Framework is Right for You?
- Responsive Web Design: Now for Marketers, Not Just Developers and Designers
- Responsive Web Design or Native Apps? What's the Real Future of Mobile Advertising?
- Building Blocks and Tools for Responsive Web Design: Part 1 - For Developers
- Building Blocks and Tools for Responsive Web Design: Part 2 - For Marketers
- The Broken Mobile Paradox Part 1: The Different Ways to Create a Mobile Strategy
- The Broken Mobile Paradox Part 2: Server-Side Device Detection
- The Broken Mobile Paradox Part 3: Responsive Web Design
- The Broken Mobile Paradox Part 4: RESS
- What the Mobile Web Means for Marketers Part 1: RWD
- What the Mobile Web Means for Marketers Part 2: Adaptive Images

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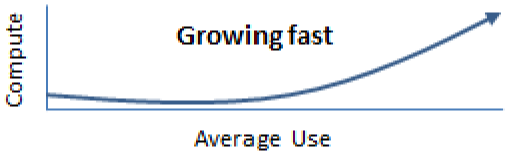
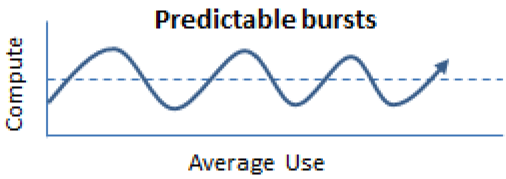
10

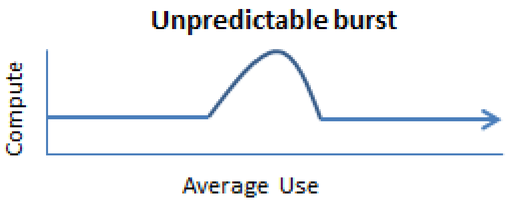
Using Ektron in the Cloud

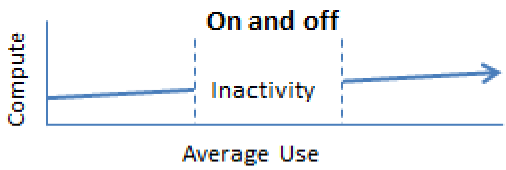
Ektron's Cloud Manager simplifies the process of creating, deploying and managing websites and assets to the cloud. The cloud lets you deal with different traffic patterns on an as-needed or on-demand basis because space and computing power are virtual and expandable. Because the cloud pools its resources to be used by many customers, and provide pay-as-you-go pricing, the cloud provides significant cost benefits to on-premises resource planning and use. Most services do not require long-term commitments or up-front expenses.

The following images show website usage patterns of rapid growth, bursts in traffic, and active or dormant periods. These patterns can be costly to manage on your own but the costs are mitigated when you use the cloud to distribute your site load.



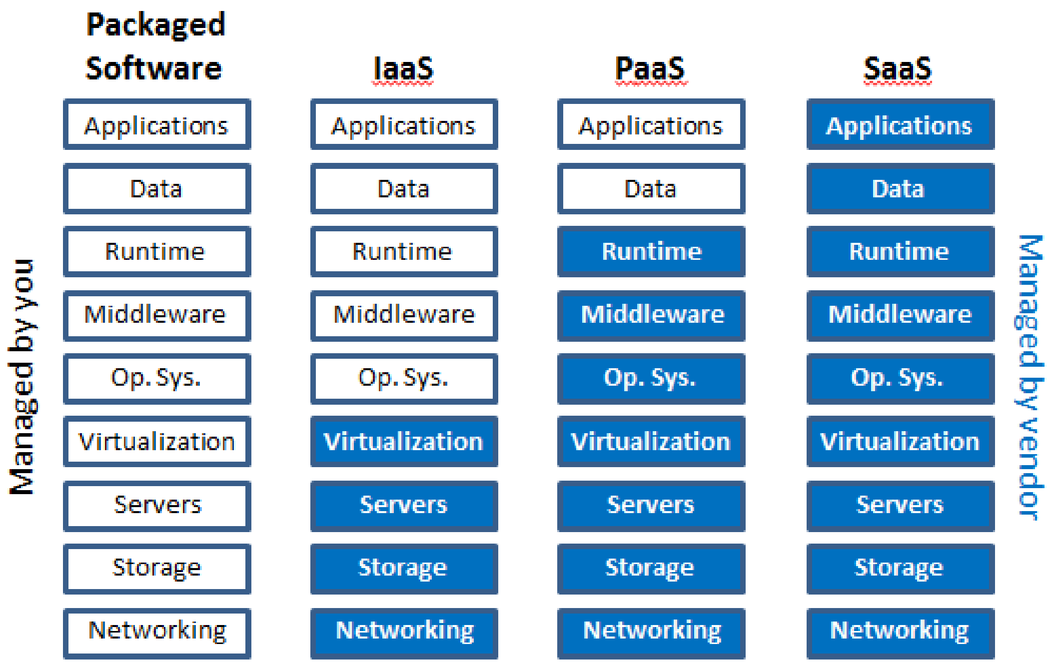






This section also contains the following topics.

Consider the following cloud service models:



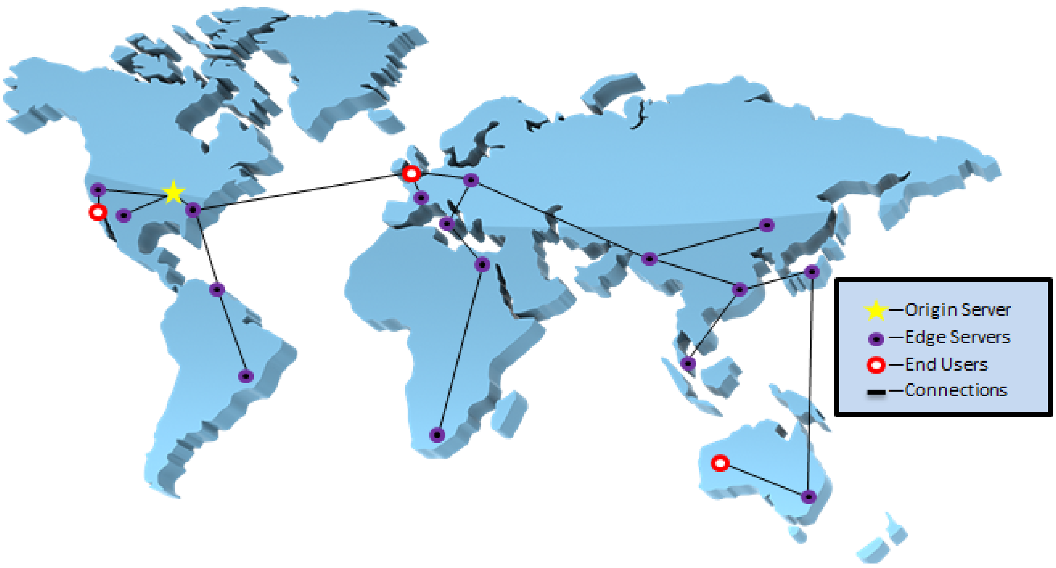
- **Infrastructure as a Service (IaaS)** is a set of infrastructure capabilities, (such as an operating system, network connectivity, content delivery network (CDN) and so on), that are delivered as pay-for-use services that you can use to host applications. You are responsible for monitoring, backups, and upgrades of your applications.
  - You can run Ektron CMS on any virtualized Windows environment, which includes Hyper V from Microsoft, Amazon, RackSpace and Vmware virtualization platforms. Ektron Cloud Manager supports the provisioning of site assets on Amazon S3 and Microsoft Azure Blob.
  - You can deploy assets into cloud-based storage, which includes Internet-level scaling and the flexibility to access software from anywhere.
  - You can leverage a CDN service without making a major investment, including restructuring the sites to work with a CDN, (which is a must for every website because CDNs are an easy way to increase a website performance and enhance the user experience of the site). Major cloud vendors provide CDN services at competitive prices.
- **Platform as a Service (PaaS)** provides a higher-level set of functionality that are delivered as consumable services for developers who are building applications. PaaS abstracts developers from the underlying infrastructure, enabling applications to be composed rapidly. Cloud vendors are responsible for services except for data and applications.
- **Software as a Service (SaaS)** are applications that are delivered for an organization to use, paying for the use of applications without concerns about the operating system, upgrades, or availability of the applications. A cloud vendor maintains the applications running in the SaaS. Some examples of SaaS-based applications include Office 365, Salesforce, and HubSpot.

CDN Benefits in the Cloud

You can achieve major performance enhancements by using a Content Delivery Network (CDN) in the cloud to serve static files, assets, large files, and stream data. Selecting a CDN vendor is similar to selecting any other product or service, so be certain that the CDN you choose meets your site requirements. Cloud vendors have simplified the management interfaces and APIs to load and manage cloud storage, but you will need to synchronize your assets. The following are key benefits of operating in the cloud CDN.

- **Performance**—Loads website assets faster globally and also decreases the load on the production environments. User experiences improve yielding increased conversion rates, sales, and profits.
- **Improved SEO**—Improves the SEO ranking because search engines give preference to faster sites.
- **Operational**—Reduces operational costs by offloading your Web server and making your infrastructure more reliable and scalable because there is no single point of failure.

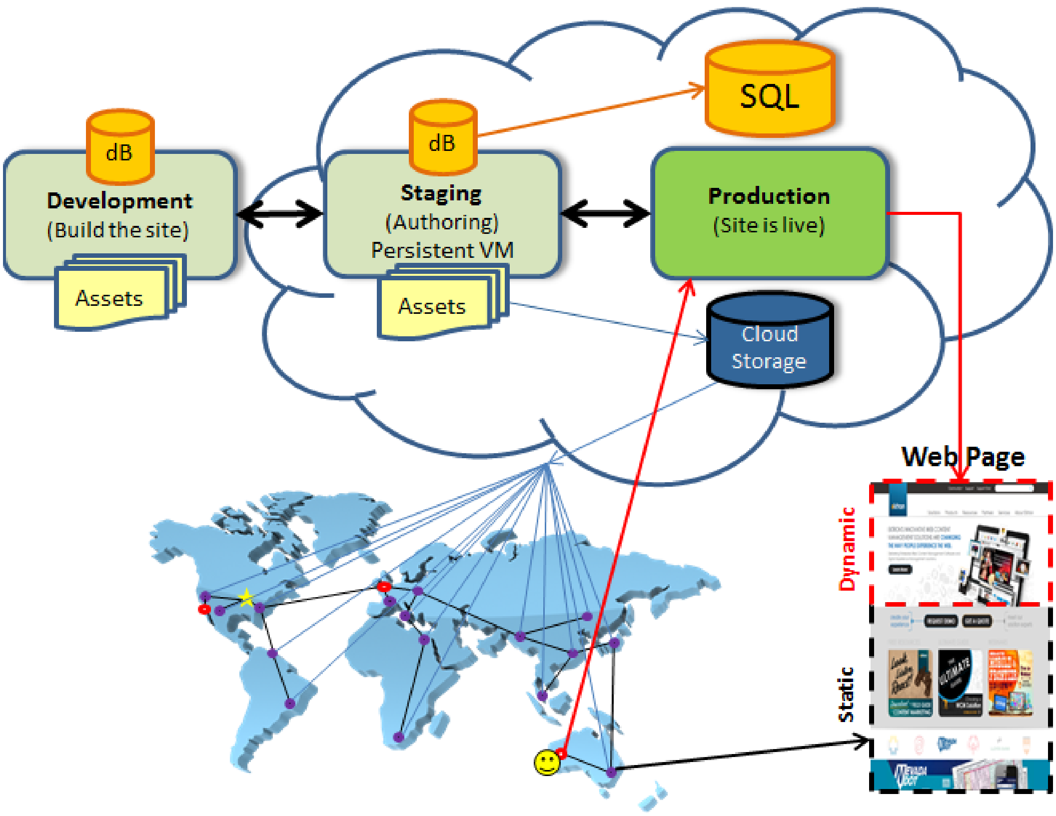
A CDN is "a large distributed system of servers deployed in multiple data centers on the Internet" that cooperate to deliver content. The following figure shows how a CDN in the cloud gives you optimal site performance. Typically, when a person visits your site, an *Origin server* services the visit. If site visitors from all over the world are making requests from the Origin server, the high traffic and distance slows the server response, and inhibits the user experience. A CDN in the cloud gives you a large, distributed system of servers, called *Edge servers*, that cache content, images, style sheets, JavaScript, and more. Site assets are downloaded from the closest accessible CDN server, improving availability and response time.



The following events occur on a cloud-enabled website as shown in the following image:

1. Development is on-premises at the Origin server (), and Staging and Production are in the cloud. Content passes among the Development, Staging, and Production servers.
2. Assets are distributed to Edge servers () through cloud storage. (blue arrows)
3. An end user () accesses your site through a Web server. (red arrows) Dynamic content is retrieved from the SQL database, which can be stored in the cloud, or on-premises.
4. Static content is retrieved from the nearest Edge server () and passed to the Web page. (black arrow)

Assets are distributed through the provisioning process.

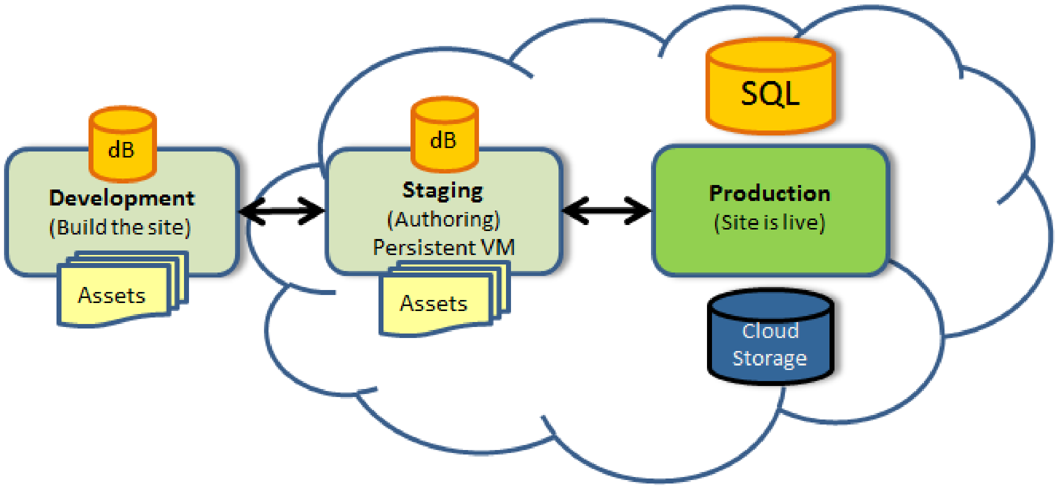


With Ektron's Cloud Manager, storing assets in the cloud is completely transparent to the CMS users. Assets are synchronized among the Edge servers in and out of cloud storage without the need for customizations or specialized CDN knowledge. By enabling cloud-based storage with a CDN, assets are cached globally through CDN servers. This produces high-performance sites and does not bog down the site's Origin server. You only need to configure the Cloud Manager to point to your Amazon S3 or Microsoft Azure Blob storage services.

Cloud Manager has the following benefits:

- Wizard-based cloud provisioning
  - Easily create and deploy ASP.NET websites to the cloud with just a few clicks
  - Eliminate total dependence on IT
  - Leverage other cloud services like CDN, load balancing and caching
- Flexible deployment
  - Reduces time-to-scale
  - Deploy entire sites or specific assets to leverage cloud CDNs

- Manages content changes easily through a true hybrid cloud deployment



- Easily keep content in sync across all deployments
- Mix and match cloud instances with traditional on-premises Ektron instances or deploy entire site environments in the cloud

- Optimal performance
  - Deliver sites at unlimited scale through the scalability and elasticity of the cloud
  - Centralized management of key cloud capabilities
  - Schedule instance usage to easily handle predicted site traffic
- Significant cost reductions; a savings of up to 80% over on-premises options in most cases.
- Unlimited scalability
- Connects your on-premises infrastructure with the cloud

Before You Install to the Cloud

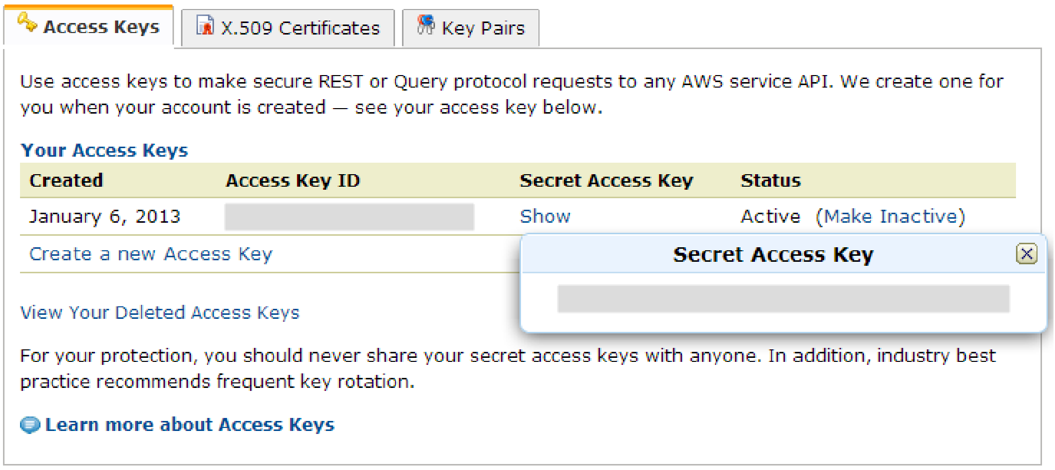
This topic contains step-by-step instructions to set up and run Ektron applications in the Amazon Cloud or the Windows Azure Cloud. You must be a member of the Administrator group to perform these tasks.

Before you install or use the Ektron cloud manager, Ektron administrators and developers should first build the system for On Premises use and then follow the instructions in this documentation to get it running in cloud. You also should understand the following:

Amazon Cloud

- You should have a valid subscription from the Amazon portal.
  1. Log into the Amazon Web Services (AWS) console with your account information.

Choose **Account > Security Credentials**. The page displays your access credentials.



- After deployment, and before running eSync from your local machine, you need to apply the certificates located at `C:\Program Files (x86)\Ektron\EktronCloud\bin\worker\certificate` to your local machine.
- Use the Amazon deployment wizard for proper configurations. See *Deploying a Site Package to Amazon* on page 162.
- The following are not supported as of this printing:
  - Active directory
  - multi-site

Windows Azure Cloud

- You must have Windows Azure SDK 1.7 (June 2012) on a development machine or on-premises server.
- You should have a valid subscription from the Windows Azure portal.
- The following are not supported as of this printing:
  - Active directory
  - multi-site
  - eCommerce
  - Web Alerts
  - Notification Services
  - Diagnostic Services
- Use the Azure deployment wizard for proper configurations. See *Deploying a Site Package to the Azure Cloud* on page 183.

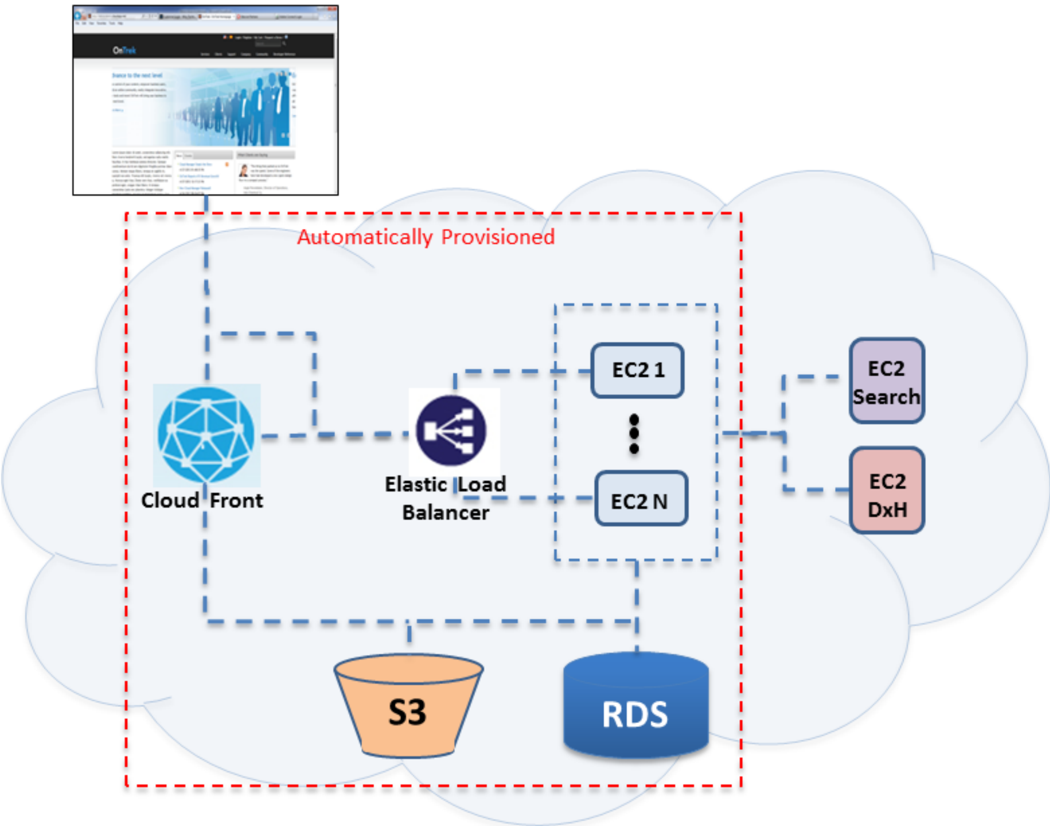
Other Considerations

- Run the security configurator and generate certificates before you deploy the Ektron cloud manager.
- You must start instances before running database or template synchronizations.
- Ektron eSync deploys the data to SQL databases and file resources to Blob storage.
- Connecting an SQL database through enterprise manager requires SQL Server 2008R2 for SQL Management studio (or greater).
- You can use both website and Application model as of this printing.
- SQL database licensing limits the maximum database size.

Using Ektron in the Amazon EC2 Cloud

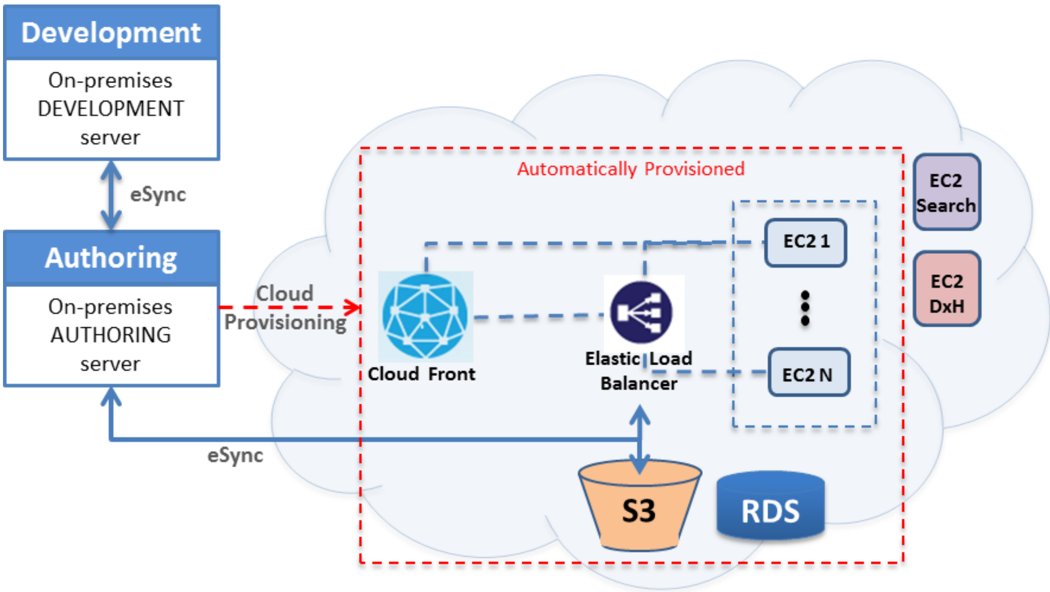
The following sections show you how to use Ektron in the Amazon Elastic Compute Cloud (EC2).

The following image shows an overview of Ektron in the Amazon EC2 cloud.



- **Amazon S3 Storage**—a cloud storage for Ektron site-specific assets, including templates.
- **Amazon RDS**—a cloud database for all Ektron site-specific content.
- **Amazon EC2 Search and DxH**—Ektron-specific site service instances.

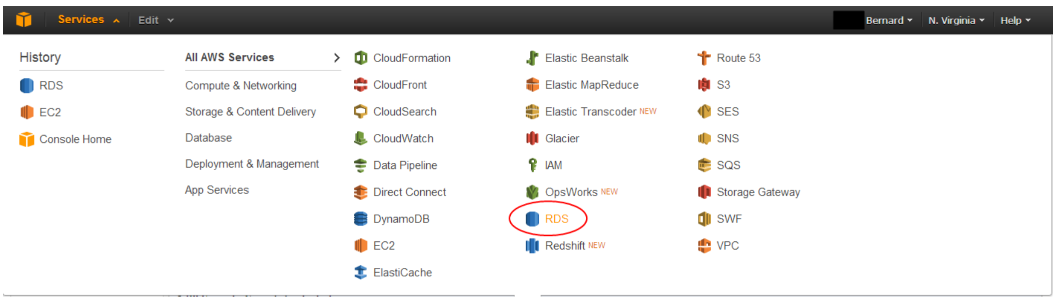
The following image shows an overview of provisioning Ektron in the Amazon EC2 cloud.



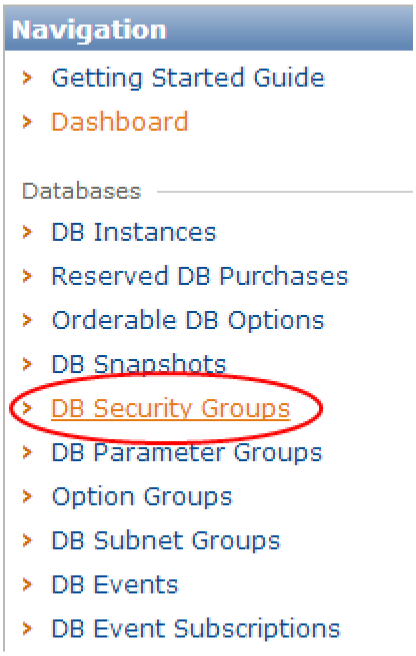
Setting Up the Amazon EC2 Security Groups and Amazon RDS DB Security Groups

You need to set up your security certificate before deploying a site package to your Amazon cloud site.

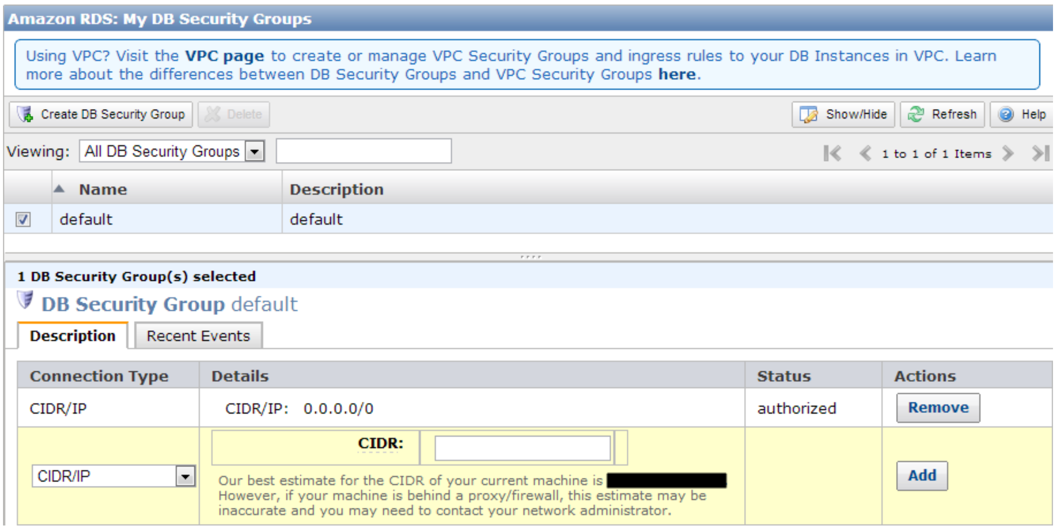
1. Log into the Amazon Web Services (AWS) console with your account information.
2. From the AWS console, choose **Services > RDS**.



3. In the left Navigation panel, choose **Databases > DB Security Groups**. The Amazon RDS: My DB Security Groups screen appears.



4. Select the Security group.
5. In the Description tab, select CIDR/IP in the drop-down menu.
6. Specify the IP address from which the administrator can access the database and click **Add**. The specified IP address appears in the list.



Deploying a Site Package to Amazon

Download and Install EktronCloudSetup.exe

Install `EktronCloudSetup.exe`.

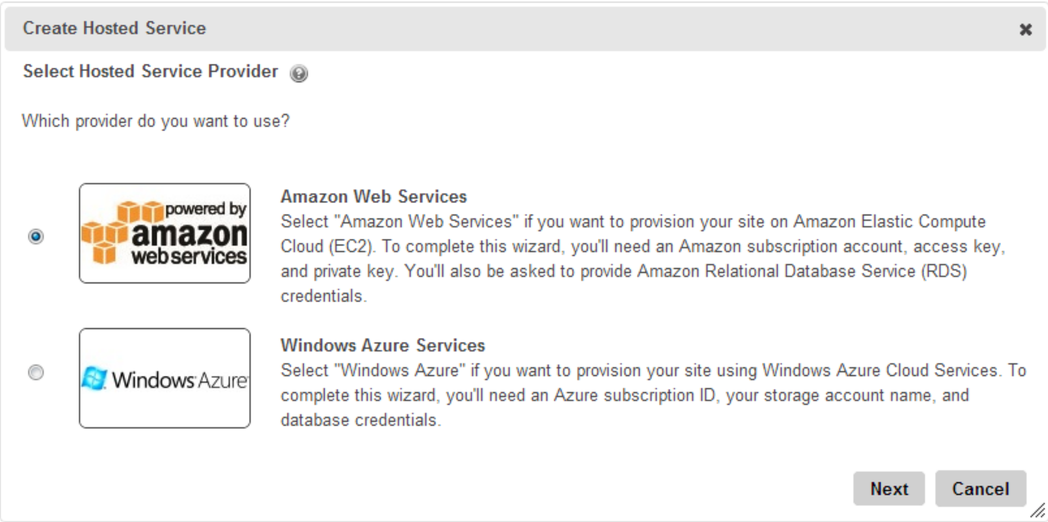
After you download and install `EktronCloudSetup.exe`, the Cloud Manager is added to the Workarea Settings.

Create the Initial Deployment on Amazon

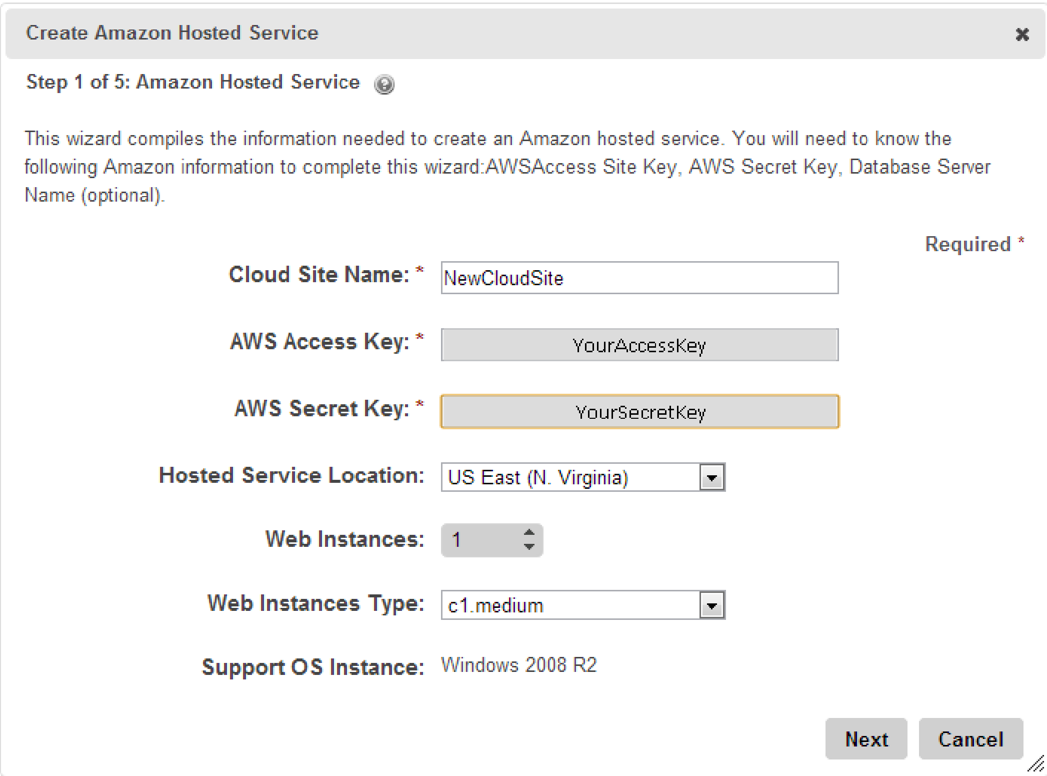
To create the initial deployment on the amazon cloud:

IMPORTANT: You must first install `EktronCloudSetup.exe`. See *Download and Install EktronCloudSetup.exe* on the previous page.

1. In the Workarea, choose **Settings > Configuration > Cloud Manager**.
2. Choose **Create Hosted Service** and select **Amazon Web Services**.



3. Click **Next**. A wizard appears (Step 1 of 5: Amazon Hosted Service). Fields with a red asterisk (*) are required.



   a. **Cloud Site Name** *—Specify a name for the site to deploy to the Cloud. (The name also is used to pre-fill Bucket Name and Database Name fields on other screens.)

b. **AWS Access Key** *—Specify your Amazon Web Services (AWS) Access Key, which identifies you as the responsible party for service requests.

c. **AWS Secret Key** *—Specify your Amazon Web Services (AWS) key.

d. **Hosted Service Location**—Select the location that is nearest to your hosted service.

e. **Web Instances**—Choose the number of servers on which the load will be balanced.

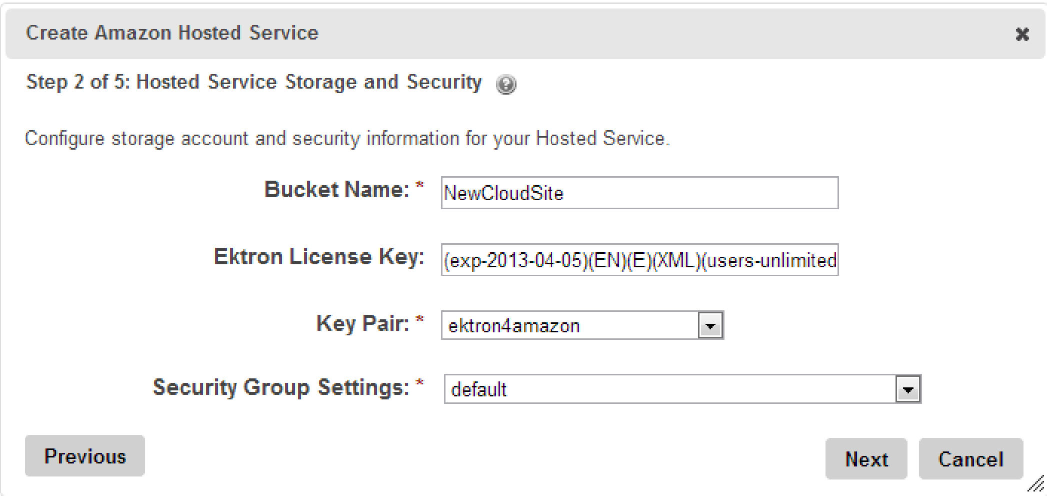
- 1—no load balancing.
- more than 1—load balance equally among the number of servers you choose.

f. **Web Instances Type**—Choose 1 of the following types for your Web virtual machine. This is your website and you can have as many instances as you want. Each option is described at [Amazon EC2 Instance Types](#).

- **c1.medium** (default)—High-CPU instances—5 ECUs—2 Cores—613 MB
- **c1.xlarge**—High-CPU instances—20 ECUs—8 Cores—7 GB
- **m1.small**—Standard instances—1 ECU—1 Core—1.7 GB
- **m1.medium**—Standard instances—2 ECUs—1 Core—3.7 GB
- **m1.large**—Standard instances—4 ECUs—2 Cores—7.5 GB
- **m1.xlarge**—Standard instances—8 ECUs—4 Cores—15 GB
- **m2.xlarge**—High-Memory instances—6.5 ECUs—2 Cores—17.1 GB
- **m2.2xlarge**—High-Memory instances—13 ECUs—4 Cores—34.2 GB
- **m2.4xlarge**—High-Memory instances —26 ECUs—8 Cores—68.4 GB

g. **Support OS Instance**—Windows 2008 R2 is the only option at this time.

4. Click **Next**. Step 2 of 5: the Hosted Service Storage and Security dialog box appears. Fields with a red asterisk (*) are required.



IMPORTANT: Make sure that you first import the certificate (`.cer`) into the **Management Certificate** and then add the `.pfx` file to the cloud service.

a. **Bucket Name** *—This field is already filled with the Cloud Site Name you specified but you can change it. It must be a unique name. The bucket is a container for your files.

b. **Ektron License Key**—This field is already filled with your Ektron license. You can specify a different valid license key for the cloud site.

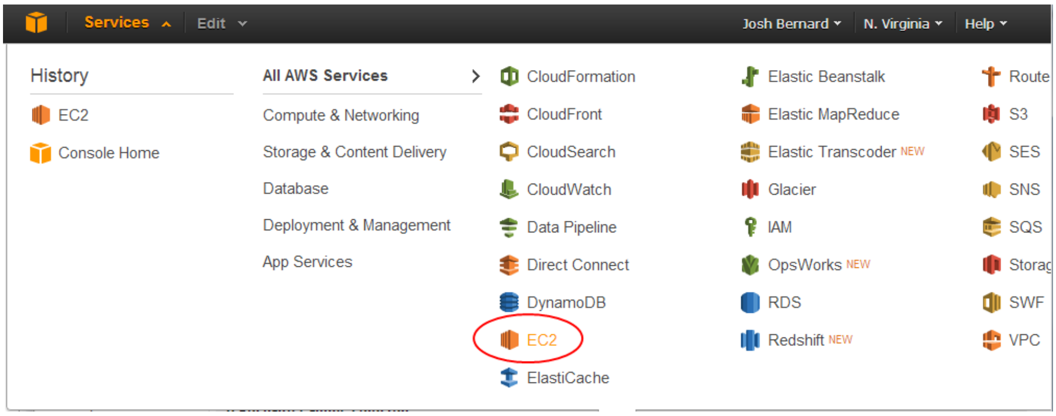
c. **Key Pair** *—Choose from a list of existing key pairs, or specify a new one.

IMPORTANT: For Amazon deployments only: To be able to connect to the EC2 cloud (VM) instance, you need a private key file (.pem) for the key pair that is used during the cloud deployment. If you create a new key pair when you run the deployment wizard, the `CloudPemFile` folder is created in the Ektron on-premises Windows Service install directory (`C:\Program Files (x86)\Ektron\EktronWindowsService40`) and the .pem file is located there. If you enter an existing key pair, you must have an existing .pem file or you cannot connect to the EC2 VM; you cannot update the key pair on EC2 instance later.

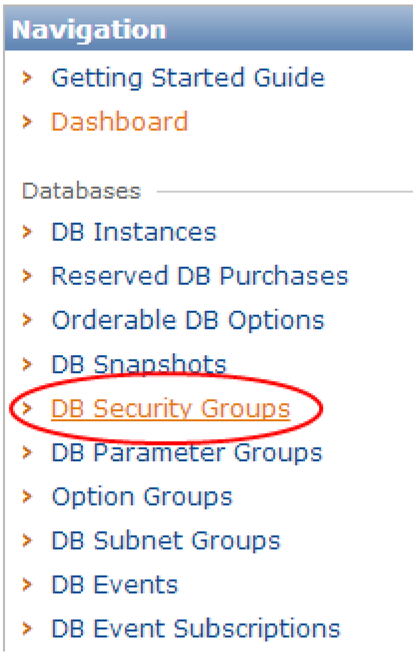
---

d. **Security Group Settings** *—Choose from a list of existing security group names, or specify a new one.

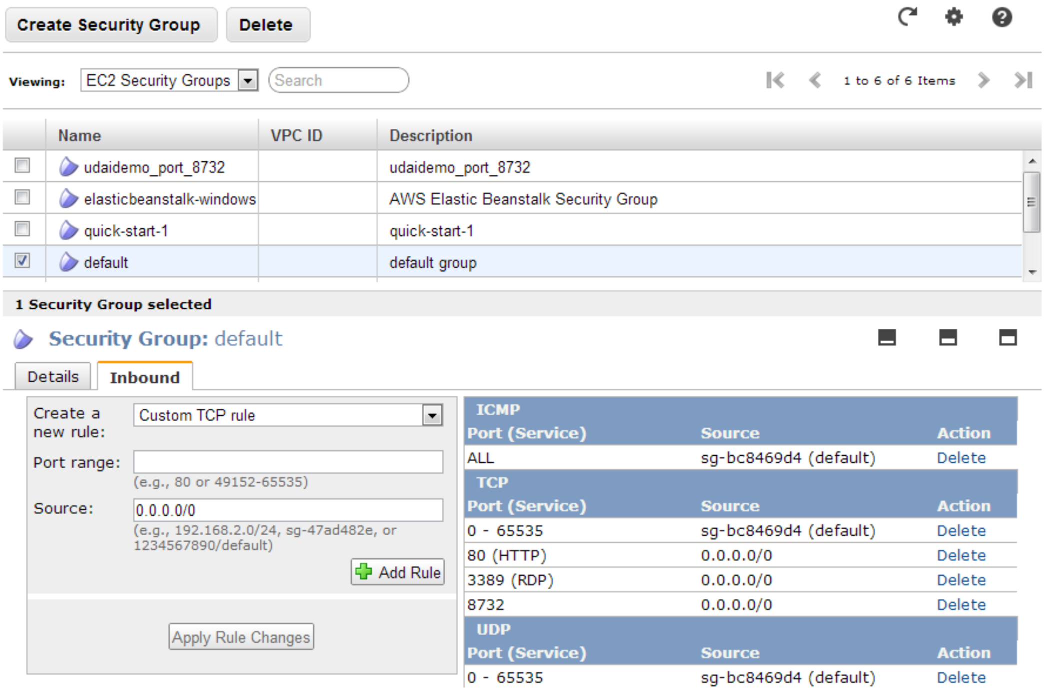
1. In the AWS console, choose **Services > EC2**.



2. On the left Navigation panel, choose **Network and Security > Security Groups.**



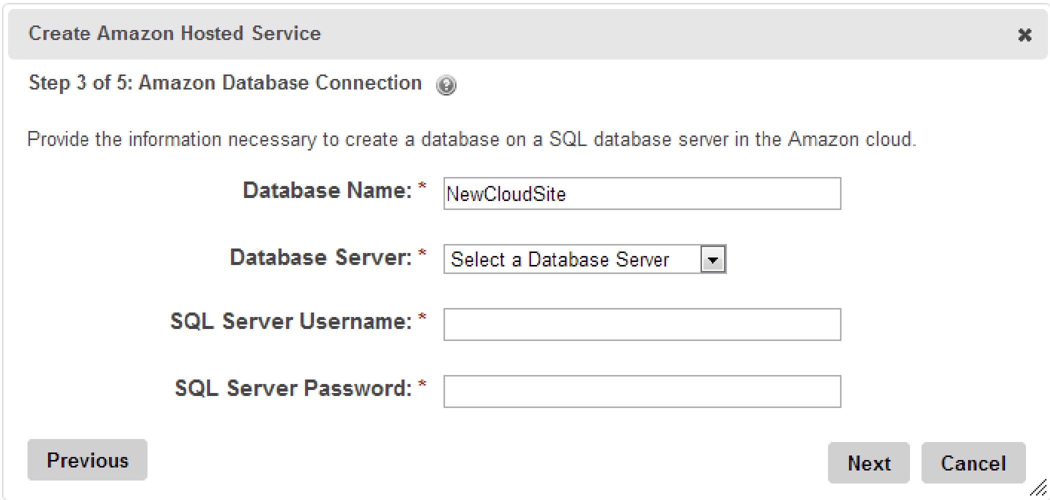
3. Select the name of the security group you want to see. The Inbound tab displays information about the selected security group.



5. Click **Next**. Step 3 of 5: Amazon Database Connection dialog box appears. Fields with a red asterisk (*) are required.

IMPORTANT: You should have completed the steps in *Setting Up the Amazon EC2 Security Groups and Amazon RDS DB Security Groups* on page 161 to complete this wizard step.

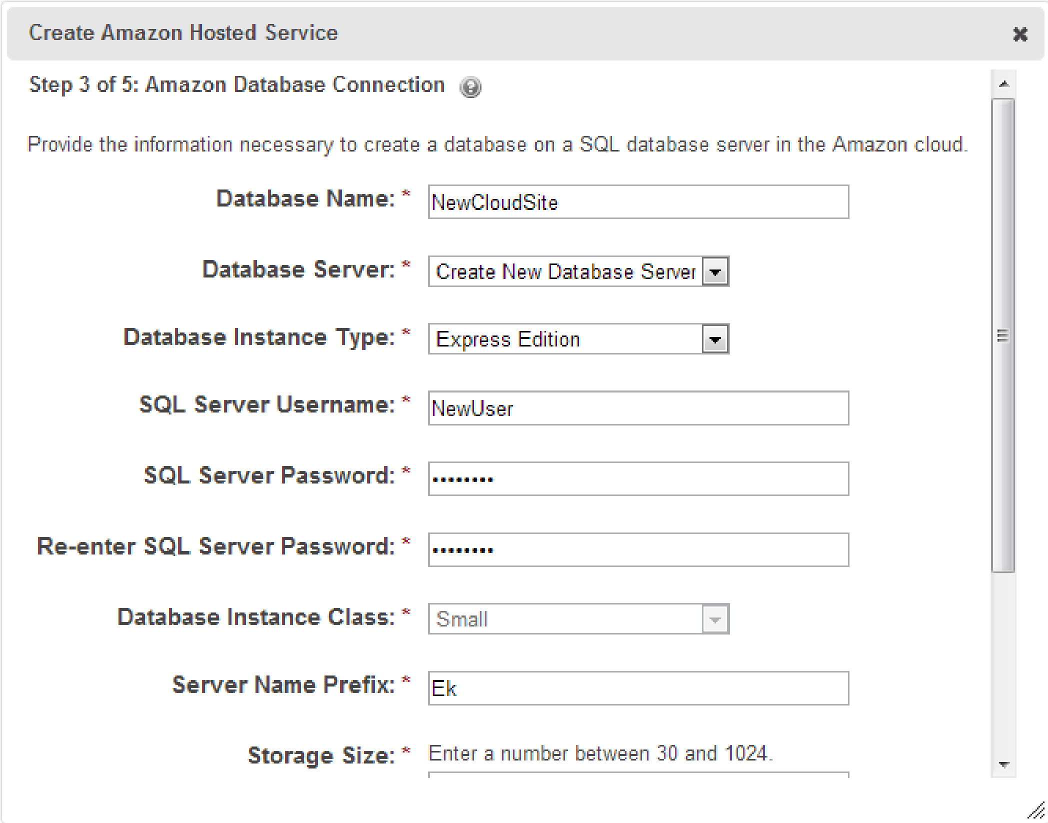
- If you choose an existing database, fill in the following fields and click **Next**.



   a. **Database Name** *—This field is already filled with the Cloud Site Name you specified but you can change it.
   b. **Database Server** *—Choose from a list of existing database servers, or specify a new one.
   c. **SQL Server Username** *—Specify up to 128 alpha-numeric characters (no spaces) for the database administrator account name. The first character must be a letter, and you cannot use reserved words.

d. **SQL Server Password** *—Specify at least 8 and up to 128 alpha-numeric characters (no spaces) for the password for the account.

- If you choose to create a new database, the screen expands for additional data.



a. **Database Name** *—This field is already filled with the Cloud Site Name you specified but you can change it.

b. **Database Server** *—Choose from a list of existing database servers, or specify a new one.

c. **Database Instance Type** *—Choose Web Edition, Express Edition, or Standard Edition. For information about instance types classes, see *SQL Server Editions* and *DB Instance Classes* at Amazon Web Services.

NOTE: The Standard edition supports notification service capabilities; Web and Express editions do not support notifications service capabilities.

d. **SQL Server Username** *—Specify up to 128 alpha-numeric characters (no spaces) for the database administrator account name. The first character must be a letter, and you cannot use reserved words.

e. **SQL Server Password** *—Appears if you create a new database: Specify at least 8 and up to 128 alpha-numeric characters (no spaces) for the password for the account.

f. **Re-enter SQL Server Password** *—Type the password for the account again.

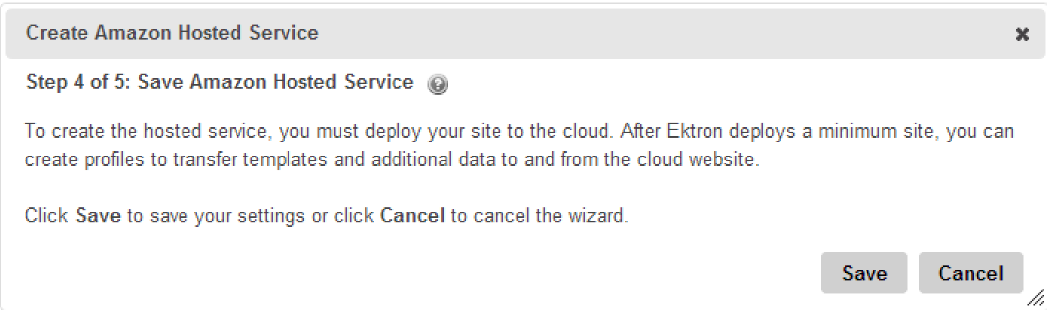
g. **Database Instance Class** *—This value is automatically filled in based on the instance type you chose, but you can specify another value. Options are:

   - Small
   - Large
   - Extra Large
   - 2Xtra Large
   - 4Xtra Large.

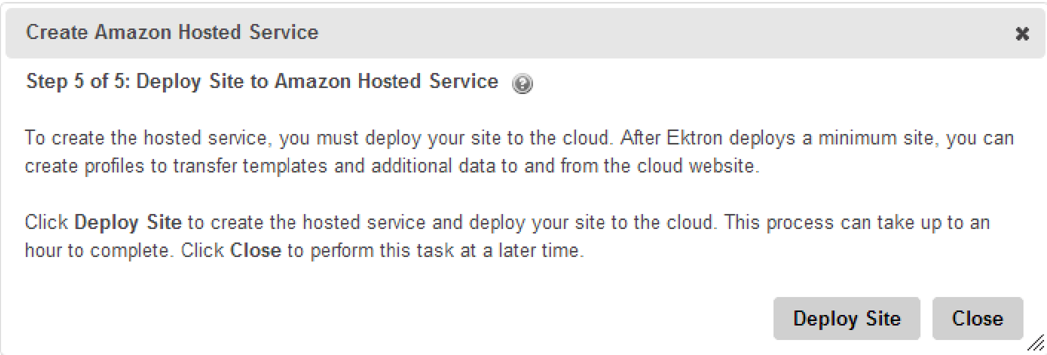
h. **Server Name Prefix** *—Specify up to 63 alpha-numeric characters (no spaces; up to 15 for an SQL server) for the prefix that will help you uniquely identify your server. The prefix name must begin with a letter and cannot have consecutive dashes or end in a dash .

i. **Storage Size** *—The range you can specify (in gigabytes) is determined by the instance type you chose.
   - Web Edition—30 to 1024
   - Express Edition—30 to 1024
   - Standard Edition—200 to 1024

6. Click **Next**. Step 4 of 5: Deploy Site to Amazon Hosted Service appears.
7. Click **Save**. A profile is created on the View All Hosted Services screen where you can deploy the site at a later time.

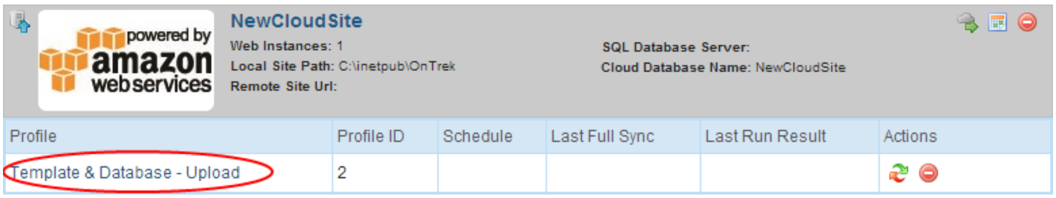


8. Then, Step 5 of 5: Deploy Site to Amazon Hosted Service appears. Click **Deploy Site**.



Ektron creates or uploads a new min database, provisions a storage container, creates the deployment package, and deploys them into a hosted cloud service. A confirmation message appears.

If you choose to deploy the site at another time, click **Close**; the View All Hosted Services screen appears with the new profile. To deploy the site, click the **Deploy Site** icon ( ).



To view or edit the profile, click on the Template & Database - Upload link. The View Profile "Template & Database - Upload" screen appears. For more information, see in the next section.

Synchronize the Database and Templates

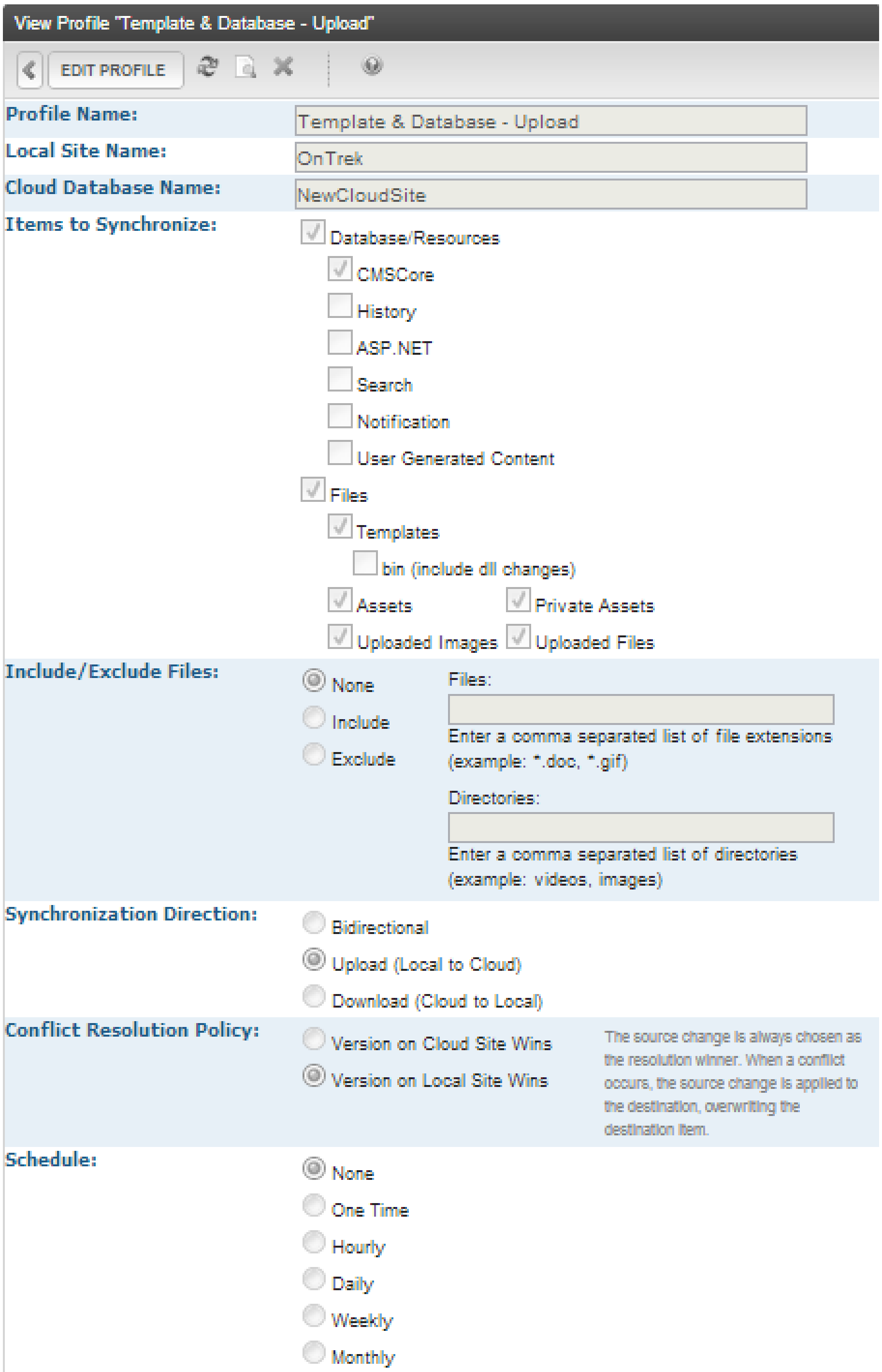
In this step, you use eSync to copy a site from a local server to the cloud. For more information on this screen, see *Setting up eSync Profiles* on page 1512.

To synchronize the database and templates:

1. Choose **Workarea > Settings > Configuration > Cloud Manager**. The view panel displays the instances of databases.
2. Run the default profile that was created by the deployment.

IMPORTANT: Without running this profile your data and resource is not transferred to cloud. You can create additional profiles to perform a similar operation.

3. Click **Add Profile** () to create a profile for the template. The Add Azure Synchronization Profile screen appears. You can create additional profiles for the database.



- **Profile Name**—Give a unique name to this synchronization profile. You can have several profiles to synchronize different elements at different times and frequencies.
- **Local Site Name**—Specify the site that you want to synchronize.
- **Cloud Database Name**—Specify the database that you want to synchronize.
- **Items to Synchronize**—You can synchronize everything, or select the portions you want to synchronize on schedule, managing the synchronization activity.
- **Include/Exclude Files**—Not supported.

- **Synchronization Direction**—Choose which way you want to synchronize the sites.

NOTE: Templates can only be uploaded.

- **Conflict Resolution Policy**—When there is a conflict between the local and cloud sites, choose which site resolves the conflict.
- **Schedule**—Choose the frequency of the automatic synchronization.

4. Specify a name, uncheck **Database/Resources** and **CMS Core**, and check the items you want to synchronize.
5. Click **Save Synchronization Profile**. The profile is saved and the View Azure Hosted Services screen appears.
6. In the Action section of the profile you just saved, click **Sync** ( ) to synchronize the database and templates.

Manage the Cloud Instances

In the View Azure Hosted Services screen (**Workarea > Settings > Configuration > Cloud Manager**), you can modify cloud instances in the following ways:

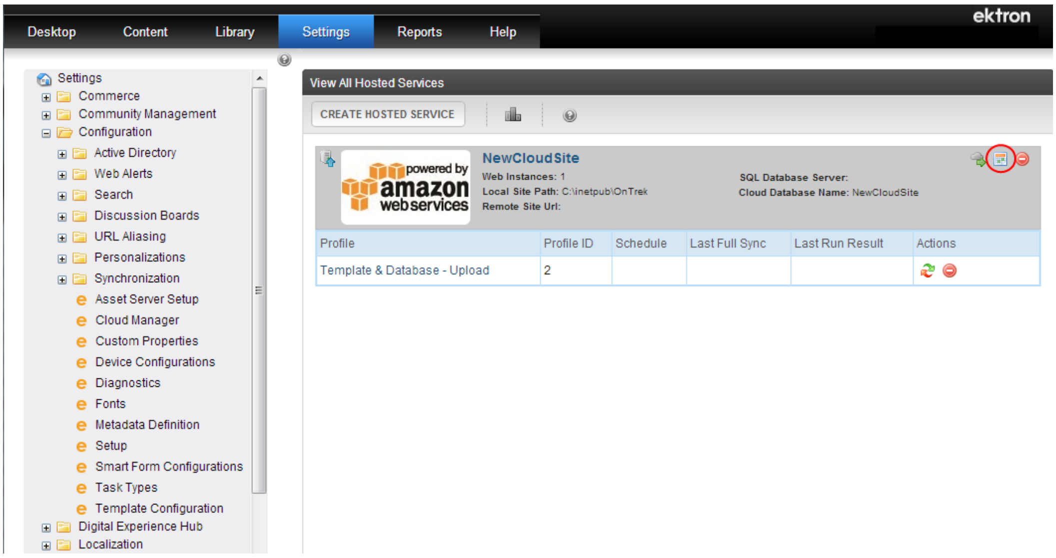
- **Start the instance**—If the icon is green, the instance is stopped; click to start it.
- **Stop the instance**—If the icon is red, the instance is running; click to stop it.
- **Configure Load Balancing**—Modify the number of instances. One (1) instance means no load balancing; more than 1 instance balances the load equally among instances.

NOTE: The DNS mapping needs to be changed when moving from 1-to-many or many-to-1. There also will be disruption to a live site when making changes.

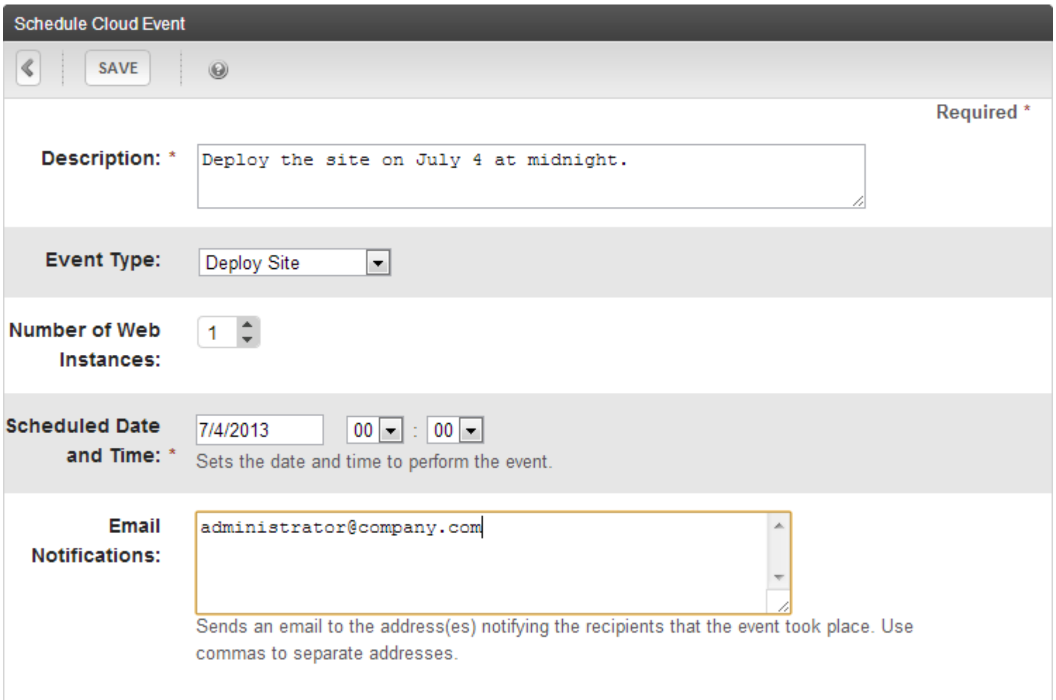
- **Schedule Cloud Event**—Display or set cloud event schedules.
- **Get Status** (Hosted Service)—Display the status of all profiles.
- **Delete Hosted Service**—Removes the instance from the list.
- **Add Profile**—Add a new profile.
- **Sync**—Synchronize the database and templates.
- **Get Status** (Profile)—Display the status of the selected profile.
- **Delete Profile**—Removes a selected profile.

Schedule Cloud Events

1. Go to **Settings > Cloud Manager**. The Cloud Manager screen appears.



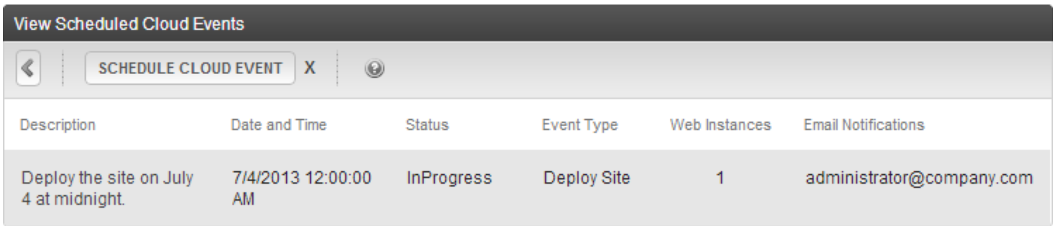
2. Click **Schedule Cloud Events** ( ). The View Schedule Cloud Events screen appears.
3. Click **Schedule Cloud Event**. The Schedule Cloud Event screen appears for you to fill in the fields.



- **Description**—Describe what the event does.
- **Event Type**—
  - **Edit Instances**—Change the number of instances.
  - **Deploy Site**—Deploy the site.
  - **Delete Deployment**—Opens a selector to choose sites that you want to delete.
- **Number of Web Instances**—The number that you specify will overwrite the number of instances that were set up with the initial deployment.

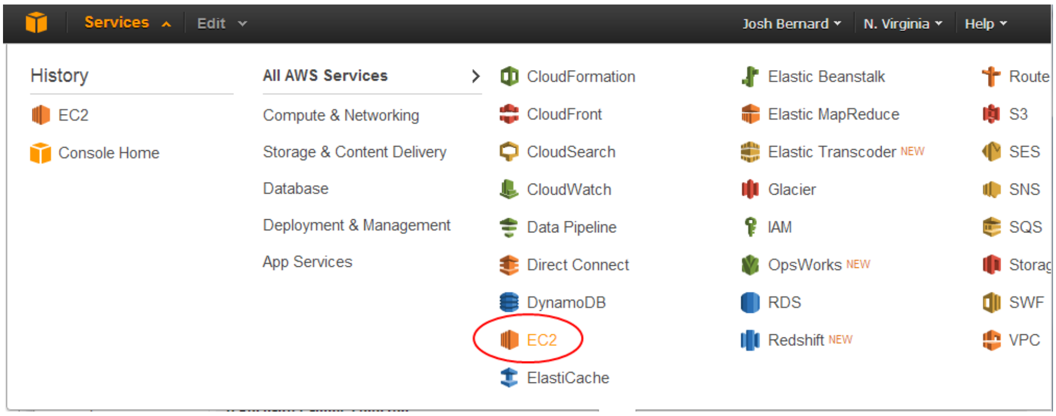
- **Scheduled Date and Time**—Specify when the event will occur.
- **Email Notifications**—Send an email to the address list. Use commas to separate the addresses.

4. Click **Save**. The event appears on the View Scheduled Cloud Events screen.

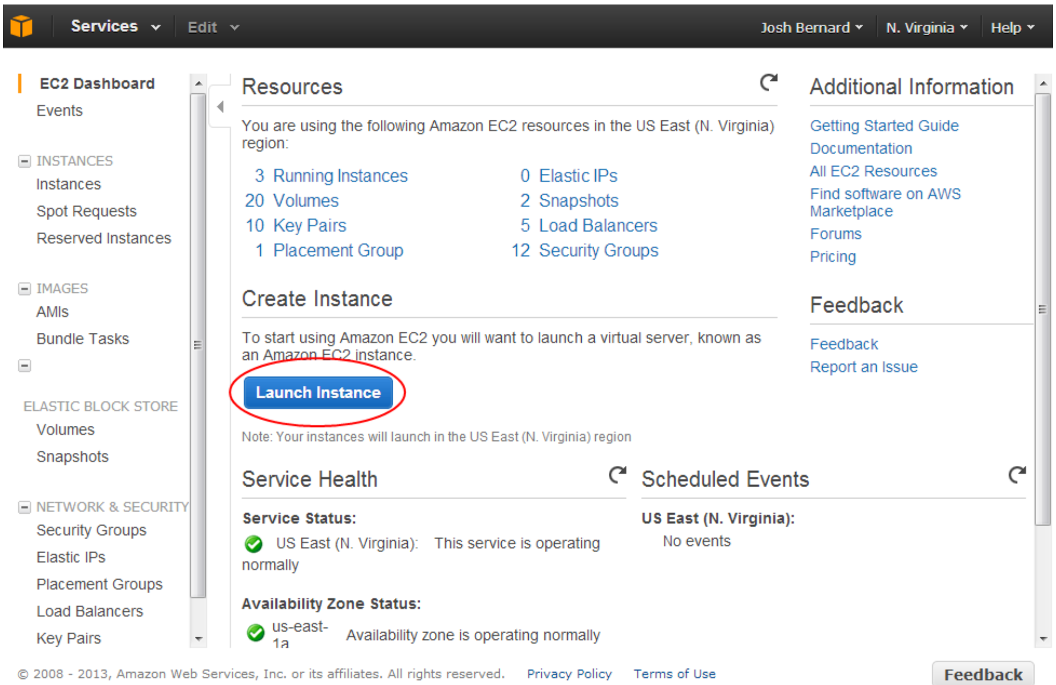


Creating a New Amazon Virtual Machine

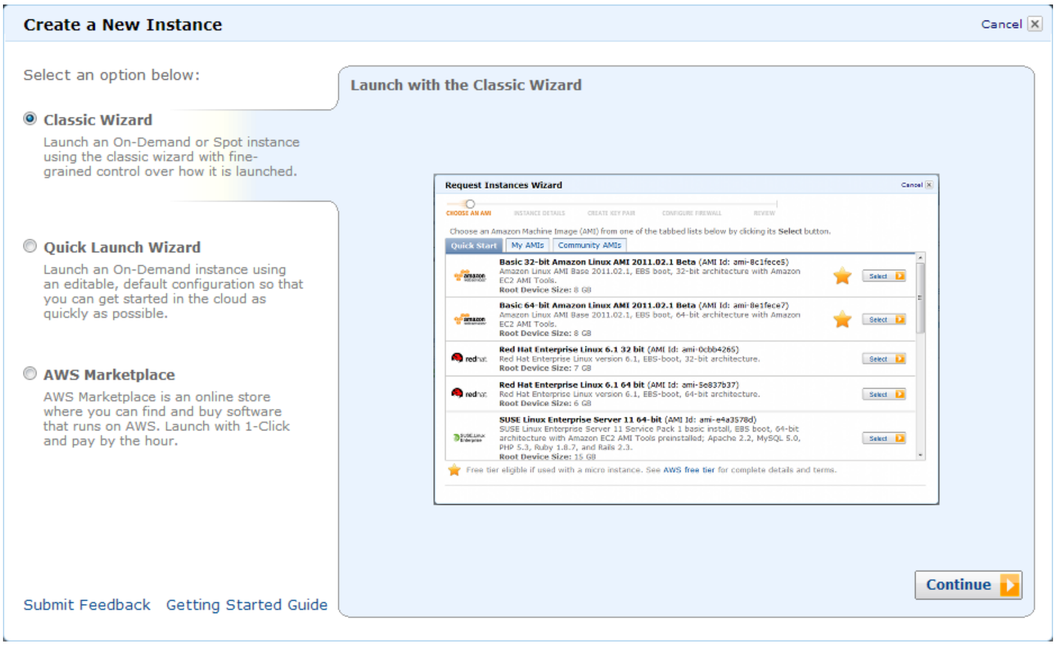
1. Log into the [Amazon Web Services](https://aws.amazon.com) (AWS) console with your account information.
2. Choose **Services > EC2**.



3. Click **Launch Instance**. The Create a New instance Wizard appears.



4. Select **Classic Wizard** and click **Continue**.

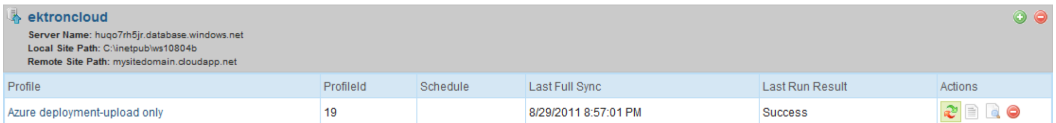


5. Complete the wizard.

Setting Up eSync to a Cloud Instance

Ektron’s sync technology, built on the Microsoft Sync Framework, synchronizes information between the Amazon cloud and on-premises data repositories. eSync makes it easy to manage content changes through a true hybrid cloud deployment.

When you run eSync, SQL data and file system resources (such as `~/assets`, `~/privateassets`, `~/uploadedfiles`, `~/uploadedimages`, `assetlibrary`) are synched to SQL Database Cloud Blob Storage.

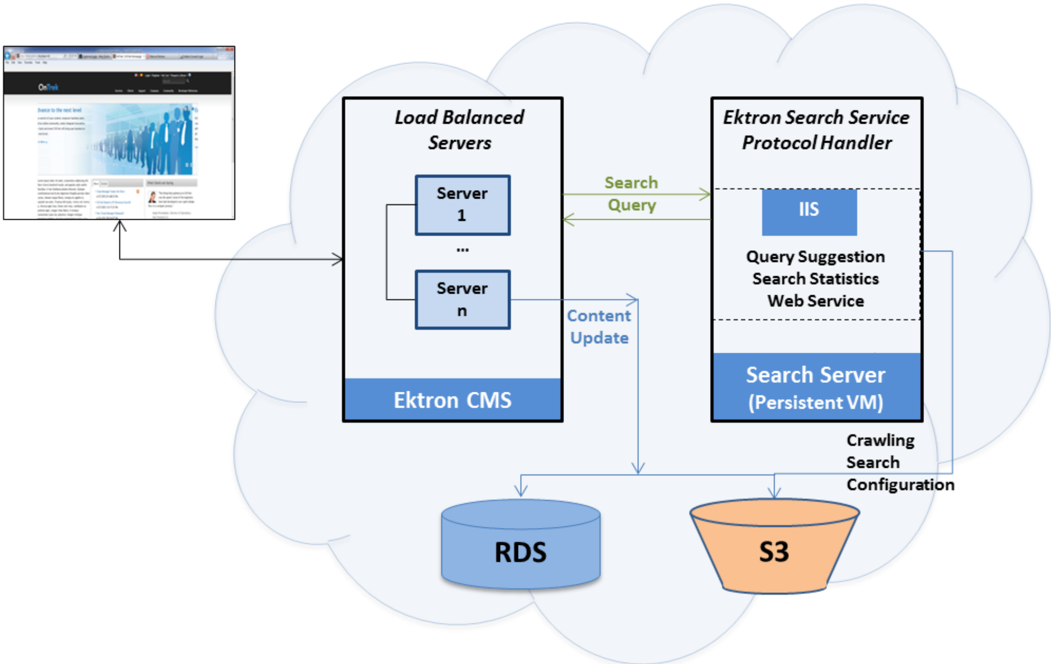


IMPORTANT: After deployment on an Amazon AWS account, and before running eSync from your local machine, you must apply the certificates located at `C:\Program Files (x86)\Ektron\EktronCloud\bin\worker\certificate` to your local machine.

Setting Up Search Server and Ektron Search Configuration Using Amazon EC2

This section explains how to connect Ektron in an Amazon environment to a search server running on Amazon EC2. As a result of this connection, search querying and crawling occur in the cloud.

If you are using Ektron in the cloud, there are many advantages to running search in the cloud also, such as performance, scalability, etc.

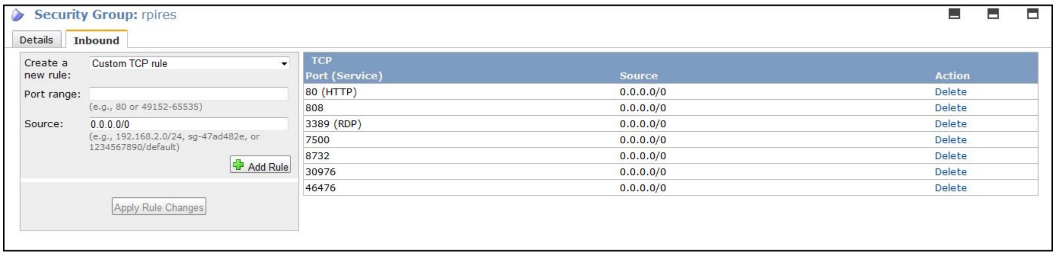


Prerequisites

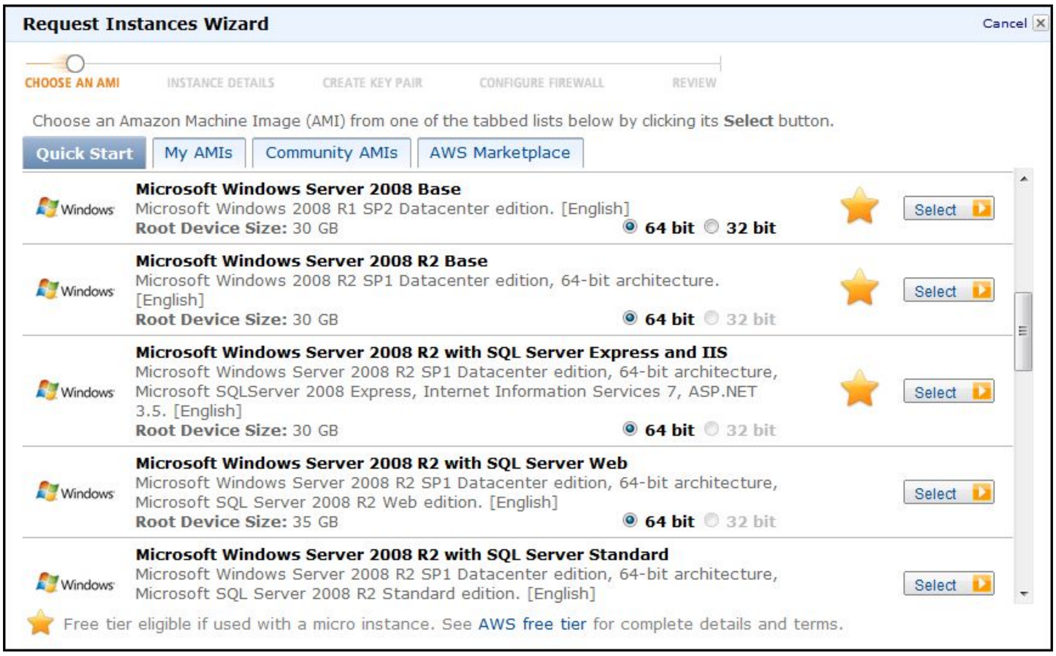
You completed all tasks in these sections and deployed Ektron in an Amazon environment:

- *Setting Up the Amazon EC2 Security Groups and Amazon RDS DB Security Groups* on page 161
- *Setting Up eSync to a Cloud Instance* on the previous page

1. Deploy site to Amazon cloud. See *Deploying a Site Package to Amazon* on page 162.
2. Create security group to include TCP ports 8732 and 7500.



3. Create an EC2 instance in Amazon using any Windows 2008 server image and use the security group that you created. This instance will be used as the search server.



4. Make sure IIS is installed on the EC2 instance.
5. Add inbound rules to allow TCP communication for ports 8732 and your Ektron search site (7500 is the default). To do that:
   a. Go to **Control Panel > Check Firewall Status > Advanced Settings**.
   b. Select **Inbound Rules**, then right click and select **New Rule**.
   c. Select **Port** radio button and click **Next**.
   d. Click the **TCP** radio button.
   e. Click **Specific Local Ports**, then add port 7500 (7500 is the default) and click **Next**.
   f. Select **Allow the connection** and click **Next**. "When does this rule apply?" appears. Accept all defaults and click **Next**.
   g. Assign a name to the inbound rule and click **Finish**.
   h. Repeat these steps for port 8732.
6. Copy Microsoft Search Server 2010 Express (`SearchServerExpressInstall.exe` from `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\` to the search server.
7. Run `SearchServerExpressInstall.exe` and choose the **Standalone** option. See *Setting Up Microsoft Search Server 2010 Express* on page 864.
8. Copy `EktronSearchConfiguration.exe` from `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\` to the search server.
9. Run `EktronSearchConfiguration.exe` on the search server. See *Setting Up Microsoft Search Server 2010* on page 871.
10. Check if `EktronSearchServerService` and `EktronPHFileHelperService` are installed and running.
11. Add `Search Server Administrator` to the `EktronSearchServerService` service.
12. Add the SharePoint Central Administration Site Port (`46476` for example) to the Security group that was created in step 2.

13. Add a host entry on cloud EC2 so it can communicate with the search server. For example, add `54.235.156.122 amazona-j0j9331` to the host file on the EC2 cloud (where `54.235.156.122` is an elastic IP and `amazona-j0j9331` is a machine name).

    NOTE: In the load-balanced environment, each EC2 instance must have a host entry for search to work.

14. On the EC2 cloud, open `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer` and run `Ektron.cms.search.config.UI`. Use a SharePoint Administration URL, for example: `http://amazona-j0j9331:46476`See Also: *Logging into Ektron's Search Server Configuration Screen* on page 926

Setting Up DxH on Amazon EC2

PREREQUISITE

You completed setting up and deploying Ektron to the Amazon cloud.

- *Setting Up the Amazon EC2 Security Groups and Amazon RDS DB Security Groups* on page 161
- *Setting Up eSync to a Cloud Instance* on page 174

1. Deploy a site to Amazon cloud. See *Deploying a Site Package to Amazon* on page 162.
2. Create a security group to include TCP port 808.
3. Create an EC2 instance in Amazon using Windows 2008 server with SQL Server image and use the security group that you created. This instance is used as the DxH server.
4. Make sure IIS is installed on the EC2 instance.
5. Add inbound and outbound rules to allow TCP communication for port 808. To do that:
   a. Go to **Control Panel > Check Firewall Status > Advanced Settings**.
   b. Select **Inbound Rules**, then right click and select **New Rule**.
   c. Select **Port** radio button and click **Next**.
   d. Click the **TCP** radio button.
   e. Click **Specific Local Ports**, then add port 808 and click **Next**.
   f. Select **Allow the connection** and click **Next**. "When does this rule apply?" appears. Accept all defaults and click **Next**.
   g. Assign a name to the inbound rule and click **Finish**.
   h. Select **Outbound Rules**, then right click and select **New Rule**.
   i. Select **Port** radio button and click Next.
   j. Click the **TCP** radio button.
   k. Click **Specific Local Ports**, then add port 808 and click **Next**.
   l. Select **Allow the connection** and click **Next**. "When does this rule apply?" appears. Accept all defaults and click **Next**.
   m. Assign a name to the outbound rule and click **Finish**.
6. Install and configure DxH in the VM. See *Installing and Configuring DxH* on page 996.

Using Amazon S3 as a Storage System

You can connect multiple storage systems and provision Amazon S3 Storage to store static files such as `assets`, `privateassets`, `uploadedimages`, `uploadedfiles`.

1. Sign in into http://aws.amazon.com.
2. Create the storage account. (You need to know how to get your `accountId` and `accountKey`.)
3. Create the sync relationship.
4. Open the database and update the `external_args` as follows.

```
declare @scheduleid bigint
set @scheduleid=0
update scheduler set server_type=1, external_args=N' <CloudServiceRequest
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<SubscriptionID>
[Place your Subscription Id here if you are connecting from the Azure cloud
service.
If you are connecting from another datacenter, leave this empty.]
</SubscriptionID>
<StorageAccountID>[Amazon Storage AccountId]</StorageAccountID>
<StorageAccountKey>[Amazon Storage Account Key]</StorageAccountKey>
<CDNEndpoint />
<ContainerConfigName>amazon</ContainerConfigName>
<WebSites>
  <SiteInfo>
    <ContainerAddress>[Your Bucket Name]</ContainerAddress >
    <LocalSitePath>[Your local website path ex., c:\inetpub\site1]
    </LocalSitePath>
  </SiteInfo>
</WebSites>
</CloudServiceRequest>'
where scheduleid=@scheduleid
```

5. Run the synchronization it will now synchronize all the resource (`assets`, `privateassets`, `uploadfiles` and `uploadedimages`) into S3.
6. Open web.config and make the following changes to read/write files directly onto S3
   a. Replace the `<unity.storage>` as follows:

```
<unity.storage>
  <assembly name="Ektron.Storage" />
  <assembly name="Ektron.Cloud" />
  <namespace name="Ektron.Cloud.Amazon.Storage" />
  <namespace name="Ektron.Storage" />
  <container name="storageContainer">
   <register type="IFileService" mapTo="ES3FileService" />
   <register type="IDirectoryService" mapTo="ES3DirectoryService" />
  </container>
</unity.storage>
```

   b. Add the following key in the `appsettings` section:

```
<add key="AWSAccessKey" value="[Your Access Key]" />
<add key="AWSSecretKey" value="[Your Secret Key]" />
<add key="BlobStorageName" value="[Your Bucket Name]"/>
<add key="BlobOrCdnUrl" value="[Your S3 or CloudFront URL]" />
```

c. Configure the following handler into the Module section:

```
<add name="EkBlobModule" type="BlobRedirectModule"
preCondition="integratedMode" />
```

Using Ektron in the Windows Azure Cloud

Setting Up the Azure Cloud Portal

IMPORTANT: Azure has 2 portal endpoints: http://windows.azure.com (old portal) and https://manage.windowsazure.com (new preview portal). You need to use the new portal for all the new features such as VM, and use the old portal for all other functionality. When following instructions in this document, if you are redirected to new portal, you can click on your profile icon to redirect back to the old portal.

The following sections describe the steps you take to set up your portal.

1. *Sign Up* below
2. *Install a Cloud Server Certificate* below
3. *Create a Hosting Service* on the next page
4. *Create a Storage Account* on page 181
5. *Create a CDN Endpoint* on page 182
6. *Create an SQL Premium Server Virtual Machine from the Azure Portal* on page 183

Sign Up

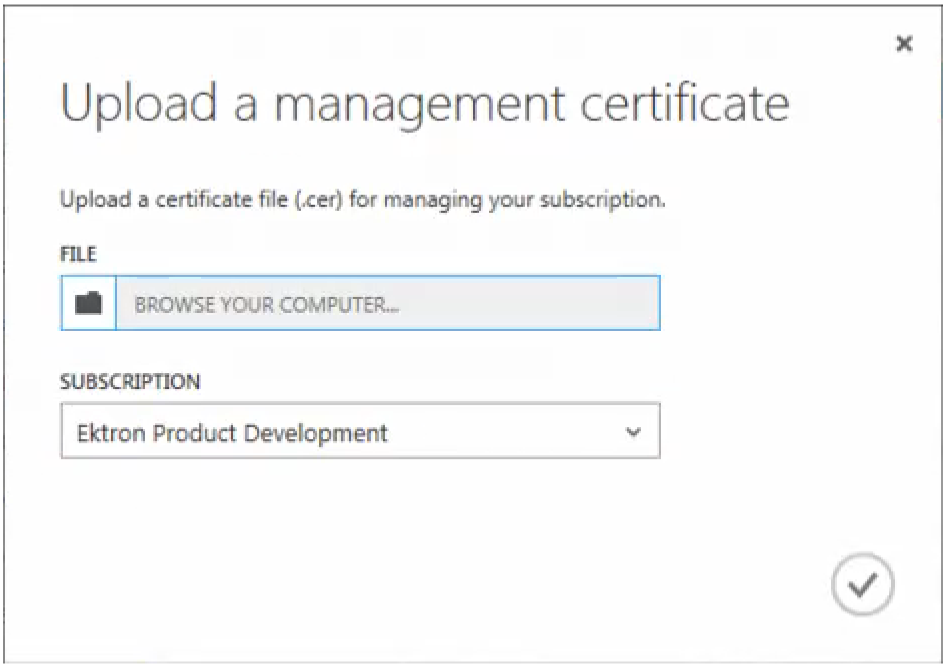
Windows Azure hosting requires Windows Live-ID sign on using your email address and subscription, which can be purchased from Microsoft at https://www.windowsazure.com. When you have the subscription, go to https://windows.azure.com or https://www.windowsazure.com and log in using your Live-ID and password.

Install a Cloud Server Certificate

To install a cloud server certificate:

1. From the home page of https://manage.windowsazure.com, click **Settings** in the left menu. The Settings screen appears.
2. Click the **Management Certificates** at the top of the Settings screen.

3. Click **Upload** at the bottom of the Setting screen. The Upload screen appears.



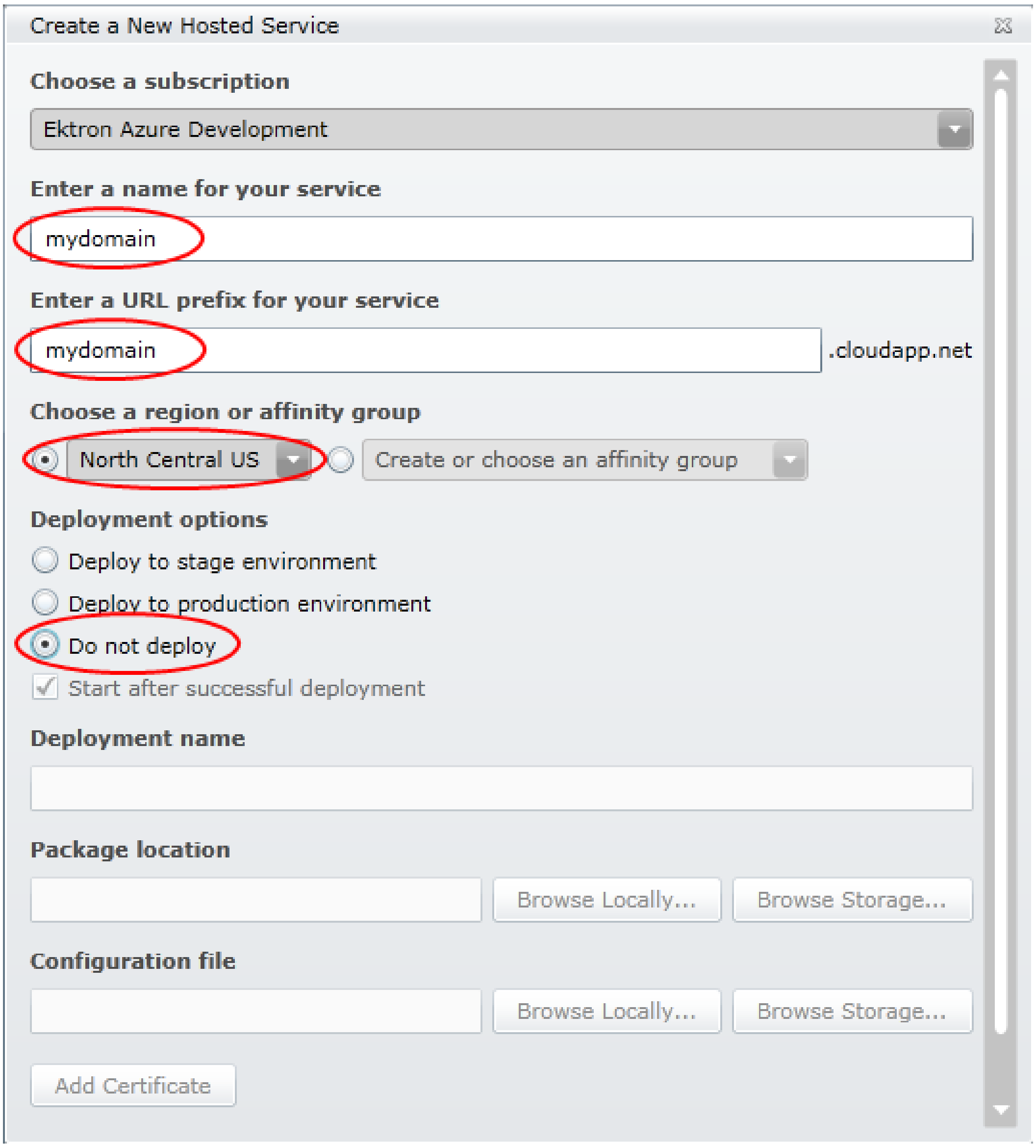
4. Choose a subscription from the drop-down list.
5. Click **Browse Your Computer** and choose `EktronCloud.cer` from the following path:
   - 64-bit system:
     ```
     ~\Program Files (x86)\Ektron\EktronCloud\mgtcert
     ```
   - 32-bit system:
     ```
     ~\Program Files\Ektron\EktronCloud\mgtcert
     ```
6. Click **OK** (check mark).

Create a Hosting Service

NOTE: This is an optional step. If you do not create the hosted service, Ektron creates it for you.

To create a hosting service:

1. From the home page of https://manage.windowsazure.com, click **New Hosted Service**. The Create a New Hosted Service dialog box appears.

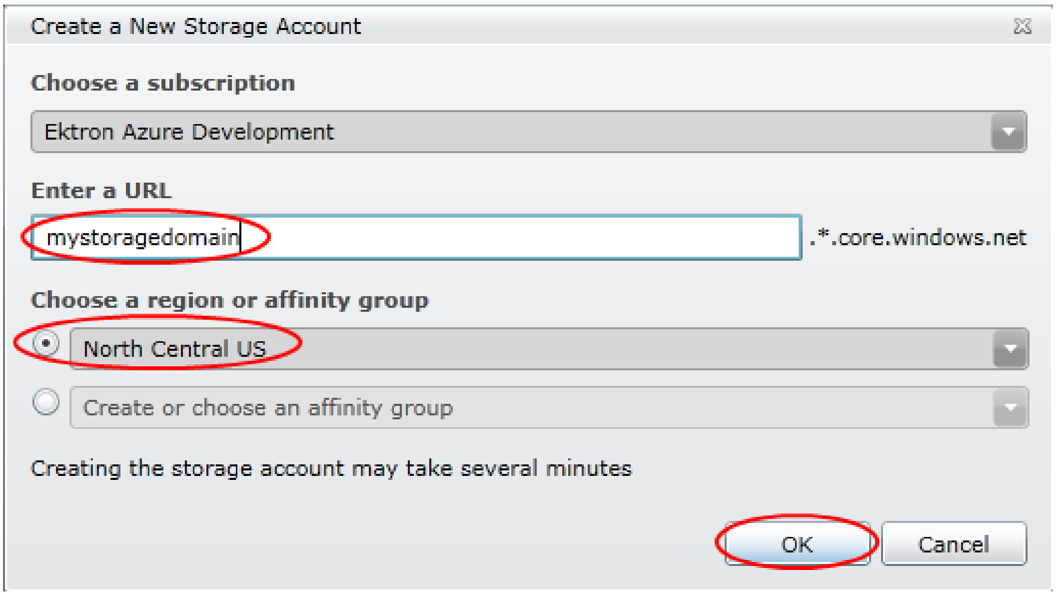


2. Enter the name of your service.
3. Enter the URL prefix for your service. If your host name is `mydomain` then your URL will be `mydomain.cloudapp.net`, which is used to set up the CNAME rec and location.
4. Choose a region.
5. Click **Do not deploy**.
6. Click **OK**.

Create a Storage Account

You need a storage account to store site resources in the cloud storage service, and to store and synchronize assets, private assets, uploaded files, uploaded images and asset library. To create a storage account:

1. From the home page of https://manage.windowsazure.com, click **New Storage Account**. The Create a New Storage Account dialog box appears.

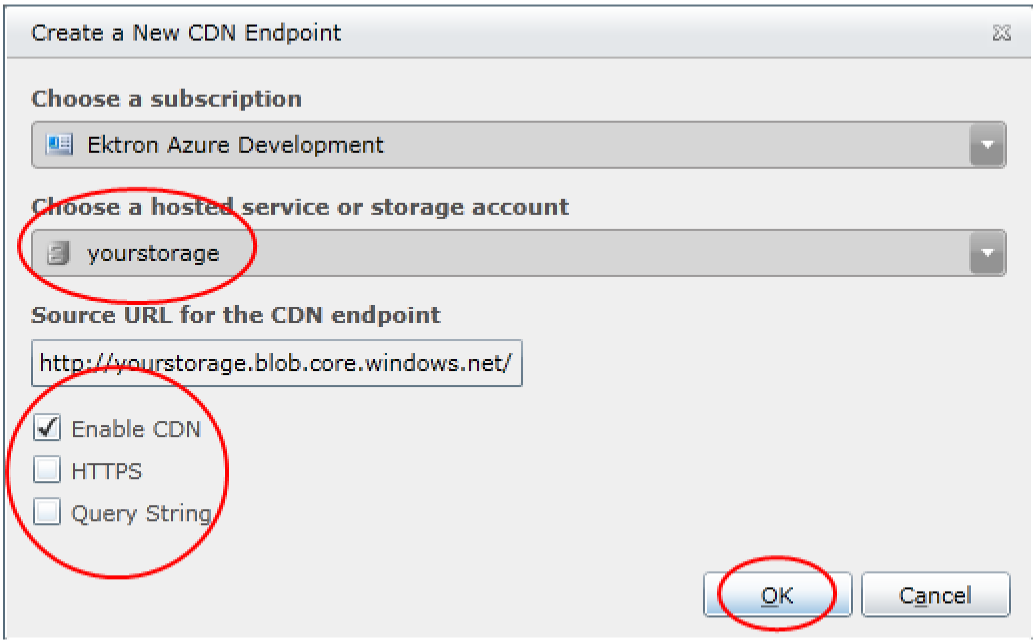


2. Enter your URL.
3. Choose a region.
4. Click **OK**.

Create a CDN Endpoint

Content Delivery Network (CDN) serves files faster from distributed servers. For better performance, Ektron recommends that you define the endpoint for your storage accounts. To create a CDN endpoint:

1. From the home page of https://manage.windowsazure.com, click **Hosted Services, Storage Accounts & CDN**.
2. Click on **CDN** in the left navigation panel.
3. Click **New Endpoint**. The Create a New CDN Endpoint dialog appears.



4. Choose the hosted service from the drop-down menu.

5. Optionally check **Enable CDN**, **HTTPS**, and **Query String**.
6. Click **OK**.

Create an SQL Premium Server Virtual Machine from the Azure Portal

Make sure your endpoint is configured for incoming traffic in both Azure portal and the virtual machine by setting the default port to 1433 (or any custom port number).

Deploying a Site Package to the Azure Cloud

After you set up the portal, following these steps to get your code running in the Azure cloud.

1. *Download and Install EktronCloudSetup.exe* below
2. *Create the Initial Deployment on Windows Azure* below
3. *Synchronize the Database and Templates* on page 169
4. *Manage the Cloud Instances* on page 191
5. *Schedule Cloud Events* on page 191
6. *Set up Ektron Storage* on page 193
7. *Set Up Ektron Caching* on page 193
8. *Set the SQL Premium Database Connection String* on page 194
9. *Set the Blob Redirect Handler* on page 194
10. *Create a Cloud Package* on page 194

Download and Install EktronCloudSetup.exe

Install `EktronCloudSetup.exe`.

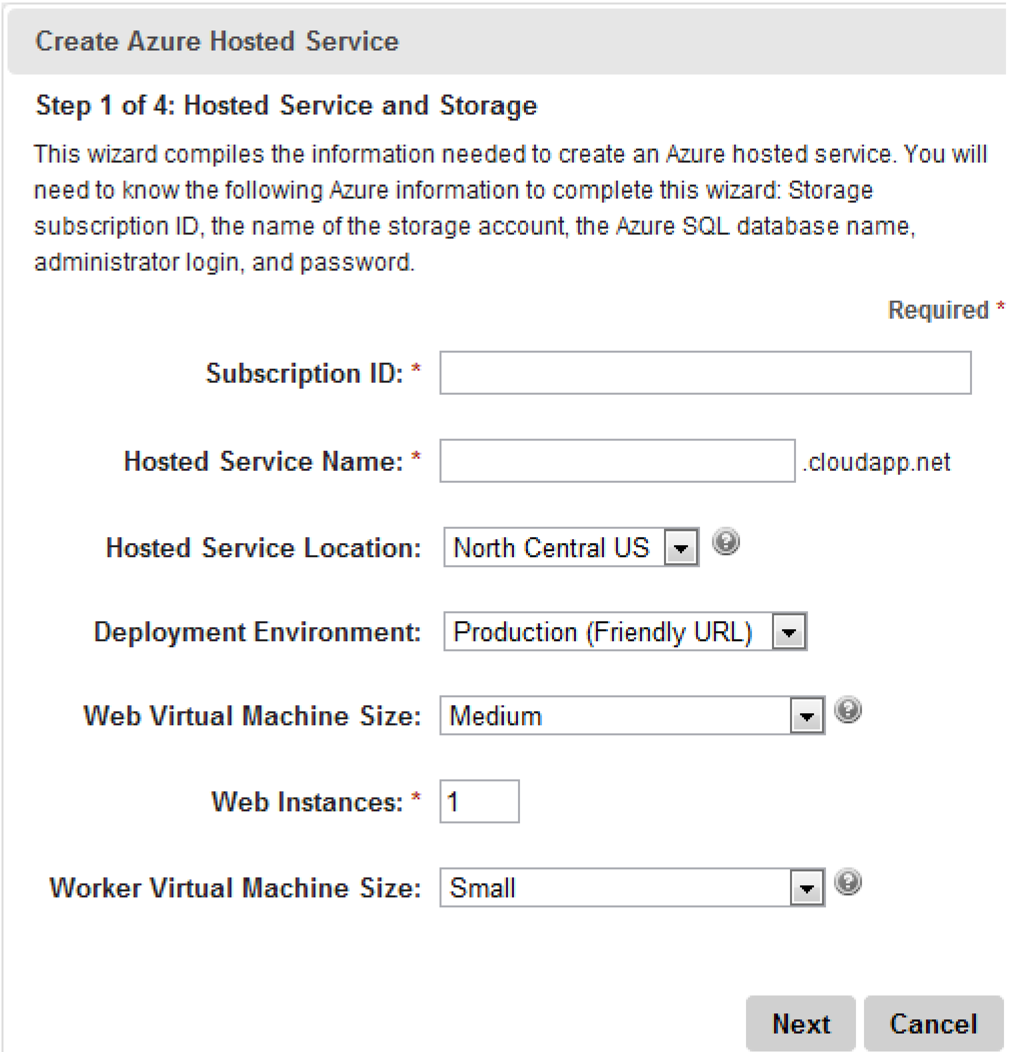
After you download and install `EktronCloudSetup.exe`, the Cloud Manager is added to the Workarea Settings.

Create the Initial Deployment on Windows Azure

To create the initial deployment:

IMPORTANT: You must first install EktronCloudSetup.exe. See *Download and Install EktronCloudSetup.exe* above. You must also upload the certificate to the portal and configure it to the cloud service before following this procedure.

1. In the Workarea, choose **Settings > Configuration > Cloud Manager**.
2. Choose **Create Hosted Service**. A wizard appears (Step 1 of 4: Hosted Service and Storage). Fields with a red asterisk (*) are required.



a. **Subscription ID**—You can get this from https://manage.windowsazure.com.
   1. Click on **Hosted Services, Storage Accounts & CDN**.
   2. Click the **Storage Account** folder.
   3. Copy and paste the Subscription ID from the Properties panel.

b. **Hosted Service Name**—Specify the name of the server.

c. **Hosted Service Location**—Select the location that is nearest to your hosted service.

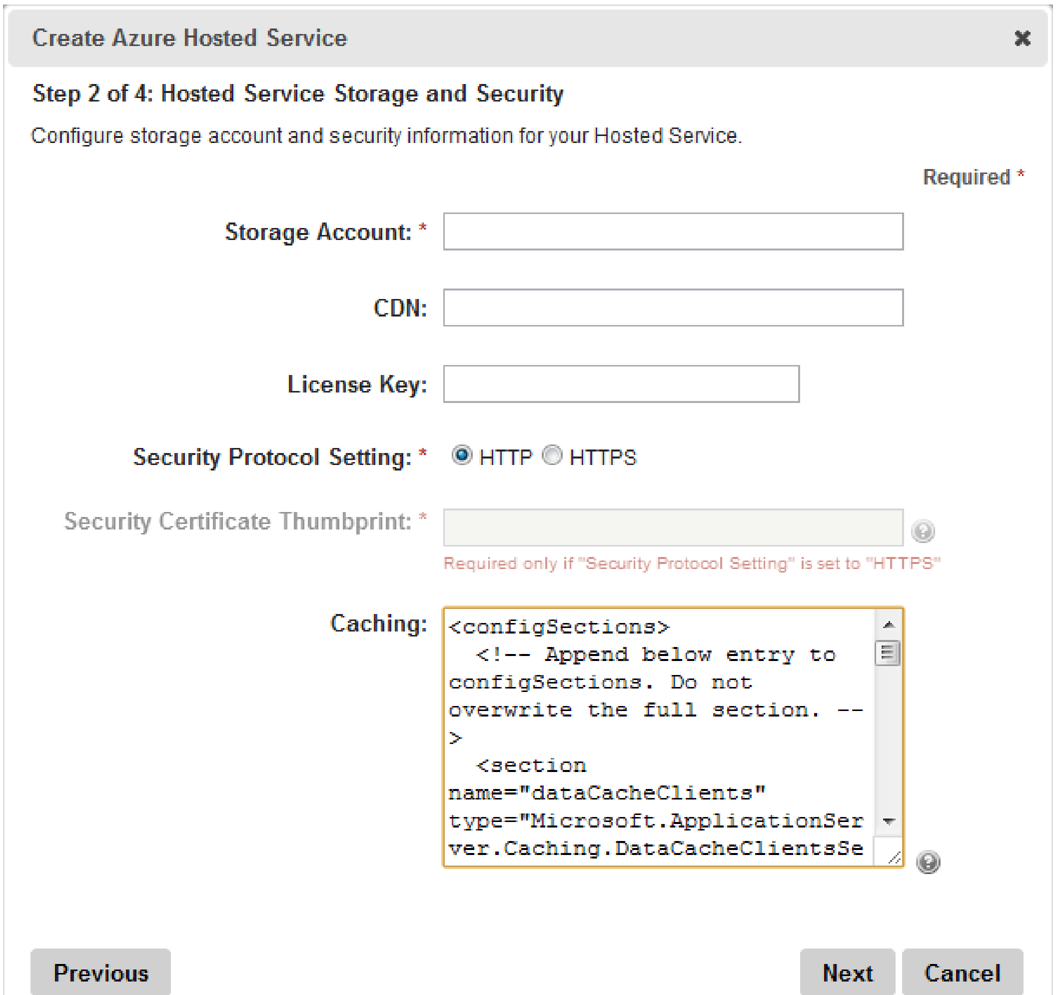
d. **Deployment Environment**—Choose either **Production** (Friendly URL) or **Staging** (GUID-based URL).

e. **Web Virtual Machine Size**—Choose **Small**, **Medium** (default), **Large**, or **Extra Large** for your Web virtual machine. This is your website, and you can have as many instances as you want. Each option is described at Amazon EC2 Instance Types.

f. **Web Instances**—Choose the number of servers on which the load will be balanced.
   - 1—no load balancing.
   - more than 1—load balance equally among the number of servers you choose.

g. **Worker Virtual Machine Size**—Choose **Small** (default), **Medium**, **Large**, or **Extra Large** for your windows service virtual machine. You can have only 1 instance of this virtual machine.

3. Click **Next**. Step 2 of 4: the Hosted Service Storage and Security dialog box appears. Fields with a red asterisk (*) are required.



IMPORTANT: Make sure that you first install the certificate (`.cer`) into the **Management Certificate** and then add the `.pfx` file to the cloud service. See Also: *Install a Cloud Server Certificate* on page 179.

a. **Storage Account**—Specify the name of the storage account that you created in *Create a Storage Account* on page 181.

b. **CDN**—Specify the URL with the Content Delivery Network (CDN). You can get this from https://manage.windowsazure.com.
   1. Click **Hosted Services, Storage Accounts and CDN**.
   2. Click the **CDN** folder.
   3. Click the server name with a CDN endpoint type.
   4. Copy and paste the **Default HTTP Endpoint** from the Properties panel. Be sure to start the URL with `http://` and place a trailing slash (`/`) on the end.

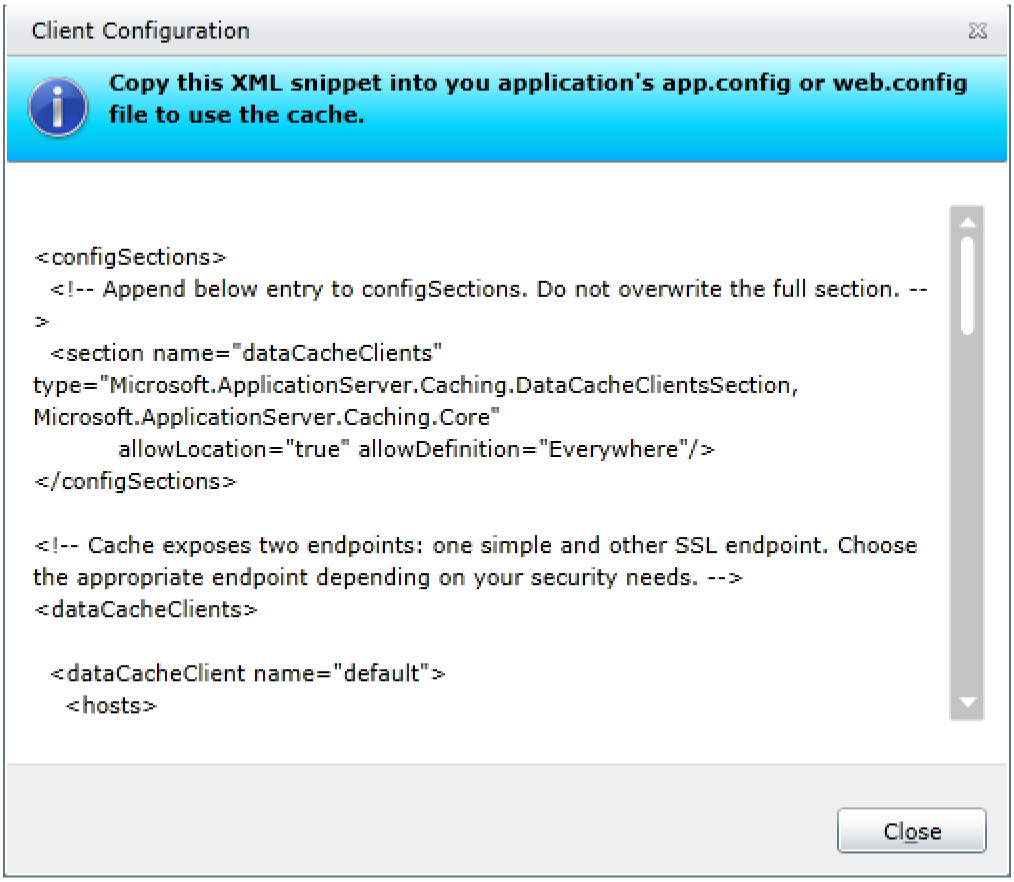
c. **License Key**—Optionally, specify the license key.

d. **Security Protocol Setting**—Choose HTTP or HTTPS.

e. **Security Certificate Thumbprint**—If you select HTTPS, you must also specify the hexadecimal string that contains the SHA-1 hash of the certificate.

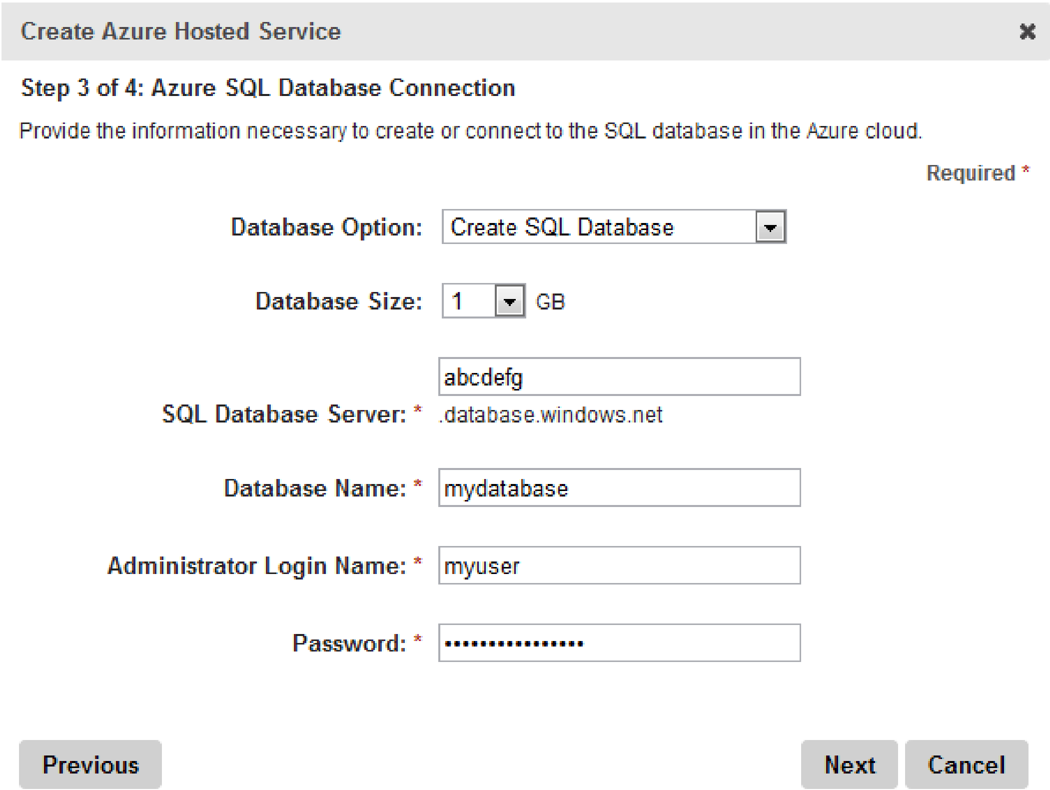
f. **Caching**—By default, Ektron uses the *inmemory* caching. However, Ektron uses the AppFabric provider to set up the session state to use *inproc*.

1. Go to the portal.
2. Click **Service Bus, Access Control & Caching**.
3. Go to **Services > Caching**.
4. Click an active namespace.
5. Click **View Client Configuration**.
6. Copy the XML and paste it in the Caching box.



4. Click **Next**. Step 3 of 4: Azure SQL Database Connection dialog box appears. Fields with a red asterisk (*) are required.

WARNING! As of August 2014, the Azure SQL database is no longer supported. Choose **Do not create SQL Database** in the Database Option drop-down field.

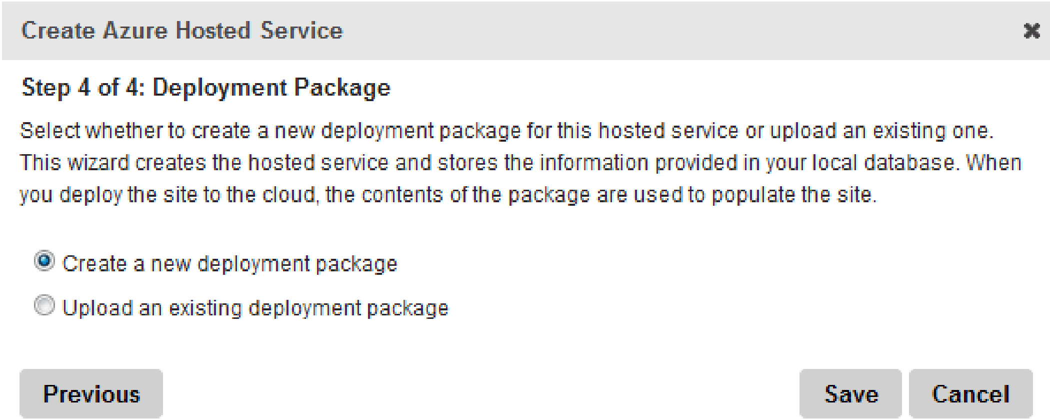


- **Database Option**—~~**Create SQL [Premium] Database** is the default database option.~~ If your database is already set up, choose **Do not create SQL Database**.
- **Database Size**—Select the size of your database.
- **SQL Database Server**—You can get the premium server name from the https://manage.windowsazure.com portal: click **Database** and look under the Subscriptions folder for the server name.
- **Database Name**—Specify the name of the database.
- **Administrator Login Name**—Create the database administrator account name.
- **Password**—Specify the password for the account.

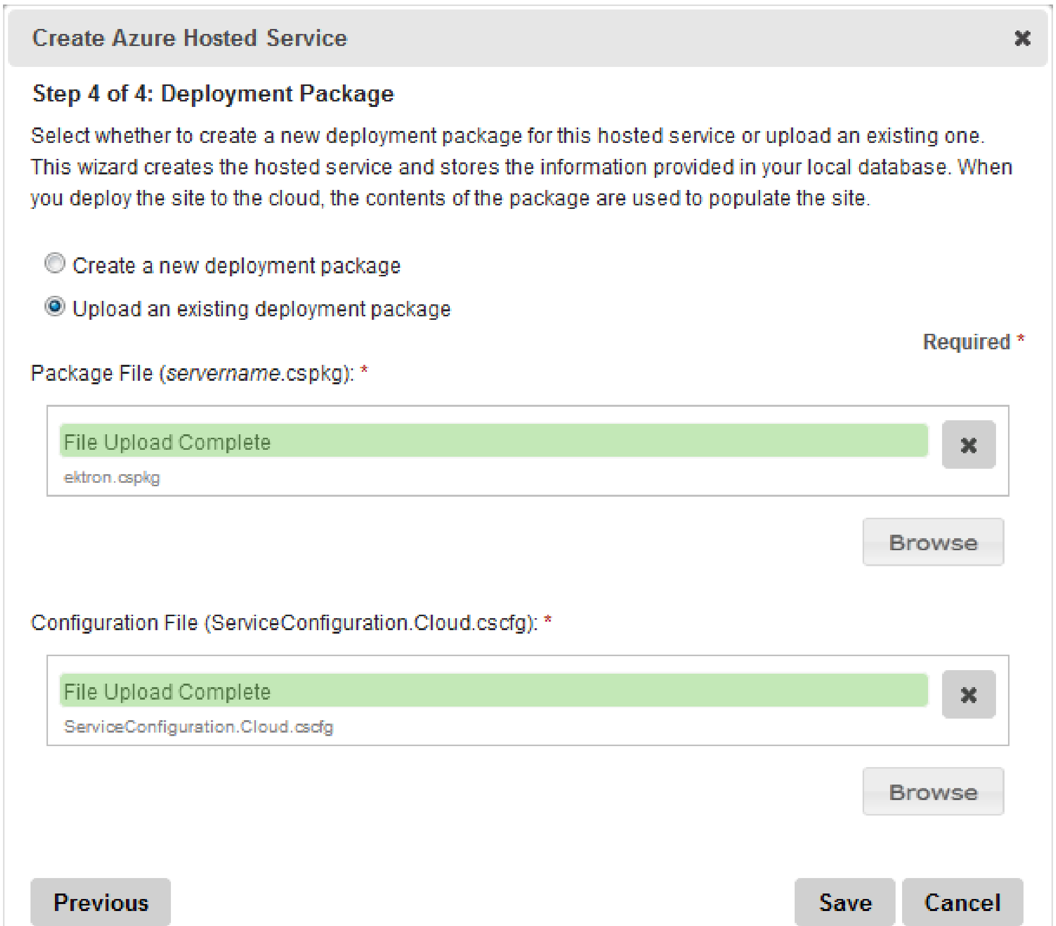
5. Choose to create a new package or upload an existing package to deploy to the cloud. The newly created deployment package is stored at:

```
~\sync\azuredeploy\{subscription-id}\{servicename}\package\
{servicename}.cspkg
```

- If you choose to create a new package, you get the following dialog box..

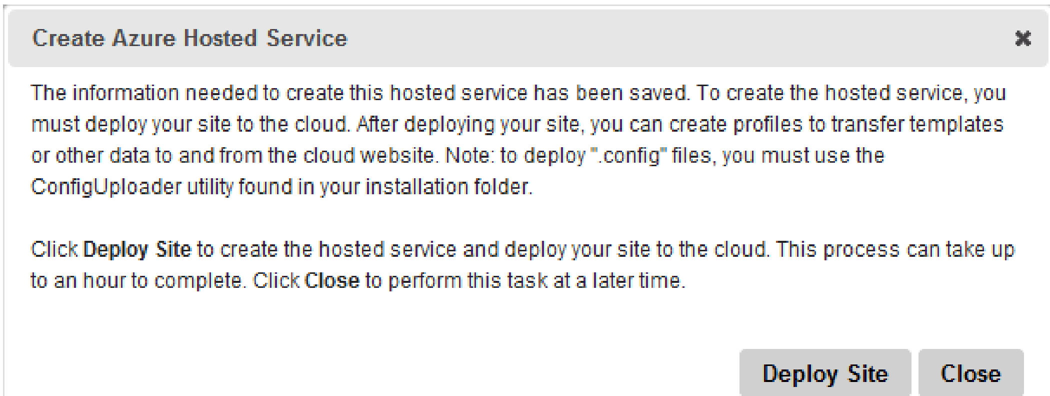


- If you choose to upload your files, click the **Browse** buttons to select the files.



An advanced user can copy the `Web.Cloud.config` file from Ektron Windows service (`~\Program Files (x86)\Ektron\CMS400vxx\AzureConfig`).

6. Click **Save**. A profile is created on the View All Hosted Services screen.
7. The Create Azure Hosted Service screen appears. Click **Deploy Site**. Ektron creates or uploads a new min database, provisions a storage container, creates the deployment package, and deploys them to a hosted cloud service. A confirmation message appears.



Synchronize the Database and Templates

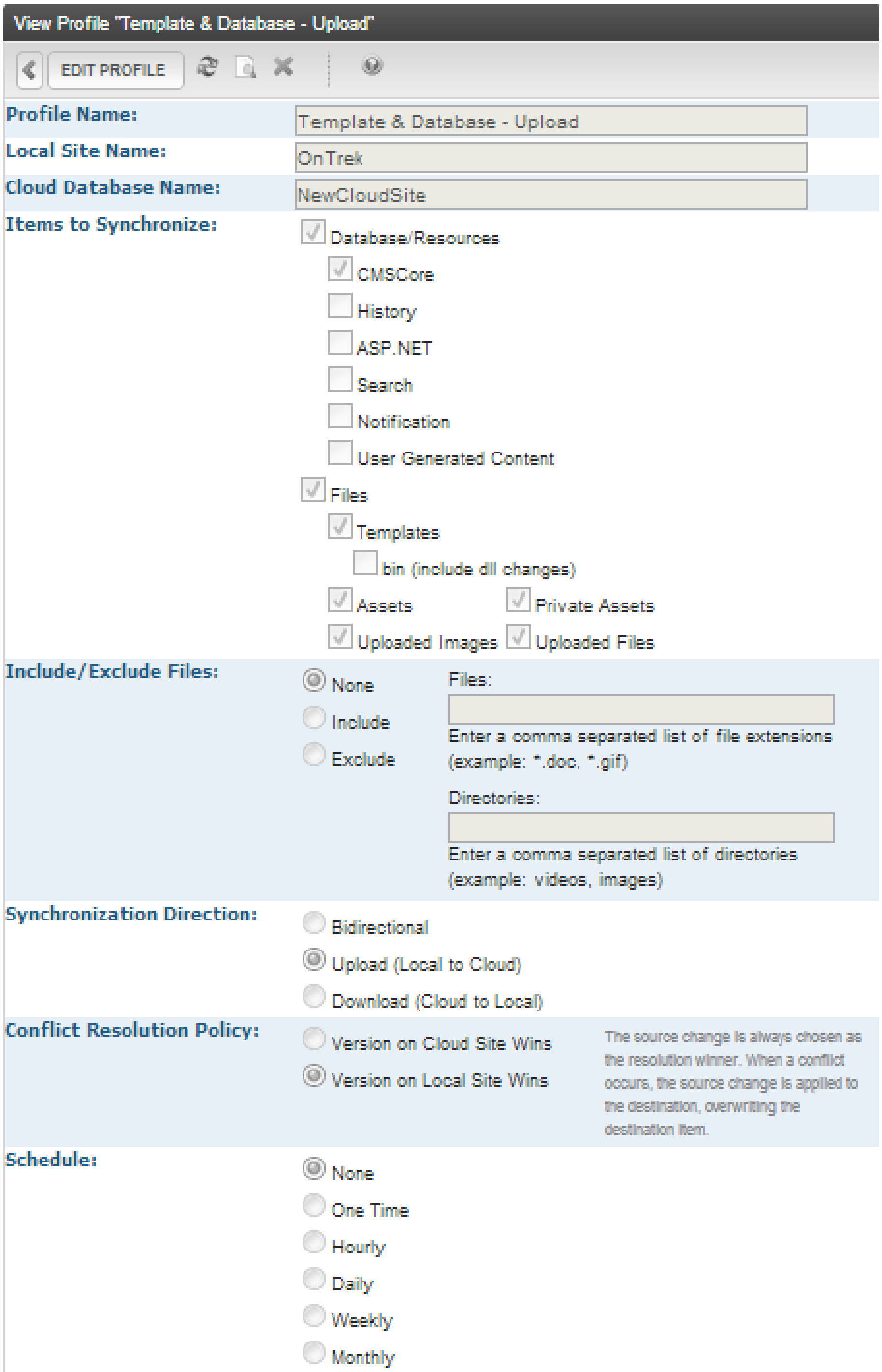
In this step, you use eSync to copy a site from a local server to the cloud. For more information on this screen, see *Setting up eSync Profiles* on page 1512.

To synchronize the database and templates:

1. Choose **Workarea > Settings > Configuration > Cloud Manager**. The view panel displays the instances of databases.
2. Run the default profile that was created by the deployment.

   IMPORTANT: Without running this profile your data and resource is not transferred to cloud. You can create additional profiles to perform a similar operation.

3. Click **Add Profile** ( ) to create a profile for the template. The Add Azure Synchronization Profile screen appears. You can create additional profiles for the database.



- **Profile Name**—Give a unique name to this synchronization profile. You can have several profiles to synchronize different elements at different times and frequencies.
- **Local Site Name**—Specify the site that you want to synchronize.
- **Cloud Database Name**—Specify the database that you want to synchronize.
- **Items to Synchronize**—You can synchronize everything, or select the portions you want to synchronize on schedule, managing the synchronization activity.
- **Include/Exclude Files**—Not supported.

- **Synchronization Direction**—Choose which way you want to synchronize the sites.

  NOTE: Templates can only be uploaded.

- **Conflict Resolution Policy**—When there is a conflict between the local and cloud sites, choose which site resolves the conflict.
- **Schedule**—Choose the frequency of the automatic synchronization.

4. Specify a name, uncheck **Database/Resources** and **CMS Core**, and the items you want to synchronize.
5. Click **Save Synchronization Profile**. The profile is saved and the View Azure Hosted Services screen appears.
6. In the Action section of the profile you just saved, click **Sync** ( ) to synchronize the database and templates.

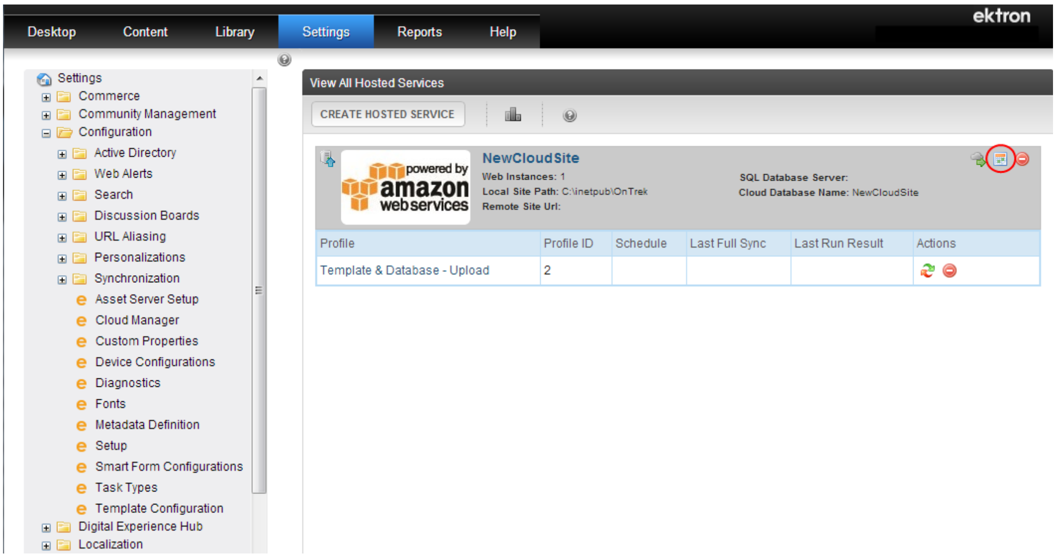
Manage the Cloud Instances

In the View Azure Hosted Services screen (**Workarea > Settings > Configuration > Cloud Manager**), you can modify cloud instances in the following ways:

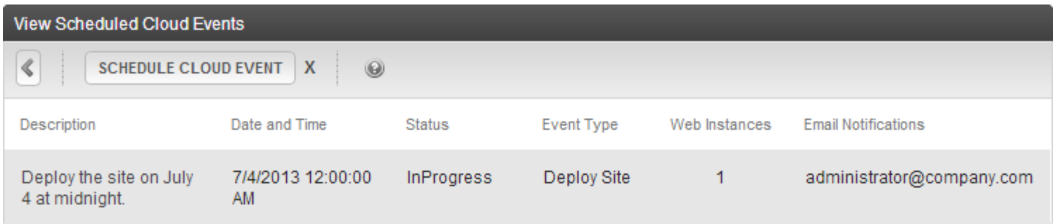
- **Start the instance**—If the icon is green, the instance is stopped; click to start it.
- **Stop the instance**—If the icon is red, the instance is running; click to stop it.
- **Configure Load Balancing**—Modify the number of instances. One (1) instance means no load balancing; more than 1 instance balances the load equally among instances.
- **Swap Instance**—If you have a production and staging server, click to swap the instance (to staging and production).
- **Schedule Cloud Event**—Display cloud event schedules.
- **Get Status** (Hosted Service)—Display the status of all profiles.
- **Delete Hosted Service**—Removes the instance from the list.
- **Add Profile**—Add a new profile.
- **Sync**—Synchronize the database and templates.
- **Get Status** (Profile)—Display the status of the selected profile.
- **Delete Profile**—Removes a selected profile.

Schedule Cloud Events

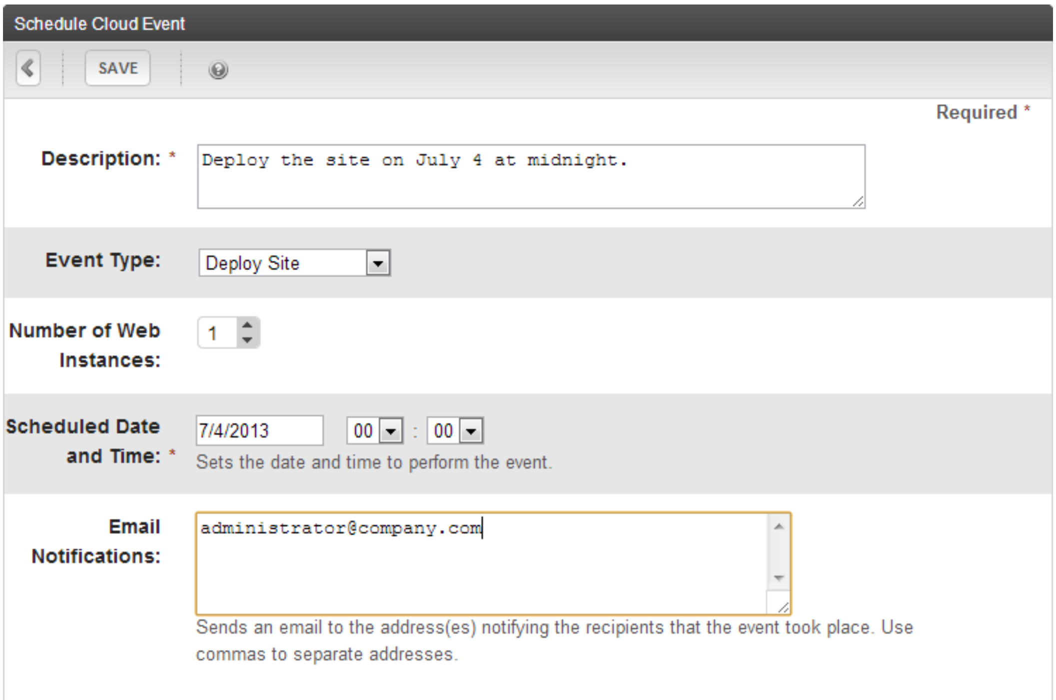
1. Go to **Settings > Cloud Manager**. The Cloud Manager screen appears.



2. Click **Schedule Cloud Events** ( ). The View Schedule Cloud Events screen appears.



3. Click **Schedule Cloud Event**. The Schedule Cloud Event screen appears for you to fill in the fields.



- **Description**—Describe what the event does.
- **Event Type**—
  - **Edit Instances**—Change the number of instances.
  - **Deploy Site**—Deploy the site.
  - **Delete Deployment**—Opens a selector to choose sites that you want to delete.
- **Number of Web Instances**—The number that you specify will overwrite the number of instances that were set up with the initial deployment.
- **Scheduled Date and Time**—Specify when the event will occur.
- **Email Notifications**—Send an email to the address list. Use commas to separate the addresses.

4. Click **Save**.

Set up Ektron Storage

Ektron uses the `unity` section of your cloud `web.config` file to set up a storage destination.

1. Add the following to the `configSections` section:

```
<section name="unity.storage"
  type="Ektron.Unity.Configuration.UnityConfigurationSection,
   Ektron.Unity.Configuration, Version=2.0.414.0, Culture=neutral,
   PublicKeyToken=1e97f90fc2b998db"/>
```

2. Define `unity.storage` as follows:

```
<unity.storage>
  <assembly name="Ektron.Storage"/>
  <assembly name="Ektron.Cloud"/>
  <namespace name="Ektron.Cloud.Azure.Storage"/>
  <namespace name="Ektron.Storage"/>
  <container name="storageContainer">
    <register type="IFileService" mapTo="CloudFileService"/>
    <register type="IDirectoryService" mapTo="CloudDirectoryService"/>
  </container>
</unity.storage>
```

Set Up Ektron Caching

NOTE: Caching configuration is required only if you run more than 1 instance (load balancing). You can get the section values from the portal.

In your cloud `web.config` file (add location), do the following:

1. Add the following to the `configSections` section:

```
<section name="dataCacheClients"
  type="Microsoft.ApplicationServer.Caching.DataCacheClientsSection,
  Microsoft.ApplicationServer.Caching.Core" allowLocation="true"
  allowDefinition="Everywhere"/>
```

2. Define `dataCacheClients` as follows:

```
<dataCacheClients>
  <dataCacheClient name="default">
    <host>
```

```
      <host name="[yournamespace].cache.windows.net" cacheport="22233" />
    </hosts>
    <securityProperties mode="Message">
      <messageSecurity authorizationInfo="[yoursecretkeyinfo]"/>
    </securityProperties>
  </dataCacheClient>
  <dataCacheClient name="SslEndpoint">
    <host>
      <host name="ektron.cache.windows.net" cacheport="22243"/>
    </hosts>
    <securityProperties mode="Message" sslEnbaled="true">
      <messageSecurity authorizationInfo="[yoursecretkeyinfo]"/>
    </securityProperties>
  </dataCacheClient>
</dataCacheClients>
```

3. Set up the sessions to use Appfabric server:

```
<sessionState mode="Custom"
  customProvider="AppFabricCacheSessionStoreProvider">
  <providers>
    <add name="AppFabricCacheSessionStoreProvider"
      type="Microsoft.Web.DistributedCache
        .DistributedCacheSessionStateStoreProvider,
      Microsoft.Web.DistributedCache"
      cacheName="default"
      useBlobMode="true"
      dataCacheClientName="default" />
  </providers>
</sessionState>
```

Set the SQL Premium Database Connection String

In your cloud `web.config` file, modify the `Ektron.DbConnection` section to have an SQL premium database connection string. You can get this value from the portal.

Set the Blob Redirect Handler

In your cloud `web.config` file, insert the Blob redirect handler into the `module` section:

```
<add name="EkBlobModule"
  type="[assemblyname].BlobRedirect.Module,[assemblyname]"
  precondition="integratorMode"/>
```

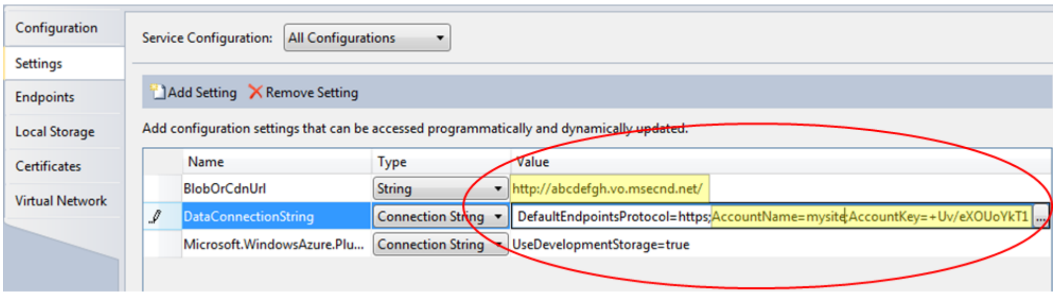
Create a Cloud Package

1. Open the cloud solution from Ektron Developer's SDK.
2. Set up the storage account details in the service configuration file. Use *Visual Studio 2010* (or edit the XML-based configuration file) to have the following details:

   Name: BlobOrCdnUrl
   Type: String
   Value: **http://abcdefgh.vo.msecnd.net/**

   Name: DataConnectionString
   Type: Connection String
   Value:

DefaultEndPointProtocol=https;
AccountName=mysite;AccountKey=+Uv/eXOUoYkT1...

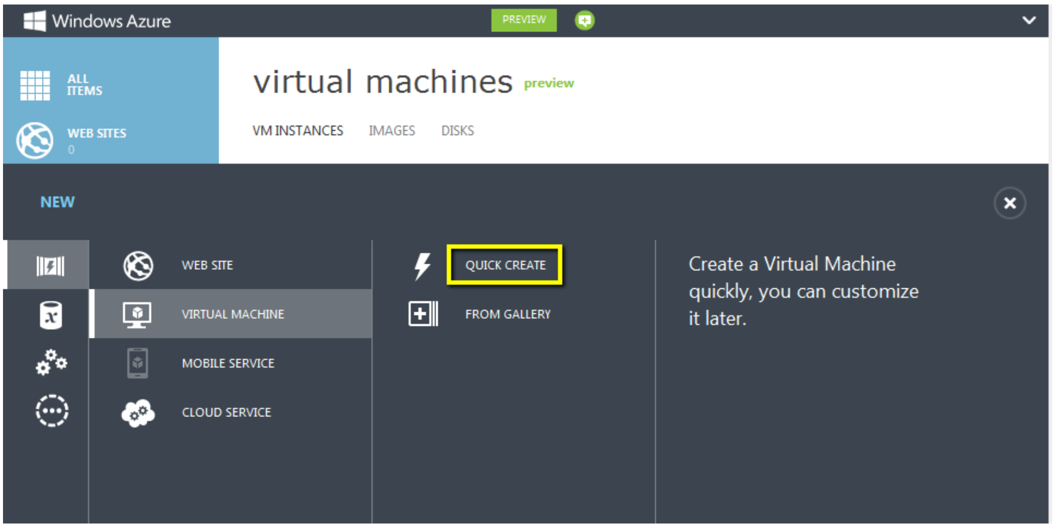


3. Compile the project with Visual Studio 2010, or use the `msbuild` command as follows:
   `msbuild yourcloudproject.ccproj /p:Configuration=Release /t:Build;Publish`
4. Log into the portal and upload *`yourprojectname`*`.cspkg` and `ServiceConfiguration.Cloud.cscfg` into your newly created hosted service.

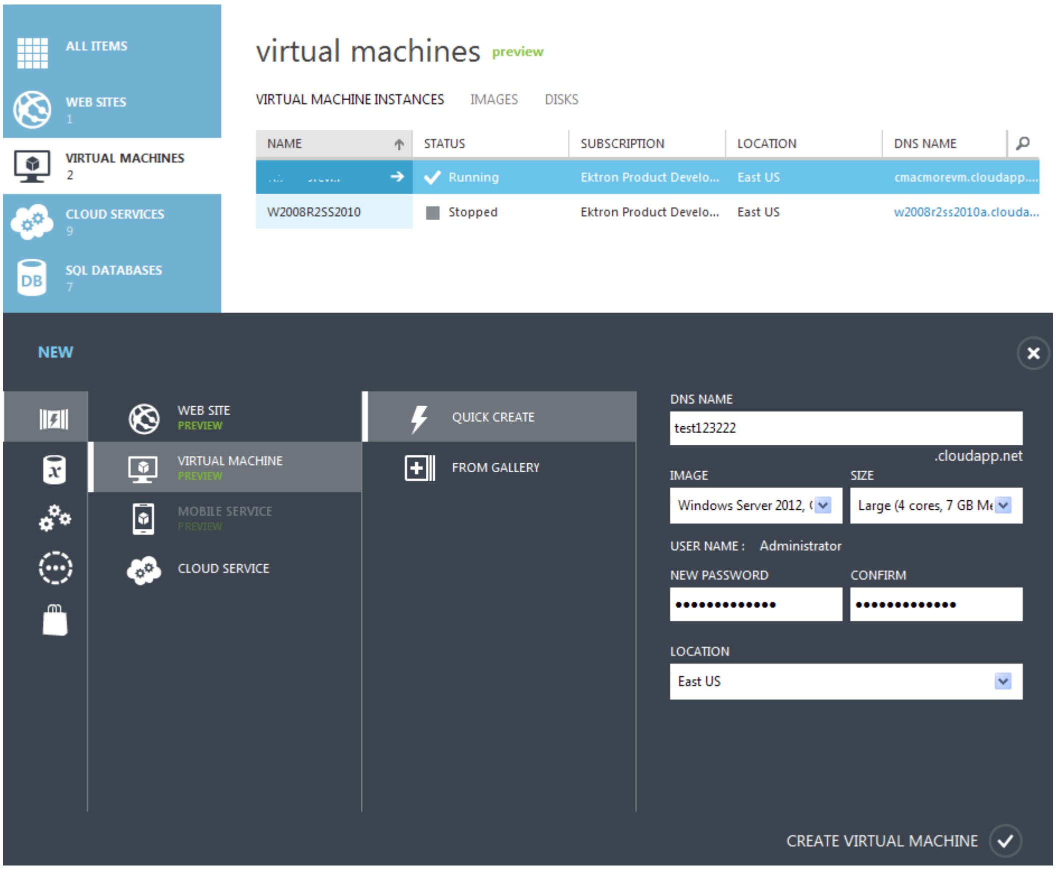
NOTE: After you create the deployment, the set up on the cloud takes some time before the files are ready to be accessed.

Creating a New Azure Virtual Machine

1. Login to https://windows.azure.com
2. Click **New > Virtual Machine**.
3. Click **Quick Create**.



4. In the right panel, enter a **DNS Name**.



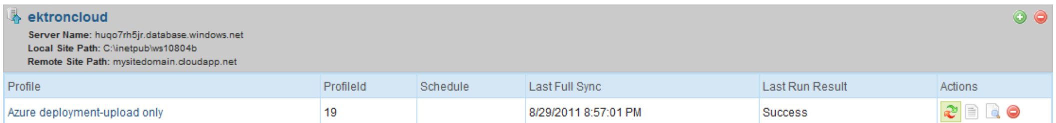
5. Under **IMAGE**, select **Windows Server 2008 R2**.
6. Enter a password and confirm it.
7. For **Size**, select **Large**.
8. Select your geographic location.
9. Click **Create Virtual Machine**.
10. Wait until provisioning is complete.

11. Click **Connect**.

Setting Up eSync to a Cloud Instance

Ektron's sync technology, built on the Microsoft Sync Framework, synchronizes information between the Azure cloud and on-premises data repositories. eSync makes it easy to manage content changes through a true hybrid cloud deployment.

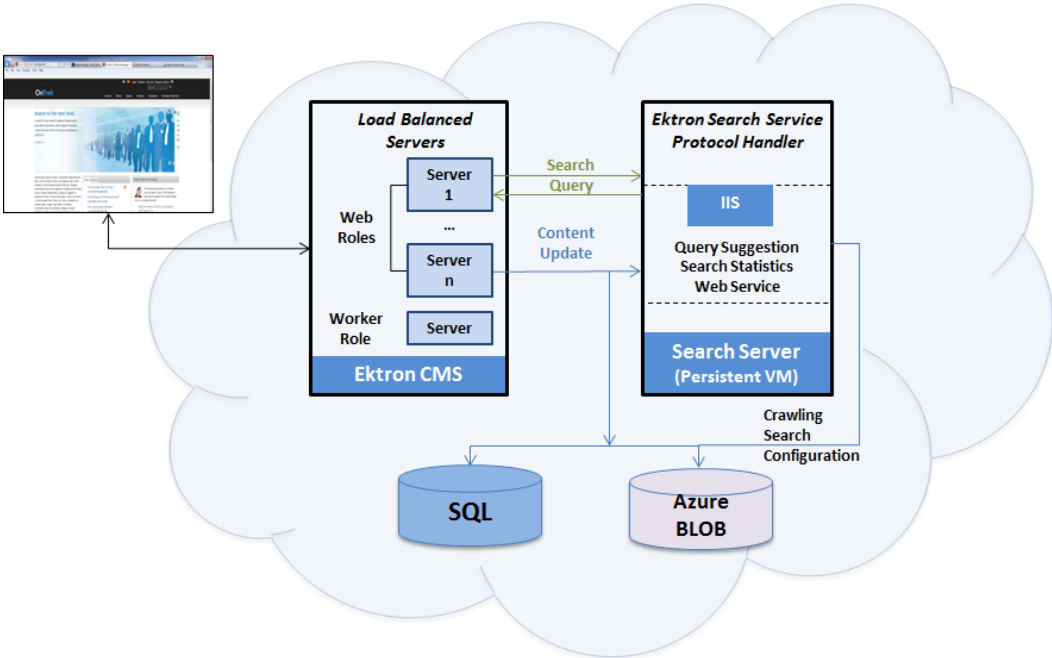
When you run eSync, SQL data and file system resources (such as `~/assets`, `~/privateassets`, `~/uploadedfiles`, `~/uploadedimages`, `assetlibrary`) are synched to SQL Database Cloud Blob Storage.



Setting Up Search Server and Ektron Search Configuration Using an Azure Persistent VM

This section explains how to connect Ektron in an Azure environment to a search server running on an Azure Virtual Machine. As a result of this connection, all search querying and crawling are done in the cloud.

If you are using Ektron in the cloud, there are many advantages to running search in the cloud also, such as performance, scalability, etc.

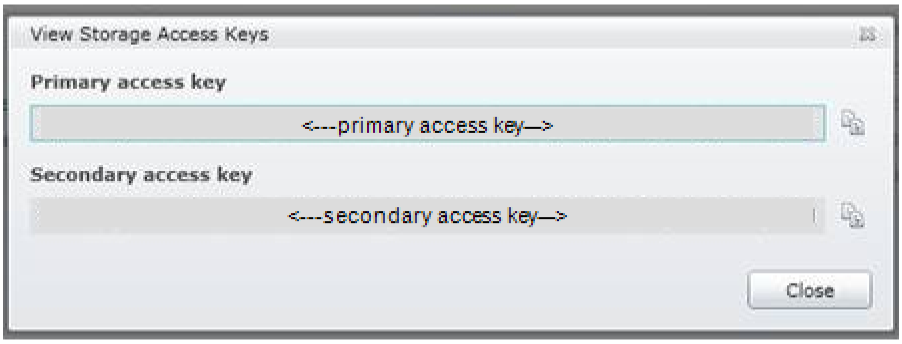


Prerequisites

You completed all tasks in these sections and deployed Ektron in an Azure environment:

- *Setting Up the Azure Cloud Portal* on page 179
- *Deploying a Site Package to the Azure Cloud* on page 183
- *Creating a New Azure Virtual Machine* on page 195
- *Setting Up eSync to a Cloud Instance* on the previous page

1. Within https://windows.azure.com, click your email/account name in upper right corner. Then click **previous portal**.
2. Click **Hosted Services, Storage Accounts & CDN**.
3. Find your storage account primary key by navigating to **Storage Accounts** > click your storage account > click the Primary access key **view** button. Copy the Primary access key—you will paste it in Step 5.



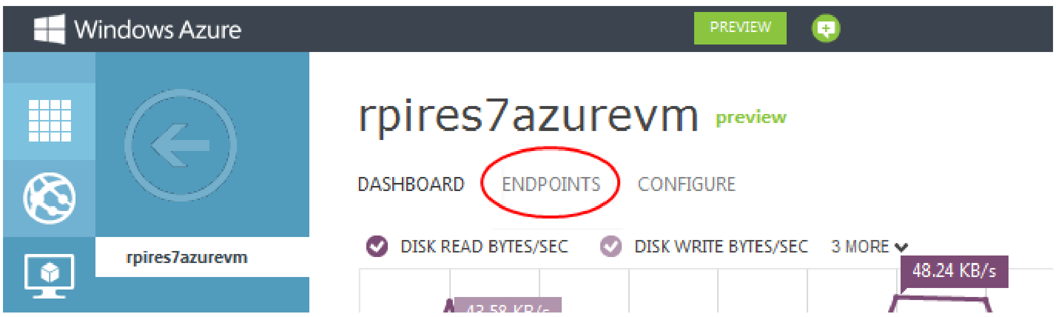
4. On the on-premises server, open `C:\sync\azuredeploy\GUID\HostedServiceName\'HostedServiceName'_web\web.config`.

5. Within the <appsettings> section, add these keys.

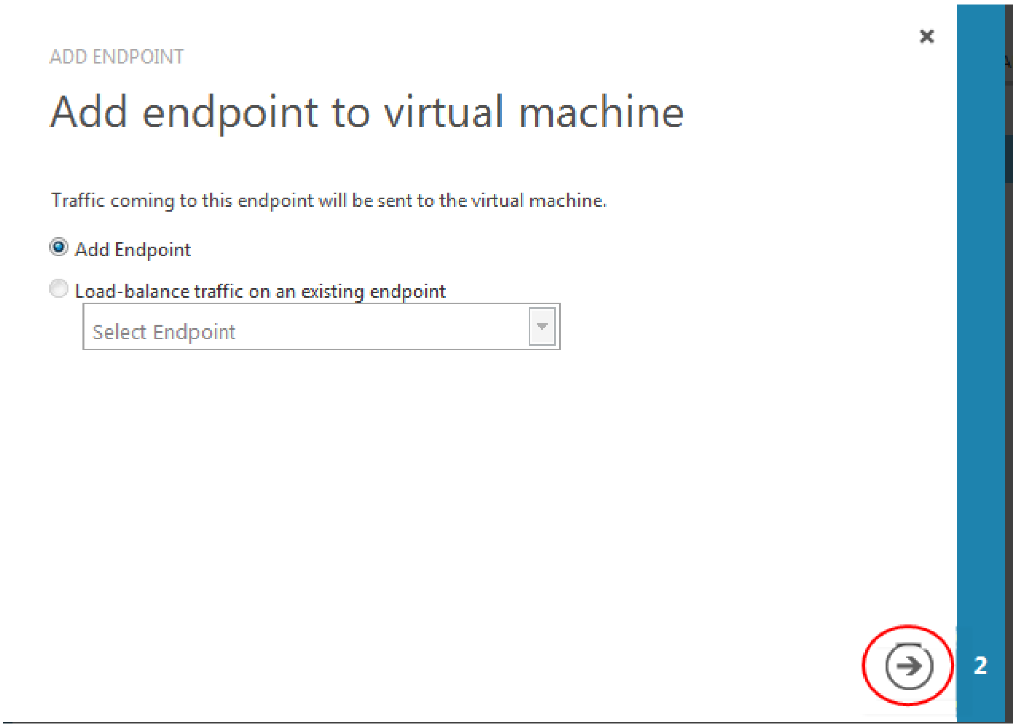
```
<add key="ek_CloudStorageType" value="AZURE"/>
<add key="ek_CloudAccountId" value="BlobID"/> //storage account name
<add key="ek_CloudAccountKey" value="BlobKey"/> //storage account primary key
<add key="ek_CloudContainer" value=""/>
```

   - You obtained the storage account ID (ek_CloudAccountId) in *Create a Storage Account* on page 181.
   - You obtained the ek_CloudAccountKey value in Step 3.
   - You may leave the ek_CloudContainer value blank.
6. On the on-premises server, click C:\Program Files (x86)\Ektron\EktronCloud\bin\ms\1.7.0.0\EktronConfigUploader.exe.
7. Enter your storage account name and primary key.
8. Click the **Browse** button and navigate to the web.config you just updated (C:\sync\azuredeploy\GUID\HostedServiceName\'HostedServiceName'_web\web.config).
9. Click **Upload** to push the web.config changes to your Azure website.
10. On the on-premises server, open C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer.
11. Copy SearchServerExpressInstall.exe and EktronSearchConfiguration.exe.
12. Log into the virtual machine. Paste those two files.
13. Run SearchServerExpressInstall.exe (or run the search server install executable file).
14. You may be prompted to install .Net 3.5. If so, install it from **Server Manager > Features > Add Features > .Net 3.5**.
15. Run SearchServerExpressInstall again.
16. You may be prompted to install .Net 4.0. Continue with the installation.
17. Click to run the search server prerequisites.
18. Finish the search server installation.
19. Run EktronSearchConfiguration.exe. Follow the instructions beginning on Step 28 of *Setting Up Microsoft Search Server 2010 Express* on page 864.
   - Choose the **Standalone** option, rather than **Server Farm**.
20. Return to the Windows Azure portal and click your virtual machine.
21. Create an endpoint for the **Search Query Web Service** port for Ektron search site. 7500 is the default. (To check the port number on the VM, open IIS, click the **EktronSearchSite**, click **Edit Bindings**, and view the port.)

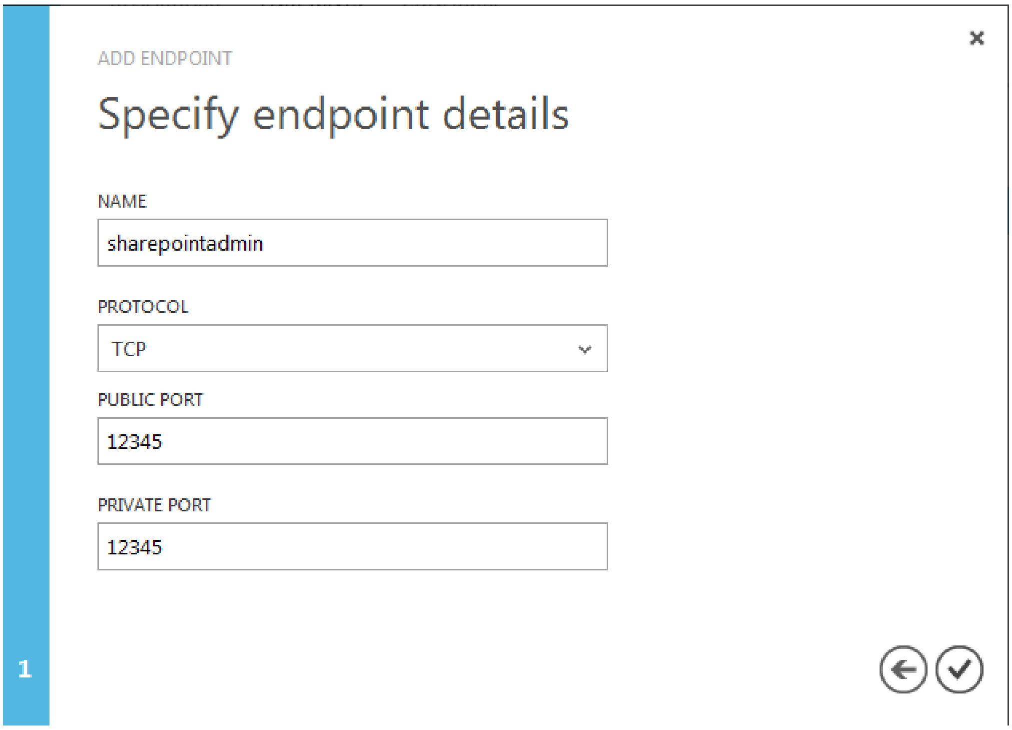
    To do this, click **Endpoints** then **Add Endpoint**.



22. Click the Next arrow.



23. Enter a Name, select protocol **TCP**, and enter a public and private port. Both ports should be the same value.



24. Click the checkmark to save.

25. Follow the above 4 steps to create another endpoint for Ektron Search Server Service port 8732.
26. Add inbound rules to allow TCP communication for ports 8732 and your Ektron search site (7500 is the default). To do that:
    a. Go to Control Panel > click **Check Firewall Status** > **Advanced Settings**.
    b. Select **Inbound Rules**, then right click and select **New Rule**.
    c. Select **Port** radio button and click **Next**.
    d. Click the **TCP** radio button.
    e. Click **Specific Local Ports**, then add port 7500 (7500 is the default) and click **Next**.
    f. Select **Allow the connection** and click **Next**.
    g. **When does this rule apply?** appears. Accept all defaults and click **Next**.
    h. Assign a name to the inbound rule and click **Finish**.
    i. Repeat steps for port 8732.

NOTE: Make these ports also accessible through any firewall running on the VM.

27. Update the service endpoints in the Ektron Search Server Service configuration file: `C:\Program Files (x86)\Ektron\EktronSearchServerService\EktronSearchServerHelperService.exe.config`. To do that:
    a. For query service URLs, change host name to the publicly accessible host name.

```
<!--
  *********************************************************
  Query Service Endpoints
    These values identify the endpoints (URLs) for the query
    services supported by this application.
  *********************************************************
-->

<add key="QueryServiceEndpoint" value="http://mycloudvm.cloudapp.net:7500/EktronWebService/QueryService.svc" />
<add key="QueryStatisticsEndpoint" value="http://mycloudvm.cloudapp.net:7500/EktronSearchStatistics/MSSearchStatsPublisher.svc" />
<add key="QuerySuggestionEndpoint" value="http://mycloudvm.cloudapp.net:7500/EktronQuerySuggestion/SPQuerySuggestion.svc" />
```

    b. Override the administrative service endpoint with a publicly-accessible URL.

```
<!--
  *********************************************************
  Admin Service Endpoint
    During the configuration process, the administrative
    service endpoint is stored in your CMS database. By
    default, this endpoint includes the Search Server
    machine name as the host.

    Example:
    http://[machine-name]:8732/EktronSearchServerHelperService/ConfigureSearchServer.svc

    This endpoint may be modified if an alternate host name
    is required to make it accessible to the CMS site.

    - Leave this entry blank to use the default.
    - All sites configured with this Search Server will
      use this endpoint.
  *********************************************************
-->

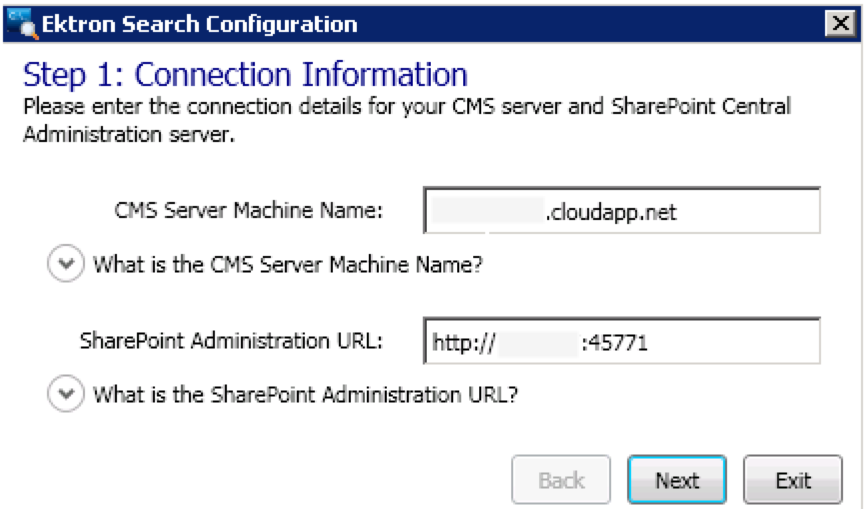
<add key="AdminServiceEndpoint"
     value="http://mycloudvm.cloudapp.net:8732/EktronSearchServerHelperService/ConfigureSearchServer.svc"/>
```

    c. Restart the Ektron Search Server Service.
28. Open the Search Configuration utility configuration file: `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\Ektron.Cms.Search.Config.UI.exe.config`

29. Increase timeouts for requests to the Site Communication Service (highlighted below) to **00:05:00**.

```
<configuration>
  <system.serviceModel>
    <bindings>
      <basicHttpBinding>
        <binding name="httpSiteCommunicationServiceEndPoint" closeTimeout="00:01:00"
            openTimeout="00:01:00" receiveTimeout="00:10:00" sendTimeout="00:01:00"
            allowCookies="false" bypassProxyOnLocal="false" hostNameComparisonMode="StrongWildcard"
            maxBufferSize="65536" maxBufferPoolSize="524288" maxReceivedMessageSize="65536"
            messageEncoding="Text" textEncoding="utf-8" transferMode="Buffered"
            useDefaultWebProxy="true">
          <readerQuotas maxDepth="32" maxStringContentLength="8192" maxArrayLength="16384"
```

30. Reboot the Worker Hosted service. This action restarts the Ektron Windows service. To do that:
    a. In the Azure Web page, click **Hosted Services**.
    b. Expand your hosted service until you see **hosted service name_worker_IN_0**.
    c. Click the **reboot** button.
31. After the Worker Hosted Service restarts, go to the Azure virtual machine, open `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer` and run Ektron.cms.search.config.UI. See Also: *Logging into Ektron's Search Server Configuration Screen* on page 926



Setting Up DxH Using an Azure Persistent VM

You can securely deploy DxH in Azure (IaaS) while your CMS site is hosted in a Cloud service using the Azure PaaS environment.

IMPORTANT: If you are using Ektron 8.60 with SQL premium database, (also known as SQL Azure), you must manually navigate to install the directory database folder, then open `Schema.sql` and replace `newsequentialid()` with `newid()`. You need to re-run all 3 scripts manually pointing to SQL credentials.

The following diagram shows DxH and CMS Cloud Service with SQL Premium Database.

- DxH is hosted in Azure Persisted VM (Azure IaaS).
- CMS is hosted as an Azure Cloud service (Azure PaaS).
- You can use your own SQL Server.

Setting up the Cloud Service and DxH

1. Create an affinity group using any Azure data center location.
2. Create a Virtual network and a subnet of A, B, or C class IPs.
3. Create a virtual machine (VM) using the gallery option while creating the VM. See *Creating a New Azure Virtual Machine* on page 195.
4. If you have not already done so, you need to install .NET 4.0 and Port sharing service before you install DxH. Note this step can be performed independently later in the process.
5. Install DxH in the VM.
6. You also need to open the firewall rule and add DxH port (default port is 808) to allow an incoming connection.
7. Create the Cloud service using the affinity group as the location.
8. Create a storage account using the affinity group as the location.
9. Create a package manually, or use the deployment wizard to build and deploy the Cloud Service Package.

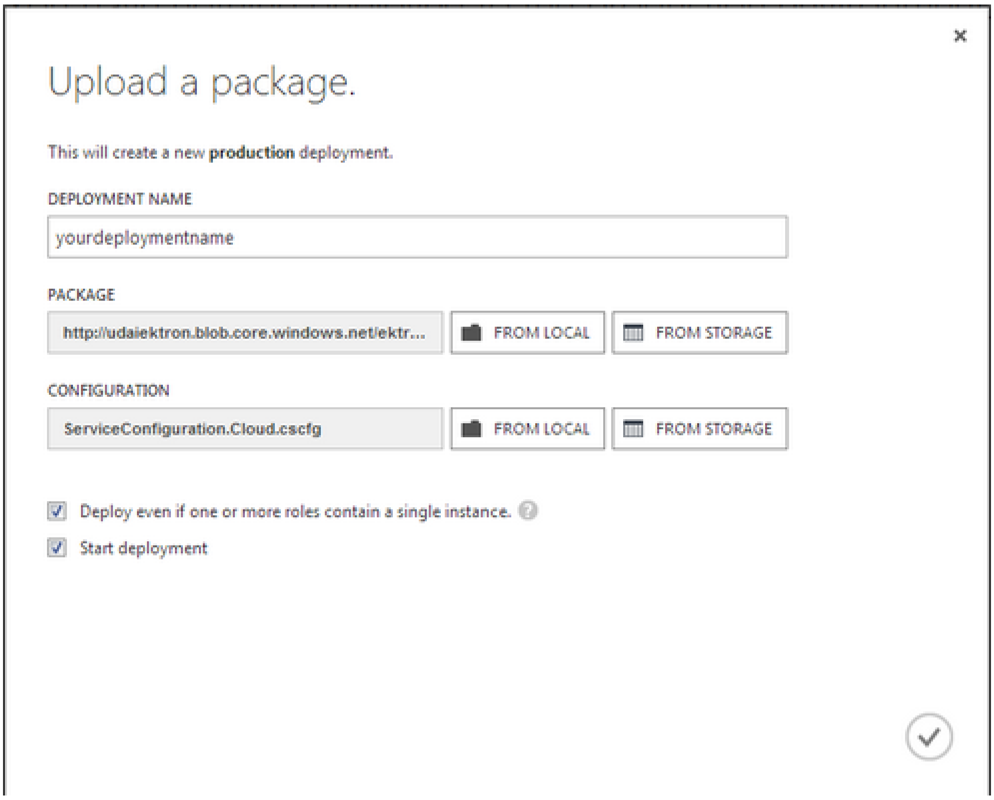
If you had completed the DxH installation, you should be able to communicate between your DxH and CMS. You may need to open additional ports (for example, 808 for DxH) using the VM endpoints through the portal. If you do not want to open public end points, use the following procedure.

Securing DxH Communication

To communicate to the DxH VM through the Pass Service only, perform the following redeployment steps after deleting the current deployment.

1. Delete your current deployment from the cloud service so that you can make the change to the `serviceconfiguration.cscfg` file.
2. From your On-Premise system go to:
```
~/Sync/azure/{guid}/{your service name}/package/
  serviceconfiguration.cloud.cscfg
```
3. Add the following element before the </serviceconfiguration> tag. Make sure to replace all the values to match your cloud service, virtual network and subnet.
```
<NetworkConfiguration>
  <VirtualNetworkSitename="YourVirtualNetworkName" />
  <AddressAssignments>
    <InstanceAddressroleName="YourWebRoleName">
      <Subnets>
        <Subnetname="YourVirtualNetworkSubnetName" />
      </Subnets>
    </InstanceAddress>
    <InstanceAddressroleName="YourWorkerRoleName">
      <Subnets>
        <Subnetname="YourVirtualNetworkSubnetName" />
      </Subnets>
    </InstanceAddress>
  </AddressAssignments>
</NetworkConfiguration>
```
4. Create a production deployment using the new updated `ServiceConfiguration.cloud.cscfg` for configuration. Use from Storage option for Package. After you click on the storage option, go to your storage account and then the

`ektrondeployment` container then select the package (.pkg) file.



Your CMS cloud service can now communicate to DxH service securely.

Customizing Roles

You can customize roles for actions on start events or diagnostics information.

A typical Ektron Azure PaaS environment consists of SQL, Azure Blob, a Web role, and a Worker role. The site content is stored in SQL, and site-specific assets are stored in Azure Blob.

The Web role and Worker role are specialized VMs designed for a specific purpose.

- The Web role provides a dedicated IIS Web server used for hosting front-end applications; the site runs on the Web role instance.
- The Worker role handles asynchronous, long-running or perpetual tasks independent of user interaction or input.

  Ektron uses the Worker role to synchronize content between production and other Ektron site environments. If you make any changes to a page in the production environment, Ektron eSync service (running in the Worker role) ensures that changes are synchronized with the staging environment and vice versa.

The template project is available as part of the cloud installation at `C:\Program Files (x86)\Ektron\EktronCloud\sdk` and choose **SDK > RoleEntry**.

1. To customize the Web and Worker roles, open `C:\Program Files (x86)\Ektron\EktronCloud\sdk\RoleEntry\Web\Ektron.Azure.Web.Sln`, (or `C:\Program Files (x86)\Ektron\EktronCloud\sdk\RoleEntry\Worker\Ektron.Azure.Worker.Sln`), make changes, and copy the file to your template location.

2. Create a custom package with Visual Studio® 2010 or using the command line.
3. Create a Web-role-only package by choosing **SDK > Template > WebRoleOnly**, then copy and modify the following files: `create.cmd`, `servicedefinition.csdef`, `package/serviceconfiguration.cloud.cscfg`.
   a. Copy your website files into `yourservicename_web directory`.
   b. Modify `web.config`.
   c. Run `create.cmd` to create the package.
   d. Upload the package to the cloud service.

   NOTE: eSync will not work in this mode, so you must manually move the database to the cloud using the data deployment package or any other ETL (extract, transform, load) tool.

Troubleshooting Ektron Cloud Deployment

- Make sure `EktronCloud.cer` is uploaded into cloud **Management Certificate** portal.
- Make sure to add firewall rules in your SQL Database Instance.
- If you have database connection issue, try connecting through SQLServer R2 or from the cloud Web portal.
- If your full site is not deployed as part of initial deployment, make sure you create an additional profile and run the `database/resource/template sync`.
- Any configuration file can be uploaded thru `EktronConfigUploader.exe`.
- Any template sync may take up to 5 minutes to reflect in the site template.
- The on-premises site must be installed into the *siteroot* and not a subdirectory.
- If you get an *end point not found error*, try again after a few minutes because the service may still be configuring.
- The caching configuration-per-deployment cannot be shared with other deployment configurations.
- If you host an https-based site, make sure that you first import the certificate (`.cer`) into the **Management Certificate** and then add the `.pfx` file to the cloud service.

Additional Cloud Information

- The Pros and Cons of Cloud Storage
- Which Cloud? Comparing Microsoft Azure and Amazon Web Services
- CMS in the Cloud Part 1: What is Cloud Computing?
- CMS in the Cloud Part 2: The Benefits of the Cloud
- CMS in the Cloud Part 3: Reducing Costs and Scaling with Ektron Cloud Manager
- Deploying High-Performance Sites Using Low-Cost Cloud-CDNs
- Ektron Managed Cloud: Focus on Strategy Not Infrastructure

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11

Editing in Ektron

Editing Content

You can only edit content for which you have permission and in one of the following statuses:

- published
- checked in
- checked out by you
- submitted for your approval

After you sign in, you can access content by a silver access point ( ) on the Web page, or through the Workarea. You can edit content in the following ways:

- Edit in context on the Web page
- Edit in the Workarea

NOTE: For more information about additional editing actions on content, see *Working with Ektron Content* on page 287.

Editing Content in Context on a Web Page

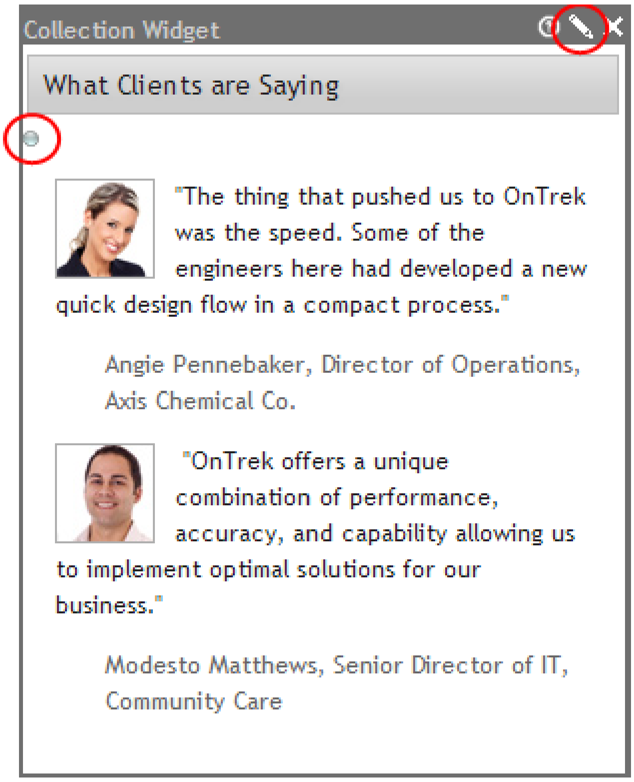
When you log in, you can edit content on any Web page that has the access point ( ) displayed on the page.

The top of the page displays a PageBuilder menu for performing actions on the page, such as checking in, viewing properties, and placing widgets on the page.

NOTE: For information about how to create a widget, see *Creating the "Hello World" Widget* on page 716.

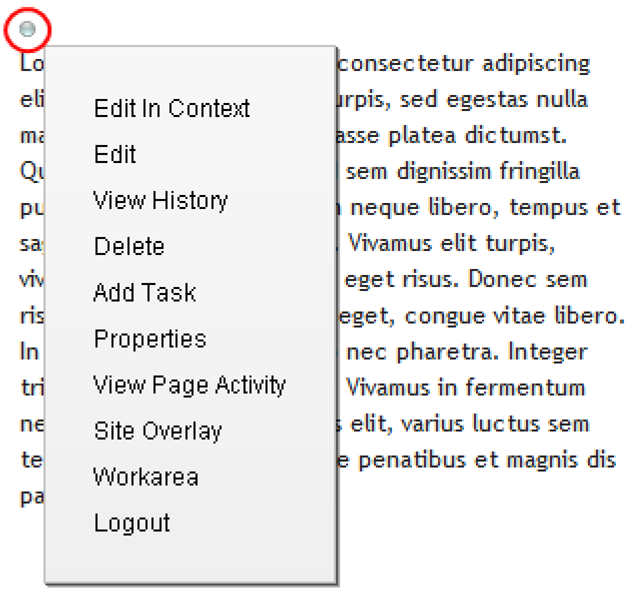
To keep the PageBuilder menu open, click the pin icon ( ).

When you choose **File > Edit** from the PageBuilder menu, you see the widget components on your page. In addition to modifying content, you can add or modify the widget placement. You can edit the content using the access point ( ), and modify the widget properties by clicking **Edit** ( ). Menu options vary depending on the content's status, your permissions, and so on. For information about editing the PageBuilder page, see *Creating Web Pages with PageBuilder* on page 659. To learn about editor details, see *Using the Editor* on page 212.



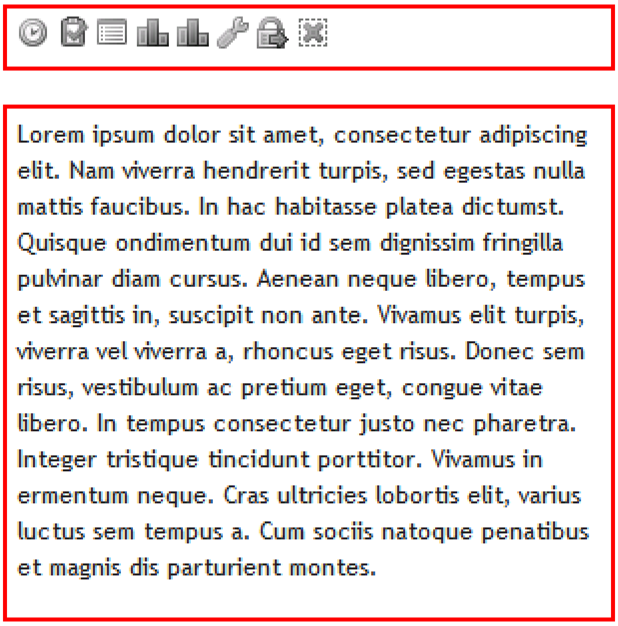
You can modify the access point menu's appearance by editing the `ek_UserMenuType` element of the *siteroot*`/web.config` file. By default, `ek_UserMenuType` is set to **2**.

- **2—drop-down Interface**—No borders; drop-down menu appears when user clicks the access point.



- **1—Classic Interface**—Colored borders and menus always appear; menu options appear as icons in the top row.

NOTE: If you use this interface, the page layout is not depicted accurately because of the fixed toolbars.



System administrators can modify toolbar buttons by editing the `C:\Program Files\Ektron\CMS400vxx\workarea\ContentDesigner\configurations\InterfaceEditInContext.aspx` file. Also, the content block server control's `Suppresswrappertags` property must be set to `false`.

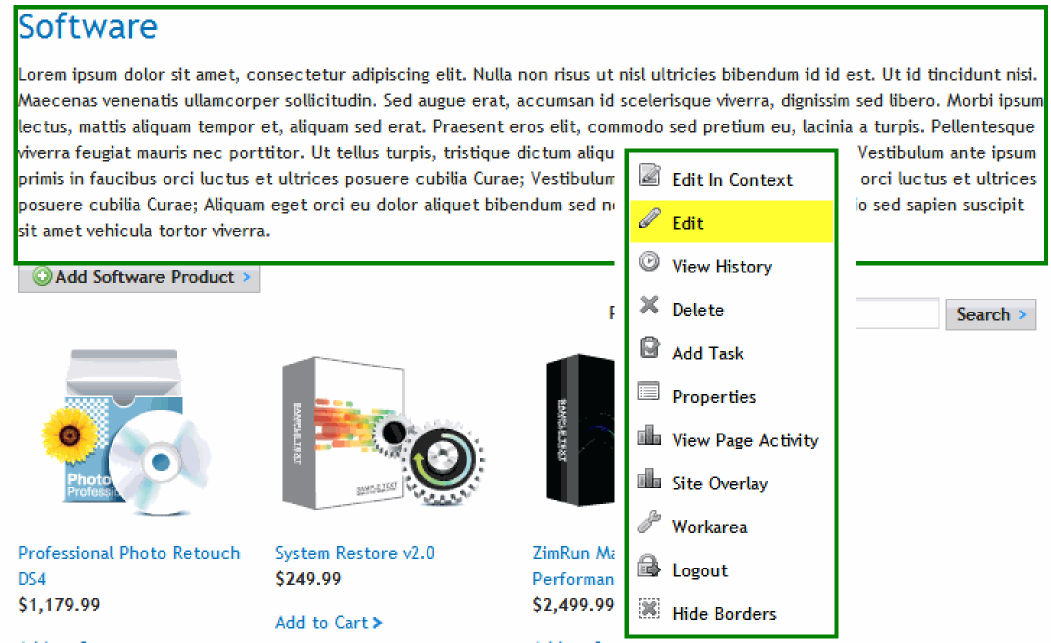
- **Add**—Appears if you selected a language and the content is not available in that language. Use this button to copy existing content into new content and translate it to the new language. *Creating Multi-language Content* on page 1062
- **Add HTML Content**—Create new HTML content in the folder to which the control is assigned. *Creating New Content* on page 287
- **Add Smart Form Content**—Create new Smart Form content in the folder to which the control is assigned. *Working with Smart Forms* on page 423
- **Approve**—Approve or decline a request to publish or delete content. *Approving or Declining Content* on page 267
- **Add Task**—Add a task to a user. *Assigning and Managing Tasks* on page 1027
- **Delete**—Open View Content page. From it, you can delete the content.
- EDIT **Edit**—Check out content for editing; open in separate window. *Editing Content* on page 208
- **Edit in Context**—Check out content for editing; content remains within Web page. *Editing in Ektron* on page 207
- **Logout**—Log out of website. *Getting Started with Ektron* on page 5
- **New Poll**—Create new poll or survey. *Creating Surveys and Polls* on page 407
- **Preview**—Preview content before it is published. *Previewing Content in a Mobile Template* on page 138
- **Properties**—Open content's View Content page.

- **Site Overlay**—View a visual map of popular links on a Web page, based on the frequency of clicks. *Setting Up Site Overlay* on page 655
- **View Content Difference**—Contrast previous and current versions of content. *Editing in Ektron* on page 207
- **View History**—Open View History screen, where you can view previous versions of content. *Editing in Ektron* on page 207
- **View Page Activity**—View the current page's SEO information. *Working with Ektron Server Controls* on page 1605
- **Workarea**—Open Workarea. From here, you can perform all Ektron tasks. *Managing Content* on page 273

- **0—Hover Interface**—Colored border appears when user hovers mouse over area; menu appears when user right clicks mouse inside border. This interface has 2 display options: vertical (*shown*) and horizontal.

  To change:

  1. Open the `siteroot/web.config` file.
  2. Find `ek_MenuDisplayType`.
  3. Change its value:
     - 0 (zero) = horizontal
     - 1 = vertical



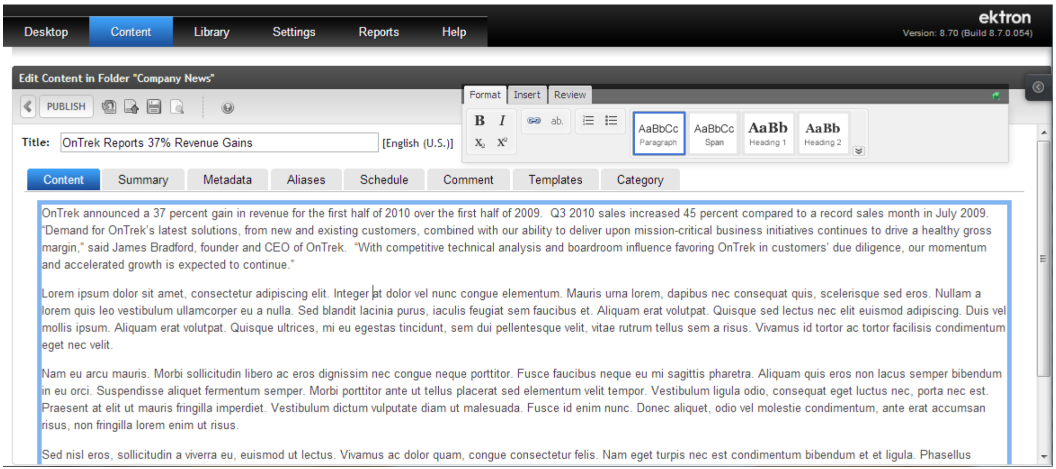
Editing Content in the Workarea

In the Workarea, you can edit content, add information about content (summary, metadata, and so on), edit HTML content, HTML forms, XML Smart Forms, and check in, submit, and publish content.

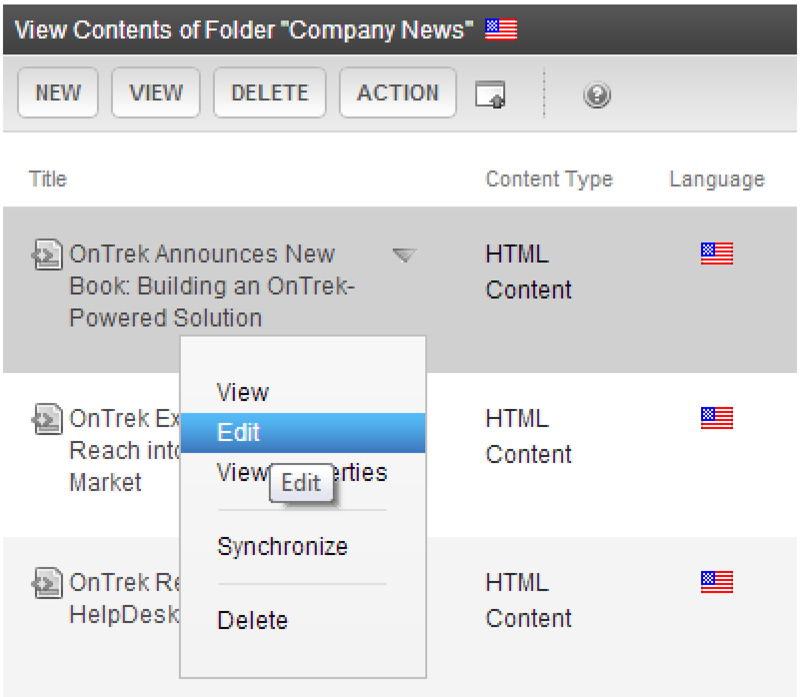
1. From the Workarea, click **Content** and navigate to the folder that contains content you want to edit.

NOTE: If you don't know the folder location, you can find content using **Action > Search** from the root folder.

2. Click the content you want to edit. The View Content screen appears.
3. Click **Edit**. The editor appears. To learn about editor details, see *Using the Editor* below.



You also can edit via the context menu on the View Contents of Folder screen. Click the triangle ( ) next to the content item, and choose **Edit** from the menu. The editor appears.



Using the Editor

When your hover the cursor over editable content, a yellow border appears. When you click the content, the border turns blue, and a floating editor toolbar appears.

NOTE: You can place the editor toolbar anywhere on the screen and make it stay by clicking on the pin icon ( ). When pinned, the icon changes ( ).

The editor toolbar consists of tabs with buttons. A system administrator can customize the toolbar options depending on the context. For example, he may want the Inspector available when editing content in the Workarea but not while editing "in context". For information about customizations, see *Customizing the Editor* on page 231 and *Modifying Editor Plug-ins* on page 232.

- Cut, copy, and paste may be accessible through your browser. Right-click to choose them or use keyboard shortcuts.
- The editor may modify pasted content, depending on tags that an administrator sets in `StyleConfig.js`. For example, headings, bullets, and bolded fonts may be maintained during a paste operation but the actual font may not.

> **IMPORTANT:** When you paste content from another application into the editor, it formats that content into valid, minimal HTML and retains as much formatting and styling as possible. However, each browser affects this operation differently, so results browser dependent.

- Paste HTML content into the Source Viewer. See Also: *Viewing and Editing HTML Source Content* on page 227
- Your browser handles spell checking. If your browser does not support it, you can find and load a plug-in to do it.

> **NOTE:** If you apply the Span style, you can select it in the Inspector to enter style modifications.

This section also contains the following topics.

Applying Styles

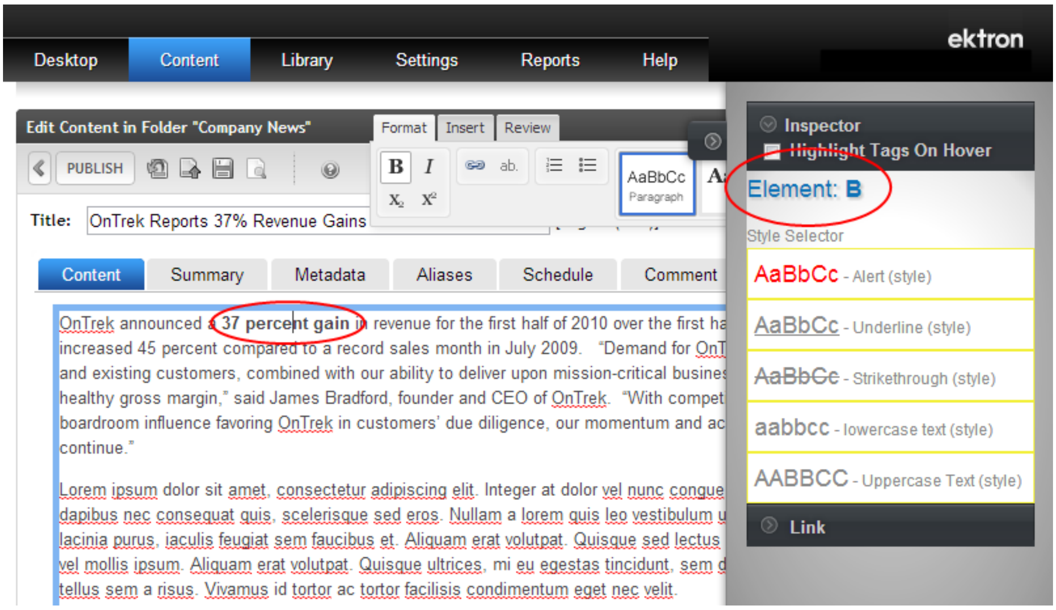
The Editor comes with inline styles that you can apply to content.

NOTE: A developer or administrator can add classes and IDs that also can be applied. An inline style will display the style in content immediately, but the effects of classes are displayed only if the CSS and files loaded on the page contain those classes.

In addition to the styling buttons on the editing bar, the Inspector lets you view and modify style information about your content by clicking the **Open Viewer** ( ) tab. For example, when you click on "37 percent gain" in the editor, the element shows that the content is in a <b> tag and that you can select a red font Alert style (among others) for this element.

Each element may have difference styles that you can apply. To see the styles you can apply to an element, open the Inspector and place your cursor in an element (such as a <p> or <b> element).

See Also: *Editing in Ektron* on page 207

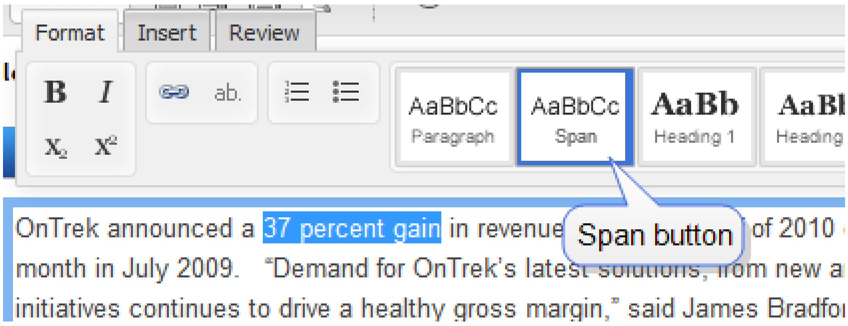


Applying Styling to Text

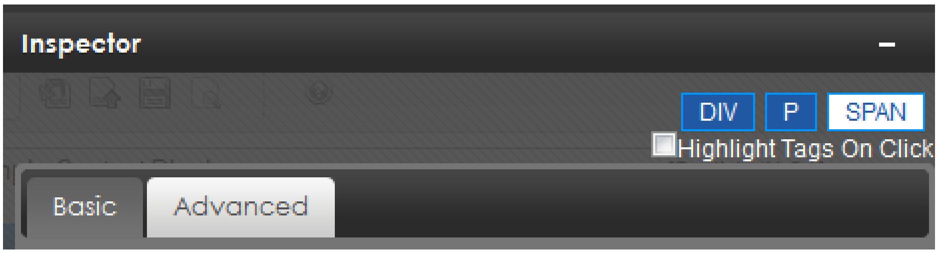
You may want to style a few words within your content. See 37 percent gain in the following example.

To apply styling to one or a few words:

1. Select the text.
2. On the toolbar's **Format** tab, click the **Span** button.



3. Click the Inspector.
4. Verify that the **SPAN** appears in the top right corner of the dialog.



5. Use the dialog to style the selected text.

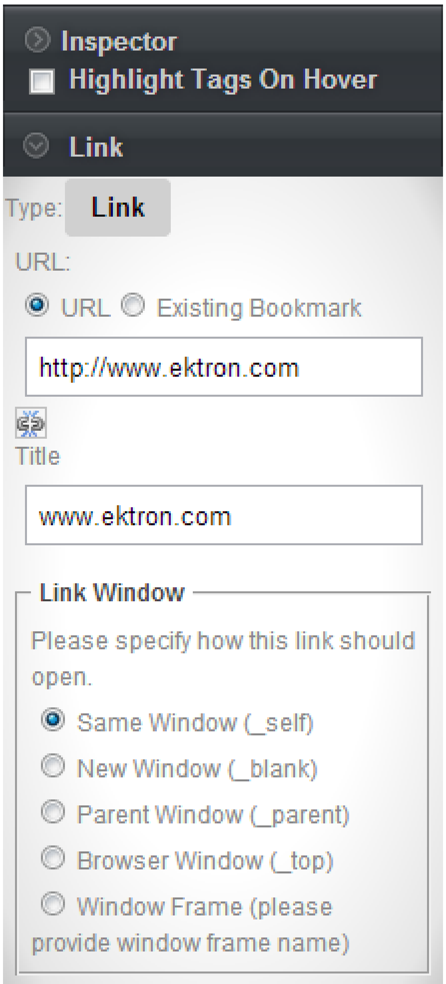
Working with Links

This section shows you how to view, insert, or delete a link in content.

Viewing a Link

Click the cursor on linked text or image. The Link tab appears in the editor toolbar showing you the URL or item to which the text is linked. You can Ctrl+click on a link to open a link in the specified target.

Use the Inspector dialog to modify existing and set additional properties.



Inserting a Link

Linking to Text

1. Highlight text that you want to become a hyperlink
2. Click **Link** ( ) on the Format tab. (If you click **Link** on an empty space, a link appears in the content as **New Link**. Be sure to change **New Link** to something meaningful.)

A link tab appears.

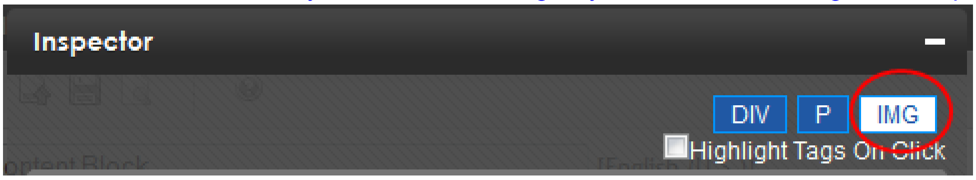
3. Specify the URL you want, and press **Enter**. The selected text becomes a hyperlink.

Linking to an Image

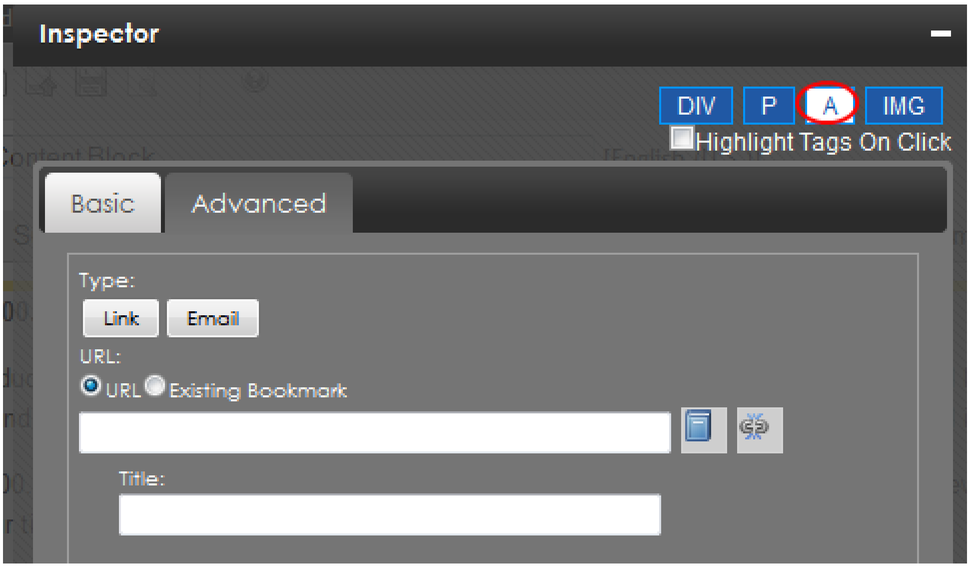
To learn about inserting an image, see *Inserting an Image* on page 223.

1. Click an image that you want to become a hyperlink.

NOTE: You will know that you selected an image if you see an <IMG> tag in the Inspector.



2. Open the Inspector.
3. Click **Add hyperlink to Image**.
4. Click the <A> tag.



5. Enter hyperlink information. See Also: *Inserting a Link* on the previous page

Removing a Link

1. Click the cursor on the linked item. The link destination appears in the editor toolbar.
2. Click **Break Link** ( ). The link is removed.

Adding a Bookmark

Use a bookmark to let a site visitor “jump” from any word or phrase to another place in the same content block. On your Web page, text appears in a different color to indicate the bookmark.

Bookmarks are particularly helpful if on a long page. For example, your Web page contains minutes from several meetings, and the top of the page lists the meeting dates. You could assign a hyperlink to each date, and a bookmark to each set of minutes. A site visitor can click any date to “jump” (using the bookmark) to those minutes.

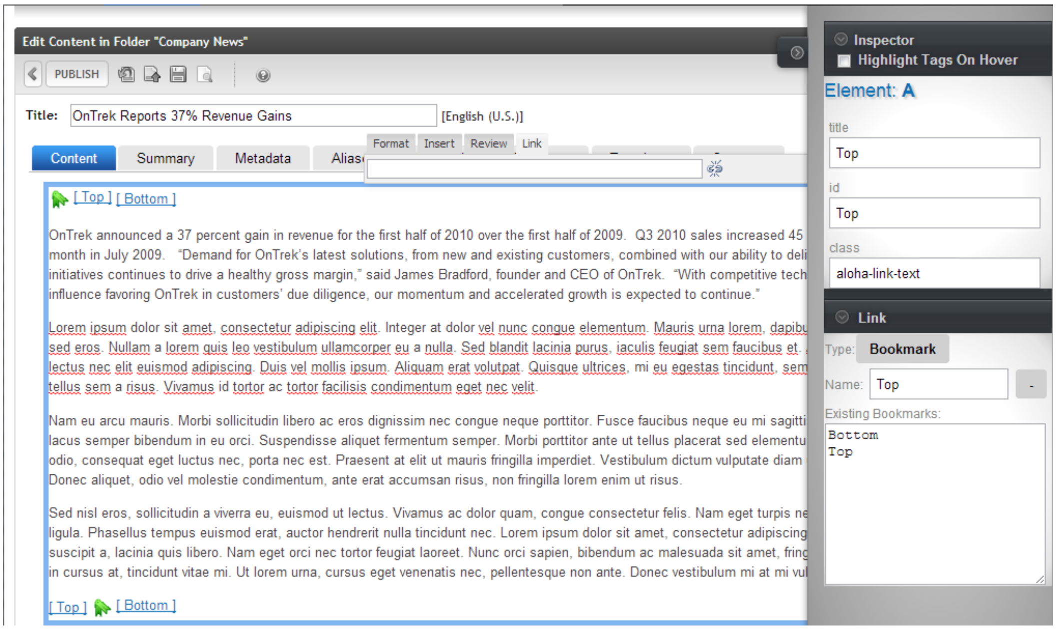
To use a bookmark, you create 2 things:

- a source—text a user clicks to jump to the bookmark
- a destination—the location to which the cursor jumps when the source is clicksed

For example, place the text **[Top] [Bottom]** at the top and bottom of a content block. The following procedure shows how to create bookmarks so that clicking on **[Top]** at the bottom of the page jumps to the top of the page, and clicking on **[Bottom]** at the top of the page jumps to the bottom of the page.

1. Create the bookmark's (destination).
   a. At the bottom of the page, insert then highlight the destination text, in this case **[Top]**.
   b. On the editor toolbar, choose **Insert > Bookmark** ( ). A bookmark icon displays next to the source text but does not show up on the Web page.
   c. Double click the bookmark icon then the Inspector. A dialog displays the bookmark options.
   d. Give the new bookmark a unique id, title, and name.
   e. Repeat steps a through d for **[Bottom]** at the bottom of the content, and give it the Title and ID of `PageBottom`.
2. Create links to the bookmarks.
   a. Highlight the source text. In this example, **[Top]** at the bottom of the content.
   b. Choose **Format > Insert Link** ( ). The text is selected.
   c. Double click the selected text.
   d. Open the Inspector.
   e. Choose **Existing Bookmark**. A drop-down list appears from which you can select a bookmark.
   f. Click back in the editor window. The text is underlined and in a different color.

The following image shows text links that let the user click to the top and bottom of the page by creating correlating bookmark sources and destinations.



Preview:

Home > Company > News > OnTrek Reports 37% Revenue Gains

OnTrek Reports 37% Revenue Gains

[Top] [Bottom]

OnTrek announced a 37 percent gain in revenue for the first half of 2010 over the first half of 2009. Q3 2010 sales increased 45 percent compared to a record sales month in July 2009. "Demand for OnTrek's latest solutions, from new and existing customers, combined with our ability to deliver upon mission-critical business initiatives continues to drive a healthy gross margin," said James Bradford, founder and CEO of OnTrek. "With competitive technical analysis and boardroom influence favoring OnTrek in customers' due diligence, our momentum and accelerated growth is expected to continue."

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Nam eu arcu mauris. Morbi sollicitudin libero ac eros dignissim nec congue neque porttitor. Fusce faucibus neque eu mi sagittis pharetra. Aliquam quis eros non lacus semper bibendum in eu orci. Suspendisse aliquet fermentum semper. Morbi porttitor ante ut tellus placerat sed elementum velit tempor. Vestibulum ligula odio, consequat eget luctus nec, porta nec est. Praesent at elit ut mauris fringilla imperdiet. Vestibulum dictum vulputate diam ut malesuada. Fusce id enim nunc. Donec aliquet, odio vel molestie condimentum, ante erat accumsan risus, non fringilla lorem enim ut risus.

Sed nisl eros, sollicitudin a viverra eu, euismod ut lectus. Vivamus ac dolor quam, congue consectetur felis. Nam eget turpis nec est condimentum bibendum et et ligula. Phasellus tempus euismod erat, auctor hendrerit nulla tincidunt nec. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec nisi arcu, varius ac suscipit a, lacinia quis libero. Nam eget orci nec tortor feugiat laoreet. Nunc orci sapien, bibendum ac malesuada sit amet, fringilla eget elit. Etiam elit dui, convallis in cursus at, tincidunt vitae mi. Ut lorem urna, cursus eget venenatis nec, pellentesque non ante. Donec vestibulum mi at mi vulputate nec elementum est ultricies.

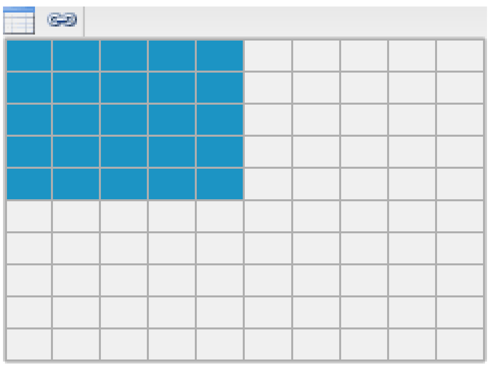
[Top] [Bottom]

Working with Tables

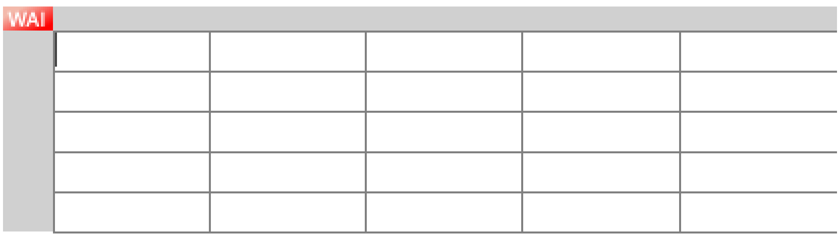
This section describes how to insert and edit tables.

Inserting a Table

1. Click **Table** ( ). A table dialog box appears.
2. Drag the cursor over rows and columns to indicate the table size. The following example shows 5 columns and 5 rows.



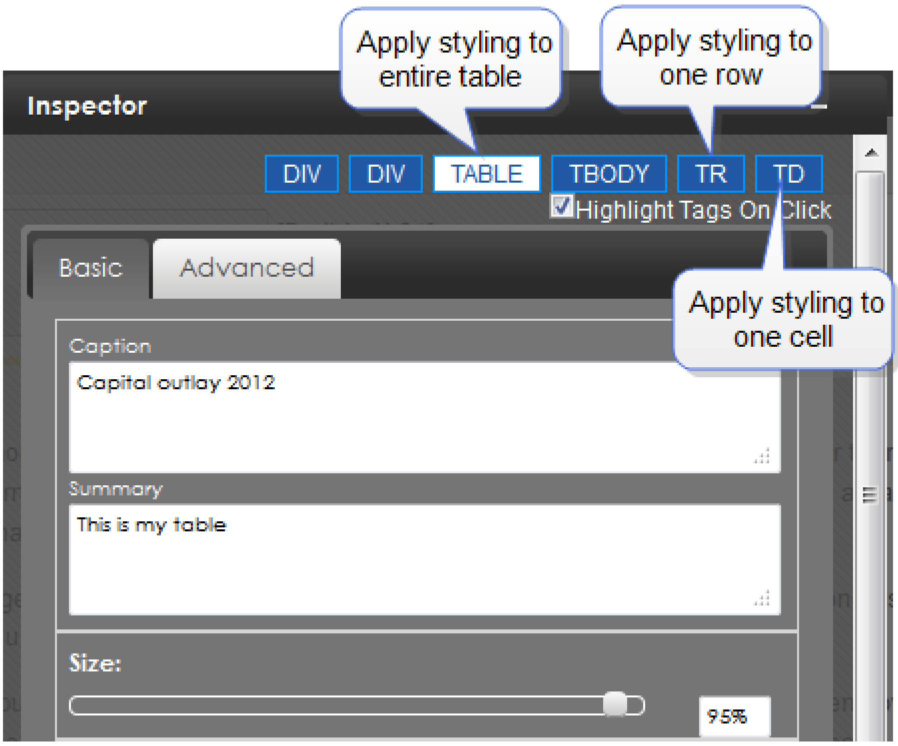
3. Click the mouse. The table is inserted.



NOTE: You can use <Tab> to move from one cell to the next. If you are on the last cell, <Tab> creates a new row.

Using the Inspector with a Table

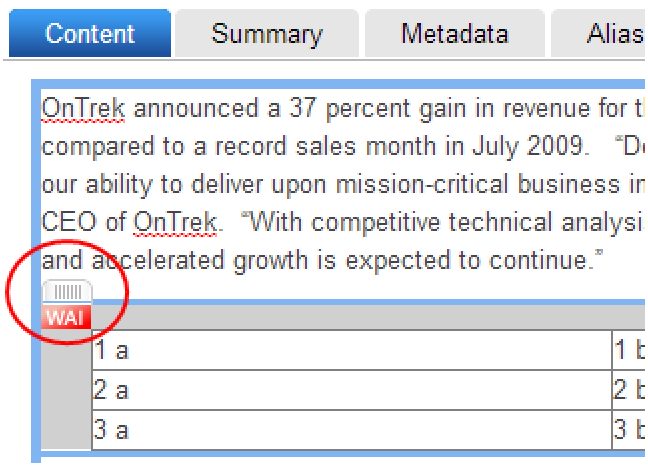
Use the Inspector to apply properties to a table, a table row (`TR`), or a single cell (`TD`).



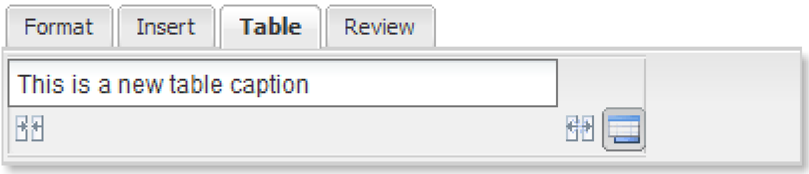
- table properties—http://www.w3schools.com/tags/tag_table.asp
- tbody properties—http://www.w3schools.com/tags/tag_tbody.asp
- table row (TR) properties—http://www.w3schools.com/tags/tag_tr.asp
- table cell (TD) properties—http://www.w3schools.com/tags/tag_td.asp

Adding a Table Caption

1. Hover the cursor over the top left corner and click the table handle.



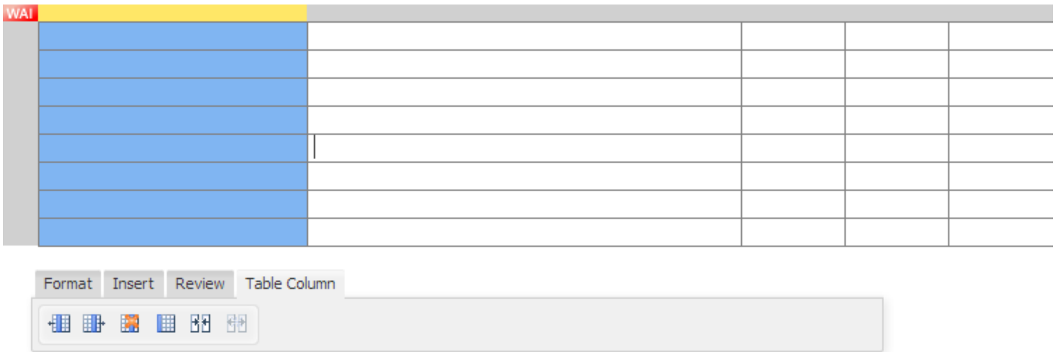
2. In the toolbar, the **Table** tab is selected.
3. Enter the caption in the text box and click the **Table caption** button ( ).



Alternatively, you can enter a table caption in the Inspector.

Modifying Rows and Columns

Click the gray area beside a table row or above a table column. Your selection is highlighted.

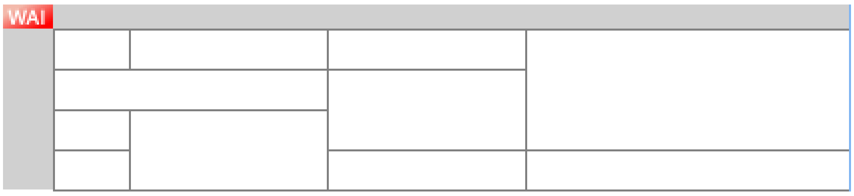


You can use the following table functions on selected rows/columns:

- —Add column to the left
- —Add column to the right
- —Add row below
- —Add row above
- —Delete column
- —Delete row
- —Format column as header (create a 508-compliant table without modifying the source)
- —Format row as header (create a 508-compliant table without modifying the source)
- —Merge cells
- —Split cells
- —Table caption; when you click on this, **Table caption** appears above the table. Modify text as desired.
- Text Box—Add a summary that visually impaired users can access with a screen reader. The summary does not appear in the editor or on a Web page.

IMPORTANT: When you save and publish your content, your site styling is applied. Therefore, a table in the Workarea may appear differently from a table you edit in context.

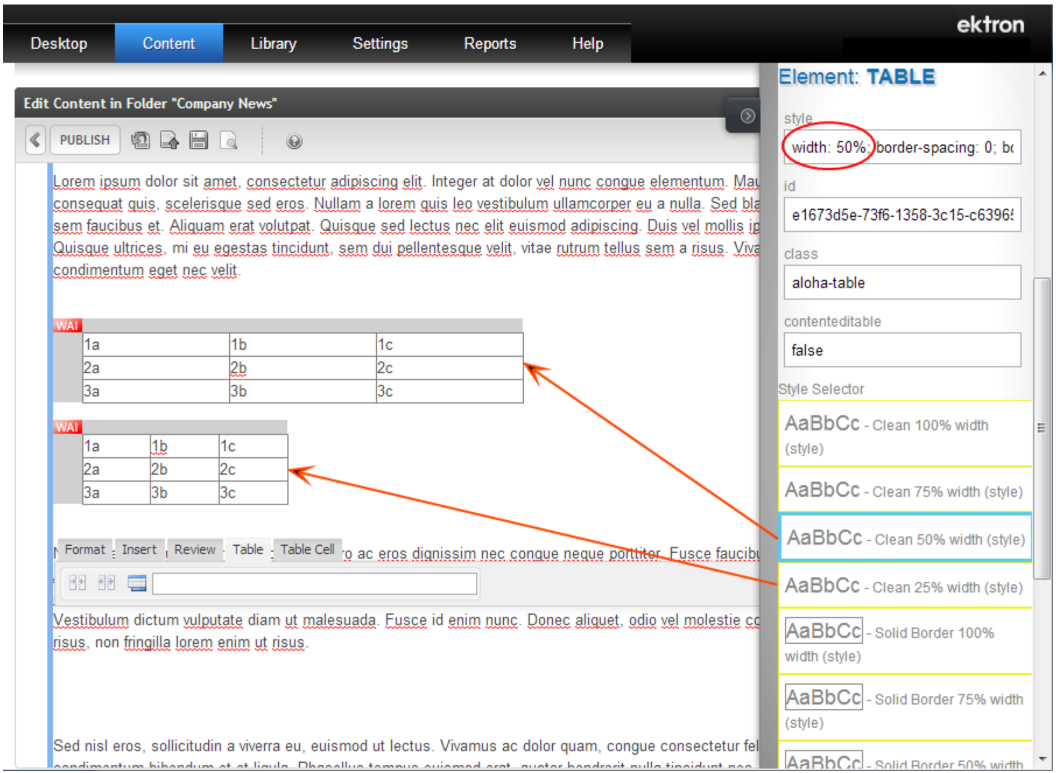
Table with merged cells:



NOTE: To split a merged cell, select the column or row of the merged cell before clicking **Split**.

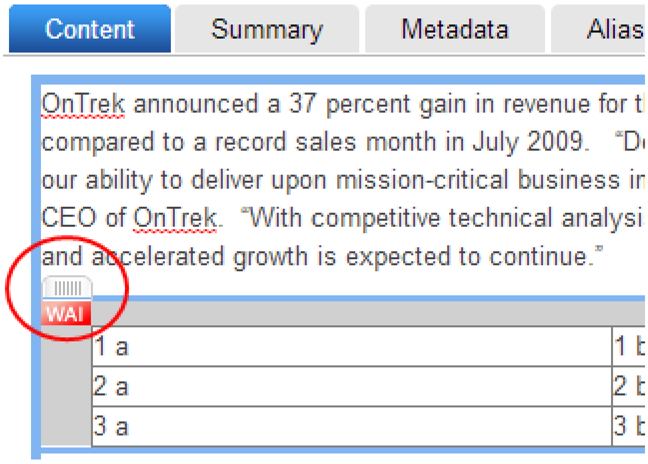
Modifying a Table Style

When you click on an outer border to select a row, or click twice in a cell, the Inspector displays the built-in table styles that you can select. The following image shows 2 tables in the editor: 1 with a 50% width style selected, and the other with 25% applied.



Moving a Table

When you make a table the content focus (a colored bar appears around the table), a tab appears above the table's left top corner. Use the tab to drag the table to another place in your content.



NOTE: You can also move a table in Source Viewer.

Deleting a Table

1. Add a blank paragraph tag above and below the table.
2. Select the paragraph tags before and after the table, and the table.
3. Press **Delete**.

NOTE: You can also delete a table from Source View, and easily collapse the entire table to delete it in one line of HTML.

Working with Images

Before you can insert an image into content, the image must be uploaded to the Library or imported as an asset. You can upload an image to the library while editing content using the **Add Library** button.

- *Storing Files in the Library* on page 333 explains how to upload an image to the Library.
- *Methods for Importing Assets* on page 315 explains how to import an asset.

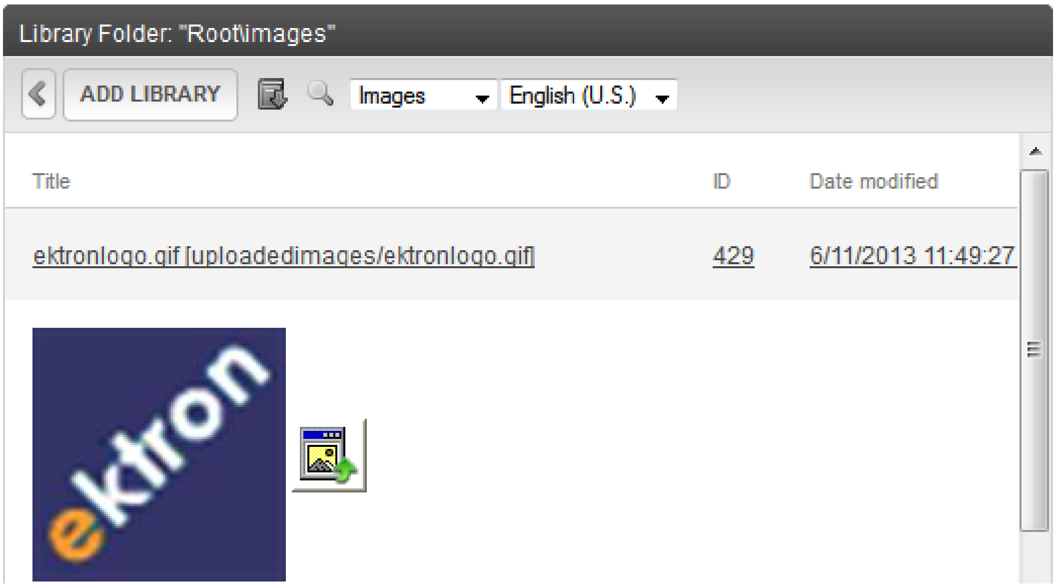
This section also contains the following topics.

Inserting an Image

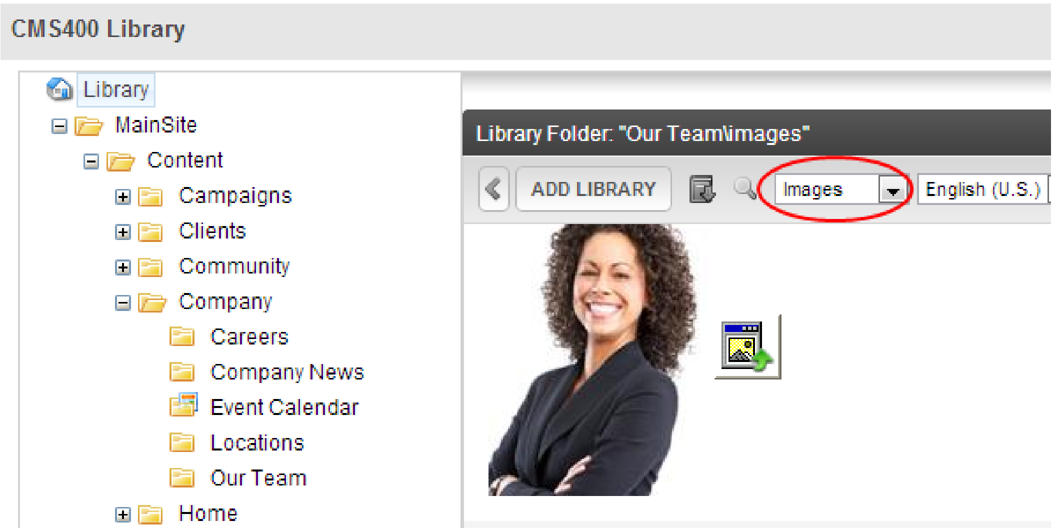
Inserting an Image via the Library

1. Place the cursor where you want the image to appear.
2. Click **Library** ( ). The CMS400 Library screen appears.
3. From the left panel, navigate to the folder containing the image you want to insert. If you do not know its folder, use **Search** ( ) to find an image by title, description, or internal file name.

NOTE: If the file is not in the library, you can insert it by clicking the **Add Library** button, clicking **Browse** and navigating to the image file. Then, enter a title and optionally a description and metadata information. The file is inserted into the content and added to the library.



4. Select **Images** from the content type drop-down.



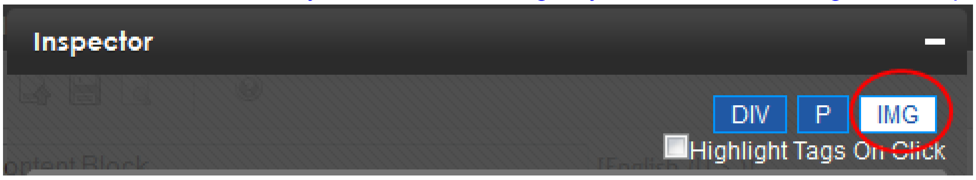
5. Select an image and click **Insert** ( ). The image is inserted into the content. (You can also double-click the image.)

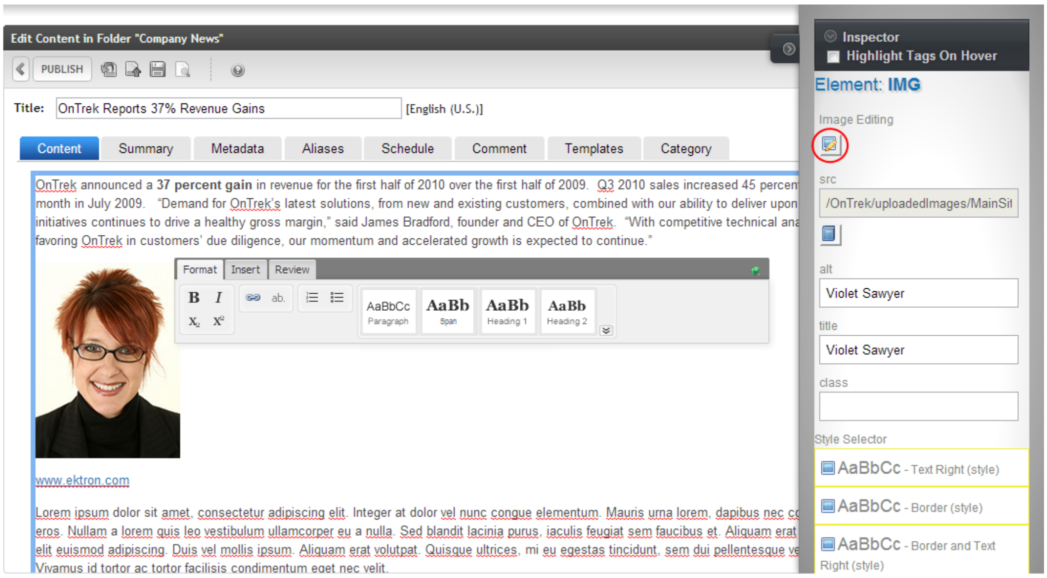
   Alternatively, you can insert a miniature version of the image, called a *thumbnail*, by clicking the thumbnail button ( ). When the thumbnail appears on a Web page, a site visitor clicks it to view a full-sized image.

Editing Images

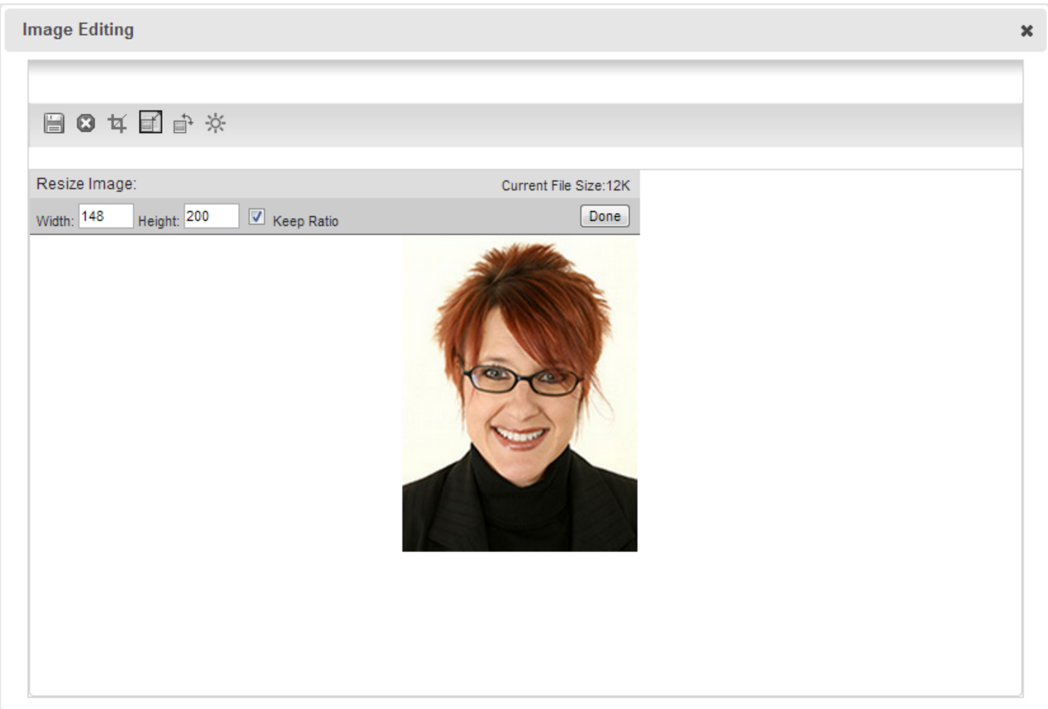
After inserting an image, you can adjust its properties by opening the Inspector.

NOTE: You will know that you selected an image if you see an <IMG> tag in the Inspector.





- —Opens an Image Editing window.



(The previous image shows an active Resize Image.)

You can perform the following image editing functions:

- —Save the changes to the image.

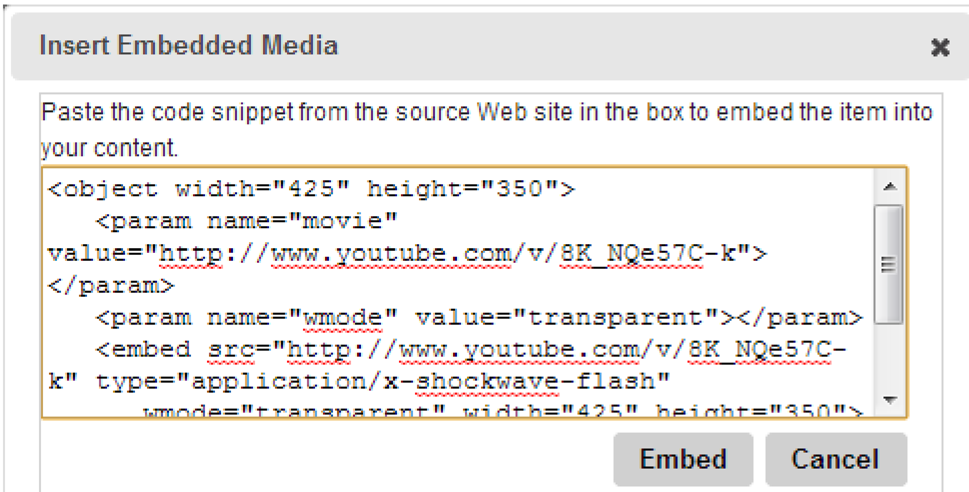
  NOTE: Each time you save changes to an image, a new image is created in the library.

- —Cancel editing; do not save changes.
- —Crop the image.
- —Resize the image.
- —Rotate the image.
- —Adjust the brightness of the image.

* **src**—Displays the system location of the image file.
* —Opens the CMS400 Library for you to select an image to replace the current image. You can also click **Add Library** to upload a new image to the Library which you can use to replace the image.
* **alt**—Specify the alternate text to be rendered if the image cannot be rendered.
* **title**—Specify additional information about the image.
* **class**—Specify a class from your stylesheet.
* **Style Selector**—Choose 1 of the style selectors (if available in your stylesheet). In this example, choosing **Text Right** wraps the content to the right of the image.

Adding Video to Content

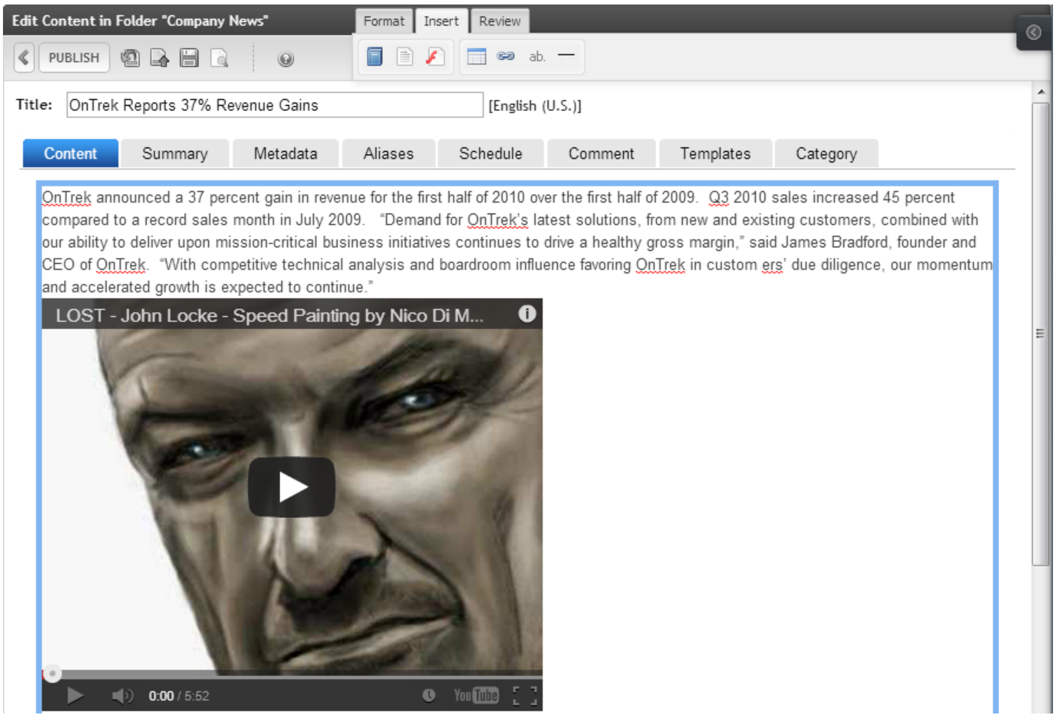
1. On the editor toolbar, click the **Insert** tab then **Insert Embedded Media** (). The Insert Embedded Media screen appears.



2. Add your embedded HTML code. For example:

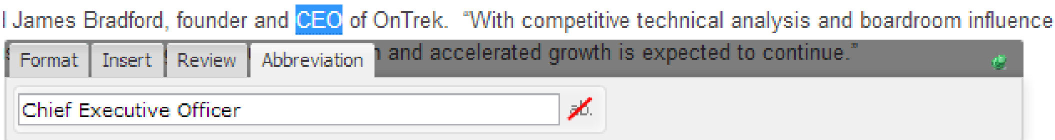
```
<object width="425" height="350">
  <param name="movie"
    value="http://www.youtube.com/v/8K_NQe57C-k"></param>
  <param name="wmode"
    value="transparent"></param>
  <embed src="http://www.youtube.com/v/8K_NQe57C-k"
    type="application/x-shockwave-flash"
    wmode="transparent" width="425" height="350"></embed>
</object>
```

3. Click **Embed**. The video is embedded in the content.

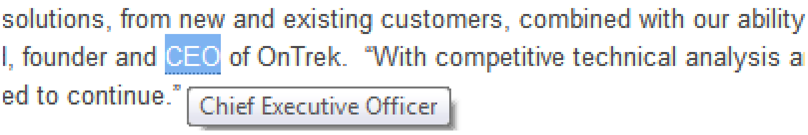


Displaying Bubble Text on Content

1. Highlight text for which you want to display bubble text.
2. On the **Format** tab, click **Abbreviation** (ab.) . The Abbreviation tab appears.



3. Enter the bubble text in the field and press **Enter**. When a site visitor hovers over highlighted text, the bubble text appears.



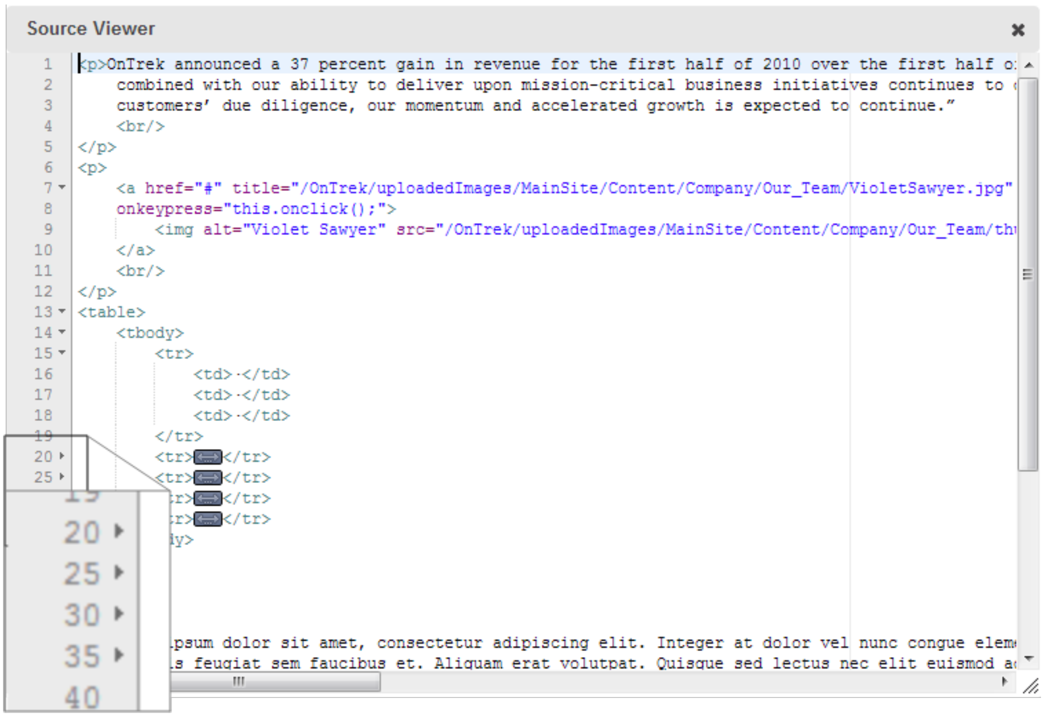
Viewing and Editing HTML Source Content

To view and edit the HTML source, click **View Source** ( ) on the toolbar's **Review** tab. The Source Viewer appears. As you edit the HTML, the content window dynamically updates with your changes.

When you finish editing in the Source Viewer, click the **X** in the top right corner.

The Source Viewer supports tag completion. For example, if you type `<p>`, the Source Viewer automatically adds a closing `</p>` tag.

The Source Viewer supports collapsing and expanding tags. For example, if a table is in the content, a small arrow appears next to the line numbers. Click the arrow to expand or collapse the nested tags.



Finding and Replacing Text in the Source Viewer

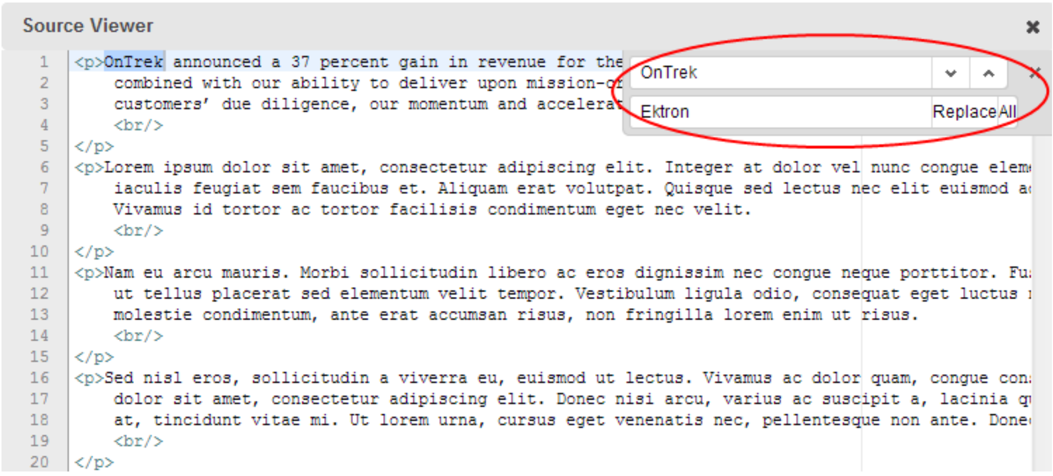
NOTE: Replacing text is supported only in the Source Viewer. Search is supported in the editor by pressing Ctrl/f.

Consider replacing *OnTrek* with *Ektron* in the following content.

```
<p>OnTrek announced a 37 percent gain in revenue for the first half of 2010
over the first half of 2009.  Q3 2010 sales increased 45 percent compared to
a record sales month in July 2009. "Demand for OnTrek's latest solutions,
from new and existing customers, combined with our ability to deliver upon
mission-critical business initiatives continues to drive a healthy gross margin,"
said James Bradford, founder and CEO of OnTrek. "With competitive technical
analysis and boardroom influence favoring OnTrek in customers' due diligence,
our momentum and accelerated growth is expected to continue."
<br/></p>
```

1. On the Review tab, click the **View Source** button ( ). Source Viewer appears.
2. Press Ctrl/f to open the find and replace boxes.
3. Type the search string in the first box and the replace string in the second box.
4. Click **Replace** to find and replace occurrences one at a time. Click **All** to replace all

occurrences.

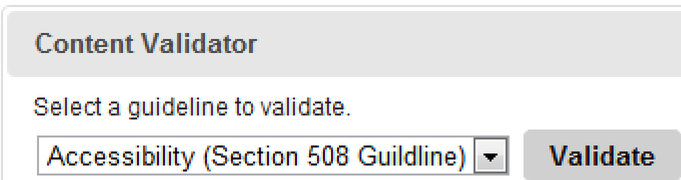


Validating Content

You can validate content against Accessibility (Section 508 Guideline), WCAG, HTML5, or XHTML guidelines by clicking **Validate** ( ) on the Review tab. The Content Validator screen appears. Choose which guideline you want to use from the drop-down menu, then click **Validate**. Options include:

- Accessibility (Section 508 Guideline)
- WCAG 2.0 Level A
- WCAG 2.0 Level AA
- WCAG 2.0 Level AAA
- HTML5
- XHTML

NOTE: Each standard may have conflicts with the other standards; valid HTML5 code may not be valid XHTML code. Choose the standard guideline that you need.



Using a Template to Structure Content

An editor template is section of HTML-formatted content that users can copy into their content for any number of reasons. For example, a template can help maintain a structure, such as image captions. If you want the caption on the left with content flowing around it, create mark-up to do this and put it in a template.

Creating a Template

To prepare for templates, create an Ektron parent folder to contain them. Then, specify the parent folder at the `templatePlugin` element in the *AlohaEktron.aspx* on page 237 file.

```
templatePlugin: {FolderID: 45}
```

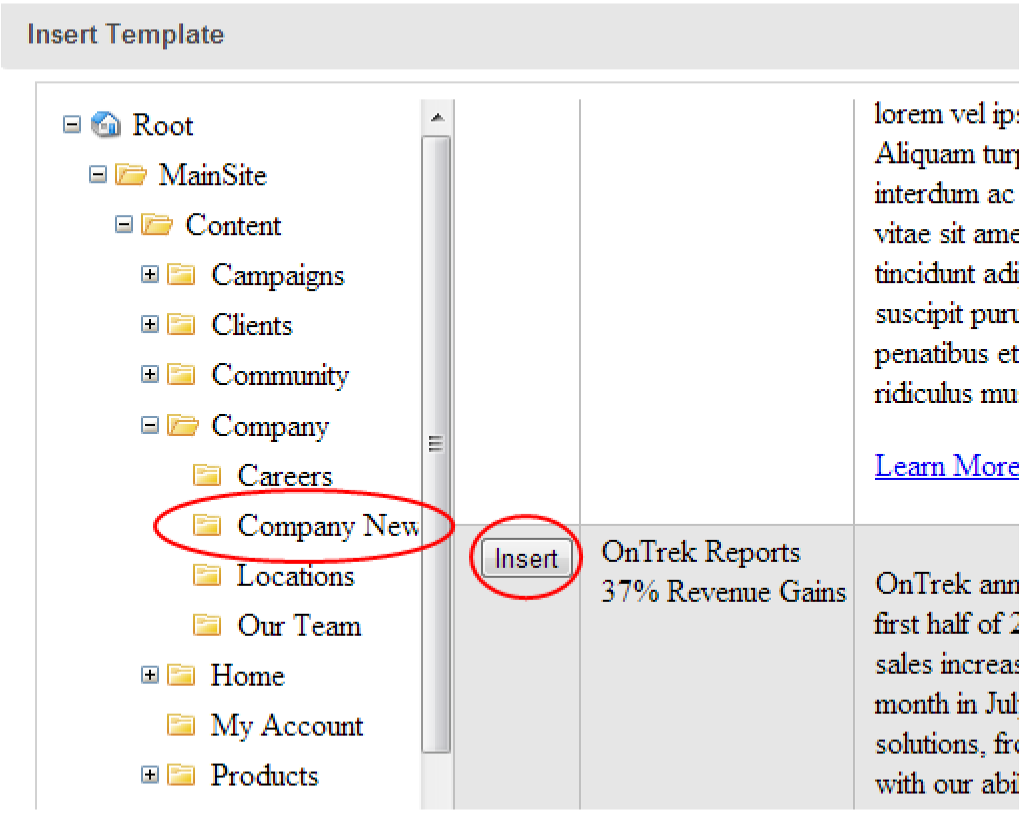
IMPORTANT: You cannot use 0, the root folder, as the parent folder for templates.

NOTE: You can set permissions on this folder like any other. Users must have read-only or greater permission for the folder in order to insert its templates into content.

After you create the folder, open it (or any child folders) and create and publish HTML content to be used as a template. Content authors may only select *published* content from this folder tree when inserting a template.

Inserting a Template

To insert a template, place the cursor where you want it, and click **Template** ( ) on the **Insert** tab. Navigate to the HTML content, select it, and click **Insert**.



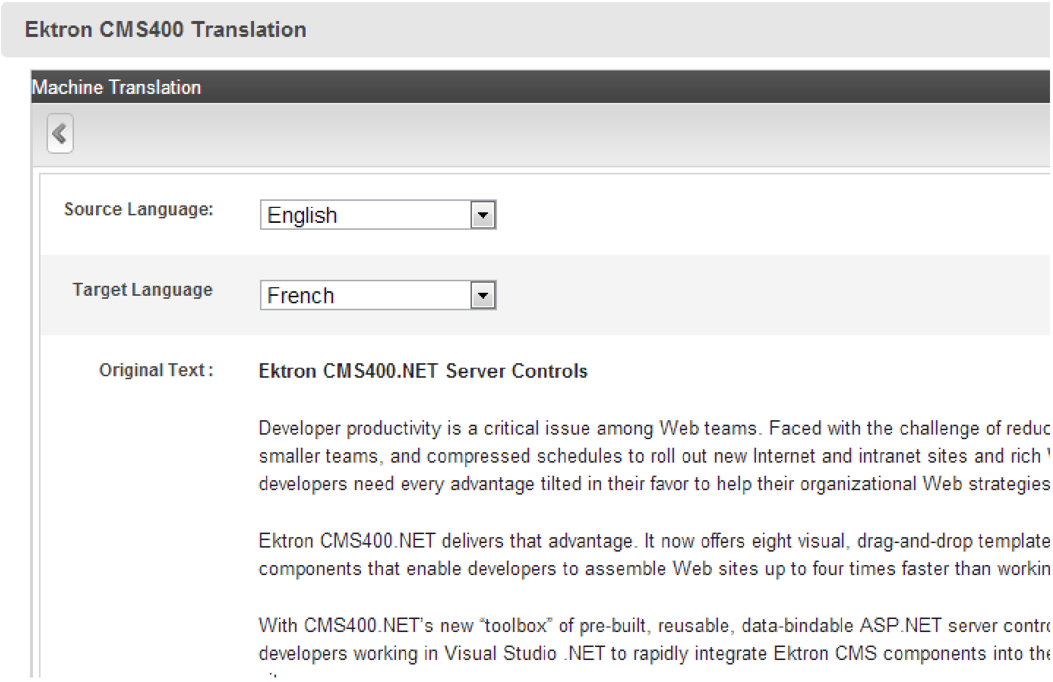
The template is copied to your content, and then decoupled from the template source file. So, you can modify the template text as you like; modifications do not affect the template. Also, if you later change the template, that action does not affect previously-inserted copies.

Translating Content

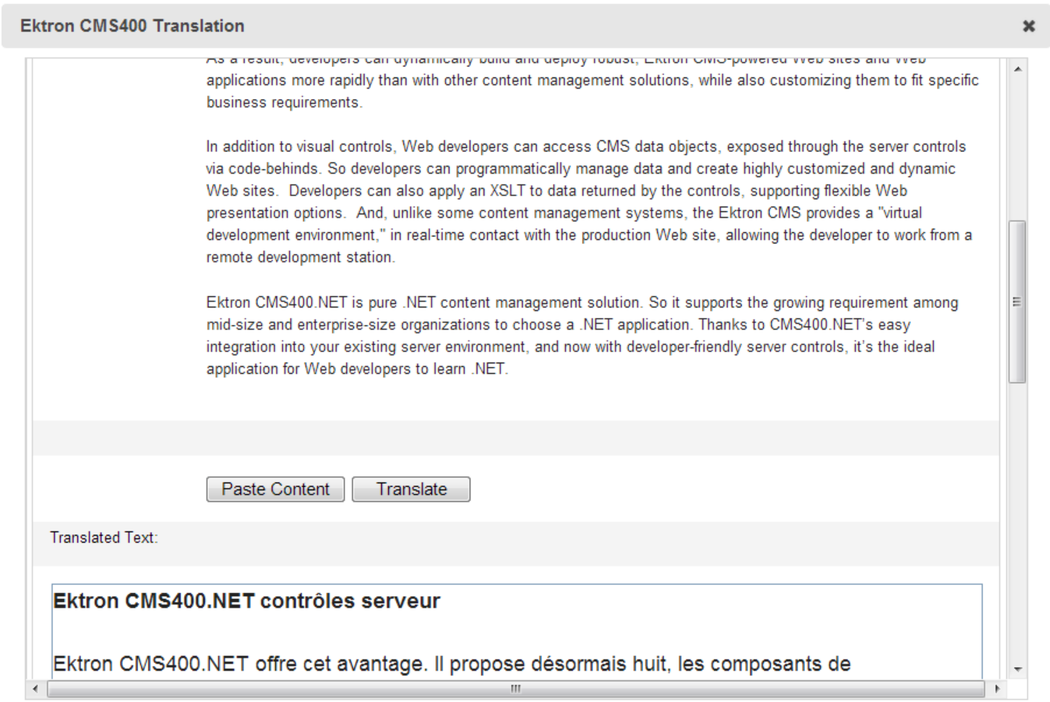
This section describes machine translation, which converts content to another language. Machine translation operates on an entire piece of content, not selected portions of content.

IMPORTANT: Before you can use machine translation, a system administrator must enable it. See *Enabling Machine Translation* on page 1072.

1. While editing a piece of content, click **Translate** ( ) on the Review tab. The content appears in a new window.



2. Choose the Source and Target Languages and click **Translate**. The machine translation appears.



3. If the translation is acceptable, click **Paste Content** to replace the original with the translated text.
4. Edit the translation as needed then save.

Customizing the Editor

An administrator can customize the editor.

Changing the Default Editor

The editor is automatically set by the `ek_EditControlWin` (Windows) or `ek_EditControlMac` (MacIntosh) tags in `web.config`. However, you can change them to use another editor.

```
<!-- EditControlWin may be either "Aloha" or "ContentDesigner" or "eWebEditPro" or
"UserPreferred" -->
<add key="ek_EditControlWin" value="Aloha" />
```

- `Aloha` designates the default editor.
- `ContentDesigner` designates the eWebEdit400 editor.
- `UserPreferred` lets users choose an editor on their profile page.

Modifying Editor Plug-ins

Plug-ins are open-source, customizable pieces of JavaScript code that provide editor functionality.

Editor plug-ins are stored at `\Workarea\FrameworkUI\js\Ektron\Controls\EktronUI\Editor\Aloha\plugins\ektron\[plug-in_name]`. Each `[plug-in_name]` folder has supporting `CSS` and `lib` folders containing these files:

- *Plug-in_Name*`.css`—Cascading style sheet for the plug-in.
- *Plug-in_Name*`-plugin.js`—JavaScript file for the plug-in.

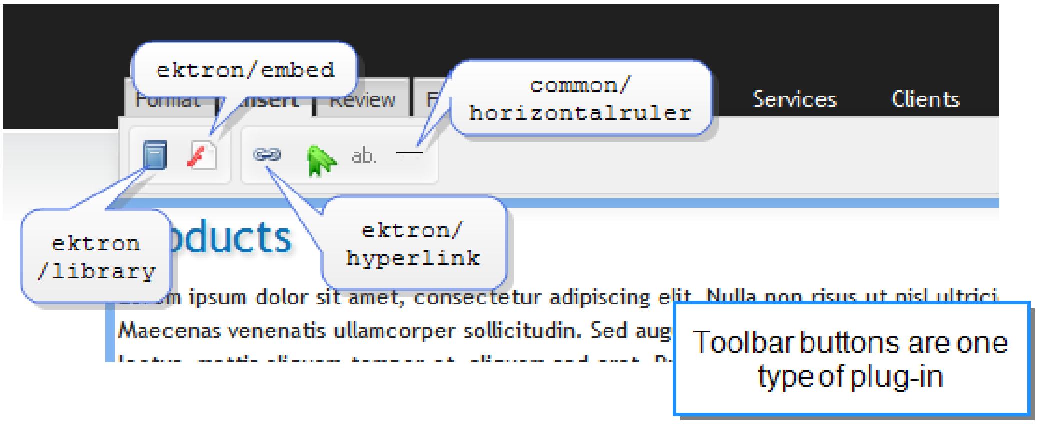
Plug-in code has the following basic outline:

- Define/inclusion calls are at the top (powered by RequireJS for easy-to-use paths)
- Main function (returns created plugin)
  - Default variables or strings to be used
  - `Init` function that executes upon loading (usually to create the button)
  - `createButtons` function that adds a button to floating menu
  - Function that can be called whatever you like, and should be executed upon button click

Editor Plug-ins

NOTE: For more information about customizing the editor and creating plug-ins, see the webinar: Customize the Behavior of the Editor for Your Projects.

Ektron provides several useful plug-ins that lets you customize the editor. Specify editor plug-ins in the `C:\inetpub\wwwroot\siteroot\ektron.cms.framework.ui.config` file. Many plug-ins are buttons on the editor toolbar. See Also: *Customizing the Editor's Toolbar Buttons* on page 234



Each editor plug-in has one of these prefixes:

- `common/`—native to the editor
- `ektron/`—supplied by Ektron
- `extra/`—supplied by others. You can create your own plug-ins. (This document does not describe how.)

The following are standard editor plug-ins.

- `common/ui`, `common/block`—required internal plugins; do not remove
- `common/abbr` (ab.)—specify an abbreviation for content, which shows up as bubble text See Also: *Displaying Bubble Text on Content* on page 227
- `common/characterpicker` (Ω)—insert special characters (such as ® and ±)
- `common/contenthandler`—controls sanitization of content and supports cleaning of Microsoft Word documents being pasted to the editor to preserve as much formatting as possible.

  Content handler is independent of paste. It cleans content when certain actions are performed, such as paste, `getContents` (getting the content to save it to the database), and `initEditable` (opening content).

  NOTE: If content contains improper tagging, it is removed when pasted. Also, images embedded within documents do not paste into Ektron content; you must insert them separately.

- `dom-to-xhtml/dom-to-xhtml`—ensures XHTML compliance. This plug-in enables Ektron controls.
- `common/highlighteditables`—not a toolbar button; if enabled, you can click a content item to highlight it for easy identification of content elements
- `common/horizontalruler` (—)—insert horizontal line
- `common/list` (and)—create an unordered (bulleted `<ul>`) or ordered (numbered `<ol>`) list
- `common/paste`—not a toolbar button; uses the browser’s capabilities to paste content from the clipboard
- `common/table` ( )—insert a table See Also: *Inserting a Table* on page 219
- `common/undo`—not a toolbar button; enables the browser’s capabilities to undo the last action

- `ektron/bookmark` ()—set a bookmark within content. See Also: *Removing a Link* on page 217
- `ektron/draganddrop`—not a toolbar button; enables drag and drop of images into content; supported browsers are Webkit-based (such as Safari and Chrome)
- `ektron/editInContextCallback`—raise callback events (that depend on your permissions and workflow) when you "edit in context."
- `ektron/embed` ()— embed a video into your content.
- `ektron/format`—contains bold (**B**), italic (*I*), subscript (X_2), superscript (X^2), and the formatting palette (Paragraph, Span, Heading1-Heading6, Pre).

- `ektron/hyperlink` ()—insert a hyperlink in the content.
- `ektron/library` ()—insert a library item (file, form, hyperlink, image, and quicklink) into the content
- `ektron/sourceview` ()—opens a view of HTML coding of the content. Whether you edit in the source viewer or the HTML editor, both views are kept concurrent.
- `ektron/template` ()—insert predefined content into the editor at the cursor location; for example, a caption below an image. See Also: *Using a Template to Structure Content* on page 229
- `ektron/translate` ()—machine translate text to another Ektron-supported language. See Also: *Translating Content* on page 230
- `ektron/validator` ()—verify content against HTML5, XHTML, WC3, and WCAG compliance. See Also: *Validating Content* on page 229

Customizing the Editor's Toolbar Buttons

The editor toolbar appears in several Ektron Workarea locations, and on your site when logged-in users edit "in context." A different toolbar appears when content authors create HTML content, enter a calendar event, reply to a discussion forum post, and so on.

Within the `C:\inetpub\wwwroot\siteroot\ektron.cms.framework.ui.config` file, the `<add name="EditInContext">` element lists all editor locations. Following each location is a list of the toolbar buttons on that editor. To customize a toolbar, edit the list.

Editor Locations

Editor locations are:

- Minimal—sample minimal toolbar that you can copy to other locations; not used
- Content—toolbar appears when editing HTML content, and its summary; Smart Form rich area text field; blog posts
- Assets—toolbar appears when editing an asset's summary
- DiscussionTopic—toolbar appears when working with a discussion topic and its forum posts
- Mediamedia—used in
  - Workarea > Library > Add or edit Library item
  - library popup within editor, when adding new library item
- CalendarEntryCMSUser—toolbar appears when an Ektron user is working with a calendar event
- CalendarEntryMembershipUser—toolbar appears when a membership user is working with a calendar event
- EditInContext—toolbar appears when using the **Edit in Context** option; See Also: *Editing Content in Context on a Web Page* on page 208

For example, to remove the validator button ( ) from the editor that is used to edit a Smart Form rich area text field:

1. Using the *Editor Locations* on the previous page list, determine that you need to find the `Content` element within the `ektron.cms.framework.ui.config` file.
2. Using the *Editor Plug-ins* on page 232 list, determine that you need to find `ektron/validator` plug-in within the `Content` element.
3. Remove the `ektron/validator` element (see example below).

```
<add name="Content" path="dom-to-xhtml/dom-to-xhtml,common/ui,ektron/format,
common/contenthandler,common/table,common/list,ektron/hyperlink,
common/highlighteditables,common/undo,common/paste,common/horizontalruler,
ektron/translate,ektron/validator,ektron/template,ektron/embed,ektron/inspector,
ektron/sourceview,ektron/advancedinspector,ektron/draganddrop,common/block"
default="false" />
```

The following example shows how to modify the "Hello World" plug-in snippet within a `<span>` tag.

```
// define the HelloWorld module using RequireJS
define([
  'aloha',
  'aloha/plugin',
  'aloha/floatingmenu',
  'aloha/jquery',
  'i18n!aloha/nls/i18n',
  'css!helloworld/css/helloworld.css'],
// callback executed once dependencies are loaded by RequireJS
  function (Aloha, Plugin, FloatingMenu, jQuery, i18nCore) {
  // create and register the Plugin
    return Plugin.create("helloworld", {
      defaults: {
        text: "Hello World!",
        wrapper: '<span class="helloworld"></span>'
      },

      init: function () {
```

```
        // executed on plugin initialization
        window.console.info("HelloWorld: Begin initialization");
        this.createButtons();
        window.console.info("HelloWorld: End initialization");
      },

      createButtons: function () {
        // provide locally scoped version of this for use
        // in callbacks,e tc.
        var that = this,
          tabInsert = i18nCore.t('floatingmenu.tab.insert');

        // create hellowworld button
          this.helloWorldButton = new Aloha.ui.Button({
          'name': 'helloWorld',
          'iconClass': 'ektron-aloha-button ektron-aloha-helloWorld',
          'size': 'small',
          'onclick': function () {
          that.insertHello();
        },
        'tooltip': "Click to insert Hello World!",
        'toggle': false
        });

        // add it to the floating menu
        FloatingMenu.addButton(
          'Aloha.continuoustext',
          this.helloWorldButton,
          tabInsert,
          1
        );
      },

      insertHello: function () {
        window.console.info("HelloWorld: Hello World Button clicked");
        var html = jQuery(this.settings.wrapper).text(this.settings.text);
        // get the current selection range
        var range = Aloha.Selection.getRangeObject();
        if (range.isCollapsed()) {
          GENTICS.Utils.Dom.insertIntoDOM(html, range,
            jQuery(Aloha.activeEditable.obj));
        }
        else {
          // remove the contents of the current selection
          range.deleteContents();
          // insert our Hello World elements
          GENTICS.Utils.Dom.insertIntoDOM(html, range,
          jQuery(Aloha.activeEditable.obj));
          // deselect the current range object
          Aloha.getSelection().removeAllRanges();
        }
        return false;
      }
    });
  }
);
```

To learn about creating plug-ins, see http://aloha-editor.org/guides/writing_plugins.html.

Creating Styles and Classes

StyleConfig.js

You set up styles and classes that users can use with the Inspector in the `StyleConfig.js` file. It is located at:

```
[siteroot]\Workarea\FrameworkUI\js\Ektron\Controls\EktronUI\Editor\
   Aloha\plugins\ektron\inspector\lib\StyleConfigjs
```

In the following example, the Alert style is applied to the STRONG tag and is defined as follows.

```
"STRONG": {
  "styles": {
    "Alert":  {
        "type": "style",
        "value": "color:red;",
        "workareaBox": "color:red;"
              }
            }
          }
```

- `STRONG` is the tag to which the `Alert` style is being applied.
- `Alert` is the name of the new style that displays in the Inspector's Style Selector
- The `type` is defined as `style` for an in-line style, or `class` to be applied to an element
- The `value` for this Alert style is red text that gets applied to the style or class element
- The `workareaBox` defines how the preview appears within the Inspector when a user chooses this style

Customizing Tags and Attributes

AlohaEktron.aspx

To customize the tags and attributes that users can choose when editing, modify the `AlohaEktron.aspx` configuration file, which is located at:

```
[siteroot]/Workarea/FrameworkUI/js/Ektron/Controls/EktronUI/Editor/Aloha/
```

Edit the `contentHandler` section to specify the elements, element attributes, and protocols that you can apply to content and for content clean up (such as saving or copying and pasting from an external editor source).

```
contentHandler: {
  insertHtml: [ 'word', 'generic', 'oembed', 'sanitize' ],
  initEditable: [ 'sanitize' ],
  sanitize: 'relaxed',
  allows: {
    elements: [
      'a', 'abbr', 'b', 'blockquote', 'br', 'caption', 'cite', 'code', 'col',
      'colgroup', 'dd', 'dl', 'dt', 'em', 'h1', 'h2', 'h3', 'h4', 'h5', 'h6',
      'i', 'img', 'li', 'ol', 'p', 'pre', 'q', 'small', 'strike', 'strong',
      'sub', 'sup', 'table', 'tbody', 'td', 'tfoot', 'th', 'thead', 'tr', 'u',
      'ul', 'span', 'hr', 'object', 'div', 'script', 'figure', 'noscript',
      'figcaption'
```

```
              ],
    attributes: {
      'a': ['href', 'name', 'title', 'id', 'rel', 'rev',
        'data-gentics-aloha-repository', 'data-gentics-aloha-object-id',
        'data-ektron-url', 'style', 'class', 'onclick', 'onkeypress'],
      'p': ['class', 'style'],
      'span': ['class', 'style'],
      'div': [ 'id', 'class'],
      'abbr': ['title'],
      'blockquote': ['cite'],
      'br': ['class'],
      'col': ['span', 'width'],
      'colgroup': ['span', 'width'],
      'img': ['align', 'alt', 'height', 'src', 'title', 'width',
        'data-ektron-url', 'class', 'style'],
      'ol': ['start', 'type'],
      'q': ['cite'],
      'script': ['type', 'language'],
      'table': ['summary', 'width'],
      'td': ['abbr', 'axis', 'colspan', 'rowspan', 'width'],
      'th': ['abbr', 'axis', 'colspan', 'rowspan', 'scope', 'width'],
      'ul': ['type'],
      'li': ['class', 'style'],
      'figure': ['data-media','data-media400', 'data-media600', 'title']
                },
    protocols: {
      'a': {'href': ['ftp', 'http', 'https', 'mailto', '__relative__']},
      'blockquote': {'cite': ['http', 'https', '__relative__']},
      'img': {'src' : ['http', 'https', '__relative__']},
      'q': {'cite': ['http', 'https', '__relative__']}
               }
          }
},
  templatePlugin: {FolderID: 0}
```

Integrating the Editor into an ASPX Page

ektronUI:Editor Control

The `ektronUI:Editor` control is an ASP.NET server component that you can integrate into an ASPX page. The following example shows the control on an ASPX page.

The `EditInContext` value to the `ToolbarConfig` attribute specifies the group of plug-ins—from the `ektron.cms.framework.ui.config` file—to be loaded with the editor. See Also: *Modifying Editor Plug-ins* on page 232

```
<!DOCTYPE html PUBLIC "~//WJC//DTD XHTML 1.0 Strict//EN"
"http:..www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head runat="server">
     <title>Editor control integration</title>
  </head>
  <body>
    <div id="content">
      <ektronUI:Editor ID="Editor1" runat="server" ToolbarConfig="EditInContext" />
    </div>
```

```
    </body>
</html>
```

(This page intentionally blank.)

12

Setting Up Your CMS Folder Structure

Folders are containers for . Ektron provides the following types of folders:

- Standard—See this chapter.
- Root—Acts a container for all folder types.
- Site—See *Supporting Multi-Site Configurations* on page 76
- Community—See *Community Folders* on page 1171
- Blog—See *Working with Blogs* on page 491
- Discussion Board—See *Working with Discussion Boards* on page 536
- eCommerce catalog—See *Creating a Catalog Folder* on page 1354
- Web Calendar—See *Working with Calendars* on page 514

Planning your folder structure helps you manage content effectively. The following considerations can help you plan.

- Folder structures should reflect an overall information architecture.

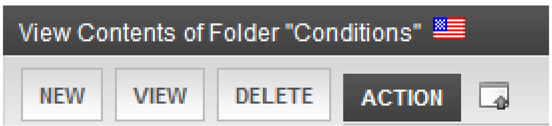
  NOTE: Your information architecture also involves metadata, collections, and taxonomy.

- Organize content by type (especially Smart Forms).
- Organize content by user or user group permissions. This can make managing content easier because permissions can be inherited for the folder.
- Organize content by approval process so that there is a single approval chain associated with the folder.
- Keep PageBuilder folders separate; this can help manage permissions and also avoid title conflicts.

This section also contains the following topics.

Using Folder Menus

The following menus and button appear across the top of the View Contents of Folder screen. Depending on your permissions, you may not see all menu options.



For information on the Add Asset button ( ), see *Working with Assets in the Document Management System* on page 310.

New Menu

Lets you create and upload new items into the folder.

- **Folder**—Add folder. See Also: *Setting Up Your CMS Folder Structure* on page 241
- **Blog**—Add blog. See Also: *Working with Blogs* on page 491
- **Discussion Board**—Add discussion board. See Also: *Working with Discussion Boards* on page 536
- **Community Folder**—Add folder whose content can be updated by membership as well as regular users. See Also: *Community Folders* on page 1171
- **Calendar**—Add Web calendar. See Also: *Working with Calendars* on page 514
- **Catalog**—Add eCommerce catalog. See Also: *Creating a Catalog Folder* on page 1354
- **Site**—Add website. (This option is only available in the context of the root folder.) See Also: *Supporting Multi-Site Configurations* on page 76
- **HTML Content**—Add HTML content. See Also: *Creating New Content* on page 287
- **HTML Form/Survey**—Add HTML form, poll, or survey. See Also: *Creating Surveys and Polls* on page 407
- **Page Layout**—Add page layout. (This option is only available in the context of the PageBuilder folder.) See Also: *Developing Wireframe Templates* on page 676
- **Master Layout**—Add master layout. (This option is only available in the context of the PageBuilder folder.) See Also: *Creating a PageBuilder Master Layout* on page 680
- **Smart Form**—Add Smart Form. (This option is only available if one or more Smart Forms are assigned to the folder.) See Also: *Working with Smart Forms* on page 423
- **DMS Document**—Add Office document, managed file, or multimedia file, any supported type. See Also: *Managing Microsoft Office Assets* on page 322, *Managing Assets* on page 315
- **Multiple DMS Documents**—Add several Office documents, managed files, multimedia files, any supported type. See Also: *Adding Multiple DMS Documents* on page 317
- **Collection**—Add collection. See Also: *Working with Collections* on page 355
- **Menu**—Add menu. See Also: *Using Menus* on page 753
- **Add Calendar Event**—Add calendar event. (This option is only available in the context of the WebCalendar folder.) See Also: *Adding System Calendar Events* on page 517

View Menu

Lets you display information about existing content in the folder.

- **All types**—Displays *all* content types of selected language.
- **HTML content**, **HTML Form/Survey**, **Office Documents**, **Managed Files**, **Multimedia**, or **Image Assets**—Limits folder display to *selected content type*. For example, choose **View > Managed Files** and see only managed files in the folder; other content types are suppressed. This is especially helpful if the folder has a lot of items, and you are looking for only one type of content. If a PageBuilder folder is selected, you can limit the display to Page Layouts or Master Layouts. For more information on specific types of content:
  - *Creating New Content* on page 287
  - *Working with HTML Forms* on page 386
  - *Managing Microsoft Office Assets* on page 322
  - *Managing Assets* on page 315
  - *Managing Multimedia Assets* on page 318

- **Language**—Limits display of content within folder to one language, or lets you display all languages. If set to one language, this also determines the language of new items you create or upload into the folder.
- **Menu**—Work with menus assigned to this folder. See Also: *Adding a Menu Item via Content Folder* on page 759
- **Collection**—Work with collections assigned to this folder. See Also: *Working with Collections* on page 355
- **Archived Content**—View and work with content that passed its scheduled End Date and whose archive option is either **Archive and remove from site** or **Archive and remain on Site**. When a Web Calendar folder is selected, this menu item appears as Archived Events.
- **Properties**—Only members of the administrators group and those assigned to the Folder-Admin role see this option. It lets you assign folder properties, such as which users can edit a folder's content. See Also: *Defining Roles* on page 1120, *Setting Folder Properties* on page 253

Delete Menu

Lets you delete folders or content within a folder.

- **This folder**—Delete current folder and all of its content. If a Web Calendar is selected, the menu option appears as "This calendar." You cannot delete the Root folder. See Also: *Deleting a Folder* on page 251
- **Content**—Delete one or more content items in folder. See Also: *Deleting Content* on page 291

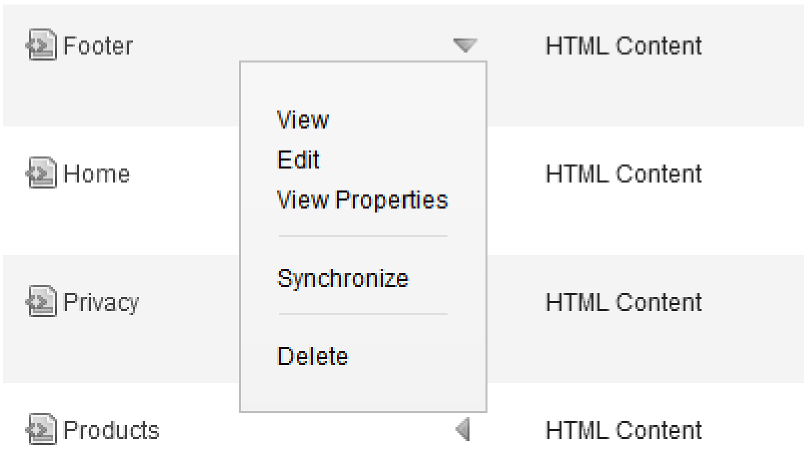
Action Menu

Lets you perform actions on the folder or content within the folder.

- **Export For Translation**—Prepare content for translation by a translation agency. See Also: *Exporting Content to XLIFF* on page 1072
- **Cut/Copy**—Move or copy content to another folder. See Also: *Moving or Copying Content* on page 290.
- **Search**—Search content in the Workarea. See Also: *Searching the Workarea* on page 966.
- **Synchronize Folder**—Sync this folder on the current server with the same folder on another server. This option is only displayed if eSync has been set up, you have the required privileges, and content has changed. See Also: *Synchronizing Content and Folders* on page 1537

Workarea Content Menu

The View Contents of Folder screen features a context-sensitive, drop-down menu of options you can perform for a content item.

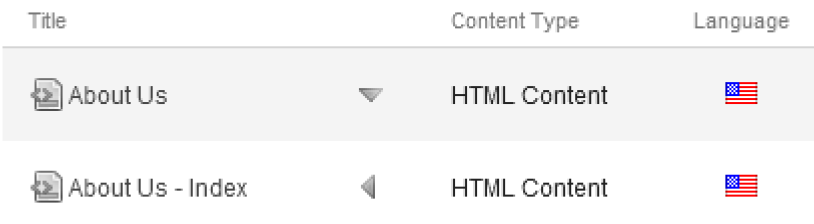


The options displayed depend on several factors, such as

- your folder permissions
- your position in the approval chain (if any)
- the content's status
- whether the item is a Microsoft Office document

To see the menu options for any content item:

1. After signing in, navigate to the folder that contains the content.



2. Click on the triangle. A menu of options for that content item appears. For example, if you have permission to edit, **Edit** appears on the drop-down menu. The following items are available on the Workarea context menu:
   - **Approve**—Approve content that has been submitted for publishing. See Also: *Approving or Declining Content* on page 267
   - **Check-In**—Change status of selected content to checked in. Might use if you checked out and saved a document then it became lost or corrupted. This option changes original document's status to checked in. However, it does not replace the version of the file inEktron. To replace content that was checked out and edited, drag and drop it into Ektron. See Also: *Updating an Office Document* on page 323
   - **Check out and Save As**—Change a content item's status to checked out and save it to your local computer. When you finish editing the item, drag and drop it into Ektron. See Also: *Updating an Office Document* on page 323
   - **Decline**—Decline an approval request submitted to you. This option rejects the changes and keeps the current version live on website. You are prompted to enter a reason for the decline. After you decline, the author who made the change is notified by email and the content is removed from the approval chain. If the author updated content then submitted it for approval, the updated content remains in the

file. If you do not want it to remain, choose the **Edit** option. You may be asked to decline both a content change and a request to delete content. See Also: *Approving or Declining Content* on page 267

- **Delete**—Submit content for deletion.
- **Edit**—For HTML, HTML form, or XML Smart Form content, edit content within the editor. For assets, use **Check out and Save As** or **Save As** to save asset to your computer and edit it. Then, use Edit to replace version in Ektron. See Also:
  - *Working with Ektron Content* on page 287
  - *Working with Smart Forms* on page 423
- **Edit in Microsoft Office**—Edit Office document within Ektron. See Also: *Editing an Office Document* on page 323
- **Edit Properties**—Edit item's Ektron information, such as Summary, Metadata, Schedule, and taxonomy. After you complete the edit screen, you proceed to the View Content screen. From here, you can perform additional content activities, such as move/copy, delete, and view history.See Also:
  - *Writing a Summary for Content* on page 292
  - *Working with Metadata* on page 369
  - *Scheduling Content* on page 296
  - *Using Taxonomies* on page 777
- **Force Check In**—Only appears if user is a member of the Administrator group or assigned the folder admin role and content is checked out. This option lets an administrator check in content even though the administrator did not check it out.
- **Publish**—Accept changes to content and publish it to the site.
- **Request Check In**—Allows either admin user or non-admin user with edit permission for the content's folder to email the user who checked out content. The email asks the check-out user to check it in.
- **Save As**—Save Office document or asset to your computer. See Also: *Saving an Office Document* on page 324
- **Submit**—Submit current version of content for publishing. When you do this, the next person in the approval chain is notified that your content is ready for review.
- **Synchronize**—Synchronize content or folders between 2 servers. See Also: *Synchronizing Servers Using eSync* on page 1473
- **View**—View item's Ektron information, such as Summary, Metadata, Schedule, and taxonomy. After viewing, you can also edit that information if you have permission
- **View in Microsoft Office**—View Office document within Office application. Cannot change.
- **View Properties**—View Office document's Ektron information, such as Summary, Metadata, Schedule, and Taxonomy. After viewing, you can edit the information if you have permission.

Viewing a Folder

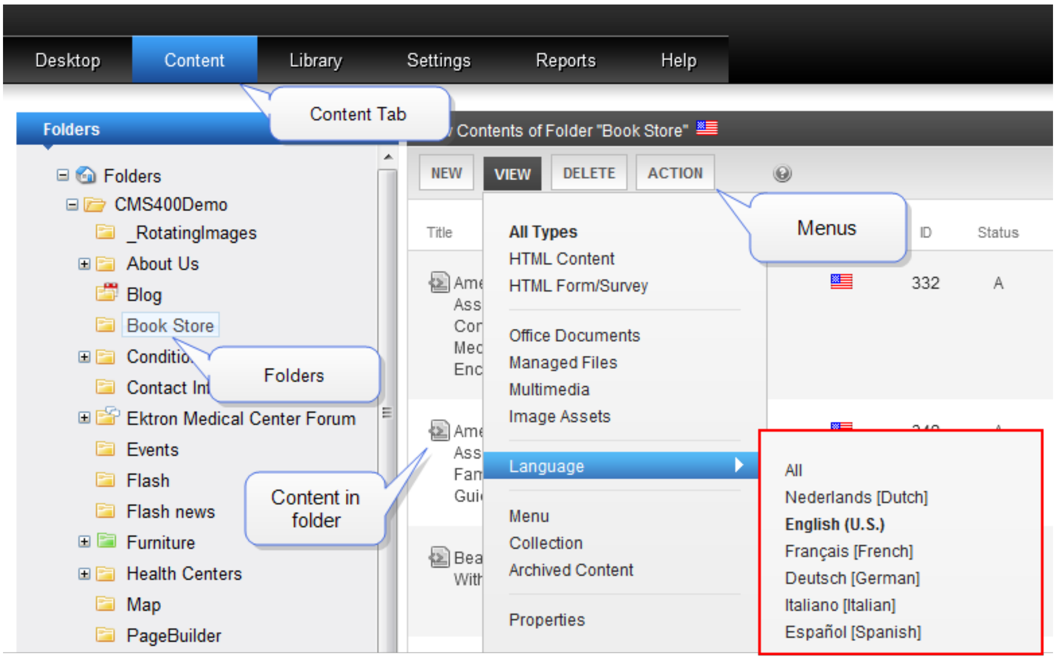
Each folder lists the following information about its content.

- **Title**—The name of the content.
- **Content Type**—HTML content, HTML form, XML Smart Form, managed asset, image, and so on.
- **Language**—The language of the content. See Also: *Working with Multi-Language Content* on page 1057
- **ID**—The number assigned to the content by Ektron. It is used to retrieve the content from a database.
- **Status**—The status of the content. See Also: *Content Statuses* on page 307
- **Date Modified**—The most recent date the content was added, edited, or published.
- **Last Editor**—The last user who accessed the content.

To view a folder, follow these steps.

NOTE: You can only view folders for which your system administrator has granted permission. See Also: *Managing Folder Permissions* on page 257

1. Access the Workarea and click the **Content** tab.



2. All content in the root folder and the selected language appear in the right frame. Subfolders appear in the left frame.

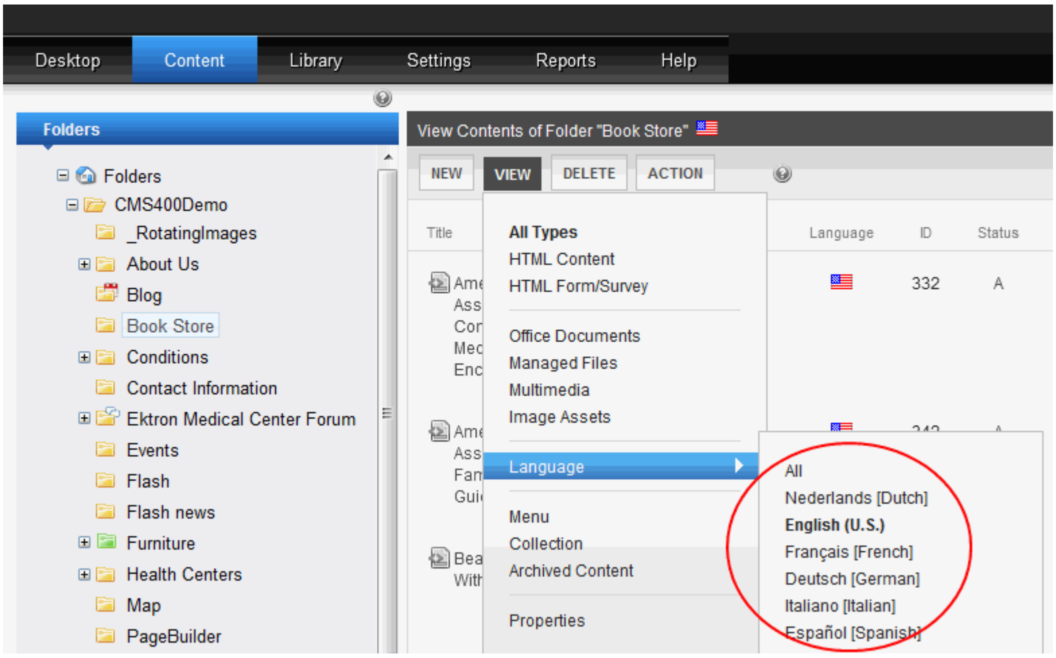
   NOTE: The View menu option lets you filter content by type. For example, you can set it to view only HTML content. Therefore, you may only see content of a selected type in the folder.

3. To work with any folder or its content, click the folder. When you do, its content appears in the right frame.
4. If your system supports more than one language, you can view content for a particular language or all languages using the **View > Language** menu option.

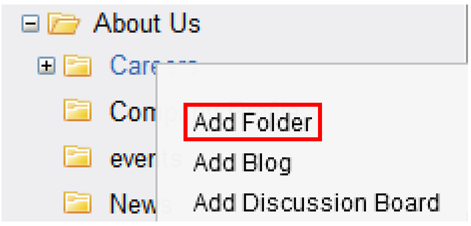
Adding a Folder

To further organize content on your website, create folders to store related content.

1. Navigate to and click the folder within which you want to create the new folder (that is, the parent folder).
2. Each folder has a default language. By default, it is inherited from the parent folder. To change a folder's default language, use the parent folder's **View > Language** selection (shown below).



3. Choose **New > Folder**. Alternatively, you can hover the cursor over the folder, right click the mouse, and choose **Add Folder**. The Add a folder screen appears.



4. Complete the fields. See *Setting Folder Properties* on page 253.
5. Click **Add Folder**.

You can modify the folder's properties, permissions, approval chain, and so on.

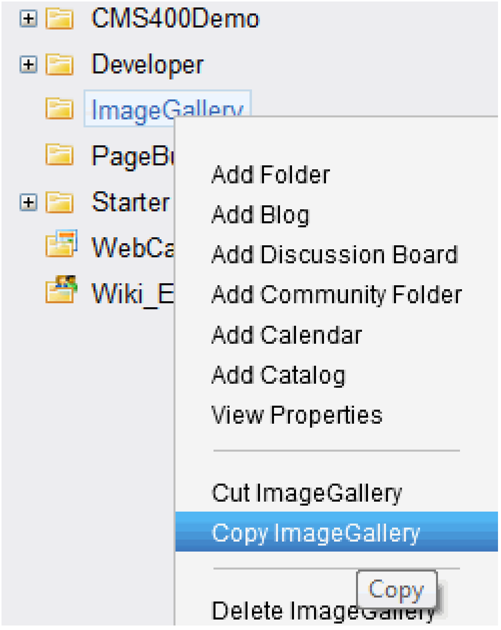
- If this is a Community Folder, see *Community Folders* on page 1171.
- If this is a Site Folder, see *Supporting Multi-Site Configurations* on page 76.
- If this is a Catalog Folder, see *Creating a Catalog Folder* on page 1354.

Copying and Moving a Folder

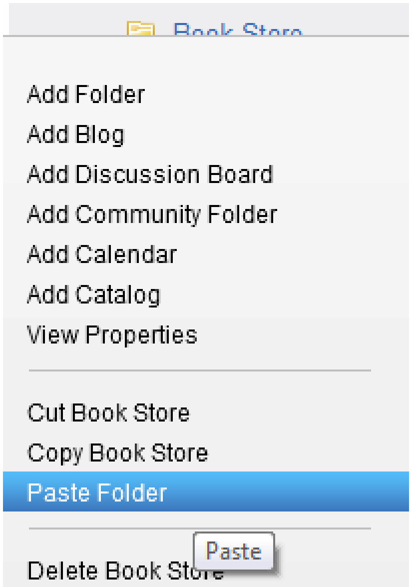
You can copy a folder and paste it into another folder. Or you can cut and paste one folder into another. Cut and paste is synonymous with move.

1. In the left panel of the Workarea, hover the cursor over the folder you want to copy/move.
2. Right click the mouse.

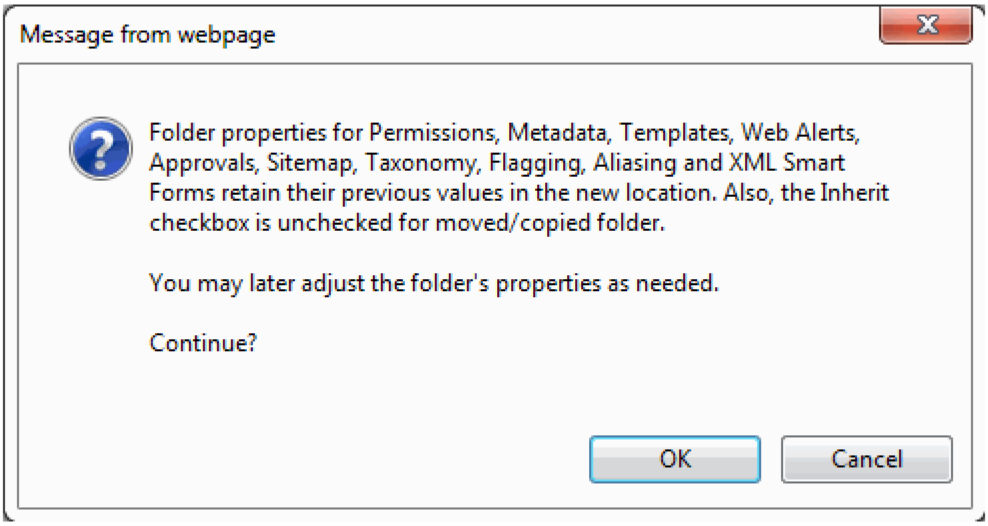
3. Click **Copy** or **Cut** *folder name.*



4. Hover the cursor over the folder to which you want to paste the copied/cut folder.
5. Right click the mouse and select **Paste Folder**.



6. A warning message appears. Click **OK**.



Who Can Copy and Move Folders

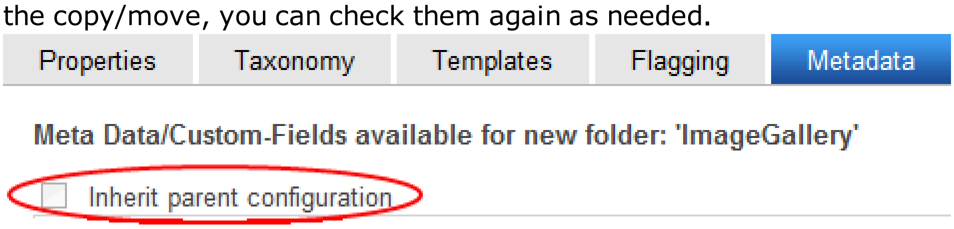
These users can copy or move folders.

- users who have Add, Edit and Delete permissions for the folder being moved/copied and the destination folder See Also: *Managing Folder Permissions* on page 257
- members of the Administrators user group
- users assigned in the Roles > Folder Specific > Folder User Admins screen
- users assigned in the Roles > Folder Specific > Move or Copy screen

See Also: *Defining Roles* on page 1120

Rules for Copying and Moving Folders

- When you copy or move a folder, you also copy/move all of its subfolders.
- All properties assigned to a folder (permissions, metadata, templates, and so on) remain assigned after the copy or move. You can edit the folder in its new location and adjust properties as needed.
- **Inherit** checkboxes (see example below) that were checked are now unchecked. After the copy/move, you can check them again as needed.



- You cannot copy or move the root folder
- You cannot copy or move a folder into its own subfolder
- You cannot *move* a folder to same level in the folder structure
- You can *copy* a folder to same level in the folder structure. If you do, a number is appended to the folder's name, such as `calendar(1)`.
- If you *move* a folder, its content retains its status. That is, if content's status was checked out (O) before the move, it is checked out after the move.

- If you *copy* a folder, only Approved content is copied. Content in any other status is not copied.
- All folder content that follows the above rules is moved/copied. This includes all language versions of those items.

Which Folder Types Can be Moved and Copied

The following table describes which folder types can be copied/moved into other folder types.

	Destination Folder							
Source Folder	Content	Blog	Forum	Comm-unity	Web Calendar	Catalog	Site	Root
Content	✓						✓	✓
Blog	✓						✓	✓
Discussion Board	✓						✓	✓
Forum								
Community	✓			✓			✓	✓
Web Calendar	✓						✓	✓
Catalog	✓ *					✓ *	✓ *	✓ *
Site								

** Although you can copy or move a catalog folder to a non-catalog folder, its content is not copied/moved; only the folder.*

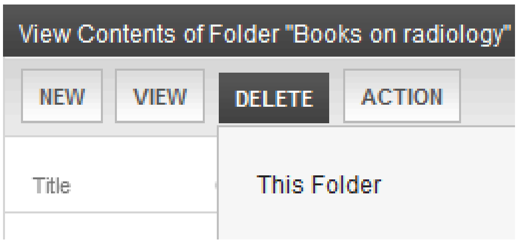
Deleting a Folder

You can delete obsolete folders from the Ektron website.

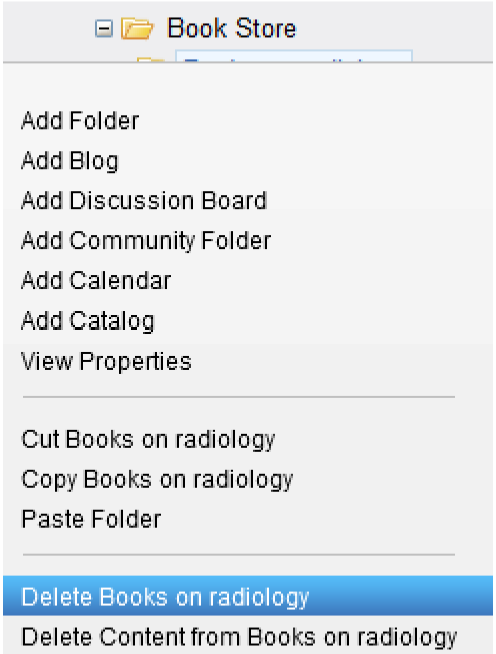
NOTE: The top-level folder, **Root**, cannot be deleted nor renamed.

WARNING! Deleting a folder permanently deletes the content and Quicklinks that belong to the folder and all of its subfolders. You cannot retrieve deleted content.

1. In the Workarea, navigate to the content folder you want to delete.
2. From the options across the top of the screen, choose **Delete > This Folder**.



3. Alternatively, you can hover the cursor over the folder in the folder display panel , right click the mouse, and choose **Delete *folder name***. A confirmation message appears.



4. Click **OK**.

Purging History

WARNING! Purging historical versions of content in a folder permanently deletes the specified content. You cannot retrieve purged content.

The Purge History option lets you delete historical versions of content in a folder. For more information on content versioning, see *Managing Versions of Content* on page 299.

Purging is generally performed due to storage space concerns or to clear away obsolete versions before going live or migrating a site. Before purging, make sure you are aware of any organizational or legal data retention policies.

When purging, you can:

- specify a date to limit which historical versions are purged. Only historical versions with an edit/publish date before this are purged.
- indicate whether a folder’s subfolders are purged
- purge published as well as checked-in versions of content

PREREQUISITE

Only administrators and users identified on the Manage Members for Role: Folder User Admin screen can purge history.

To purge the history for a content folder:

1. Access the View Folder Properties screen for the content folder for which you want to purge the history.
2. Click **Purge History** ( ). The Purge History screen appears.
3. Use the following list to customize the Purge History options.
   - **Only purge historical versions before** (required)—Specify a date to limit the number of historical versions to purge. When specified, only historical versions with a date before this date are purged.
   - **Recursive Purge** (optional)—Purges historical content versions in this folder's subfolders.
   - **Purge versions marked as Published** (optional)—Purges published versions of content as well as checked-in versions.
4. Click **Purge History**. A confirmation message appears.
5. Click **OK** to execute the purge and display a confirmation when complete.

Setting Folder Properties

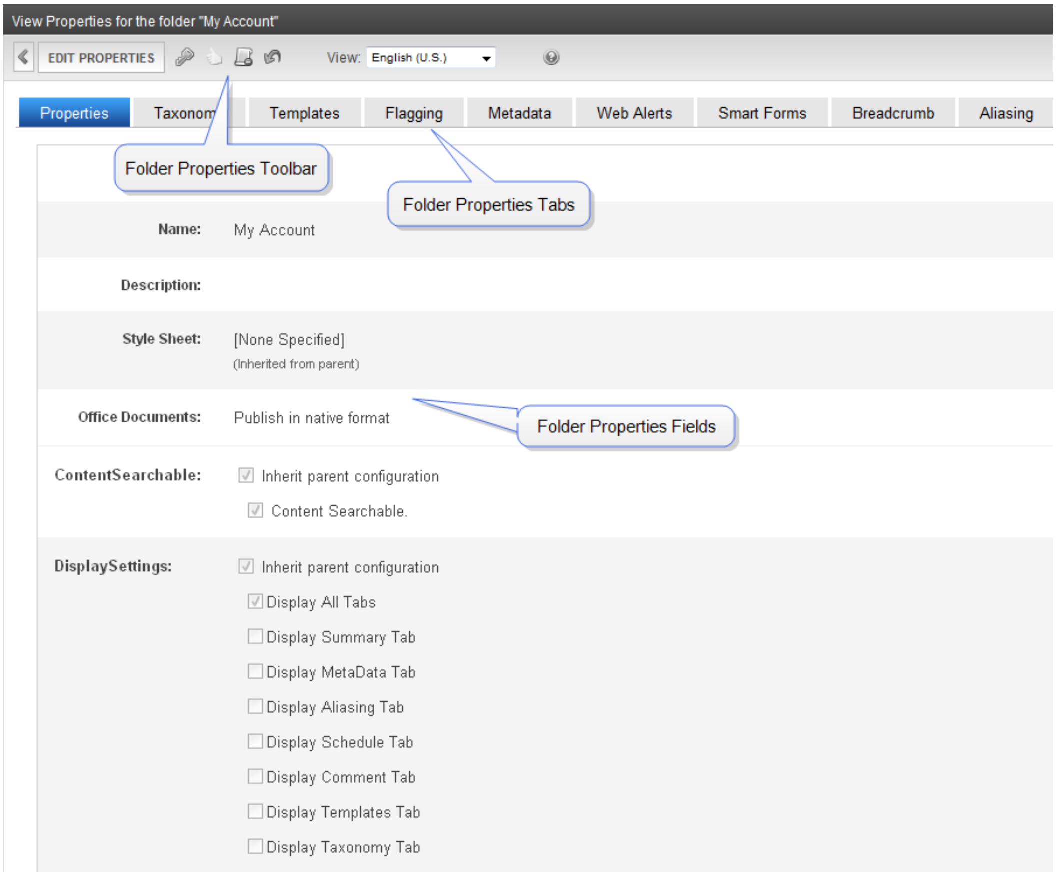
The folder properties screen lets you set permissions and approvals for a folder. You can also assign or modify the folder's metadata, Web Alerts, and Smart Forms.

PREREQUISITE

Only members of the Administrator Group and those defined in the Manage Members for Role: Folder User Admin screen can view, add, or edit folder properties. (See Also: *Defining Roles* on page 1120) In addition, if a user is not a member of the Administrators group, the user must be given permission for individual folders on the View Permissions for Folder screen. (See Also: *Managing Folder Permissions* on page 257)

NOTE: If you are using an eCommerce catalog, see *Creating Product Types and Catalogs* on page 1343for a description of the Product Types screen. If you are using a Web Calendar folder, see *Viewing System Calendar Properties* on page 521.

1. Select the folder.
2. From the View Contents of Folder screen, choose **View > Properties**. Alternatively, from the left panel, right click the mouse and choose **View Properties**.



The Folder Properties screen contains these toolbar buttons.

- **Edit Properties**—Access the Edit Folder Properties screen.
- **Permissions**—Access the folder's Permissions Table; see *Managing Folder Permissions* on page 257.
- **Modify Preapproval Group**—Set or update preapproval group assigned to folder; see *Setting Up an Automatic Task for Pre-approving Content* on page 1043
- **Approvals**—Access the folder's approvals table; see *Setting Approval Chains* on page 262
- **Purge History**—Access the folder's purge history table; see *Purging History* on page 252
- **Restore Web Alert Inheritance**—Assigns the folder's Web Alert properties to all content in folder; see *Restoring Folder-level Web Alert Information to Content* on page 1586
- **Back**—Go to previous screen

3. To change properties, click **Edit Properties** to open the edit screen.

   The Properties screen lets you set the following folder properties, arranged by tab:

Properties tab

- **Name**—Edit the name of the content folder. You cannot change the root folder name.

- **Description**—Edit the description of the content folder.
- **Style Sheet**—Specify a style sheet filename that defines styles that may be applied to content in this folder. The style sheet populates the style drop-down list within the editor. Leave this field blank to inherit the parent folder's style sheet.

  This style sheet affects content being edited. It does not necessarily affect the content's appearance on your website. To set or edit the style sheet that determines your Web pages' appearance, open the page's Web form and place a `<link rel="stylesheet"...`tag within its `<HEAD>`tags. If desired, you can identify the same style sheet in both locations. To include user-selectable styles, they must be generic classes.

  The Ektron editor ignores the CSS custom properties `caption` and `visible`. To address this problem for Internet Explorer, replace them with the custom CSS properties `localeRef`, `caption` and `visible`. For other browsers, use the custom CSS selectors `localeRef` and `unselectable` (same as `visible: false`). To achieve cross-browser compatibility, use both approaches. Non-IE browsers have no equivalent for`caption`.
- **Multi-site Domain Configuration**—The **Site Name**, **Staging Domain**, and **Production Domain** fields only appear for Site folders. These fields are used to set up and manage several websites under one CMS.See Also: *Supporting Multi-Site Configurations* on page 76.
- **Office Documents**—This field only appears if the **Enable Office documents to be published in other format** property is checked in the **Settings > Configuration > Setup** screen. See Also: *Getting Started with Ektron* on page 5. Enable the **Publish Office documents as PDF** check box if Office documents in this folder are published as PDF files. See Also: *Working with Assets in the Document Management System* on page 310. This property is not inherited from a parent folder, nor is it inherited by any subfolders below this folder.
- **Content Searchable**—Check the **Inherit Parent Configuration** box if you want this folder to inherit the Content Searchable value from its parent folder. Uncheck this box to break inheritance and apply a unique Content Searchable setting to this folder.
  Check this box to set the *default* value of the Content Searchable property for new content added to this folder. It does not affect existing content in the folder, or content copied or moved to this folder. Regardless of the default value, an authorized user can change the Content Searchable value while adding content to the folder or at any other time. See Also: *Ensuring Your Content is Searchable* on page 942.
- **Display Settings**—Enable the **Inherit Parent Configuration** check box if you want this folder to inherit the Display Settings value from its parent folder setting. Disable this check box if you want to break inheritance and apply a unique Display Settings setting to this folder.
- **Display All Tabs**—Check this box to display all tabs on the Create or Edit Content screen. Or, check any tab-specific check boxes to display the selected tabs on the Create or Edit Content screen. If you enable the **Display All Tabs** check box and other tab-specific selections, only the individually checked tabs remain when you click **Update**. Also, if a tab has a "required" property on it, the tab displays even if you uncheck its box.

Taxonomy tab—See *Assigning a Folder to a Taxonomy or Categories* on page 791

- **Taxonomy**—Enable the **Inherit Parent Configuration** check box if you want this folder to inherit taxonomy configurations from the parent folder. If you disable **Inherit Parent Configuration**, you can then select taxonomies that can be applied to content in this folder. Check the **At least one category is required** check box if you want all content in this folder to be assigned at least one taxonomy category. See Also: *Using Taxonomies* on page 777,*Inheriting Taxonomies from a Parent Folder* on page 791

Templates tab—See *Working with Templates* on page 382

- **Page Templates**—Lets you specify one or more templates for content in this folder. This folder's content uses the specified template when appearing on your website. Enable the **Inherit parent configuration** check box to inherit the template from the parent content folder. Or, do not check this box and specify one or more templates.

Flagging tab—See *Assigning a Flagging Definition to a Folder* on page 1241

- **Flagging**—Enable the **Inherit Parent Configuration** check box if content in this folder inherits a flagging definition from its parent folder. If you do not check the box, use the drop-down list to apply a flagging definition to content in this folder. See Also: *Defining Flags for Content* on page 1239,*Assigning a Flagging Definition to a Folder* on page 1241

Metadata tab—See *Working with Metadata* on page 369

- **Metadata**—Enable the **Inherit Parent Configuration** check box if you want this folder to inherit the metadata values from its parent folder setting. Uncheck this box if you want to break inheritance and apply unique metadata settings to this folder. If inheritance is disabled, check the applicable boxes to determine which metadata definitions can be used.Only metadata definitions whose Assigned box is checked can be completed by users working with content in the folder.

Web Alerts tab—See *Assigning Web Alert Information to Folders and Content* on page 1581

- **Web Alerts**—Lets you specify custom Web alert settings for this folder or inherit settings from the parent folder. For a description of the Web alert settings, see *Assigning Web Alert Information to Folders and Content* on page 1581.

Smart Forms tab—See*Working with Smart Forms* on page 423

- **Smart Forms**—Lets you specify custom Smart Form settings for this folder or inherit settings from the parent folder. For a description of the Smart Form settings, see *Assigning a Smart Form Configuration to a Folder* on page 437.

Product Types tab—See*Creating Product Types* on page 1343

- **Default product type**—Enable the **Inherit Parent Configuration** check box if you want this folder to inherit the metadata values from its parent folder setting. Uncheck this box if you want to break inheritance and apply unique metadata settings to this folder. If inheritance is broken, use the radio buttons to enable a default product type.

Breadcrumb tab—See *Creating Sitemap Breadcrumbs* on page 820

- **Breadcrumbs**—Lets you specify custom breadcrumb settings for this folder or inherit settings from the parent folder.

Site Alias tab—See*Creating a URL Alias for a Site* on page 856

- **Name**—A URL to be used as an alias for the site. This tab and field combination only appears for Site folders.

Aliasing tab—See *Creating User-Friendly URLs with Aliasing* on page 835

- **Aliasing**—Only appears if some form of aliasing is enabled. Enable the **Manual Alias Required** check box to force the user creating or updating content in the folder to add a manual alias (if none exists). Enable the **Inherit parent configuration** check box (disabled by default) if you want the folder to inherit the **Manual Alias Required** value from the parent folder.

Managing Folder Permissions

Permissions determine which actions Ektron users and user group members can perform on content, library items, and content folders. For example, you let your Webmaster perform advanced actions, such as adding folders, editing folder properties, and deleting folders. At the same time, you let content contributors only view, edit, and add content.

You can set permissions for a folder or content item. Content item permissions override the associated content folder permissions. When you assign permissions to a folder, they affect all of its subfolders and content unless you break inheritance for a subfolder or content item.

Only Ektron administrators and users identified on the Manage Members for Role: Folder User Admin screen can set permissions. See Also: *Using the Roles Screens* on page 1121

NOTE: You can view and update membership users by selecting **Membership users** from the User Type drop-down menu; see *Assigning Membership Permissions* on page 1166

This section also contains the following topics.

Accessing the Permissions Table

IMPORTANT: All members of the Administrators group have all permissions for all Ektron folders. Although these users do not appear when you view a folder's permission settings, they have full permissions.

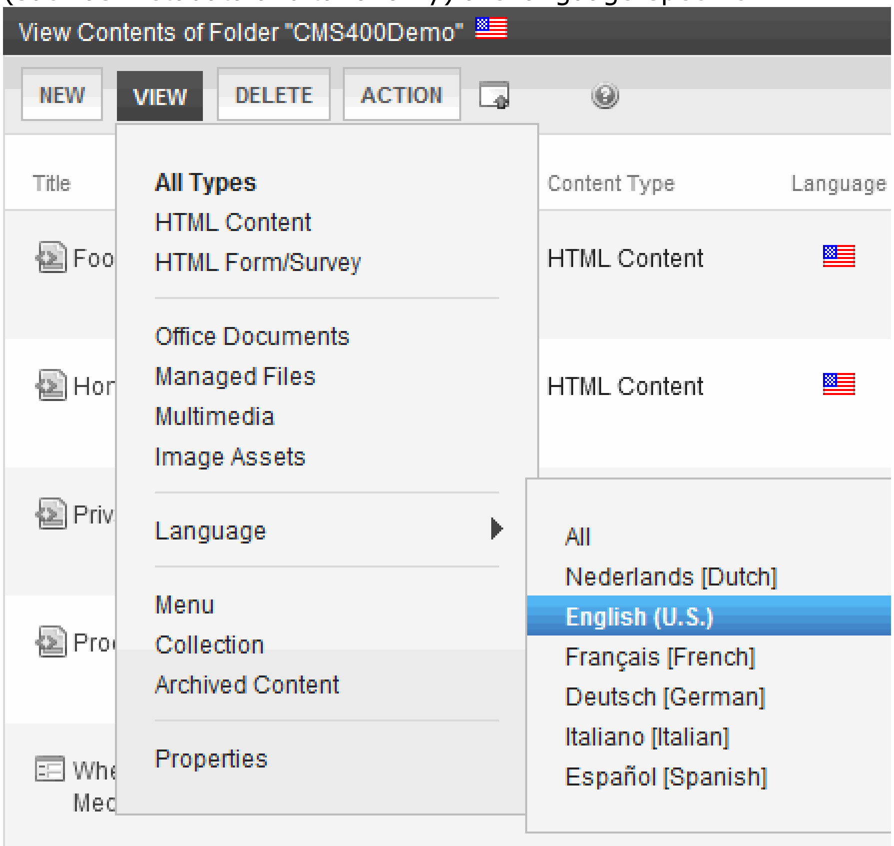
You manage the following permissions through the Permission Table.

NOTE: Use the Roles screens to assign permissions not defined in the Permissions Table, such as the ability to create tasks. See Also: *Defining Roles* on page 1120

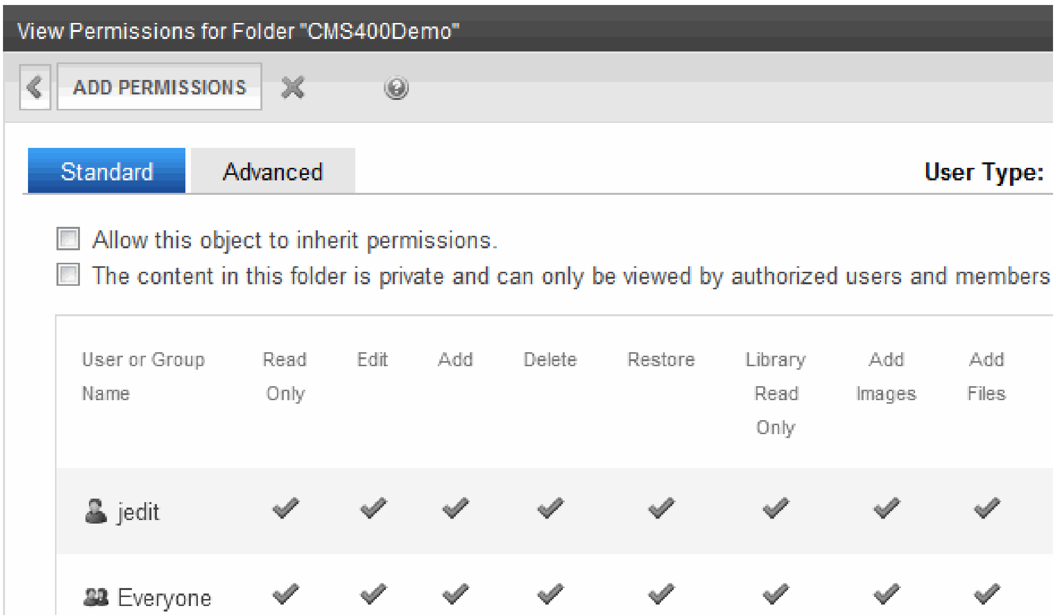
- Content management: view, add, edit, delete, restore
- Library File Management: view, add images, add other types of files, add hyperlinks, overwrite files
- Folder management: add, edit, delete, traverse
- Work with collections and Menus

To accessing the permissions table:

1. From the left frame of the Workarea, select a content folder.
2. Choose **View > Language.**
3. Select the language whose folder properties you want to update. Some folder properties (such as metadata and taxonomy) are language-specific.



4. Choose **View > Properties**. The Folder Properties screen appears.
5. Click **Permissions** ( ). The Permissions Table appears.



The Permissions Table displays each user or group's abilities to perform actions on content in the selected folder. Because all permissions cannot fit on one screen, click the **Advanced** tab to see additional actions.

NOTE: To let users copy or move content, assign the Move or Copy role. See Also: *Defining Roles* on page 1120

Standard permissions

- **Read Only**—View content
- **Edit**—Edit content
- **Add**—Add content
- **Delete**—Delete content
- **Restore**—Restore old versions of content
- **Library Read Only**—View items in the corresponding library folder See Also: *Storing Files in the Library* on page 333
- **Add Images**—Upload images to the corresponding library folder
- **Add Files**—Upload files to the corresponding library folder
- **Add Hyperlinks**—Add hyperlinks to the corresponding library folder
- **Overwrite Library**—Overwrite images and files to the corresponding library folder

Advanced permissions

- **Collections**—Manage collections See Also: *Working with Collections* on page 355

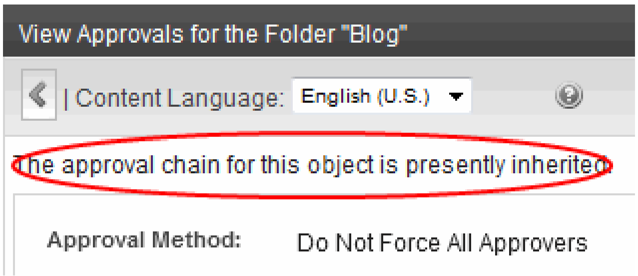
  IMPORTANT: If a user is assigned any of the following roles, the user can create,edit, and delete collections regardless of the user's Collections folder permission: Collection and Menu Admin, Collection Admin, Collection Approver.

- **Add Folders**—Add sub folders See Also: *Adding a Folder* on page 247
- **Edit Folders**—Edit folder properties See Also: *Setting Folder Properties* on page 253
- **Delete Folders**—Delete the current folder or its subfolders See Also: *Deleting a Folder* on page 251
- **Traverse Folders**—Access folders under the root folder. By default, the **Everyone** user group has permission to view all subfolders. If you disable or modify the Everyone user group, and you want to grant users/groups permission to a folder other than the root folder, you must also assign Traverse permission. If you do not, the user cannot access the folder. In that case, the user cannot perform any other granted permissions.
- **Modify Preapproval**—Set or update a folder's preapproval group. This permission is only displayed if preapproval groups are enabled. See Also: *Setting Up an Automatic Task for Pre-approving Content* on page 1043

Inheriting Permissions

An approval chain's inheritance is determined by the corresponding permission table. If a folder's permission table inherits settings from its parent folder, that folder's approval chain also inherits.

The Approval Chain screen only displays its inheritance status; it does not let you set it.



By default, all content folders and items inherit permissions from their parent folder. You have 2 options for modifying permissions.

- Modify the permissions of the parent folder
- Break inheritance and add permissions to a folder

Breaking Inheritance

1. Access the Permissions Table for a content folder or content.
2. Disable the **Allow this object to inherit permissions** check box. A confirmation message appears.
3. Click **OK**.

Restoring Inheritance

1. Access the Permissions Table.
2. Check the box that says **Allow this object to inherit permissions**. A confirmation message appears.
3. Click **OK**.

Adding a User or User Group to the Permissions Table

NOTE: Before adding users or groups, you must break inheritance. See *Breaking Inheritance* above. If a user and a user group to which that user belongs are both given permission to a folder, the user has all permissions to which he/she is assigned as well as permissions assigned to the group. You can only assign Read Only permission to a Membership user or group. See Also: *Membership Users and Groups* on page 1161.

1. Access the Permissions Table for the content folder or content.
2. Select **CMS users** or **Membership users** from the User Type drop-down menu. Users and user groups of the selected type appear.
3. Click **AddPermissions**. The Add Permissions screen appears. Only users and groups *not* assigned to the Permissions Table appear.
4. Select users and groups to add to the Permissions Table.
5. Click **Save**. The Add Permissions screen appears.
6. Check the standard and advanced permissions for the user or group.

   NOTE: Check **Enable All** to assign all standard permissions. If you do, you still must assign advanced permissions by hand.

7. Click **Save**.

Deleting a User or User Group from the Permissions Table

1. Access the Permissions Table for the content folder or content.
2. Select **CMS users** or **Membership users** from the User Type drop-down menu. Users and user groups of the selected type appear.
3. Click **Delete** (). The Remove Permissions screen appears.
4. Select the user or group to remove from the Permissions Table.
5. Click **Remove Permissions for folder**. A confirmation message appears.
6. Click **OK**.

NOTE: When you delete the permissions of a user or user group, that change is propagated to all subfolders and content. Also, if the user or group was part of an approval chain, they are removed from it.

Editing User or User Group Permissions

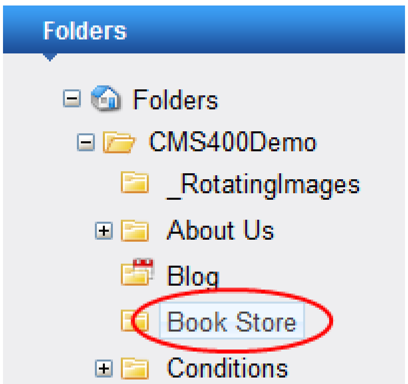
1. Access the Permissions Table for the content folder or content.
2. Select **CMS users** or **Membership users** from the User Type drop-down menu. Users and user groups of the selected type appear.
3. Click the user or group for which you want to edit permissions. The Edit Permissions screen appears.
4. To assign any permission, check the box. To remove any permission, uncheck the box.

NOTE: Remember to toggle between standard and advanced permissions.

5. Click **Update**.

Setting Permissions for Content

Users can only add, edit, or delete content in folders if they have traverse permission for its parent folders all the way up to root. If the folder to which you assign permissions is not the root folder, you must grant the user the Traverse Folder permission to all folders above that folder. Otherwise, the user cannot navigate to the folder. For example, consider the following folder structure.



To let a user edit the *Book Store* folder only and no other folders, assign to the person Traverse Folder permission for the 2 folders above Book Store: *CMS400Demo* and *Folders* (root folder).

PREREQUISITES

- Traverse permission to the folder containing the content, and all folders above it
- Edit permission for the content

1. Access the content by navigating to its folder, selecting a language, and clicking on it.
2. Click **View Permissions** ( ).
3. Uncheck the box next to **Allow this object to inherit permissions**. A confirmation message appears.

   NOTE: If **Allow this object to inherit permissions** is already checked, you cannot uncheck this box. The content in this folder is private and can only be viewed by authorized users and members; see *Making Content Private* on page 294. In that case, this folder is inheriting this setting from its parent folder.

4. Click **OK**.
5. You can perform any action on the content that you can perform on a folder. These options are described in *Managing Folder Permissions* on page 257.

Setting Approval Chains

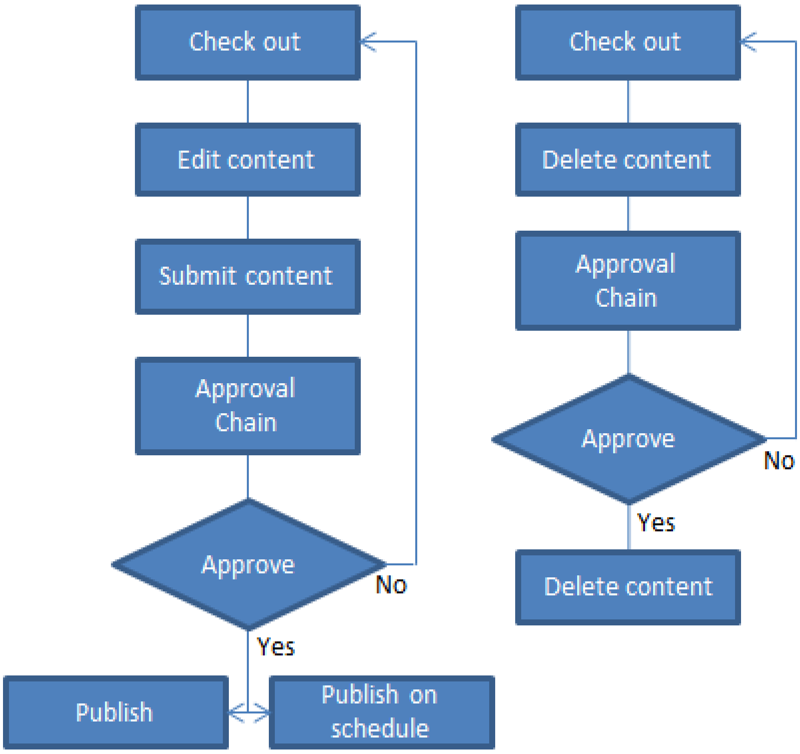
An approval chain is a series of users or user groups who must approve content before it can be published to your website.

An approval chain lets you control how and when your website is updated. For example, if your Web master needs to approve every new content item or update of an existing item, the Web master would be last member of every approval chain and exert total control over the site.

Alternatively, you could set up a less centralized organization, where each department head controls a section. To accommodate this, set up an approval chain for each department, and assign the department head as the last member of the chain. When the last person in the chain approves content, it goes live. Also, if a user deletes content, before it is removed from Ektron, it must pass through the approval chain.

On the opposite extreme, you can delete the approval chain for a content item or folder. In this case, every item in that folder is published as soon as a user submits it for publication.

You can approve, edit, or decline content submitted to you or your user group. The following chart illustrates the approval process.



NOTE: An approver can edit the content and publish it, unless **Force All Approvers** is set, in which case an edit by any approver would cause the approval chain to start over.

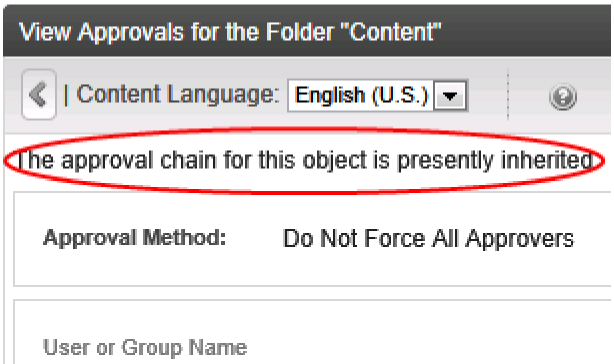
You can create approval chains for a folder and content within a folder. If a content approval chain exists, it overrides the folder approval chain. You can also set up an approval chain for a language.

An approval chain can include any number of users or user groups.

NOTE: Only members of the Administrators group and users assigned to the Folder User Admin Role screen can modify the approval chain. See Also: *Defining Roles* on page 1120

- Only users or user groups with read-only or higher permission to the folder or content can be added to the approval chain. See Also: *Managing Folder Permissions* on page 257
- If you assign a user group to an approval chain, only *1 member* of the group needs to approve the content, not all members.
- If a user appears in an approval chain twice (both as a user and part of a user group), the approval chain skips the second approval because the user has already approved the content.
- An approval chain's inheritance is determined by the corresponding permission table. So, if a folder's permission table inherits settings from its parent folder, that folder's approval chain also inherits. The Approval Chain screen only displays its inheritance

status; you cannot set it.



Ektron can automatically send email notification, informing users that content work flow events have either taken place or are requested of them. For example:

- When 1 member of the approval chain approves content, the next user or group is notified that the content is ready for approval.
- A content contributor receives an email that the contributor's content was published.

The list of automatic emails and directions for customizing their content are described in *Customizing Ektron email with Variables* on page 96.

Finally, the *Approval Method* determines if content must be approved by all users in the chain, or only users higher up the chain than the one making the edits. See *Setting the Approval Method* on page 271.

This section also contains the following topics.

Creating an Approval Chain for a Content Folder

PREREQUISITE

Only Administrators group members and users assigned to the Folder User Admin Role screen can modify the approval chain See Also: *Defining Roles* on page 1120

Before you can create or edit an approval chain, you must access the View screen.

Viewing a Folder’s Approval Chain

1. Click the **Content** tab.
2. From the left frame of the Workarea, select a folder.

3. Choose **View > Language** and select the language of the approval chain you want to view.
4. Choose **View > Properties**.
5. Click **Approvals** ( ).

The screen shows the following information about the approval chain.

- its language
- every user and user group in the chain
- the approval order
- the approval method See Also: *Setting the Approval Method* on page 271
- buttons for modifying the approval chain and method

Adding Approvers

BEST PRACTICE

Assign user groups (and not individual users) to an approval chain. In this way, if someone is out of the office, any group member can approve the content.

1. Access the approval table, as described in *Viewing a Folder's Approval Chain* on the previous page.
2. Select the language of the approval chain. The chain only applies to content in this language.
3. Click **Add**. The Add Approvals screen appears.

NOTE: Only users and user groups with permissions to the folder appear. See *Adding a User or User Group to the Permissions Table* on page 260 for more information.

4. Click the user or user group to add to the approval chain. A confirmation message appears.
5. Click **OK**.

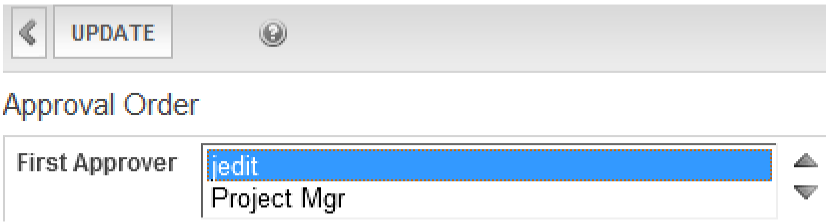
Editing the Approval Order

After you assign approvers to a folder, you may want to adjust the approval order. Place the user or group with final approval authority at the end of the approval chain (that is, *the highest number*). For example, if you have a content contributor whose edits must be approved by a department head, and the Webmaster has final review of all content, the approval order would look like this:

- Content contributor—1
- Department Head—2
- Webmaster—3

To edit the approval order:

1. Access the approval table as described in *Viewing a Folder’s Approval Chain* on page 264.
2. Select the language.
3. Click **Reorder Items** ( ). The Edit Approval Order screen appears.
4. Click the user or group whose approval order you want to change.



5. Click **Up** ( ) or **Down** ( ) to move the user or group to the desired order.
6. Click **Update**.

Deleting Approvers

WARNING! If a user is deleted from a folder's permissions table, the user is automatically deleted from the folder's approval chain.

1. Access the approval table as described in *Viewing a Folder’s Approval Chain* on page 264.
2. Select the language.
3. Click **Delete** ( ). The Remove Approval screen appears.
4. Click the user or group that you want to remove from the approval chain. A confirmation message appears.
5. Click **OK**.

Creating an Approval Chain For Content

You can change the approval chain for a specific content item. Use the View Content screen's Approvals button to do this.

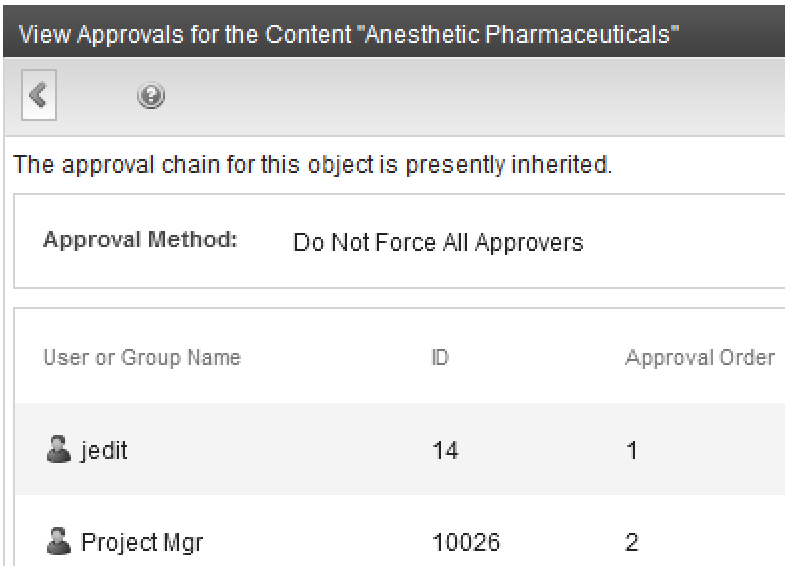
Prerequisites

PREREQUISITES

- You must disable the inheritance of permissions for the content whose approval chain you want to edit. See *Setting Permissions for Content* on page 261.

- You must assign users or groups to the approval chain. Only users and user groups with permissions to the content may be assigned. See *Managing Folder Permissions* on page 257.

1. Go to the folder that contains the content.
2. Right click the content and choose **View Properties**.
3. Click **View Approvals** ( ). The content's approval chain appears.



4. If the approval chain is inherited, you must break inheritance.
5. From this screen, you can perform these actions:
   - **Add**—Add approvers
   - —Remove approvers
   - —Change the order of users in the approval chain
   - —Change the approval method
   - **Content language**—Change the language of the approval chain

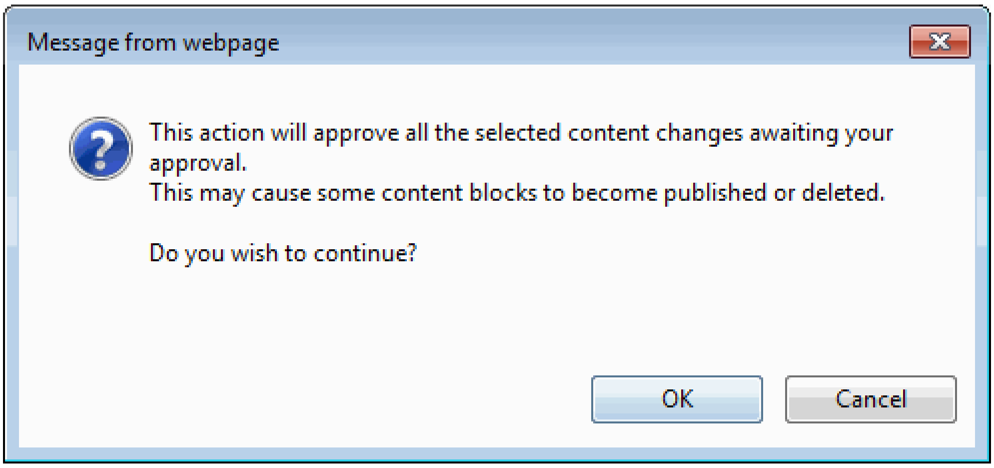
Approving or Declining Content

1. **Workarea > Reports > Contents > Approvals**. All content submitted to you appears. You can click the content to view it, the summary, metadata, and so on.

   NOTE: An approver can edit the content and publish it, unless **Force All Approvers** is set, in which case an edit by any approver would cause the approval chain to start over.

2. Check all content you want to approve or decline. To select all displayed content, check the box in the title row.

3. Click **Approve All** or click **Decline All** ( ). The applicable message appears.



4. To continue, click **OK**. The approved content is either submitted to the next publisher, published immediately to the website, or not published, depending on the approval chain set for the content.

Example Approval Chain

The following example follows a typical content block from creation to publication. Three users make up this approval chain.

- Sports Writer—creates sports content
- Sports Editor—edits and publishes all sports articles
- Editor In Chief—edits and publishes all articles

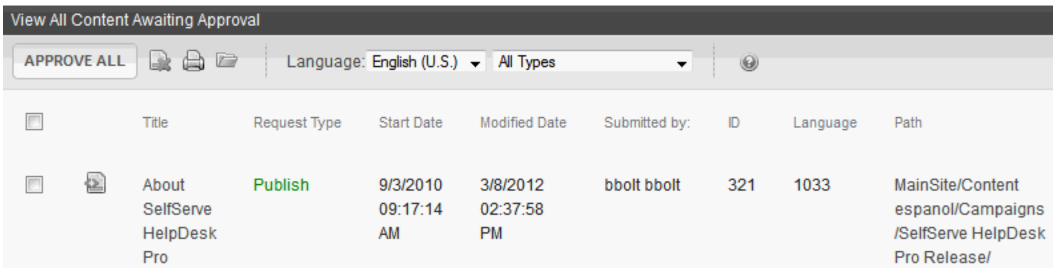
Each user has different permissions that correspond to their roles.

The approval chain begins when a content contributor submits a new or edited content. If email is enabled, an email is sent to the next approver in the approval chain.

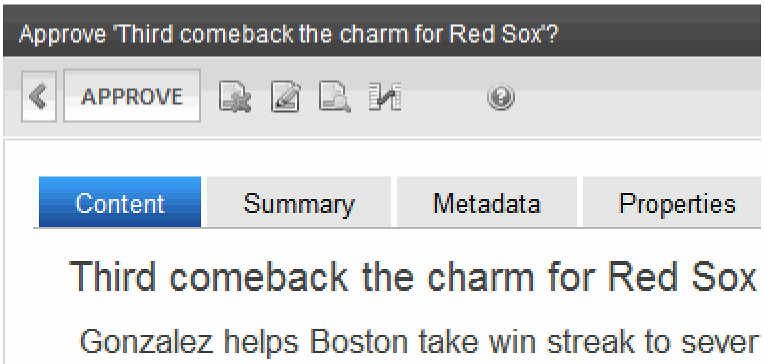
First Approver

After the Sports Writer submits the content, the first user in the approval chain, Sports Editor, receives an email stating content needs approval. Sports Writer can change and approve the content or decline it.

Sports Editor logs into Ektron, navigates to the desktop, and sees the **Content Awaiting Approval** panel.



Sports Editor clicks the **View All** link and sees all content awaiting approval. The approvals folder window displays information such as title, who submitted it, go live date, and so on. Sports Editor clicks the submitted content.



The View Content Awaiting Approvals window appears listing all information necessary to decide whether to approve or decline the content. At the approval window, the Sports Editor has these options.

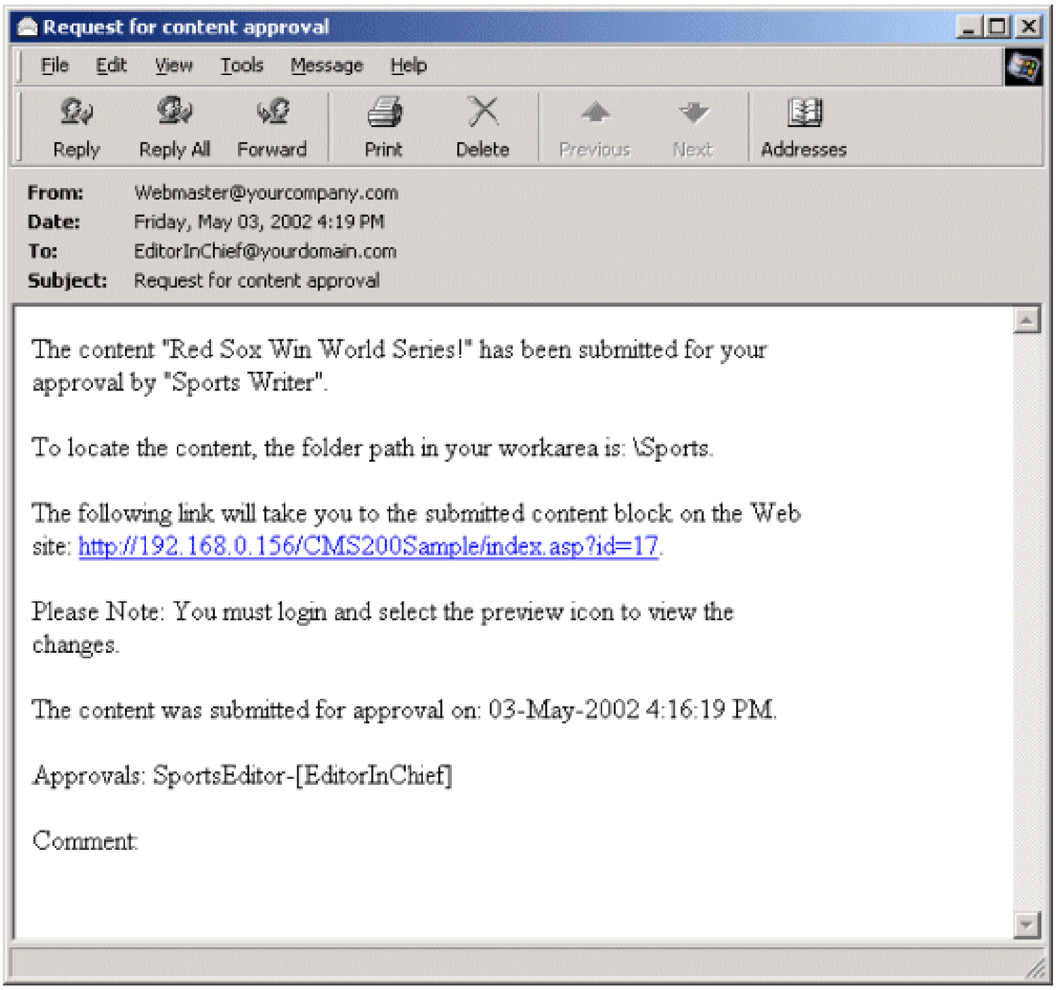
- **Approve**—Send content to next approver in approval chain.
- **Decline** ( )—
  - Send email to creator, notifying him/her that content was declined.
  - Remove content from approval chain.
- **Edit** ( )—Invokes the editor. From here, the approver can change the content.

> **NOTE:** An approver can edit the content and publish it, unless **Force All Approvers** is set, in which case an edit by any approver would cause the approval chain to start over.

For this example, choose **Publish**.

Second Approver

After the content is approved, the next approver in the approval chain receives an email saying that the content is ready for approval.



EditorInChief logs in to Ektron and accesses the Workarea. The Workarea has an Approval folder with the content awaiting approval. EditorInChief navigates through the Approval folder to the content **Red Sox win World Series**.

From this window, EditorInChief can view information about the content, including title, go live date, user who created it, and so on. EditorinChief then clicks the content to be approved.

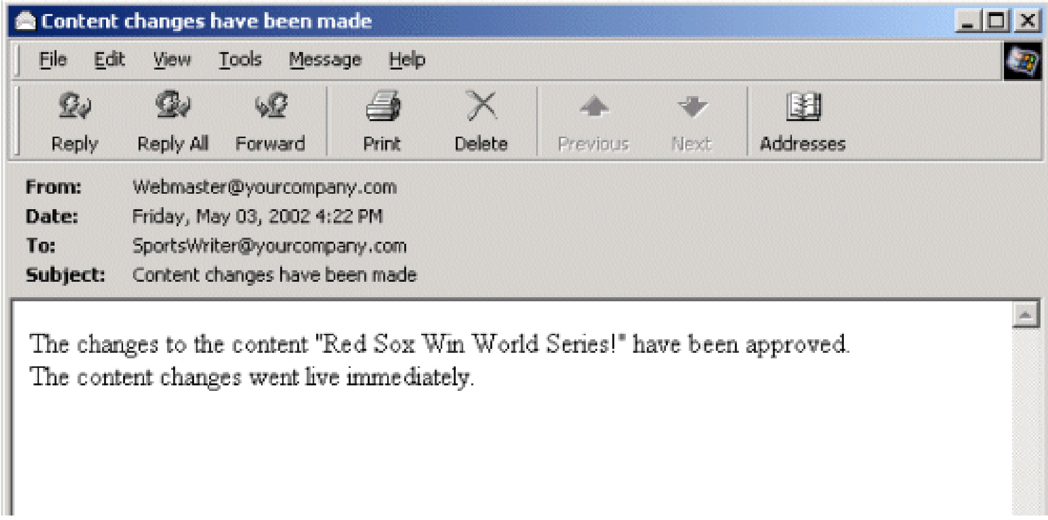
This window is similar to the previous approver's but includes a **Publish** button at the top of the screen. The EditorInChief has a **Publish** button (instead of a **Submit** button) because this user is the last approver in the approval chain. When the EditorInChief approves the content, it is published to the website.

Like the Sports Editor, the EditorInChief has the following options:

- **Publish**—Publish the content.
- **Decline**
  - Sends an email to the creator, notifying him/her that content was declined.
  - Removes content from the approval chain.
- **Edit** —Invokes the editor. The approver changes the content.

NOTE: An approver can edit the content and publish it, unless **Force All Approvers** is set, in which case an edit by any approver would cause the approval chain to start over.

After reviewing the content, the EditorInChief decides it is great and publishes it. At this point, the content becomes live on the website, and the approval chain is complete. The user who created the content receives an email notification that it was published.



Setting the Approval Method

The Approval Method determines if content must be approved by all users in the chain, or only users higher up in the chain than the user creating the content or making edits. The approval method affects the approval process only if the person submitting content for publishing is a member of the approval chain.

Two approval methods are available.

- **Force All Approvers**—*All* users in approval chain must approve the content, beginning with the first.
- **Do Not Force All Approvers**—Approvers after the user submitting content in the approval chain must approve the content.

For example, assume the approval chain order is set as follows:

1. Content contributor
2. Department Head
3. Web Master

If the Approval Method is **Force All Approvers**, and the Department Head submits content, the content must be approved by the content contributor, then the department head, and the Webmaster before it is published.

If the Approval Method is **Do Not Force All Approvers**, and the Department Head submits content, the content must only be approved the Webmaster before it is published.

PREREQUISITE

If the approval chain is inherited, you must break inheritance.

By default, the approval method is set to **Do Not Force All Approvers**. To change the approval method for a content folder or item:

1. Click the **Content** tab.
2. From the left frame of the Workarea, select a folder.

3. Choose **View > Language** and select the language of the approval chain you want to view.
4. Choose **View > Properties**.
5. Click **Approvals** ( ).
6. Click **Edit** ( ). The Edit Approval Method screen appears.
7. Select an approval method by clicking the applicable radio button.
8. Click **Update**.

13

Managing Content

Most of your time in Ektron is spent creating, editing, and performing other activities with content. Content encompasses all of the articles, news, forms, blogs, discussion forums and even calendars that appear on your website. Authors can conveniently update content directly from the website (after logging in). To access the full functionality, however, users complete tasks within the Workarea.

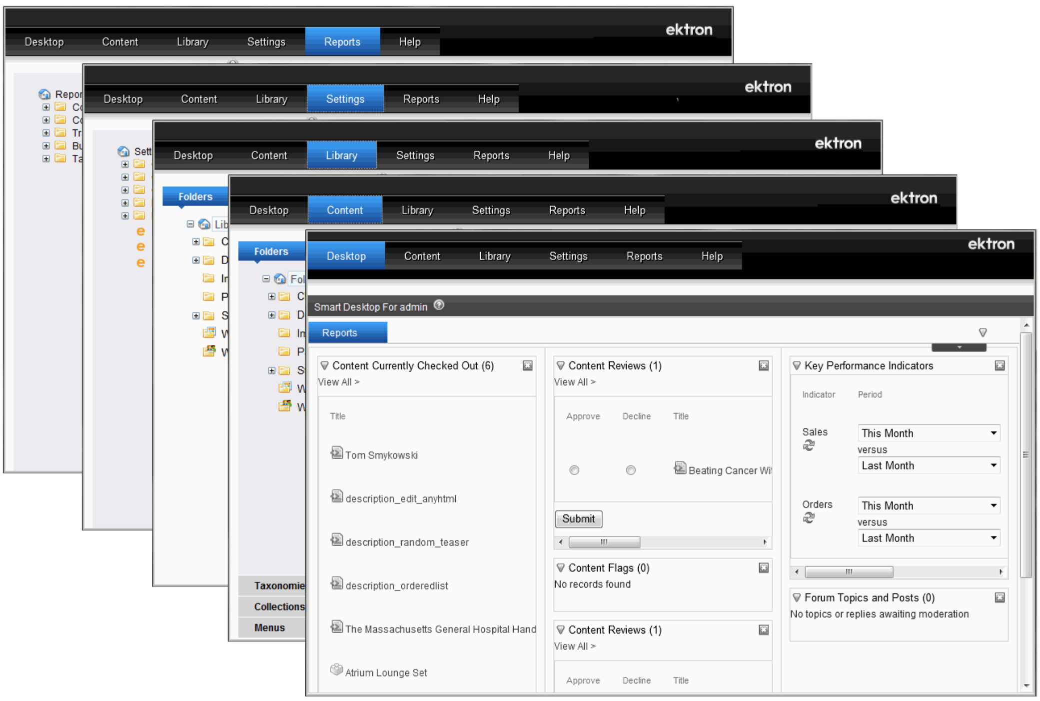
You can manage Ektron content using 1 or more tools.

- **Web Page Editing**—You can interact directly on the Web page anywhere you see a silver access point (), which lets you edit the content on the page. For information about editing on the Web page, see *Editing Content in Context on a Web Page* on page 208.
- **Workarea**—depending on permissions, lets you access all content, assets, reports, and settings.
- **Smart Desktop**—Lets you organize information that is relevant to you in the Workarea.

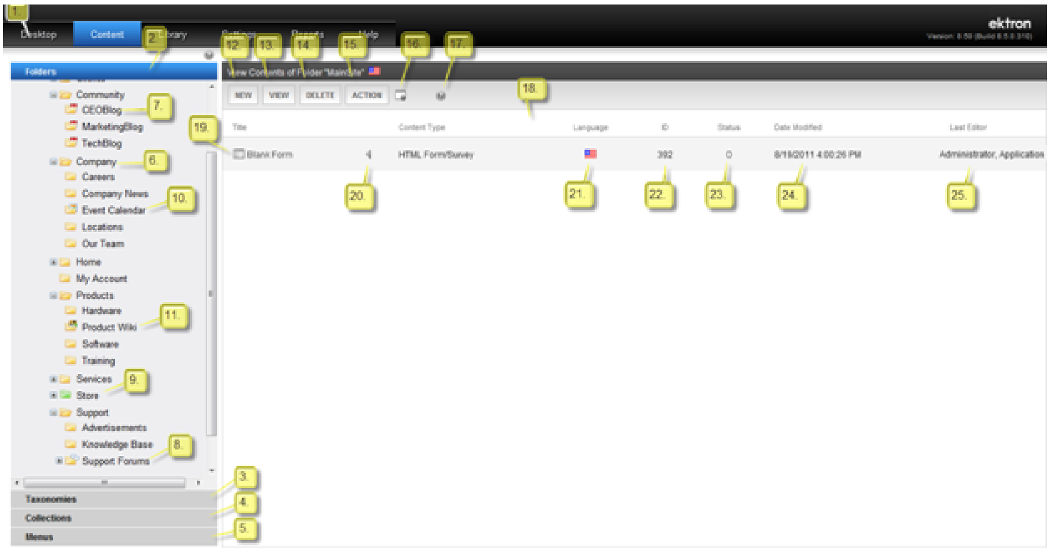
Using the Workarea

The Workarea is a central location where you can perform most tasks for managing your website. The Workarea is similar to Microsoft Outlook in its ability to manage email, calendars, tasks, and so on.

NOTE: To access the Workarea, you must be logged in to your Ektron website.



Workarea Quick Reference

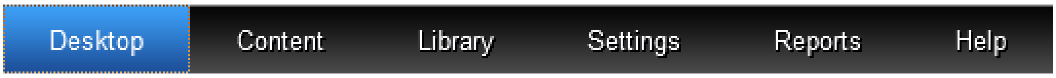


- 1—**Workarea Tabs**
  - Desktop—Smart personalization desktop.
  - Content—Folders, contents, DMS, taxonomies, collections and menus.
  - Library—Content folder structure which organizes the storage images, files , hyperlinks and quicklinks.
  - Settings—Manage CMS Settings based upon permissions.
  - Reports—Content reports and Site analytics.
  - Help—In Workarea and in context help section.
- **Content Tab Types**
  - 2—Folder Tab—Select to view folder architect structure of CMS.
  - 3—Taxonomy Tab—Select to view Taxonomy Structure and options.
  - 4—Collections Tab—Select to view Collections and options.
  - 5—Menu Tab—Select to view Menus and options.
- **Folder Types**
  - 6—Content Folder—Regular folder for contents, select to view contents in that folder.
  - 7—Blog Folder—Select to view the posts and comments on this blog.
  - 8—Forum Folder—Select to view the discussion forums, categories, topics, and replies.
  - 9—eCommerce Folder—Select to view the eCommerce items.
  - 10—Calendar Folder—Select to view and plan events on the calendar.
  - 11—Community Folder—Folders for membership uses to edit content, select to view contents.
- **Dropdown Menus**
  - 12—New menu—Create new content, forms documents, Folders menus and collections.
  - 13—View menu—View Language, Properties and archived content and more.
  - 14—Delete menu—Used to delete multiple items. Administrators can delete folders.
  - 15—Action menu—Export for translation, search, move/copy content, eSync.

  - 16—DMS/ Add asset—Pop up the window for drag and drop documents from local machine.
  - 17—In Context Help—Click to get in context help anywhere in the Workarea.
  - 18—Content Organization Bar—Ability to sort content by the title.
- **Content Types**
  - 19—Content Items—HTML Content, Forms, DMS, or Multimedia Content.
  - 20—Quick Edit Menu—For content editing, properties and content eSync.
  - 21—Language Flag—Indicate the content language version.
  - 22—Content ID—Automatically generated by system.
  - 23—Content Status—Shows the current status of a piece of content.
    - (A) Approved Published and on the website.
    - (O) Checked Out Only available for editing by the content editor who checked it out.
    - (I) Checked In Available for editing.
    - (S) Submitted Currently in the approval chain. Waiting for acceptance.
    - (M) Deletion Marked for deletion.
    - (T) Awaiting Tasks Currently awaiting completion of tasks.
    - (P) Pending Awaiting scheduled start date.
    - (D) Pending Deletion Pending deletion but created with a future start date.
  - 24—Date Modified—Last modified date of the content.
  - 25—Last Editor—Editor who made the last modification.

Workarea Tabs

The Workarea has 6 tabs in the upper left corner. Use them to access all other pages.



The following list shows the Workarea's main pages.

- Desktop—*Personalizing the Smart Desktop* on page 278
- Content—*Managing Content* on page 273
- Library—*Storing Files in the Library* on page 333
- Settings—contains these folders.
  - Commerce—*Conducting eCommerce* on page 1279
  - Community Management—*Managing User Communities* on page 1159
  - Configuration—See feature-specific topics
  - Digital Experience hub—*Setting Up the Digital Experience Hub* on page 991
  - Localization—*Importing Translation Files* on page 1076
  - Roles—*Defining Roles* on page 1120
  - Business Rules—*Creating Business Rules for Your Website* on page 1049
  - User Groups—*Managing User Groups* on page 1106
  - Users—*Managing Users* on page 1100

- Reports—contains these folders:
  - Commerce—*Generating eCommerce Reports, Widgets, and Logs* on page 1397
  - Contents—*Working with Content Reports* on page 577
  - Traffic Analytics—*Web Traffic Analytics* on page 620
  - Business Analytics—*Templates* on page 606
  - Tasks—*Assigning and Managing Tasks* on page 1027
- Help

Workarea Style Sheets

The Workarea uses 2 primary style sheets:

- `Ektron.workarea.css`—the primary CSS file for the workarea. It replaces the previous Ektron version's global.css file.
- `Ektron.workarea.ie.css`—is used for Internet Explorer browsers, and generally targeted at IE7 or less. It includes overrides for some CSS rules in Ektron.workarea.css that get around IE CSS bugs or deficiencies.

Using widely accepted style sheet classes and class attributes, you can modify the Workarea, including colors, spacing, fonts, and so on. Also, if you later upgrade or re-install Ektron, you can reuse this file and retain your changes.

NOTE: Several language specific Images are used at the top of the Workarea. They reside in the language folders and always start with the word "`Workarea`" and end with "`_top`." These images are 467 pixels wide by 77 pixels high. Their width can change but the height cannot. There are approximately six images in each language folder. an Adobe Photoshop file, `Workarea_top.psd`, can be found under `\Workarea\images\English folder`. You can modify these images as needed.

Accessing the Workarea

To access the Workarea, log into your website and click **Workarea**. The Smart Desktop is the default tab.

NOTE: The Application Setup screen lets you determine the initial screen that appears when you access the Workarea. See Also: *Modifying Setup Information* on page 115

The Smart Desktop contains useful information that pertains to you. You may personalize this page by adding, moving or deleting Workarea widgets. See Also: *Personalizing the Smart Desktop* on the next page

Closing the Workarea

There are 2 ways to close the workarea.

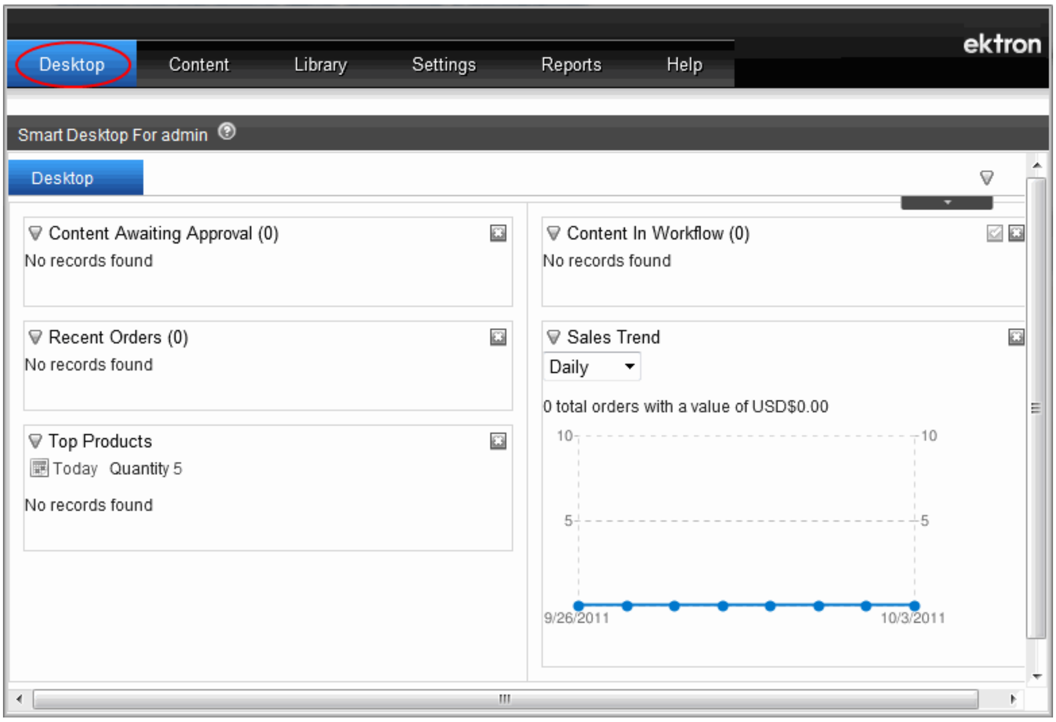
- Log out of the Website from a Logout link on the Web page or the Logout button (

).
- Using the Windows Close button () in the upper right corner of the browser. If you do this, you remain logged in to the website.

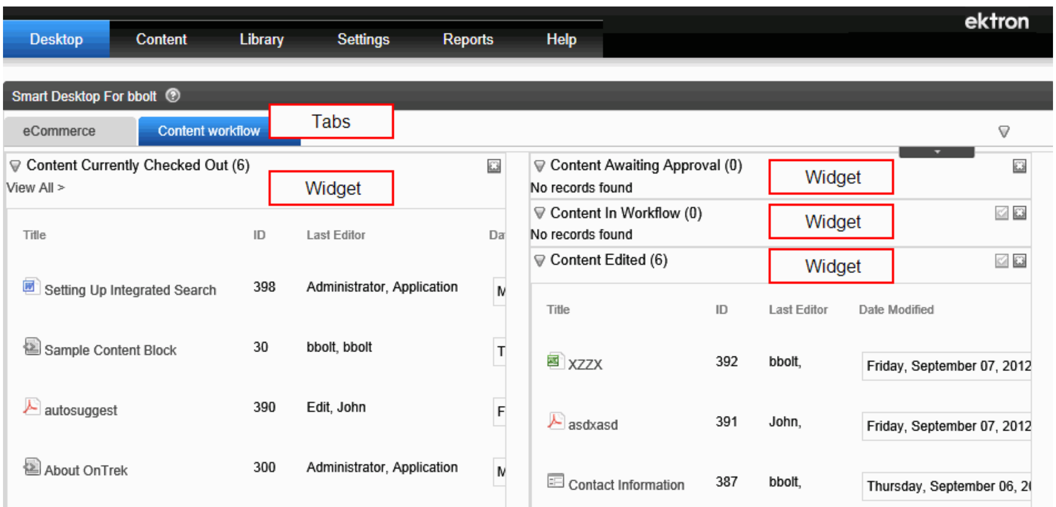
Using the Smart Desktop

Personalizing the Smart Desktop

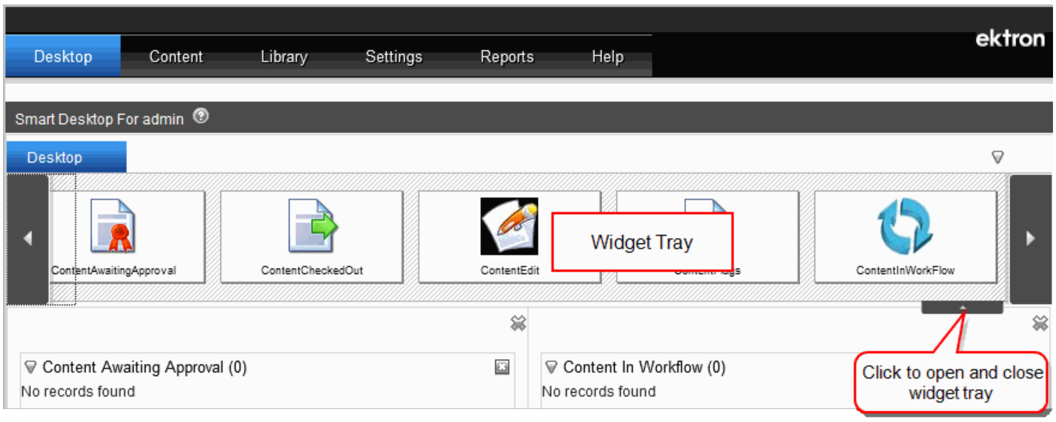
To personalize your Smart Desktop, you choose and arrange widgets that pertain to your work. To access the Smart Desktop, click the **Desktop** tab in the Workarea.



The default Smart Desktop displays several widgets with information about your website. You can create new tabs on a Smart Desktop to add, move, delete, and organize widgets by subject. Each tab consists of 1 or more columns, which you can create to further arrange widgets on a tab. The following screen has 2 columns.



Smart Desktop widgets are stored in a widget tray. Drag and drop widgets from the tray to any tab and column on the Smart Desktop.



Enabling Smart Desktop Widgets

PREREQUISITE

You are a member of the Administrators group.

You must complete this procedure before administrators can create a default Smart Desktop.

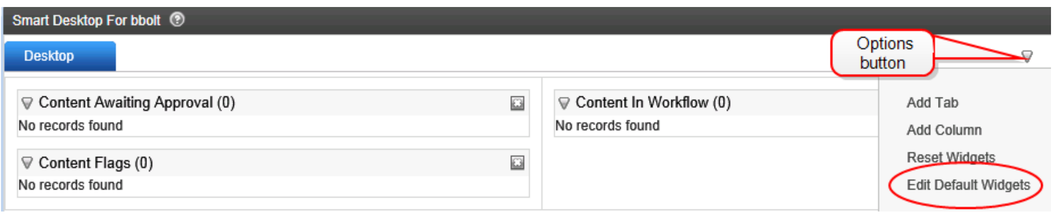
1. **Workarea > Settings > Configuration > Personalizations > Widget Space**.
2. Click **Edit** ( ) next to **UserSmartDesktop**.
3. Select widgets that users can place on their Smart Desktop.
4. Click **Click here to save widget space**.

Setting the Default Smart Desktop

The following procedure shows how an administrator creates a default Smart Desktop consisting of a unique arrangement of widgets, tabs, and columns. The default desktop becomes every user's Smart Desktop until modified by the user. A user can reset the Smart Desktop to the default setting by running the **Reset Widgets** command (see *Restoring Tabs and Widgets* on page 283).

NOTE: If you change the default Smart Desktop, that action does not affect existing users' desktops. Those desktops are set to default settings only if the user runs the **Reset Widgets** command.

1. Go to **Workarea > Desktop**.
2. Choose **Options** ( ) **> Edit Default Widgets** on the right side of the Smart Desktop. A confirmation dialog box appears.



3. Click **OK**.

4. Arrange the Smart Desktop with widgets, tabs, and columns that you want to be the default. See Also: *Adding a Widget to the Smart Desktop* on the facing page, *Adding a Tab to the Smart Desktop* on the facing page, *Adding a Column* on page 282
5. Choose **Options** ( ) **>** **Done**.

Adding Smart Desktop Widgets

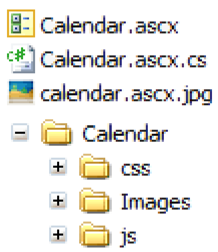
Smart Desktop widgets are located in the Web server's `workarea\widgets` folder. You can also make Personalization and PageBuilder widgets available to the Smart Desktop.

IMPORTANT: Some Personalization and PageBuilder widgets may not work properly on the Smart Desktop. Test them before notifying users.

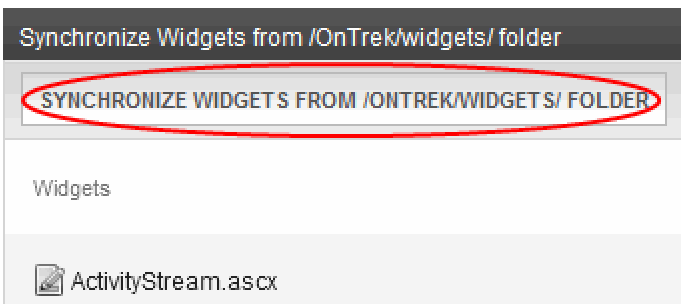
PREREQUISITE

You have access to the Ektron Web server's file system.

1. On the Web server, copy desired widget files from the *siteroot*`\widgets` folder to the *siteroot*`\Workarea\Widgets` folder. Be sure to copy *all* widget-related files and folders. The following image shows *all* Calendar widget folders (with their files inside).



2. Click **Workarea > Settings> Configuration > Personalizations > Widgets**.
3. Click **Synchronize Widgets**....



4. At the prompt, click **OK**.
5. Go to **Workarea > Settings > Personalizations > Widget Space**.
6. Click **Edit** ( ) next to **UserSmartDesktop**.
7. Select the new widget (you may have to scroll down to see it).
8. Click **Click here to save widget space**.
9. Users many now add the widget to the Smart Desktop. See *Adding a Widget to the Smart Desktop* on the facing page.

Customizing the Smart Desktop

An end user can do the following when customizing a Smart Desktop:

- drag and drop widgets—See *Adding a Widget to the Smart Desktop* below
- add tabs—See *Adding a Tab to the Smart Desktop* below
- add or remove columns within a tab—See *Adding a Column* on the next page, *Deleting a Column* on the next page
- restore Smart Desktop to default settings—See *Restoring Tabs and Widgets* on page 283

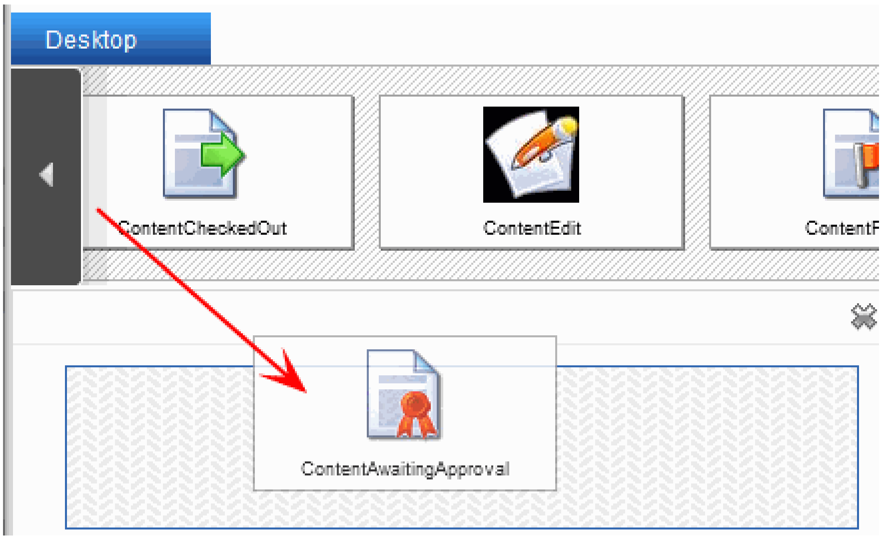
Adding a Widget to the Smart Desktop

PREREQUISITE

Smart Desktop widgets have been enabled. See Also: *Enabling Smart Desktop Widgets* on page 279

1. Go to the **Workarea > Desktop**.
2. Click the Toggle widget tray arrow, located in the upper right corner of the Smart Desktop (circled).

3. The *widget tray appears,* containing widgets you can drag and drop to your Smart Desktop. Use the left arrow ( ) or right arrow ( ) buttons to see more widgets.
4. To choose a widget, drag it from the tray and drop it into the Smart Desktop panel.

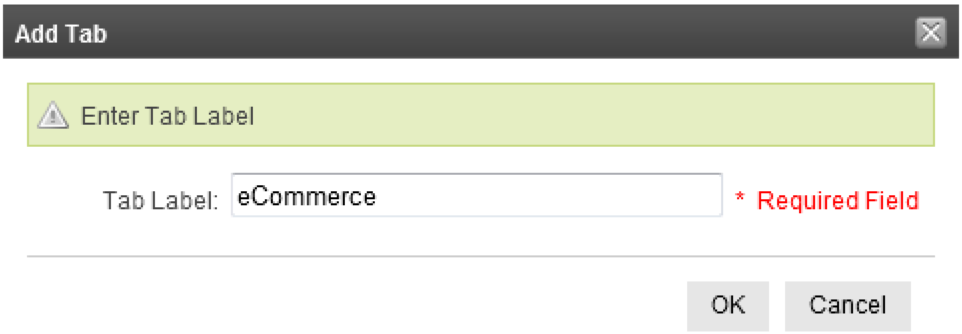


After placing a widget on the Smart Desktop, you may drag it to any desktop location.

Adding a Tab to the Smart Desktop

Tabs help you organize your Smart Desktop. You may add or remove tabs. For example, you create an eCommerce tab on which to drop orders widgets. To add a tab:

1. Choose **Options** (▽) **> Add Tab**. The Add Tab dialog window appears.



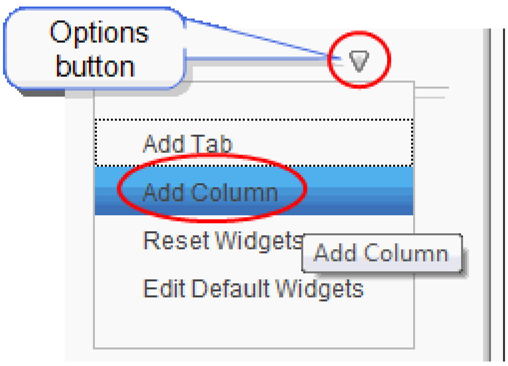
2. Enter a **Tab Label**. For example, **eCommerce**.
3. Click **OK**. The new tab appears at the top of the Smart Desktop.

Adding a Column

You can divide a Smart Desktop tab into columns This capability helps you arrange widgets on the tab.

NOTE: Two columns are created for each new tab by default.

To add a column to a Smart Desktop tab, choose **Options** (▽) **> Add Column**.



Deleting a Column

1. Click the toggle widget tray button (circled) to show the widget tray and columns.

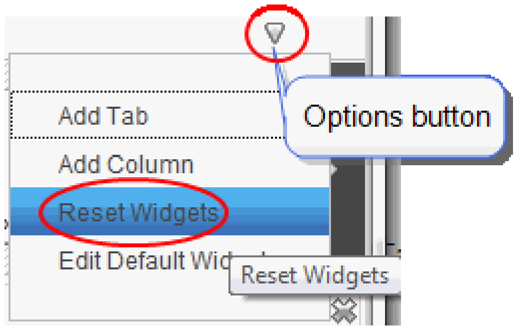
2. Click **Remove Column** (✖) (circled) inside the column you wish to delete.

Restoring Tabs and Widgets

A user can restore the Smart Desktop to the default widget and tab set.

WARNING! This action removes ***all*** tabs and widgets you have modified on your Smart Desktop. After you restore, the default tabs and widgets appear.

1. Click the Options button on the right side of the Smart Desktop.
2. Click **Reset Widgets**.



3. A dialog appears. Click **OK**.

Standard Desktop Widgets

The following list describes the standard Smart Desktop widgets. See Also: *Adding Smart Desktop Widgets* on page 280

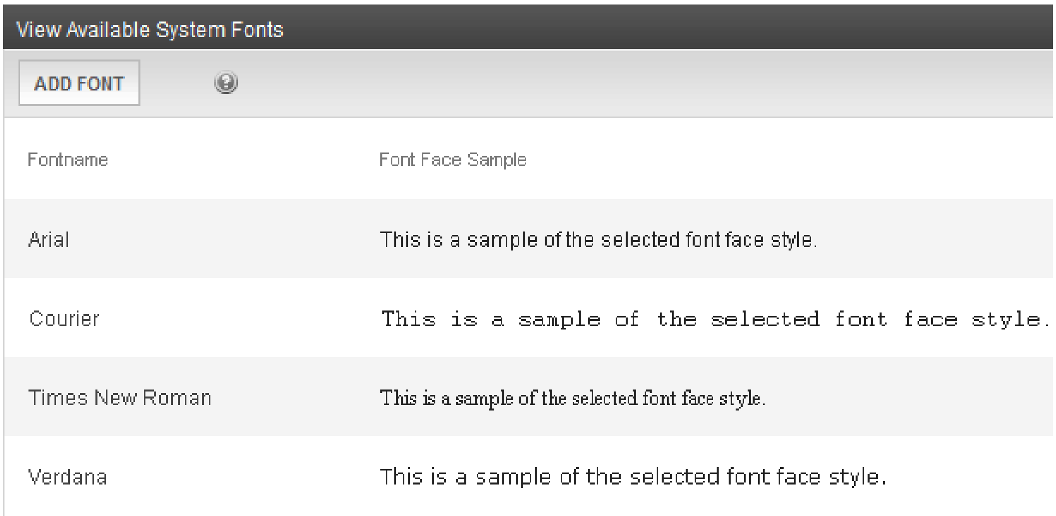
- **Content Awaiting Approval**—Content awaiting your approval; *Approvals* on page 577
- **Content Checked Out**—Content in checked-out status; *Checked Out Content Report* on page 578
- **Content Edited**—Content edited within the last week; *Working with Ektron Content* on page 287
- **Content Flags**—The 10 most recently-added content flags**;** *Defining Flags for Content* on page 1239
- **Content In Workflow**—Content that has been part of an approval chain within the last week;*Setting Approval Chains* on page 262
- **Content Reviews**—Content reviews awaiting moderation; *Moderating Reviews* on page 588

- **Content to Expire**—Content that will expire between today and a number of days you specify; *Content to Expire* on page 580
- **Forum Topics and Posts**—Forum posts that require approval; *Approving a Post* on page 562
- **Order on Hold**—eCommerce orders on hold; *Managing Customer Orders* on page 1381
- **Recent Orders**—Recent eCommerce orders; *Managing Customer Orders* on page 1381
- **Customer List**—The top 5 eCommerce customers ranked according to account date, sales, and orders;*Customer Report* on page 1397
- **Key Performance Indicators**—Compares eCommerce sales and orders for 2 time periods; *Key Performance Indicators Report* on page 1399
- **Reconciliation report**—Lists payments for a specific time period; *Reconciliation Reports* on page 1399
- **Sales Trend**—The number of eCommerce orders for the past 8 periods; *Sales Trends Report* on page 1400
- **Top Products**—The most popular products on your eCommerce site; *Top Products Report* on page 1401
- **Analytics Report**—The Direct Traffic report for the past 7 days; *Viewing Analytics Data* on page 622

Controlling Available Fonts

As an administrator, you can add, edit, and delete fonts to and from the Ektron application. By adding fonts, you are allowing the content contributors to use them when creating content. Administrators can also edit the name of a font, and delete a font from the system.

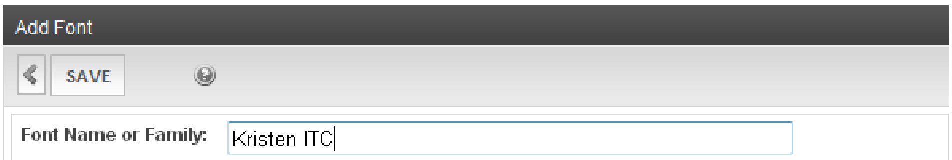
Minimizing the number of available fonts makes the website look more uniform. The following figure shows the Font Manager screen.



NOTE: Only members of the Administrator User Group can view, add, or edit fonts.

Adding Fonts

1. From the Workarea, choose **Settings > Configuration > Fonts**.
2. Click **Add Font**. The Add Font screen appears.



3. Enter the font name or family into the text field; (*Kristen ITC* in this example).
4. Click **Save**.

   The new font is available to use when adding or editing content if the Application Setup screen's **Enable Font Buttons** field is checked. See Also: *Getting Started with Ektron on page 5*

Viewing Fonts

When viewing fonts, you can also edit or delete them.

1. From the Workarea, choose **Settings > Configuration > Fonts**.
2. Click the font you want to view.The view font screen appears.

Editing Fonts

When you edit a font, the font or family name is changed. Editing does not change any fonts in existing content.

1. From the Workarea, choose **Settings > Configuration > Fonts**.
2. Click the font you want to edit.The view font screen appears.
3. Click **Edit**. The Edit Font screen appears.
4. Edit the font name or family in the text field specified.
5. When finished, click **Update**.

Deleting Fonts

By deleting a font from the system, you are taking away the content contributors' use of that font in their content.

1. From the Workarea, choose **Settings > Configuration > Fonts**.
2. Click the font you want to delete.The view font screen appears.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**. The screen is refreshed, and the updated fonts table appears.

NOTE: When you delete a font from Ektron, you do not delete it from your computer.

Additional Topics About Managing Content

The following topics explain about managing content in Ektron.

- *Working with Ektron Content* on the facing page
- *Working with Assets in the Document Management System* on page 310
- *Storing Files in the Library* on page 333
- *Displaying Content on Your Website* on page 348
- *Working with Collections* on page 355
- *Working with Metadata* on page 369
- *Working with Templates* on page 382
- *Working with HTML Forms* on page 386
- *Working with Smart Forms* on page 423
- *Working with Blogs* on page 491
- *Working with Calendars* on page 514
- *Working with Discussion Boards* on page 536
- *Working with Content Reports* on page 577
- *User-Ranking of Content* on page 587
- *Using the Map Server Control* on page 590

Working with Ektron Content

To work with content on your website or in the CMS Workarea, you must log in as a CMS user. Ektron lets you access content on a Web page in the following ways:

- Web page with PageBuilder menu—Hover over the access point (◉) to see options for content on the page.
- Workarea—You can specify additional information for content such as metadata, a content summary, aliases, comments, scheduling, and so on.
  - Navigate the *Workarea* folder tree. See Also: *Managing Content* on page 273
  - Use the **Action > Search** option, which appears in the View screen of every folder. See Also: *Searching the Workarea* on page 966

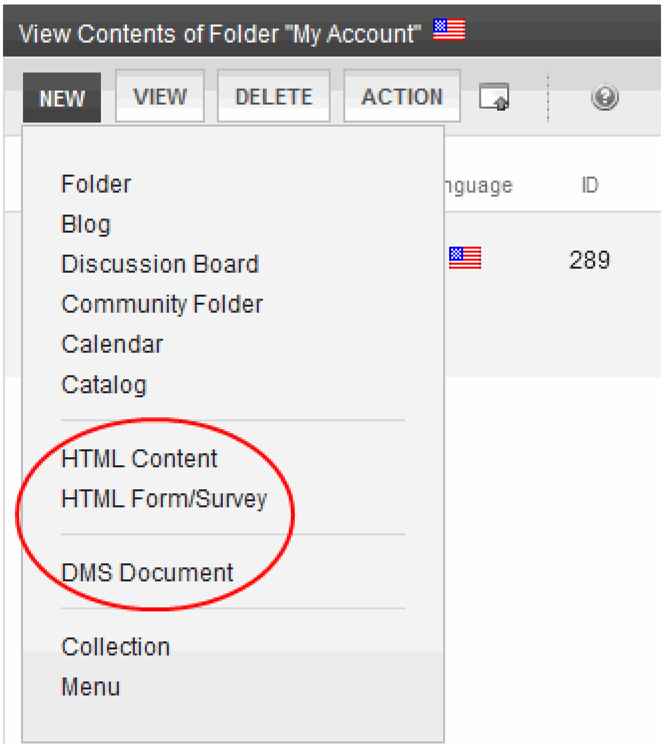
Ektron has many types of content that you can use on your website. See *Understanding Ektron Content* on page 305 for information about the types of content.

This section also contains the following topics.

Creating New Content

NOTE: For information about editing content, see *Editing in Ektron* on page 207.

1. In the Workarea, go to the folder in which you want to create a new content item.
2. Choose a type of content from the New menu. (For example, choose **New > HTML Content**. The Edit Content screen appears.



Non-HTML content types:

- HTML Form/Survey—*Creating a Form* on page 386
- XML Smart Form—*Working with Smart Forms* on page 423
- Assets (including multimedia)—*Managing Assets* on page 315
- Microsoft Office document—*Working with Assets in the Document Management System* on page 310
- PageBuilder page—*Creating Web Pages with PageBuilder* on page 659
- Web Calendar event—*Adding System Calendar Events* on page 517
- Blog post—*Working with Blog Posts* on page 504
- Discussion forum posts—*Working with Posts* on page 560

3. Specify a title and begin creating your new content item.
   - **Title**—Enter a title for the content. It cannot include these characters: \ / * > < |
   - **Content Searchable**—(Available to Administrators) Check this box if this content should be found when someone searches your website. However, even if content is *not* searchable:
     - the Workarea Advanced search still finds it. See Also: *Advanced Search* on page 941
     - it can appear among Suggested Results. See Also: *Providing Suggested Results* on page 952
   - **Publish** or **Submit**—Publish the content to the website. This action updates the content in the database and exits the editor. See Also: *Approving or Declining Content* on page 267

> **NOTE:** Only the last approver in the approval chain sees the **Publish** button. Other users see **Submit.** If no approval chain is assigned to the content's folder, every authorized user sees **Publish**.

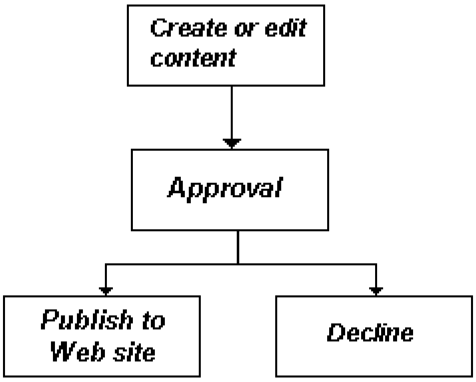
- —**Check In**—Save and check-in the content. This action updates the content in the database and exits the editor. It does *not* submit the content into the approval chain. Rather, it allows you and other users to continue changing it.
- —**Undo Checkout**—Close editor without saving changes. Return content to its state prior to checkout.
- —**Save**—Save content without leaving the editor. It is a good idea to save your work frequently. But, if you later click **Cancel** and exit the editor, you lose changes saved by clicking this button.
- —**Cancel**—Close editor without saving changes. Leave content in *checked out* state.
- —**Preview**—Preview current content within its template in a new browser.
- **Content**—Enter content.
- **Summary**—Enter or edit the content summary. See Also: *Writing a Summary for Content* on page 292
- **Metadata**—Enter or edit the content metadata. *Working with Metadata* on page 369

  All required metadata must be added before content can be checked in or submitted into the approval chain.
- **Alias**—Enter or edit the content's manual alias, and view its automatic alias. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

  A folder's **Aliasing** tab has a **Manual Alias Required** check box. If checked, the user creating or updating content *must* enter a manual alias before the user can save or submit the content.
- **Comment**—Briefly describe the content, or comment on changes made when editing content. The history comment appears on the View Content and Content History screens. On the *Using Advanced Search in the Workarea* on page 966, you can search for content by comments.
- **Schedule**—Use this tab to set a future publication date/time. To be published, this content must be approved *and* reach its publication date/time. See Also: *Scheduling Content* on page 296 If appropriate, enter a date when the content will no longer be viewable on the website. See Also: *Setting an End Date* on page 298
- **Web Alerts**—See *Administering Web Alerts* on page 1567
- **Templates**—This content's folder must have a default template. It can also have additional templates assigned. When content is created, the default template is assigned to it. If you want to change the template assigned to this content, click this tab and choose a template from the drop-down list. See Also: *Working with Templates* on page 382
- **Category**—Assign taxonomy categories to this content. See Also: *Using Taxonomies* on page 777

After you create content, you or your system administrator typically make it available on the site. For example, you can add a hyperlink to it from another page, or place it in a collection or menu. Your administrator can add it to a list summary or content list.

You can set up an approval process by which content is available to your website after it is reviewed by people with approval responsibility. See Also: *Accessing the Permissions Table* on page 257. When a content creator submits content for publishing approval, an email is sent to the list of approvers. When the last approver signs off, the new content becomes available on the website. The following graphic illustrates the content approval cycle.



To help track content’s position in this workflow, Ektron assigns a status to each content item. The status determines what you can do with it, and indicates what must occur for it to get published to the website. See Also: *Content Statuses* on page 307.

Moving or Copying Content

You can *move* content from a folder to another folder. Or, you can *copy* content between folders. Moved content retains the original ID number, while copied content gets the next available ID number.

Your can only move or copy content that has an Approved status. If a destination folder has an approval chain, the content status changes to Submitted (or Approved if you are the last person in the approval chain).

NOTE: The folder's Approval Method can affect the status of the moved/coped content. See Also: *Setting the Approval Method* on page 271

You should move or copy content only between regular folders or eCommerce catalog folders. Do not move or copy from or to other folder types. If you copy an eCommerce catalog entry whose product type is not assigned to the destination catalog folder, the new product type gets assigned to the folder. See Also: *Defining Roles* on page 1120; *Managing Folder Permissions* on page 257

To move or copy content between folders:

1. Select content items in a folder and choose **Action > Cut** or **Copy** (or right click and choose **Cut** or **Copy**).
2. In the left panel of the Workarea, navigate to the folder to which you want to paste the selected content, right click and choose **Paste Content**.

NOTE: If you are *copying* content, and the content exists in more than one language, you are informed that some content exist in several languages and asked if you want to paste them in all languages or only selected languages. If you are *moving* content, all language versions are moved.

Permissions for Moving/Copying Content

Permissions for moving or copying content are defined as follows:

- members of the Administrators user group
- a user with Add, Edit, and Delete permissions for the source and destination folders
- a user is a member of a group with those permissions
- a user assigned in the **Roles > Folder Specific > Folder User Admins** screen
- a user assigned in the **Roles > Folder Specific > Move or Copy** screen

Effects of Moving/Copying Content

When content is moved or copied, the following changes are made.

- The content inherits permissions, the approval chain, and the default template from the new folder.
- The content's Quicklink is moved or copied in the library to the destination folder. However, the Quicklink remains the same (that is, the default template doesn't change). You can update this by editing the Quicklink.

  NOTE: If the Link Management setting in the web.config file is set to `true`, you do not need to update the quicklink. Link Management automatically finds the correct template based on the current folder.

- If the new folder already contains content with the same title, Ektron appends a number to the title to make it unique. For example: `ASP.NET Unleashed(2)`.
- Library image paths inside the content remain the same.
- If a destination folder has required metadata that the pasted content lacks, the paste action is not affected. But, the next time a user edits that content, the user must complete the required metadata before the user can save the edits.
- If the content's template is a Smart Form, it remains assigned even if the Smart Form is not assigned to the new folder.

Deleting Content

The Delete command lets you permanently delete content from your website. You cannot delete checked-out content.

NOTE: If you do not see a Delete button on the View Contents of Folder screen, you do not have permission to do so.

Like publishing, deleted content must proceed through the approval chain before it is removed. If you are the last approver in the approval chain, the content is deleted immediately. See Also: *Approving or Declining Content* on page 267

This section also contains the following topics.

Link Checking Before Deleting

NOTE: It is good practice to check for broken quicklinks before deleting content.

Use the link checker button to locate all content with a link to the current content. The identified content that will include a “dead” link after you delete the current content. So, remove or change the obsolete links before deleting.

1. Navigate to the folder that contains the content.
2. Click the content and choose **View Properties**. The View Content screen appears.
3. Click **Link Search** ( ). A screen displays each content item with a link to the current content.
4. Click the linked content to access the View Content screen for the selected content.
5. Remove or change the Quicklink.

Deleting a Content Item from a Web Page

1. Sign in and browse to the content you want to delete.
2. From the access point ( ), choose **Delete**. The View Content screen appears.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**.

Deleting a Content Item from the Workarea

1. Access the View Contents of Folder screen for the content you want to delete.
2. Hover the cursor over the triangle ( ) and choose **Delete**. A confirmation message appears.
3. Click **OK**.

Deleting Several Content Items in a Folder

On the View Contents of Folder screen, you can delete several content items at once.

NOTE: If you are working with an eCommerce catalog entry, you can only delete it if it is not on an order nor checked out.

1. Navigate to the folder that contains the Approved content you want to delete.
2. Choose **Delete > Content**. The Delete Contents screen appears.
3. Check the boxes of the content items you want to delete.
4. Click **Delete Content**. A confirmation message appears.
5. Click **OK**.

Writing a Summary for Content

A content summary is a short description that supplements the title when several content items appear on a Web page, such as Web page of top news stories. Content authors compose a summary when creating or editing content. Web developers can create pages that display the content title and summary to attract readers to the full story. Summaries can include images and various font styles and sizes.

TOP STORIES
Ektron Named a Rising Star (08-15-2010)
August 15, 2013, Nashua, New Hampshire, USA — Ektron, Inc., an innovator in Web content management and authoring, has been named a Rising Star as part of the prestigious New England Technology Fast 50 Program.

Ektron Launches International Distribution Program *(08-08-2009)*
August 8, 2009, Nashua, New Hampshire, USA — Ektron, Inc., an innovator in dynamic Web content authoring and management with over 350,000 users, today announced the launch of its international distribution program.

Creating or Editing a Summary

1. Navigate to the folder in which you want to create or edit the content.
2. In the View Content screen, choose **New > {type of content}** or open the View menu next to existing content and choose **Edit**. The Edit content screen appears.
3. Insert a **Title** and content, if needed.
4. Click the **Summary** tab.
5. Enter a summary for the content. The summary can include images, files, and hyperlinks.
6. When done, click the appropriate button.

You can only edit the summary of content that is published, checked in, or checked out by you. When you enter or edit existing content's summary, its status changes to checked out. After you create or edit the summary, click **Check-In** to check the content in. From that point, you need to submit or publish it.

Automatically Creating a Summary

Ektron automatically generates a summary for new content if none exists when it is first published. If the summary is blank, Ektron copies the first 40 words of content to the summary. After the content is published, you can update or delete the summary. If you delete a summary, it remains blank and is not automatically generated again.

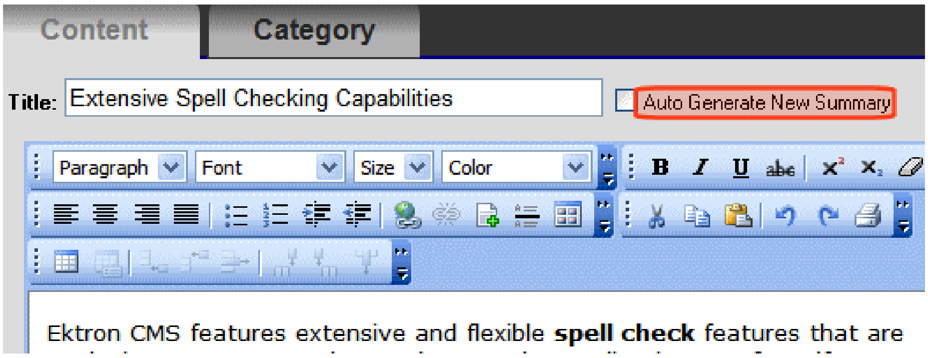
Disabling the Automatic Summary Generation

By default, content summaries are automatic generated. To disable that:

- For HTML content—open *siteroot*/web.config > change value of `ek_enableContentAutoSummary` to **false**
- For DMS assets—open C:\Program Files (x86)\Ektron\EktronWindowsService40\Ektron.ASM.EktronServices40.exe.config > change value of `GenerateAutoSummary` to zero (**0**)

How Membership Users Autogenerate a Summary

If a membership user edits content and wants to update the summary, the user checks the **Auto Generate New Summary** field on the membership editing screen, and the first 40 words of the content are automatically copied into the summary.



There is no limit on the number of times a membership user can automatically generate a new summary.

Making Content Private

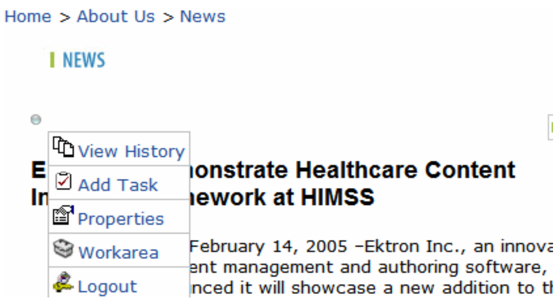
Private content is available to Ektron administrators and users or membership users with at least Read-Only permissions for its folder. Those users must log in to work with private content. Unauthorized site visitors cannot see it. When you make a folder private, the content and any subfolders are also private (if they inherit permissions). You also can designate specific content items as private.

IMPORTANT: Private content is hidden from search results if your search provider is Microsoft Search Server 2010. It is not hidden if you are using another search provider.

To demonstrate private content, the following shows how a user's permissions affect the display of content in 3 scenarios.

- Site visitor

- Logged in user with read-only permission



- Logged-in user with edit permissions

NOTE: You can determine the appearance of the menu shown above. See *Working with Ektron Content* on page 287.

Making a Folder Private

NOTE: You can only set content to private when inheritance is broken. See Also: *Inheriting Permissions* on page 259

1. In the Workarea, navigate to the folder that you want to make private.
2. Choose **View > Properties**.
3. Click **View Permissions** ( ).
4. If necessary, uncheck the box that says **Allow this object to inherit permissions**. (You must disable inheritance before you can make the content private.)
5. Check the box that says **The content in this folder is private and can only be viewed by authorized users and members**. A confirmation message appears.
6. Click **OK**. All content in the folder is now private. As new content is added, it is automatically set to private.

Making Content Private

1. In the Workarea, navigate to the folder that contains the content you want to make private.
2. Click the content item you want to make private.
3. Click **View Permissions** ( ).
4. If necessary, uncheck the box that says **Allow this object to inherit permissions**. (Inheritance must be disabled before you can make the content private.)
5. Check the box that says **This content is private and is NOT viewable on the public website**. A confirmation message appears.
6. Click **OK**. The content is now private.

Making Assets Private

If assets are set to private, they are handled like other private content with one important exception: unless you follow the procedure described below, anyone can access an asset by *typing the URL of the asset into the browser's address field*.

If a user attempts to access the asset in any other way (such as, linking to it from a Web page), the regular methods of making content private work. See *Making a Folder Private* on the previous page and *Making Content Private* on the previous page.

To make assets private even if someone types their URL into the browser's address field:

NOTE: If site users receive a **404 Page Not Found** error when trying to view private assets, make sure you have completed all steps below.

1. Open your website's `web.config` file, located in the site root folder.
2. Make sure the following line is uncommented.

```
<remove verb="GET,HEAD,POST" path="*"/>
```

3. Comment out the 8 lines indicated below.

```
<httpHandlers>
<remove verb="GET,HEAD,POST" path="*"/>
<add verb="HEAD,OPTIONS,PROPFIND,PUT,LOCK,UNLOCK,MOVE,COPY,GETLIB,
  PROPPATCH,MKCOL,DELETE,(GETSOURCE),(HEADSOURCE),(POSTSOURCE)"
  path="*" type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<!--
<add verb="GET,POST" path="*.doc"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.docx"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.xls"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.xlsx"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.ppt"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.pptx"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.vsd"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
<add verb="GET,POST" path="*.vsdx"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
-->
```

Eight `add verb` statements in the middle are commented out.

4. Make sure the following line is uncommented.

```
<add verb="GET,HEAD,POST" path="*"
  type="Ektron.ASM.EkHttpDavHandler.EkDavHttpHandlerFactory"/>
```

5. Save `web.config`.

Translating Content into Another Language

See *Translating Content* on page 1069

Scheduling Content

Scheduling lets you control when a version of content becomes visible on the website or when it expires (and is removed).

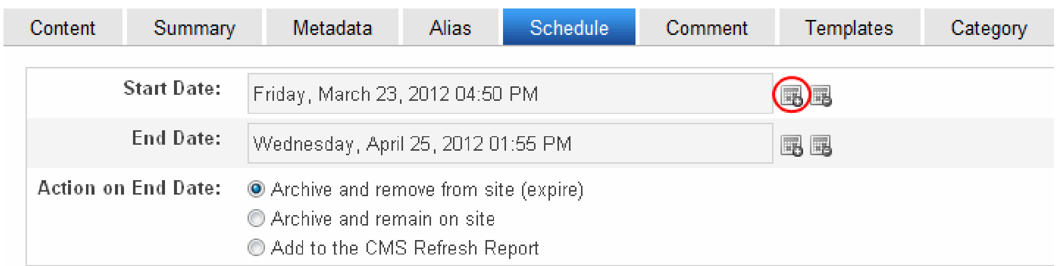
When you create or modify content, you can select a “go-live” date and time. If you do, after the content passes through the approval chain, Ektron publishes the content to the live site at the scheduled time. For example, your company is having a sale of the century in a month, and everything is ready except the announcement. With this feature, you create the Web content now and set it to go live a week before the sale.

The Ektron Windows Service manages these changes to your site. See Also: *Ektron Windows Service* on page 1877

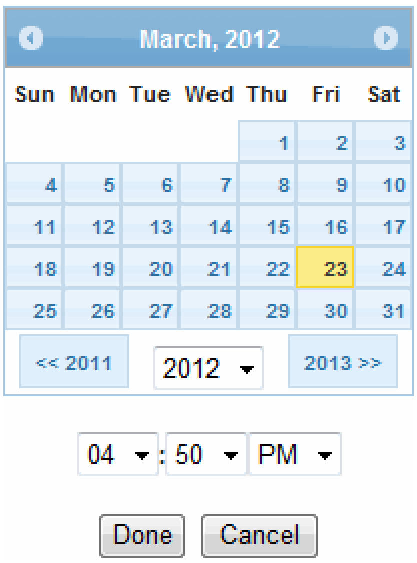
This section also contains the following topics.

Setting a Start Date

1. Edit a content item and click the **Schedule** tab.
2. Click **Add** ( ) next to the **Start Date** field.



3. A calendar pops up. Select the date and time when this version of the content will become visible on the website.



4. Click **Done**. The date and time appear in the **Start Date** field.

 NOTE: When you select a time for content to go live, that time depends on the server's system clock. If the clock is incorrect, the content will not go live at the intended time.

 After you save the content, it appears on the Content Pending Start Date report, which tracks content with a future start date. See Also: *Content Pending Start Date Report* on page 579

 After you set a go-live date and the content completes the approval chain, the following scenarios may occur:

 - Setting the Go-Live Date on New Content

 When you set a go-live date on new content, it becomes viewable on the specified date and time as long as it completes the approval chain. If a site visitor accesses the page that contains the content before then, only the template appears.

 If a logged-in Ektron user browses your website, the user sees a gray border around the content until the date specified. If the user clicks within the gray border, the user can use the Preview option to see the new content.

 - Setting the Go-live Date on Existing Content

 When you set a go-live date for changes to existing content, and it completes the approval chain, a logged-in Ektron user sees a gray border around the content until the date specified.

 When you view content on the website, you see the previously published version. When the go-live date occurs, the new content replaces the previous version, and its status changes to Active.

Setting an End Date

1. Edit a content item and click the **Schedule** tab.
2. Click **Add** ( ) next to the **End Date** field.
3. A calendar pops up. Select the date and time when this version of the content will become visible on the website.
4. Click **Done**. The date and time appear in the **End Date** field.

When content reaches its end date, it appears on the Expired Content report. See Also: *Content to Expire* on page 580

If your choice means the content will not appear on the website, you should have another content item ready to replace it. If not, the template appears without the content.

Setting Archive Options

Use content's archive options to determine what happens upon reaching its end date/time. To be eligible for any option, the content must reach its end date/time, progress through its approval chain, and be published. Until those events occur, the content remains visible within its Workarea content folder and on the site.

Archive and remove from site (expire)

- Site visitors cannot view content upon expiration.
- You can view and edit content within its folder by choosing the **View > Archive Content** option. Also, you can find the content through a basic search and advanced search (if the **Archived** check box is checked).

Archive and remain on site

- Content appears in a List Summary if the ListSummary control's `contentype` property is set to **Archive_Content**.
- If content is an HTML form, the response page option appears. For example, if the form displays a message after the user completes it, that message appears.
- Content found by the search
- Content visible within its taxonomy display
- Content visible if site visitor enters exact path, such as `http://localhost/CMS400Developer /dynamic.aspx?id=1014&__taxonomyid=14`
- Within Workarea, you can view and edit content within its folder by choosing the **View > Archive Content** option. Also, you can find the content through a basic search and advanced search (if the **Archived** check box is checked).

Add to CMS Refresh Report

- Site visitors can view content upon expiration
- You can view content in the active area of its folder and on the Refresh Report. See Also: *Refresh Reminder* on page 579

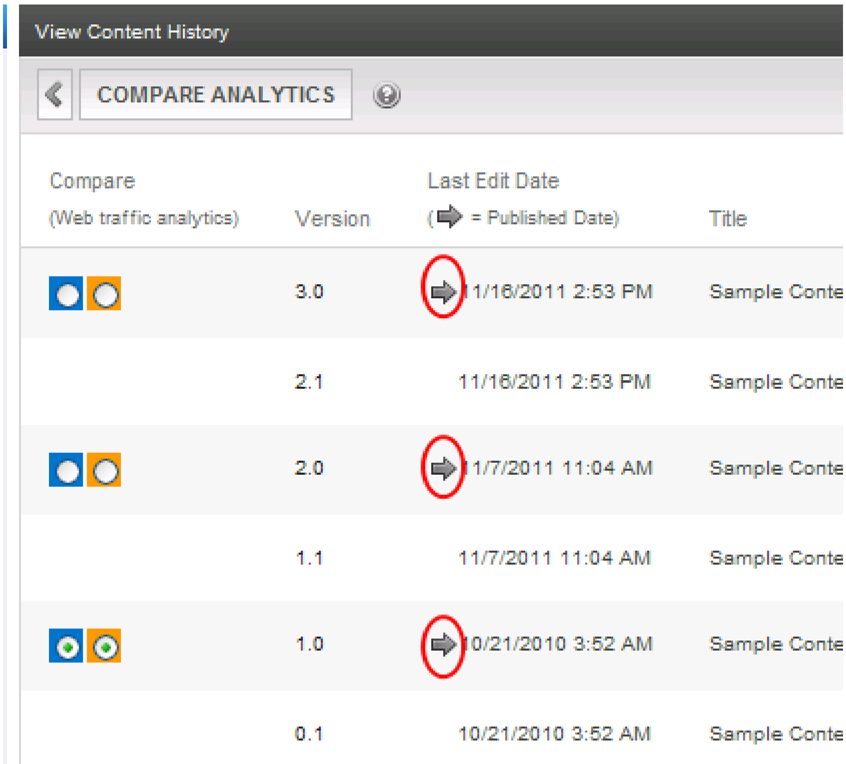
Restoring Content from Archived to Active State

1. Navigate to its folder.
2. Choose **View > Archived Content**.
3. Hover the cursor over the content, click the triangle ( ), then **Edit** from the drop-down menu. The Edit Content in Folder screen appears.
4. Click the **Schedule** tab.
5. Remove the **End Date** or change it to a future date.
6. Submit the content for publishing. When the content is published, it will no longer be archived.

Managing Versions of Content

You can view and restore past versions of published content. After viewing previous versions of content, authorized users can replace the current version with any previous one. See Also: *Managing Folder Permissions* on page 257

Ektron assigns a unique number to each content version. The number is increased by one tenth if the content is checked in but not published. If the content is published, the next whole number is assigned. For example, if the current version is 1.0 and you check in that content, that version is 1.1. If the next editor publishes it, that version is 2.0. Published version are indicated by an arrow.



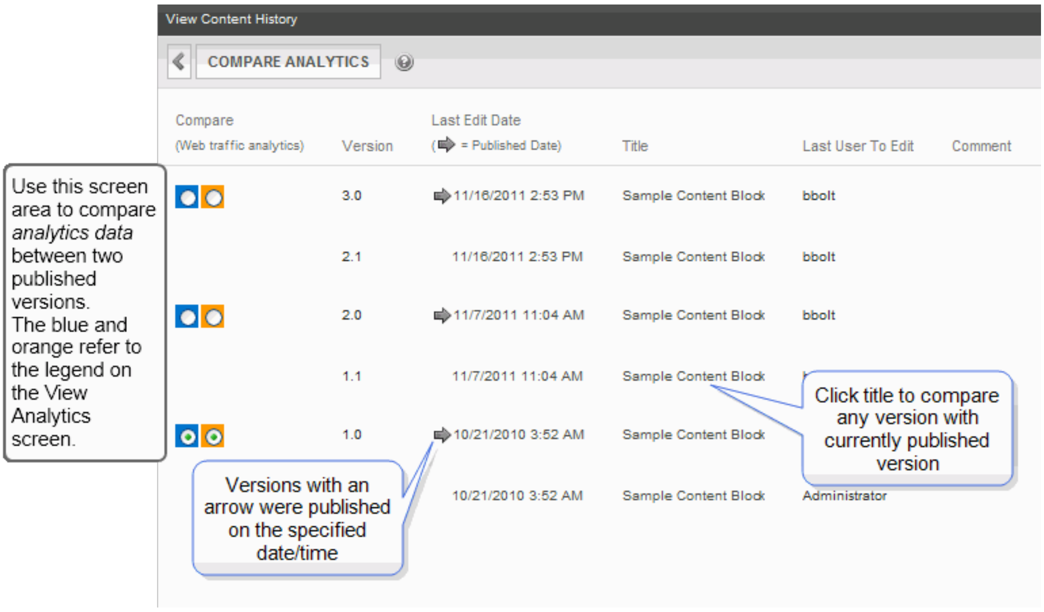
If content versions are purged, the numbering scheme restarts with the remaining content.

NOTE: The Purge History feature deletes historical versions of content according to user-defined criteria. Therefore, some previous versions may be unavailable. See Also: *Purging History* on page 252

This section also contains the following topics.

Viewing Content History

- To access content history from the Workarea, click on a piece on content. The View Content Screen appears. Then click **View History** ().
- To access content history from a Web page, click the access point () and choose **View History**.



The window displays the following information for each version.

- a **Compare** column lets you compare Web traffic analytics data between any 2 published versions.
- Ektron assigns a unique number to each saved version of a content block.
- an arrow indicates a published version. Versions without an arrow indicate content that was checked-in.
- date and time version was checked in or published
- content title
- last user who edited content
- comments entered by user to describe the changes

To view any version, click its title to display the Content History window for that content.

There are 3 view modes.

- **Diff**—Compares published version of content to staged version
- **Published**—Displays currently published version
- **Staged**—Displays the staged version of content.

Comparing Versions of Content

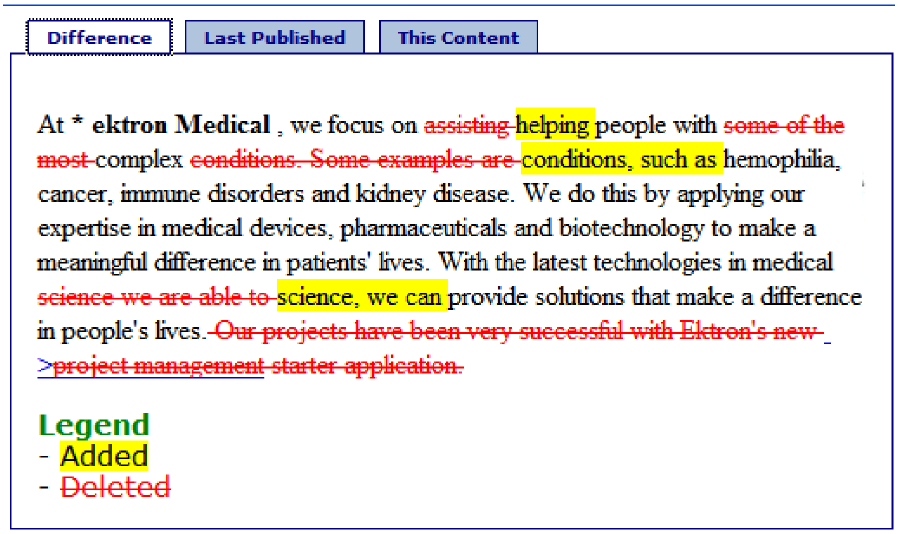
If content can be compared with another version, the View Difference button ( ) appears in the content history area or the Web page view.

NOTE: The first time you use the View Content Difference screen on a client machine, you are prompted to install the differences tool. When the installation program completes, close and reopen the View Content Difference feature.

There are varying versions of this procedure. Consult your system administrator to determine the correct procedure for you.

Comparing Content (32-Bit Server/32-Bit Client)

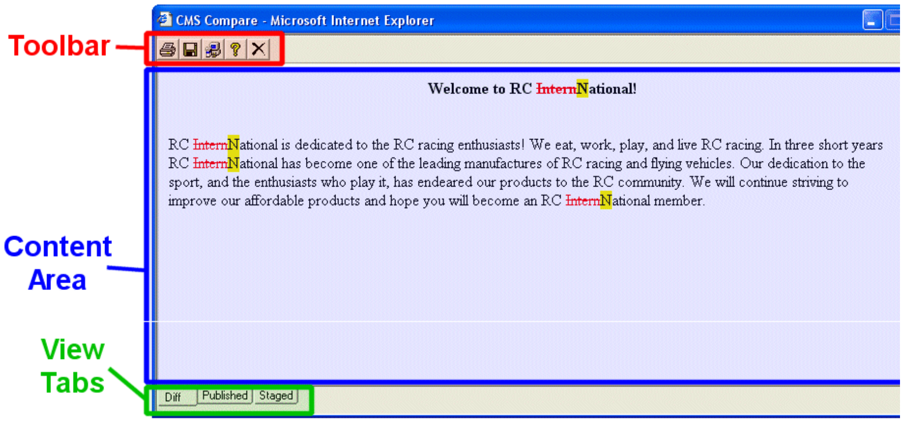
1. Click **View Properties** on content that you want to compare.
2. Click **History** (). The View Content History screen appears.
3. Click a version that you want to compare with the most recently published version.
4. Click **Compare Analytics**. The View Content Difference screen highlights changes to selected content as shown in the following example.



- **Difference**—Both versions:
  - content that only appears in the version on the **This Content** tab is highlighted in yellow
  - content that only appears in the currently published version is red
  - unchanged content is black
- **Last Published** —Currently-published.
- **This Content**—The version you are comparing the currently-published content against.

Comparing Content (64-Bit Server/32-Bit Client)

1. Click **View Properties** on content that you want to compare.
2. Click **History** (). The View Content History screen appears.
3. Click a version that you want to compare with the most recently published version.
4. Click **Compare Analytics**. The CMS Compare screen highlights changes to selected content as shown in the following example.



- **Print**—Sends content to local or network printer. This option prints the currently displayed content, whether it is the compared, published, or staged content.
- **Save**—Saves the version of the content (in HTML) to your local machine or network. When saved as a physical file, you can edit the HTML. However, the changes are not saved to the Web Server.
- **Setup**—Opens setup dialog box to configure the settings. Typically, only an administrator would use this.
  - Compare visual aspect—Compares content as it would appear on a Web page
  - Compare source code—Displays compared content as source HTML
  - Ignore All—Blank (whitespace) characters are ignored
  - Smart Detect—One or more consecutive whitespace characters are treated as a single separation sequence. That is, multiple whitespace characters are ignored.
  - Detect All—Blank (whitespace) characters are treated as any other character.
  - Ignore case—Determines whether comparison is case sensitive. For example, if you check this box, the strings "Bob" and "BOB" are not highlighted because their only difference is the case of the characters.
  - Ignore format attributes—Determines whether comparison ignores changes in text-formatting attributes (HTML Visual Analysis only).
- **Help**—Displays additional information about the compare feature.
- **Exit**—Closes the window.

Restoring a Previous Version

NOTE: The ability to restore content is a permission granted by the system administrator. If you do not see **Restore** on the View Content History screen, you do not have permission to do so.

1. Open the folder that contains the content.
2. Click the content item.
3. Click **History** ( ).

4. Select an historical version that you want to restore.

IMPORTANT: Ektron recommends restoring a Checked In version of content, because this restores *all* content attributes. If you restore a published version, metadata is not restored. To learn how to recognize checked-in content on the View Content History screen, see *Managing Versions of Content* on page 299.

5. Click **Restore**. The content history window closes, and you return to the View Content page or the Web page, with the content in a checked in status.

   If desired, check out the content to make additional changes. Select the workflow to perform on the content. When the historical version is approved, it is published to the website.

Removing Applied XSLT

You can only remove an applied XSLT when viewing historical versions of XML content. If you remove the applied XSLT, you can view the content without the irrelevant XML tags.

RC Planes

Product Name: RC Redstar

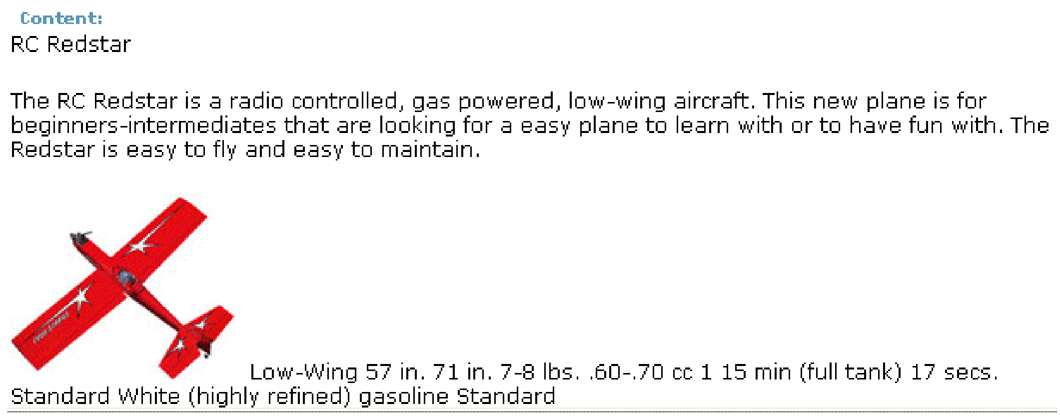
Description:

The RC Redstar is a radio controlled, gas powered, low-wing aircraft. This new plane is for beginners-intermediates that are looking for a easy plane to learn with or to have fun with. The Redstar is easy to fly and easy to maintain.

Specifications

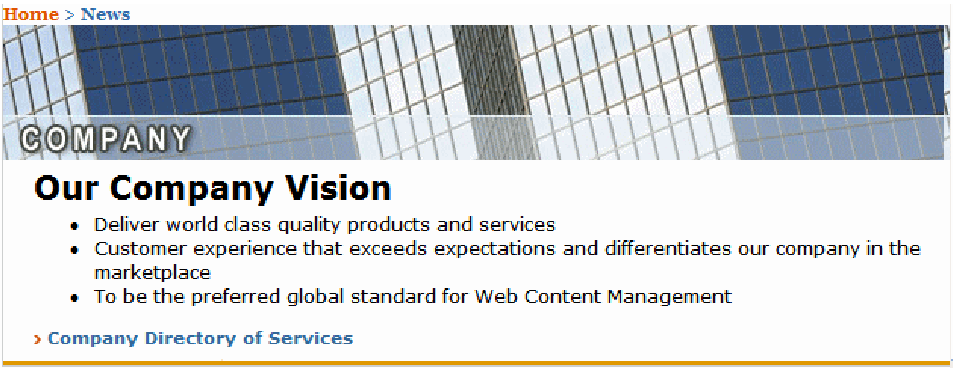
Airfoil:	Low-Wing
Overall Length:	57 in.
Wingspan:	71 in.
Weight:	7-8 lbs.
Engine Size:	.60-.70 cc
Fuel Tank Size:	12 oz.
Engine Run Time:	15 min (full tank)
Refill Time:	17 secs.
Fuel Type:	Standard White (highly refined) gasoline
Color:	Standard

IMPORTANT:



Understanding Ektron Content

A website consists of pages that are made up of one or more *blocks* of content as shown in the following example from the home page of one of Ektron's sample sites.



The following sections provide information about Ektron content.

- Content Types
- Content Properties
- Content Statuses
- Other Content Information

Content Types

Every piece of content in Ektron is one of the following types.

- **HTML content**—Content designed to be published on the World Wide Web. See *Editing in Ektron* on page 207.
- **XML Smart Forms**—Online forms, polls, or surveys designed to collect information from site visitors and save it in an XML format. See *Working with Smart Forms* on page 423
- **HTML form/survey**—Online forms, polls, or surveys designed to collect information from site visitors and save it in an HTML format. See *Working with HTML Forms* on page 386
- **DMS Documents**—consists of Office documents, managed files, and multimedia files. See *Working with Assets in the Document Management System* on page 310.

- **Office documents**—Files normally created and edited using Microsoft Office. See *Working with Assets in the Document Management System* on page 310
- **Managed files**—Files created outside of Ektron, such as PDFs and .jpeg files. You cannot create or edit these files within Ektron—you can only store them. See *Managing Assets* on page 315
- **Multimedia**—Files that run in a media player, such as sound and movie files. See *Managing Multimedia Assets* on page 318
- **Blogs**—A blog is a form of online information sharing and is often set up so a group of people can share their thoughts on a subject. See *Working with Blogs* on page 491
- **Web Calendars**—Web Calendars keep visitors informed about upcoming events. They can be displayed to all visitors to your website, and any authorized user can add events to a calendar. See *Working with Calendars* on page 514
- **Discussion Boards**—The Discussion Board feature provides an opportunity for topic discussions on your website. A site or membership user with Add Topic permission creates a topic and posts a starter question. Site visitors can then reply. See *Working with Discussion Boards* on page 536
- **Content Imported from SharePoint®**—After an Ektron administrator sets up DxH to map SharePoint to Ektron, an end user only needs to place content in a SharePoint folder to update their Ektron-powered website; the content is automatically transferred to the EktronWorkarea. You also can manually import SharePoint content from the Ektron Workarea. See *Setting Up the Import of SharePoint Files to Ektron* on page 1009.

Content Properties

- **Content Title**—The title assigned to the content
- **Content ID**—The ID number assigned to the content. The ID number is used to retrieve content from a database.
- **Content Language**—The content's language
- **Status**—The current status of the content. See Also: *Content Statuses* on the facing page
- **Last User to Edit**—The last user to edit this content
- **Last Edit Date**—When the content was last edited
- **Start Date**—When the content will go live on the website
- **End Date**—When the content will be removed from the website
- **Action on End Date**—What happens to the content when its end date and time are reached. See Also: *Scheduling Content* on page 296
- **Date Created**—When the content was created
- **Approval Method**—Whether all approvers must sign off on content before it is published. See Also: *Setting the Approval Method* on page 271
- **Approvals**—Users in the approval chain for this content. See Also: *Approving or Declining Content* on page 267
- **Smart Form Configuration**—The Smart Form applied to the content. This is typically managed by your system administrator. See Also: *Working with Smart Forms* on page 423
- **Template**—The template currently assigned to the content. This is typically managed by your system administrator. See Also: *Working with Templates* on page 382
- **Path**—The folder path to the content's folder. A slash (\) represents the Content folder.

- **Ranking**—Ektron's Content Ranking feature lets site visitors rate content on a scale of 1 to 10. If this feature is enabled for the content, the average numerical rating appears. See Also: *User-Ranking of Content* on page 587
- **Content Searchable**—**True** appears if the content can be found when someone searches your website. See Also: *Ensuring Your Content is Searchable* on page 942. However, even if content is *not* searchable, the Workarea Advanced search still finds it. See Also: *Using Advanced Search in the Workarea* on page 966

Content Statuses

- **A** (Approved)—Through the approval chain and published on the website. You can:
  - Check content out and save it on your computer
  - Save a copy to your computer
  - Check out the content and edit it
  - Edit the content summary, metadata, schedule, comment, and so on
  - View the content information
  - Delete or submit a request to delete the content.
- **O** (Checked Out)—Currently being edited. Has not been checked in. You can:
  - If you checked out the content
    - Check it in
    - Save a copy to your computer
    - Edit it
    - Edit the summary, metadata, schedule, comment, and so on
  - If you are an administrator
    - Force a check in
    - Request a check in from the person who checked it out
  - Anyone can view the content information
- **I** (Checked In)—Checked in for other users to edit. You can:
  - Check content out and save it on your computer
  - Save a copy to your computer
  - Check out the content and edit it
  - Edit the content summary, metadata, schedule, comment, and so on.
  - View the content information
  - Delete or submit a request to delete the content.
  - Publish content or submit it to the approval chain.
- **S** (Submitted for Approval)—Saved and submitted into the approval chain. You can:
  - Approve and publish content to the website
  - Decline to publish the submitted content
  - Check out the content and edit it
  - View the content information
- **M** (Marked for Deletion)—Requested for deletion. You can:
  - Approve the deletion request
  - Refuse the deletion request

    - Save a copy to your computer
    - View the content information
- **P** (Pending Go Live Date)—Approved but the Go Live date hasn’t occurred yet. You can:
    - Check out and edit the content
    - View the content information
- **T** (Awaiting Completion of Associated Tasks)—Task(s) assigned to content are not complete
- **D** (Pending Deletion)—Content was created with a future start date then checked in and deleted. This status only remains until the start date is reached. At that point, the content is deleted.

Other Content Information

- **Properties** tab—View the content’s properties
- **Content** tab—Display and edit content.
- **Summary** tab—Edit content’s summary; *Writing a Summary for Content* on page 292
- **Metadata** tab—Edit content’s metadata; *Working with Metadata* on page 369
- **Alias** tab—View and edit the content item’s primary alias, or View all secondary aliases; *Creating a Manual URL Alias* on page 845
- **Comment** tab—View comments on changes made when editing content. This comment also appears on the View Content and Content History screens. Use it to help distinguish one version from another.
- **Tasks** tab—Add or edit tasks for this content; *Assigning and Managing Tasks* on page 1027
- **Web Alerts** tab—Add or edit Web Alerts for this content; *Administering Web Alerts* on page 1567
- **Templates** tab—The template currently assigned to the content; *Working with Templates* on page 382
- **Category** tab—Any taxonomy categories currently assigned to the content. Only appears if at least one Taxonomy is applied to the folder in which the content resides; *Using Taxonomies* on page 777; *Numbers on the View Categories Screen* on page 787
- **Edit**—Open content for editing; *Working with Ektron Content* on page 287
- —View older versions of content; restore older version; *Managing Versions of Content* on page 299
- —Toggle display between published and staged versions
- —Compare current and earlier versions of content; *Managing Versions of Content* on page 299
- —Delete content; *Deleting Content* on page 291
- —View and edit permissions for content; *Setting Permissions for Content* on page 261
- —View and possibly edit the content's approval chain; *Creating an Approval Chain For Content* on page 266
- —Find all content with Quicklinks to this content; *Link Checking Before Deleting* on page 291
- —Attach a task to content; *Assigning and Managing Tasks* on page 1027

- —View Analytics for this content; *Viewing Page-Level Analytics from the Workarea* on page 624
- —Displays the content item's rating and reviews, messages, and flags; *MessageBoard* on page 1786server control; *Defining Flags for Content* on page 1239
- —View and edit content's **Content Searchable** check box and flagging definitions; *Ensuring Your Content is Searchable* on page 942; *Defining Flags for Content* on page 1239
- —Go back to previous menu
- —Determines if content will be included when an .xlf file is created; *Marking Translation Statuses* on page 1078
- —Copy content to XLIFF files that can be submitted to a translation agency; *Working with Multi-Language Content* on page 1057
- **View** (language)—If you can view content in more than one language, select a language from the drop-down list.
- Add-select language-—Lets you copy current content into a new item and translate it to selected language; *Translating Content into Another Language* on page 296

Working with Assets in the Document Management System

The Document Management System (DMS) lets you import Microsoft Office files and other types of files into Ektron. Collectively, these files are called assets. When you import and save an asset to Ektron, a copy of it is saved to the Document Management server. Then, whenever you edit and save the asset, a new copy is stored, letting you review and, if needed, restore a prior version.

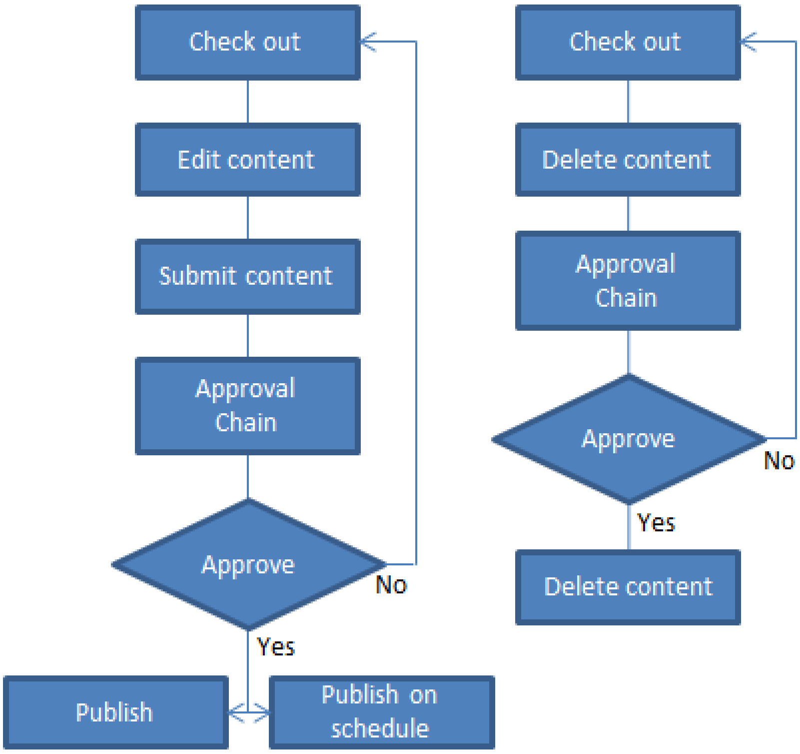
You can edit Microsoft Office files from within Ektron; for other file types, you must check out a file and edit it outside Ektron, and then use **Add Assets** again to bring the asset back into Ektron.

Assets have the following qualities:

- can be stored in folders with other content, or in separate folders that you create just for them
- are assigned content IDs
- can have summary, metadata, comment, task, schedule, and taxonomy information
- inherit permissions and approvals from their folder properties
- progress through the approval process (check out, check in, publish)
- retain a history so you can restore earlier versions
- can be searched
- support foreign language editions
- can have a task assigned to them
- appear on content reports
- update the Smart Desktop listing of files awaiting approval, checked out, to expire, and so on

After you save an asset, you can update and track it like other content. Assets are treated like other content for security purposes. A system administrator applies security to each folder, determining which user groups can perform which tasks on its content. For more information, see *Managing Folder Permissions* on page 257 and *Checking Document Management Permissions* on page 326.

The *AssetControl* on page 1644 and *ImageControl* on page 1750 server controls are associated with DMS content.



This section also contains the following topics.

Storing External Files as Library Items vs. Assets

You may save an external file in Ektron as a library item or an asset. The following table compares each option.

Asset	Library
First class content items	Simple resources
All content management features, such as history, permissions and approvals, scheduled go-live date, applying a template, and so on.	No content management features
Used primarily for content-centric documents, like Office documents and PDFs	Used primarily for simple resources such as a company logo

Asset	Library
Can import and store images, if history and approvals are needed	
Works well when displaying a resource within a content block	Works well when providing a link to download an item

Supported Types of Assets

By default, Ektron lets you store these file types as assets. An administrator can add or delete file types on the **Settings > Configuration > Asset Server Setup** screen.

NOTE: Ektron does not support double extensions, such as *filename*.aspx.vb.

- Microsoft Office 2000 or later documents—Word, Excel, Powerpoint, Project, Publisher, Visio, and so on.
- Managed files—*.zip files, PDFs, *.txt files, graphic files such as *.gif and *.jpeg
- Multimedia files—*.swf, *.mp3, *.wav. *.avi

If you try to upload an unsupported file type, an error message appears.

Browser Notes

- You can edit Microsoft Office documents in Ektron using Internet Explorer or Mozilla FireFox. See *Managing Microsoft Office Assets* on page 322.
- You can load multiple DMS documents with Internet Explorer, but not other browsers. See *Adding Multiple DMS Documents* on page 317.

  If your computer has Windows Vista, you must turn off its User Account Control first. For details, see Inside Windows Vista User Account Control

Configuring Document Management

This section explains configuring the Document Management feature. By changing these settings, you can:

- update Document Management server settings
- change which file types are allowed on the Document Management server
- set the View Type

There are 2 ways you can configure a Document Management server:

- Asset Server Setup screen
- AssetManagement.config file

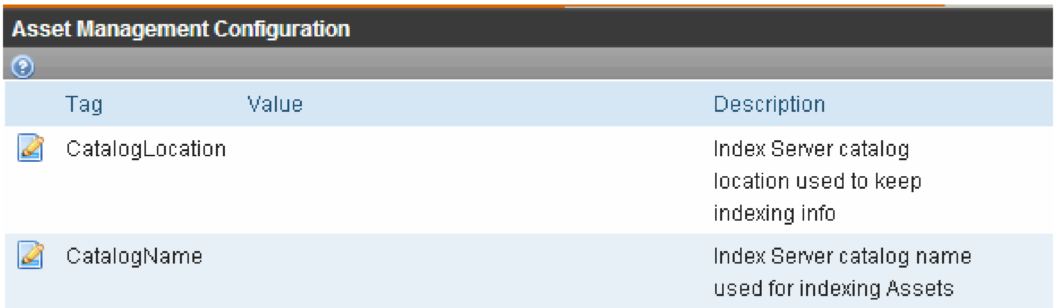
In either case, you are editing the AssetManagement.config file. While the Workarea screen provides a quick way to update this information without accessing the Ektron server, some tags can only be updated in the AssetManagement.config file.

Updating Asset Configuration Settings

You can update some `AssetManagement.Config` tags from the Workarea.

NOTE: Only Administrator Group members can view, add, or edit the Asset Server Setup screen.

1. In the Workarea, go to **Settings > Configuration > Asset Server Setup**. The **Asset Management Configuration** screen appears.



Asset Management Configuration

Tag	Value	Description
CatalogLocation		Index Server catalog location used to keep indexing info
CatalogName		Index Server catalog name used for indexing Assets

2. Click the **FieldTypes** Edit button ( ).
3. Change the supported file types.
4. Click **Save**.

The following list describes the `AssetManagement.Config` file's tags that you can edit from this screen in the Workarea.

- **DomainName**—Can be Domain Name, IP Address or Machine Name. An example is: localhost. This is the address a Web client system uses to open managed documents through HTTP.
- **FileTypes**—Files types that users are allowed to upload to Document Management. The default file types are:

  `.doc, .xls, .ppt, .pdf, .gif, .jpg, .jpeg, .log, .vsd, .dot, .zip, .swf, .wma, .wav, .avi, .mp3, .mp4, .rm, .wmv, .ra, .mov, .odb, .odt, .odf, .odp, .odg, .ods, .png, .docx, .xlsx, .pptx, .vsdx, .wmf, .xml, .htm, .html, .flv`

  IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_DMSFileTypeWhiteList`.
  See Also: *Using the File Type Whitelist* on the next page

  Administrators control which file types are allowed by editing the `AssetManagement.config` file. Reasons for limiting file types include:

  - Security—For example, you do not want users to load .exe files to your Ektron server
  - Ease of management—For example, you want your Ektron server to store .doc files only

  The `<FileTypes>` tag in the AssetManagement.config file contains the file types users can upload.

  To add or remove a file type from the list:

  1. Edit the **Workarea > Settings > Configuration > Asset Server Setup > Asset Management Configuration** screen.

     or

Open the *siteroot*/AssetManagement.config file.

2. Edit the `FileTypes=""` element. All file types must appear between the quotes. For example, `FileTypes="*.doc,*.xls"`.

   NOTE: Use a comma to separate file types. Also, format file types as wildcard.extension. For example, adding an .mp3 file type after *.zip looks like this: `*.zip,*.mp3`

3. Add or remove any file type.
4. Save and close the screen or `AssetManagement.config` file.

- **LoadBalanced**—Enables Load Balancing for assets. Set to **1** to enable. See Also: *Load Balancing Assets* on page 91
- **ServerName**—The name of the server that hosts Ektron.
- **StorageLocation**—The folder location where published assets are stored. For example: `C:\assetslibrary`
- **WebShareDir**—The folder that stores temporary data files waiting to be checked in, saved, or published. For example: `dmdata`

Allowing File Types

IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_DMSFileTypeWhiteList`. See Also: *Using the File Type Whitelist* below

Administrators control which file types are allowed by editing the `AssetManagement.config` file. Reasons for limiting file types include:

- Security—For example, you do not want users to load .exe files to your Ektron server
- Ease of management—For example, you want your Ektron server to store .doc files only

The `<FileTypes>` tag in the AssetManagement.config file contains the file types users can upload.

To add or remove a file type from the list:

1. Edit the **Workarea > Settings > Configuration > Asset Server Setup > Asset Management Configuration** screen.

   or

   Open the *siteroot*/AssetManagement.config file.

2. Edit the `FileTypes=""` element. All file types must appear between the quotes. For example, `FileTypes="*.doc,*.xls"`.

   NOTE: Use a comma to separate file types. Also, format file types as wildcard.extension. For example, adding an .mp3 file type after *.zip looks like this: `*.zip,*.mp3`

3. Add or remove any file type.
4. Save and close the screen or `AssetManagement.config` file.

Using the File Type Whitelist

The *siteroot*/web.config file property `ek_DMSFileTypeWhiteList` contains the same default file types as those on the **Asset Management Configuration** screen and AssetManagement.config file.

```
<add key="ek_DMSFileTypeWhiteList" value="*.odb,*.ods,*.odg,*.odp,*.odf,*.odt,*.doc,
*.xls,*.ppt,*.pdf,*.gif,*.jpg,*.jpeg,*.log,*.vsd,*.dot,*.zip,*.swf,*.wma,*.wav,*.avi,
*.mp3,*.mp4,*.rm,*.wmv,*.ra,*.mov,*.png,*.docx,*.xlsx,*.pptx,*.vsdx,*.wmf,*.xml,*.htm,
*.html,*.flv" />
```

A server administrator can use this property to restrict which file types may be uploaded to Ektron. For example, if an Ektron administrator wants to add a new file type, someone who can edit files on the Ektron server must first add it to the web.config `ek_DMSFileTypeWhiteList` property. This provides additional security over which file types can be uploaded to Ektron.

Conversely, if an server administrator wants to remove an allowed file type from the **Asset Management Configuration** screen/AssetManagement.config file, the server administrator must first remove it from the ek_`DMSFileTypeWhiteList` property.

Managing Assets

DMS can store and help you manage assets.

When you use the **New > DMS Document** file import option, you enter an Ektron title for the file. When you import a file using any other method, its title is the file name without the extension. So for example, `mypicture.jpg` becomes `mypicture` in Ektron. While it may appear that the file extension was removed, it is retained and reappears for assets when you use the **Edit** option, on the View Contents of Folder screen. The original file extension also appears when you check out.

You cannot import a file whose name and extension match a file already in the folder. If you import a file of the same name but a different extension into the folder, a number is appended to the file name. For example, `mypicture(2)`.

You cannot import files whose name includes a percentage sign (%) or ampersand (&).

This section also contains the following topics.

Methods for Importing Assets

Ektron provides several ways to import assets. The sections below explain how to use each option.

- **New > DMS Document** (All browsers) from View Contents of Folders screen
  - an enter Summary, Metadata, and so on for each asset
  - Can create unique title for each asset
  - Can check in or submit for approval
  - Uploads one asset at a time
- **New > Multiple DMS Documents** (Internet Explorer with MS Office) from View Contents of Folders screen

  - Uploads several files at once
  - Can apply same summary, metadata, and so on to all files
  - Can check in or submit for approval
  - Asset title taken from Windows file name
- **Add Asset** button on the View Contents of Folder screen ( )
  - File Upload tab (all browsers)
  - Multiple DMS Documents tab (Internet Explorer with MS Office)
    - Same as *Adding Multiple DMS Documents* on the facing page except there is no check-in option
    - Can upload several files at once
    - Asset title taken from Windows file name
- **Drag and drop to mapped network folder**; *Adding Assets to a Mapped Network Folder* on page 320
  - User doesn’t need to install or learn Ektron software
  - Can drag/drop folder structure; Ektron recreates it in Workarea
  - Title taken from Windows file name
  - Content status is checked in; submitting for publishing is separate step
  - Cannot assign language to content
  - Cannot work with content in language other than default

Restrictions and Warnings about Importing Assets

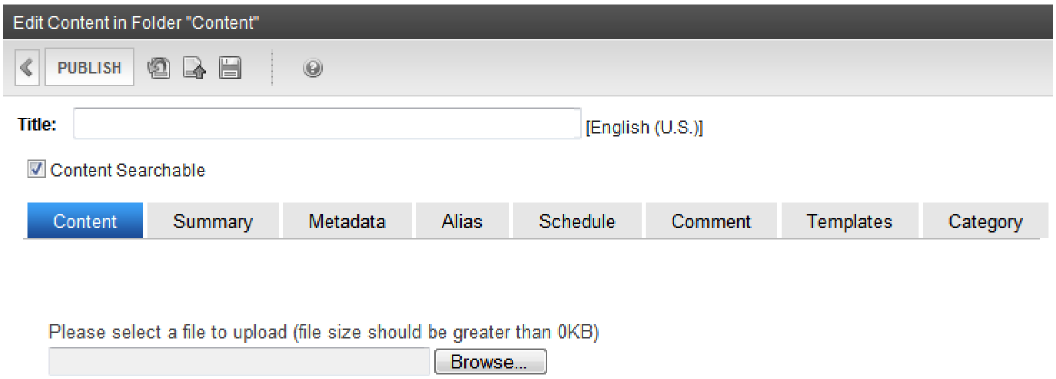
- You can only import assets using a method listed in the previous section. You cannot simply drop files in the `siteroot/assets` or `siteroot/PrivateAssets` folder then manage them using Ektron.
- Only users with **Add** folder permission can import files to it. See Also: *Managing Folder Permissions* on page 257.
- You cannot import to a folder for which XML Smart Forms are required. See Also: *Assigning a Smart Form Configuration to a Folder* on page 437.
- If you are using the Firefox browser, you may not be able to upload a large file. To resolve this, go to **Firefox >Tools > Options > Advanced > Network** and increase the **Offline Store** to a size larger than the file being uploaded.
- With MS Office 2010, you cannot upload more than 100 files at a time.
- With MS Office 2010, files greater than 100 megabytes may fail if your computer's memory is insufficient. In general, do not upload larges file via the Multiple DMS Documents option.

Adding an Asset

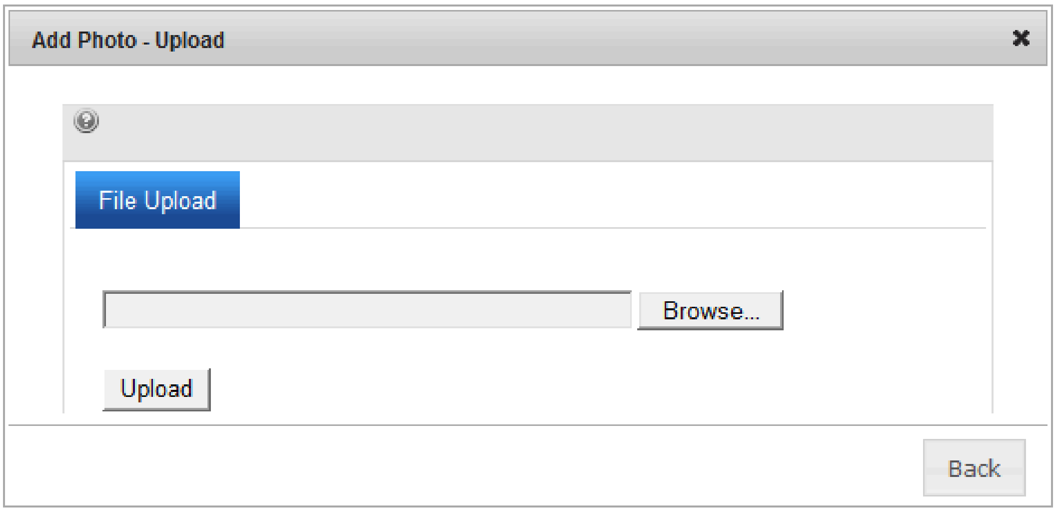
To add an asset via the **New > DMS Document** menu option:

1. **Workarea > Content**.
2. Select the folder in which you want to place the document.
3. The default language icon appears next to the screen title. To create a document for a different language, click **View > Language** and select the language.

4. Click **New > DMS Document**. The following screen appears.



Or, from the View Contents of Folder screen toolbar, click **Add Assets**( ). This screen appears.



5. Click **Browse** and navigate to the file you want to import.
6. Enter a **Title**. It cannot include these characters: \ / *> <|

NOTE: If you want to retain the original document name, insert the full filename into the **Title** field. For example, you could enter *mydocument.doc*.

7. Use the **Content Searchable** checkbox to determine if the content should be searchable.See Also: *Ensuring Your Content is Searchable* on page 942
8. If desired, add a summary, metadata, a schedule, and comments. See Also:

   - *Writing a Summary for Content* on page 292
   - *Working with Metadata* on page 369
   - *Scheduling Content* on page 296

9. Check in or submit the content for publishing as you would HTML content.

Adding Multiple DMS Documents

This option requires Internet Explorer and Office 2003 or higher on your computer. Also, you must enable ActiveX controls in your browser settings. To do this, open Internet Explorer and go to **Tools > Internet Options > Security Tab > Custom Level** button. Within that screen, under **ActiveX controls and plugins**, find **Script ActiveX controls marked safe for scripting*** and click **Enable**.

IMPORTANT: If you will apply the same information (Summary, Metadata, Categories, and so on) to several files, place them in the same Windows folder before starting this procedure.

See Also: *Managing Microsoft Office Assets* on page 322.

To add assets toEktron via the **New > Multiple DMS Documents** menu option:

1. From the Workarea, select the **Content** tab.
2. Select the folder in which you want to place the documents.
3. Click **New > Multiple DMS Documents**.
4. Select your version of MS Office and click **OK**. If Office 2003 or 2007 is installed as well as Office 2010, choose **Office 2010**. The Multiple Document Upload option uses MS Office to perform the upload. The upload screen appears.

   NOTE: If you later change your computer's Office version, update this setting from the Add Assets button > Multiple DMS Document option > **Switch Office version** option.

5. Open Windows Explorer in a separate window, then drag and drop files onto the screen. Or, you can **Browse for files instead**. You can only import files from one folder at a time.
6. If Ektron requires you to apply metadata or a taxonomy category to the content, complete all required information.
7. To *check in* the files, click **Check In**. To *submit* the files into the approval chain, click **Submit** or **Publish**.

NOTE: If your website uses an https secure site setting, you may see errors after uploading assets. If this occurs, open your site's `web.config` file and change the value of the `add key="ek_UseSSL"` setting to `true`.

Managing Multimedia Assets

Multimedia files contain audio, video, or both. File types include .wav, .mpeg., .swf, .avi, and .wma.

Ektron supports multimedia files that run on one of these players.

- WindowsMedia®
- Quicktime®
- Realplayer®
- Flash®

If you import a multimedia file that does not play on a supported player, it is treated like any other asset but cannot be played within Ektron. If you try to play a file in the Workarea, or a site visitor tries to play a file but no supporting media player exists on the user's computer, you are prompted to download and install the player.

Every multimedia file type has a corresponding MIME type. For example, an mp3 file's MIME type is audio/mpeg. Supported MIME types are defined within the `mediasettings` element of the `web.config` file as follows:

```
<add key="application/x-shockwave-flash" value="Flash" />
```

```
<add key="audio/x-wav" value="WindowsMedia, Quicktime, Realplayer" />
<add key="audio/x-wav-default" value="WindowsMedia" />
<add key="audio/x-pn-realaudio" value="WindowsMedia, Quicktime, Realplayer" />
<add key="video/x-avi" value="WindowsMedia, Quicktime, Realplayer" />
<add key="video/x-avi-default" value="Quicktime" />
<add key="video/x-msvideo" value="WindowsMedia, Quicktime"/>
<add key="video/x-msvideo-default" value="WindowsMedia"/>
<add key="audio/x-ms-wma" value="WindowsMedia"/>
<add key="audio/mpeg" value="WindowsMedia,Quicktime"/>
<add key="video/x-realvideo" value="Realplayer"/>
<add key="video/x-ms-wmv" value="WindowsMedia"/>
<add key="audio/x-realaudio" value="Realplayer"/>
<add key="video/quicktime" value="Quicktime"/>
```

To determine if a multimedia file type is supported, go to HTML Multimedia, then go to the `web.config` file section to see if the MIME type exists and insert the player name within the value element. For example:

```
<add key="audio/mpeg" value="WindowsMedia"/>
```

In this example, `WindowsMedia` is the only supported player for mp3 files. If you know that other players can run mp3 files, insert additional players after `WindowsMedia`. To get the exact name of the player, review the `value` elements in `web.config` file section.

If you want Ektron to support additional MIME types, add them within the `<mediaSettings>` element using the following syntax:

```
<add key="MIME type/subtype" value="supported media player(s)"/>
```

For example:

```
<add key="video/x-ms-asf" value="WindowsMedia"/>
```

To identify a player as the default for a MIME type, use the following syntax within `web.config`.

```
<add key="MIME Type/subtype" value="default player"/>
```

For example:

```
<add key="video/x-msvideo-default" value="WindowsMedia"/>
```

You must also add new file types to the supported file list in the `assetmanagement.config` file. See Also: *Allowing File Types* on page 314.

After a multimedia file is imported into Ektron, you can view supported media players’ properties on the Edit Content screen's **Content** tab. Players defined for the file’s MIME type are checked. You may uncheck any media players that you do not want to operate a particular file.

- If a default media player is defined for a MIME type in `web.config`, you cannot uncheck its checkbox.
- If the file is supported by several players, first check the player whose properties you want to modify, then edit its properties.

The **Width** and **Height** fields determine the size (in pixels) of the media player when it appears in the Workarea and on your website. The remaining properties are determined by the media player (QuickTime in the example above).

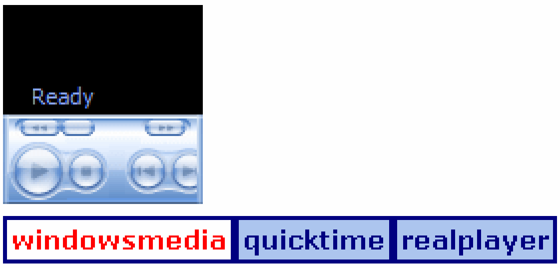
When you visit a page that hosts a multimedia file, Ektron tries to match media players on the user's computer with those defined in the `web.config` file for the file's MIME type. Ektron then displays a list of choices for every supported media player for the file.

You can change the multimedia player's style properties by modifying the `EKTTabs.css` style sheet. This file is installed to *sitefolder*/Workarea/csslib.

For example, you can change the color of the text that selects a player to red by changing the property highlighted below.

```
.EktTabActive
    {
      padding: 2px 2px 2px 2px;
      top:10px;
      text-decoration:none;
      position: relative;
      background-color:white;
      border: solid thin navy;
      color:Red;
      font-weight:bolder;
     }
```

Here is the result.



Adding Assets to a Mapped Network Folder

You can set up a mapped network folder then drag and drop folders or assets into it. You can also delete and move assets using the mapped network folder. The advantage of this method is that you can upload documents without installing or learning how to use Ektron.

When using drag and drop, you can choose individual assets or a folder. Only supported file types may be uploaded. If you choose a folder, Ektron recreates that folder structure, even if it is several levels deep.

NOTE: You cannot choose a language for assets in a mapped network folder-- they are automatically assigned the Ektron default language (set in the siteroot/`web.config` file at the `ek_DefaultContentLanguage` element). Also, you can only work with assets in the default language.

PREREQUISITES

- the path to your Ektron website
- an Ektron user name and password
- verify that WebDav is installed on your client system, and enabled on the Ektron server that hosts your site. See http://www.iis.net/learn/publish/using-webdav/using-the-webdav-redirector.

1. Log onto the server that hosts Ektron, or a client that can access Ektron.
2. Open Windows Explorer.

3. For Windows 7, click **Tools > Map Network Drive**. For Windows 2008 server, click **Start > Computer > Map Network Drive**. The Map Network Drive screen appears.
4. Click **Connect to a website that you can use to store documents and pictures**. A wizard screen appears.
5. Click **Next**. Another wizard screen appears.
6. Click **Choose a custom network location** and click **Next**. A third wizard screen appears.
7. Enter the path to your Ektron site, followed by the ekdavroot folder. For example, `http://CMSMIN870037/ekdavroot` and click **Next**. An Ektron login screen appears.
8. Enter your username and password and click **OK**. Another wizard screen appears.
9. Name the network drive and click **Next**. You use this name to identify the folder when dropping assets into it. The Finish screen appears.
10. In Windows Explorer, open the new network folder (it appears under **Computer > Local Disk (C:)**). Notice that its structure mirrors your Workarea folders.
11. Navigate to the folder to which you want to drop files, and drag and drop them.

    NOTE: Your access to folders and ability to drop files into them are determined by your Ektron folder permissions (collected in Step 7). See Also: *Managing Folder Permissions* on page 257

12. If an asset is not supported, an error message appears: **An error occurred copying some or all of the selected files**. However, all supported assets are uploaded.

Status of Asset Saved to Mapped Network Folder

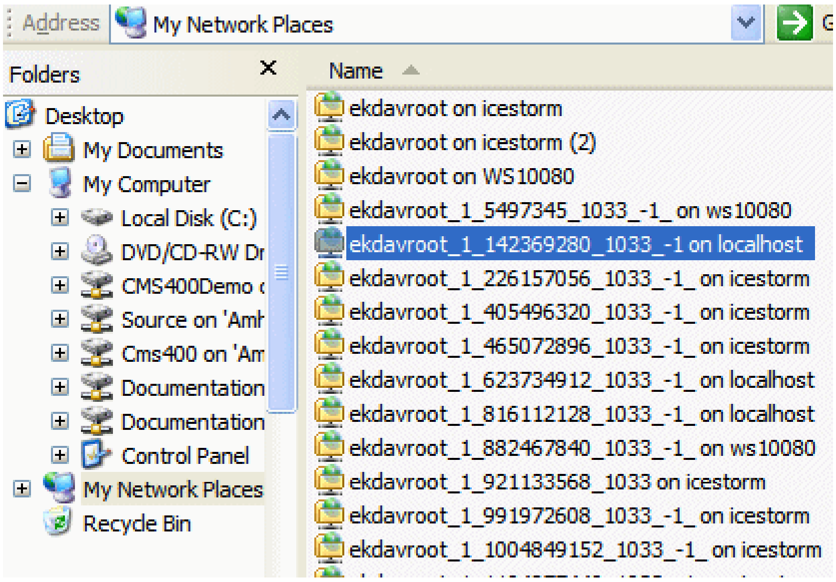
The status of an asset dropped in a mapped network folder depends on the approval chain and the user who signed in to the folder.

- If you are the last approver, or if there is no approval chain, its status is *Approved*.
- If there is an approval chain and you are not the last approver, its status is *Checked In* (I).

Also, if the content's folder requires metadata or a taxonomy category which has not been entered, its status is *Checked In* (I).

Removing Mapped Network Drives

Ektron's DMS feature creates a mapped, `ekdavroot` network drive for many functions. For example, if you sign on to Ektron and create a new folder, a new mapped, `ekdavroot` network drive is created.



If you find that `ekdavroot` folders clutter up your My Network Places folder, you can delete them. Deleting `ekdavroot` folders has no impact on your ability to use Ektron.

Managing Microsoft Office Assets

To learn about importing Microsoft Office assets, see

- *Methods for Importing Assets* on page 315
- *Restrictions and Warnings about Importing Assets* on page 316
- *Adding an Asset* on page 316

This section shows you how to do the following:

- *Editing an Office Document* on the facing page
- *Deleting an Office Document* on page 324
- *Updating an Office Document* on the facing page
- *Saving an Office Document* on page 324
- *Saving an Office Document in HTML Format* on page 325

PREREQUISITES

Before you begin working with Microsoft Office documents:

- Your computer should have MS Office 2003 or higher (but see note below).
- Internet Explorer or Firefox to work with Office documents within Ektron.

NOTE: The ability to use Firefox to edit Office documents within Ektron is only available in Ektron version 8.5 SP2 and higher. Also, Office 2010 is required with the SharePoint Foundation option.

- Problems can arise if you try to open a document created with Office 2007 or 2010, and your computer has an earlier version of Office. The best solution is to upgrade to Office 2007/2010.

  If you cannot, install the Microsoft Windows Compatibility Pack. See Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint File Formats.

When installed, you can work with Office 2007/2010 documents using an earlier version of Office.

- If you import an Excel spreadsheet then click it from its Ektron folder, you see **Download this file name**. Click the download link to view the file.

Editing an Office Document

You can edit a Microsoft Office document in the following ways. When you begin to edit the document, its status changes to Checked Out (0).

- Select a document in an Ektron folder and choose **Edit in Microsoft Office** from the drop-down menu.
- Open a file in the mapped network drive location, using Microsoft Office. (You also can delete and move documents using the mapped network folder.)

If you want to edit the document's Summary, Metadata, Schedule, Comment, Task, or taxonomy category information, click the asset from the Ektron folder, then select **Edit Properties** from the drop-down menu.

A history of every saved version is retained so you can restore previous ones if necessary. You cannot enter or change Ektron document information (Summary, Metadata, and so on) in the mapped network folder; you must use Ektron to do that.

Updating an Office Document

If you check out and save an Office document to your computer, you would typically edit it using Office. While an Office document is checked out, only you or a system administrator can check it back in. Other users cannot edit it. You may use this feature to work on the document on your computer, copy it to another computer, or even email it to someone who does not have access to Ektron.

You can also use the **Check Out and Save As** option to edit an Office document if you use the Firefox browser. Firefox does not let you edit Office documents within Ektron, as you can with Internet Explorer. To work around this limitation, check out the Office document, save it to your computer, and edit it.

When all edits have been entered, drag and drop the document back to Ektron.

Follow these steps to copy an Office document to your computer, edit it, then replace the version in Ektron.

IMPORTANT: There are several ways to import a document into Ektron. Some methods retain the original file name while others let you assign a name. When you check out and save a document to your computer, it is saved under the *original file name*, which may be different from its Ektron name. The original file name is on the screen that appears after you select **Check out and Save as**. Make note of the original file name, because you use it to identify the file after it is saved to your computer.

1. In Ektron, open the folder that contains the Office document.
2. Click the triangle ( ) next to the document.
3. Select **Check out and Save As**.
4. Click **Save and Open**. The document's status changes to *checked out* (O).

5. Edit the document in Office.

   NOTE: If you change your mind and do not change the document, but simply close Office, the document remains Checked Out (O). Use the **Check In** menu option to check it in.

6. Within Office, click **File > Save As** and select a folder to which to save the document. Do not change the file name.
7. Within the Ektron folder, open the document's folder and select the document.
8. From the context menu, click **Check In**.
9. From the context menu, click **Edit Properties**.
10. Click the **Browse** button and navigate to the folder selected in Step 6.
11. Select the edited document.
12. From the toolbar, click **Check in** or **Publish**.
13. You are asked to confirm the file replace. Click **Yes**. The revised document is saved in Ektron.

Deleting an Office Document

NOTE: You must have delete permissions for the folder that contains the document. See Also: *Managing Folder Permissions* on page 257. Also , it is good practice to check for broken quicklinks before deleting documents. See *Link Checking Before Deleting* on page 291.

To delete an Office document:

1. In the Workarea, open the folder that contains the document.
2. Hover the cursor over the triangle ( ) next to the document and click. A drop-down menu appears.
3. Click **Delete** and confirm the deletion with **OK**.

Like publishing, deleted content must be approved before it is removed. If you are the last approver in the approval chain, the content is deleted immediately. See Also: *Approving or Declining Content* on page 267

Saving an Office Document

You would typically save an Office document to your computer to distribute it to others, or if you want a personal copy. You should *not* save a document to your computer if you plan to edit it then replace the version in Ektron—doing this may overwrite edits made by other users.

If you want to edit a document, use the **Edit in MS Office** or **Check out and Save As** menu option. The Both options set the content to checked out status, which prevents non-administrator users from editing it until you check it back in.

To save an Office document:

1. In Ektron, open the folder that contains the Office document.
2. Hover the cursor over the triangle ( ) on the right end of the document and click **Save As**.
3. You are asked if you want to open or save the document. Choose **Save**.
4. Select a folder to which you want to save the document.

Saving an Office Document in HTML Format

This feature converts Office documents to HTML format, which means they are formatted to display within a browser. As a result, anyone visiting your site can view the document, whether or not Microsoft Office is installed on their computer.

NOTE: You can publish only Microsoft Word and Excel documents as HTML. Ektron does not support saving Powerpoint or Visio documents as HTML.

There are 2 ways to save an Office document in HTML format.

- Drag and drop an Office document into Ektron and use the **Edit in MS Office** option to save it in HTML format. You don't need to know the path to your website's root folder.
- Open an Office document on your computer and save it in HTML format to the `ekdavroot` folder in your Web root. You don't need to drag and drop document to Ektron.

Regardless of how you save Office documents as HTML, be careful to set up procedures that prevent HTML content from being overwritten. For example:

1. You save a Word document as .html.
2. Someone edits the HTML version.
3. You save the original Office Document as .html again.

In this scenario, the edits made in step 2 are overwritten by step 3. You should establish procedures that avoid such problems.

Saving an Office Document as a Web Page

When saving a Word document, after you choose **Save as** from Word's File menu, there are 2 choices for saving as HTML.

NOTE: When saving an Excel document, **Save as Web Page (*.htm, *.html)** is the only option.

- save as Web Page
- save as Web Page Filtered

NOTE: For a description of the differences between these options, see About using filtered HTML.

You should save as Web Page, Filtered because the resulting HTML is almost identical to the original document. The **save as Web Page** is not a good option because its HTML content does not match the original document and may cause problems when being edited.

Handling Images Embedded within a Word Document

If you save an Office document that includes images, they appear when anyone is editing the document as well as when it appears on your website. In addition, the images are saved to the corresponding Ektron Library folder. In this way, other Ektron users can apply the images to HTML content as needed.

See Also: *Storing Files in the Library* on page 333

Saving an Office Document as .html from Ektron

This procedure assumes the Office document has been saved to Ektron. Procedures for doing this are explained in *Managing Microsoft Office Assets* on page 322.

1. Within the Workarea, open the Content area.
2. Open the folder that contains the Office document you want to save as .html.
3. Hover the cursor over the triangle ( ) on the right end of the document you want to save
4. Click **Edit in Microsoft Office**. The document opens within Office.
5. From Office's **File** menu, select **Save as Web Page**.
6. In the **Save as Type** field, select **Web page, Filtered (*,htm, *.html)**. See Also: *Saving an Office Document as a Web Page* on the previous page
7. Click **Save**.
8. You may be warned about formatting features not supported in HTML. Click **Continue**.
9. A dialog prompts you to enter your Ektron user name and password.
10. Ektron's folders appear in a Save as window. The folder that contains the Word document is the default folder. Select that or any other Ektron folder and click **Save**.
11. The Office document is saved as an HTML file into Ektron.
12. Close the document and exit from Office.

Saving an Office Document as .html from Your Computer

1. Open the Office Document.
2. Click **File > Save as (*,htm, *.html)**.
3. Click **My Network Places** and navigate to `ekdavroot` folder on the server that hosts Ektron.
4. Ektron's folders appear. The folder that contains the Word document is the default folder. Select that or any other Ektron folder.
5. In the **Save as Type** field, select **Web page (*.htm, *.html)** or **Web Page, filtered (*.htm, *.html)**. See Also: *Saving an Office Document as a Web Page* on the previous page.
6. Click **Save**.
7. You may be warned about formatting features not supported in HTML. Press **Continue**.
8. A dialog prompts you to enter your Ektron user name and password.
9. The Office document is saved as an HTML file into Ektron.
10. Close the document and exit from Office.

The status of the document depends on the approval chain and the user who signed in when the mapped network folder was created.

- If you are the last approver, or if there is no approval chain, its status is *Approved*.
- If there is an approval chain and you are not the last approver, its status is *Checked In* (I).

Checking Document Management Permissions

If you are having any problems with permissions, use this section to verify that your user and folder settings are assigned properly. You can view current user permission settings for affected folders in *Diagnostics Utility* on page 1883.

When the Document Management functionality is installed, permissions are granted to several users for the following folders.

- *root*/assetLibrary—Set by the user during installation, you can view and change the path to this folder in the Workarea **Settings > Configuration > Asset Server Setup > Storage Location**.
- `siteroot\AssetManagement\dmdata`—Set by Ektron during installation, dmdata has settings for both the file system and IIS.
- *siteroot*/assets—Set by Ektron during installation, the Asset Library folder contains file assets uploaded to and managed by DMS. You can view and change the path to this folder in the Workarea **Settings > Configuration > Asset Server Setup > Storage Location**.

The assigned permissions vary depending on your server's operating system.

The following table shows which users and permissions should be enabled for the folders listed above. Use this information to troubleshoot permission problems. See Also: *Setting Up Your CMS Folder Structure* on page 241

User	Windows 2000 Pro or XP Pro	Windows 2003 Server	Windows 2003 Enterprise Edition
IIS_WPG User		✓	✓
IUSR_ The IUSR_ account is required only if `Impersonate` is set to `True` in `web.config`, and its username and password attributes are not specified. If `impersonate` is set to `false` (default setting), the IUSR_ account may be harmlessly removed from the folders listed.	✓	✓	
IUSR_Group			✓
ASP.NET User	✓		
User Defined (The User Defined user account is required only if `Impersonate` is set to `True` in `web.config`, and its username and password attributes are specified.)	✓	✓	✓

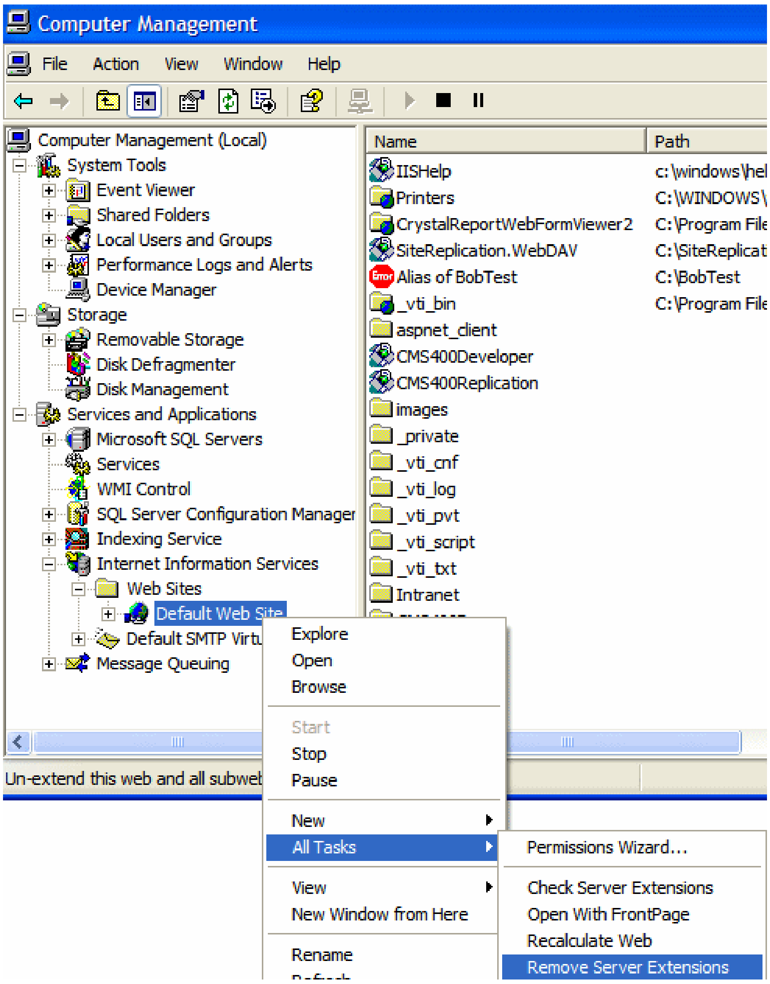
The following list shows extended permissions for use with the Document Management functionality.

- Traverse Folder / Execute File
- List Folder / Read Data
- Read Attributes
- Read Extended Attributes
- Create Files / Write Data
- Create Folders / Append Data
- Write Attributes
- Write Extended Attributes
- Delete Subfolder and Files
- Read Permissions

Removing Front Page Server Extensions

When you remove FrontPage Server Extensions from the Web root, the extensions also are removed from folders below that.

1. Click the Windows **Start** button.
2. Click **Control Panel > Administrative Tools > Computer Management**.
3. Open **Services and Applications > Internet Information Services > Web Sites > Default Web Site**.



4. Right click the mouse and select **All Tasks > Remove Server Extensions**.

Troubleshooting Assets

This section explains how to fix problems that may occur with Ektron assets.

Cannot drag and drop assets into Ektron

Symptom: You cannot drag and drop assets into Ektron.

Resolution: See *Removing Front Page Server Extensions* on the previous page.

Target Directory Already Exists

Symptom: While trying to drag and drop an asset, an error message appears: **The target directory already exists**.

Resolution: Check the `impersonate` element of the `web.config` file. If it is set to `true`, make sure the anonymous access account has at least write access to the `dmdata` and `assets` directories.

Cannot Update Published DMS Documents

Symptom: When you try to publish DMS documents, Ektron sometimes does not allow them to update.

Resolution: Make sure your production server is not running Windows XP. You cannot use XP as a production server for DMS.

Removing aspnet_isapi.dll from the List of Wildcard Application Maps

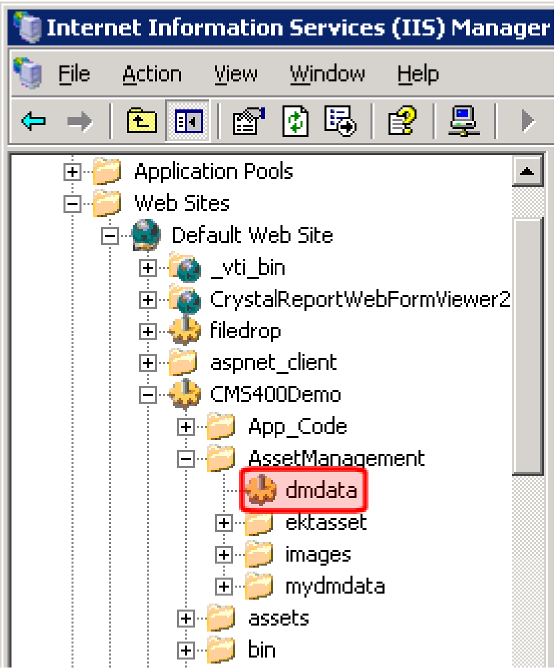
Symptom: When you try to upload an asset, you get the error message "Failed to upload documents."

Cause: Remove the `aspnet_isapi.dll` from the list of Wildcard Application Maps.

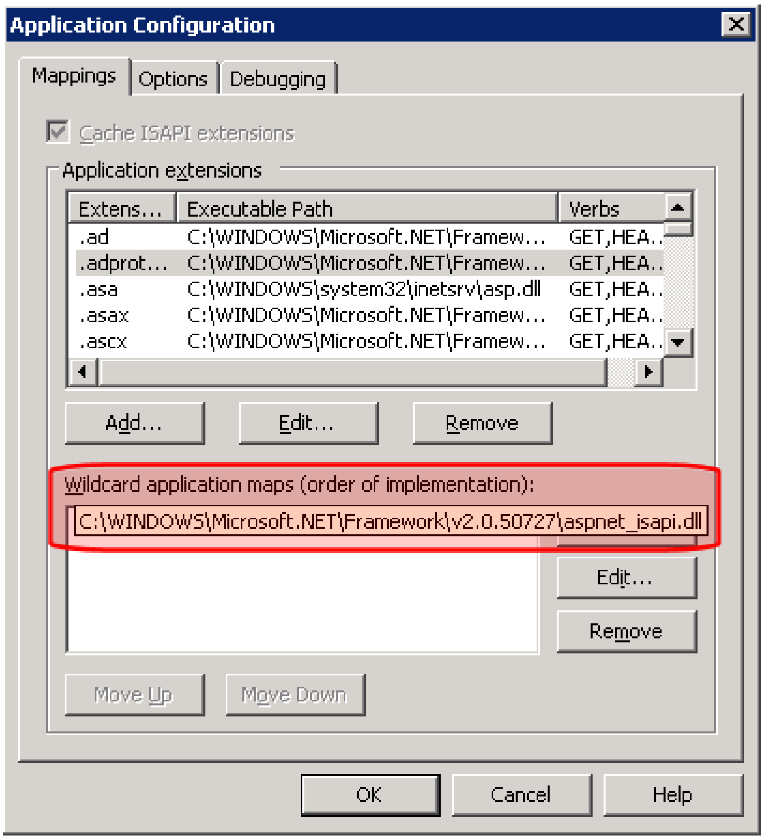
Resolution:

1. Open IIS.
2. Go to your Ektron website.

3. Underneath the website, click **Asset Management > dmdata**.



4. Right click **dmdata** and choose **Properties**.
5. Click the **Virtual Directory** tab.
6. Click **Configuration**.
7. Look in the **Wildcard Application Maps** area. If `aspnet_isapi.dll` appears, remove it.



8. Click **OK**.

ERRMSG: AssetManagement error: Failed to save asset

Symptom: After recently moving the ASM database to a new SQL server that has never hosted an ASM database, the following error appears while adding a DMS asset.

```
AssetManagement error: Failed to save asset.
Internal Message: RAISERROR could not locate entry for error 2000000002 in sysmessages.
at
Ektron.ASM.Documents.Asset.Create(enAssetStatus state) at
Ektron.ASM.Documents.AbstractAssetManagement.Create(AssetMetaData
  assetMetaData, enAssetStatus state) at
Ektron.ASM.PluginManager.PluginHandler.Create(AssetMetaData
  assetMetaData, enAssetStatus state) at
AssetManagement.AssetManagementService.Create(AssetMetaData
  assetMetaData, enAssetStatus state) at
Mojave.AssetManagementProxy.Create(AssetMetaData assetMetaData,
  enAssetStatus state) at
Ektron.Cms.DataIO.EkContentRW.AddContentv2_0(Collection ContObj) at
Ektron.Cms.EkException.ThrowException(Exception ex) at
Ektron.Cms.DataIO.EkContentRW.AddContentv2_0(Collection ContObj) at
Ektron.Cms.Content.EkContent.AddNewContentv2_0(Collection ContObj)
```

Cause: During the creation of the ASM database, a total of 7 messages are written to the sysmessages table in SQL Server’s master database. Each installation of SQL Server has its own master database and, in a typical move from one location to another, changes to the master database are not brought over.

If the ASM database was moved, and these messages are not in the sysmessages table in the new location's master table, the above error appears instead of a standard error message.

Resolution: Run this set of SQL scripts against your database. They add appropriate messages to the sysmessages table in the master database.

```
/*******************************************************************************/
sp_addmessage 2000000001, 10, N'Error in %s: Error %d inserting into %s. %s',
  US_ENGLISH, FALSE, REPLACE
go
/*******************************************************************************/
sp_addmessage 2000000002, 10, N'Error in %s: Insert into %s returned %d rows. %s',
  US_ENGLISH, FALSE, REPLACE
go
/*******************************************************************************/
sp_addmessage 2000000003, 10, N'Error in %s: Failed creating record because
  primary key already exists. %s', US_ENGLISH, FALSE, REPLACE
go
/*******************************************************************************/
sp_addmessage 2000000004, 10, N'Error in %s: Error %d updating into %s. %s',
  US_ENGLISH, FALSE, REPLACE
go
/*******************************************************************************/
sp_addmessage 2000000005, 10, N'Error in %s: Update into %s returned %d rows. %s',
  US_ENGLISH, FALSE, REPLACE
go
```

```
/*****************************************************************************/
sp_addmessage 2000000007, 10, N'Error in %s: Error %d deleting into %s. %s',
  US_ENGLISH, FALSE, REPLACE
go
/*****************************************************************************/
sp_addmessage 2000000008, 10, N'Error in %s: Delete into %s returned %d rows. %s',
  US_ENGLISH, FALSE, REPLACE
go
```

This snippet utilizes the `sp_addmessage` stored procedure from the master database, which adds the appropriate messages to the correct table.

NOTE: Although it is possible to recode these as an INSERT statement that can run directly against the sysmessages table, that procedure is not recommended.

Storing Files in the Library

The library folder stores images, files, quicklinks, and hyperlinks that can be inserted into editor content. Before you can insert them into content, you must copy them from your computer to a larger, file server computer that everyone editing your site can access.

See Also: *Storing External Files as Library Items vs. Assets* on page 311

- An *image* is any graphic file, which can include illustrations and photos. Common image file extensions are .gif., .jpg, .tiff, and so on.
- A *file* is type of computer file that can be launched from a browser, such as Internet Explorer. Examples include a Microsoft Word document and a .PDF file.
- A *hyperlink* is a commonly used or hard to remember Web address (also known as a URL). After you add hyperlinks to the library, users can easily apply them to editor content. For example, if the editor content is "Contact Ektron," the user can select the text, click the library button, select **hyperlinks** to find the Ektron hyperlink, and apply that hyperlink to the text. When the page is published, a person reading it can click the text to "jump" to the Web address `www.ektron.com`.
- A *quicklink* is a special kind of hyperlink that jumps to another content item on your website. (A regular hyperlink jumps to a Web page on the internet.)
- A *form* is a quicklink to HTML form content. Whenever content is created, a form link is automatically created for it.

This section also contains the following topics.

Working with the Library

This section describe actions you may perform with library files.

Performing Actions on Library Items

The library is made up of images, files, form Quicklinks, hyperlinks, and regular Quicklinks that were added by Ektron users. The following table displays the actions that can be performed for each library item type.

Action	Files	Images	Hyperlinks	Quicklinks	Form Quicklinks
Add	✓	✓	✓	✓	✓
Edit	✓	✓	✓	✓	✓

Action	Files	Images	Hyperlinks	Quicklinks	Form Quicklinks
View	✓	✓	✓	✓	✓
Overwrite	✓	✓			
Delete	✓	✓	✓	✓	✓
Remove from server	✓	✓			
Check links	✓	✓	✓	✓	✓
Update URL			✓	✓	✓

Most actions can be performed by a user who is granted permission to do so.

Whenever a new content folder is created and permissions given to it, a corresponding library folder is created. The new library folder inherits permissions from the content folder.

Items added to library folders are only accessible by users with permission to the corresponding content folder. If items are added to a library folders directly under the main library folder, all users with at least library Read-Only permissions can use those library items in their content.

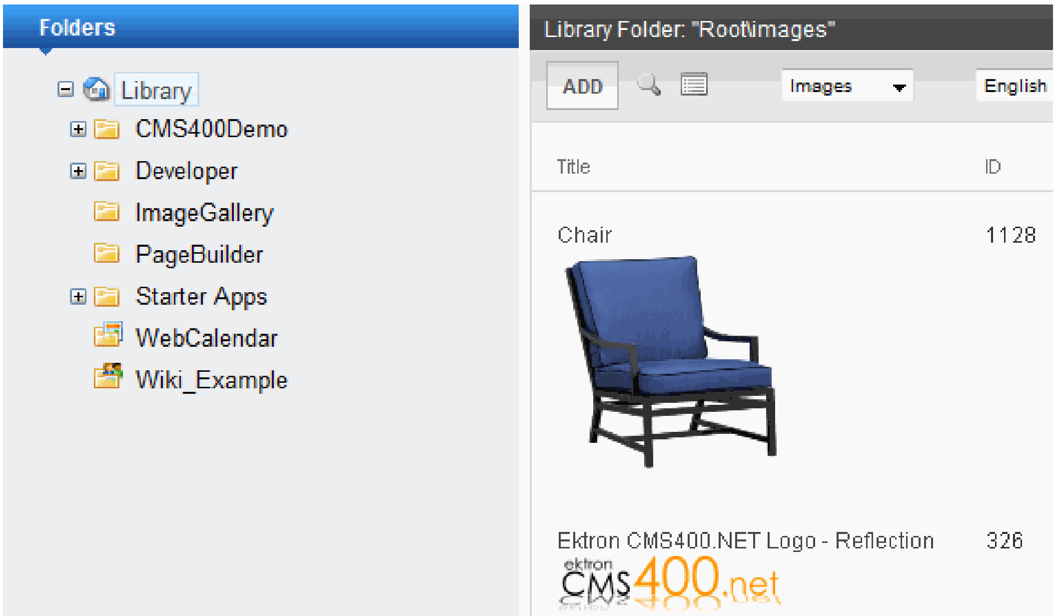
Conversely, if a library item is uploaded to a folder to which only one person has permissions, that is the only user who can use that library item.

To add, edit, overwrite, or delete a library item a user must either be a member of the administrators group or have the following combination of folder permissions.

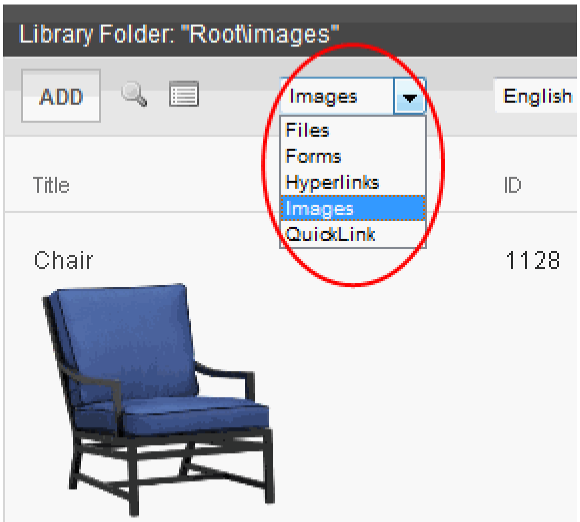
	Add	Edit file name, summary, metadata	Overwrite file	Delete
Library images	**Add Images**	**Add Images**	**Overwrite library**	**Delete** and **Add Images**
Library files	**Add Files**	**Add Files**	**Overwrite library**	**Delete** and **Add Files**
Library hyperlinks	**Add Hyper-links**	**Add Hyperlinks**	**Overwrite library**	**Delete** and **Add Hyperlinks**

Accessing the Library

1. Click **Workarea > Library**. The **Library** folder appears.



2. The sub-folders appear in the left frame. Files in the root folder (library) appear in the right frame.



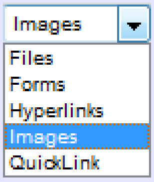
You can use the drop-down list (circled above) to change the type of library files that appear.

To work with any library file, click it. When you do, the View Library screen appears, providing additional information about the item. From here, you can

- edit its title, file name, or description
- overwrite it
- find content linked to it
- delete it

The following table explains toolbar buttons on the library screen.

NOTE: Your system administrator determines which library folders you can access, and which functions you can perform on library items within the folders.

Button	Description
	Search library; *Searching the Library* on the facing page
	View the library's properties screen; *Accessing Library Folder Properties* below
	Add an image, file, quicklink, or hyperlink to the library; *Adding a File to the Library* on page 340
	Select a type of Library file to work with

Accessing Library Folder Properties

The library folder properties screen lets you view and update image and file types may be uploaded.

Administrators have permission to change library properties.

IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`.

To view the properties of the library folder:

1. Click **Workarea > Library**. The **Library** folder appears.
2. Click **Properties** (). The Library Management window appears, displaying the following settings.
   - **Image Extensions**—The types of image files that a content contributor can upload to the library. You can add as many image file extensions as you want, or have none. If no extensions appear, no one can upload image files to the specified folder.

     IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`. See Also: *Using the File Type Whitelist* on the facing page

   - **Image Upload Directory**—Specifies where the uploaded images are saved on the Web server. By default, the image upload directory is `Web root/ek_sitepath/uploadedimages`. The`ek_sitepath`value is set in the `web.config` file. See Also: *Managing the web.config File* on page 67
   - **Make Directory Relative to this website**—If you want to specify the image upload directory's location as relative to your website root, check this box. (Your website root's location appears to the right of **Make Directory Relative to this website**.)
   - **File Extensions**—Specify the types of non-image files that a content contributor can upload to the library. You can add as many non-image file extensions as you

want, or have none. If no extensions appear, no one can upload non-image files to the specified folder.

IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`. See Also: *Using the File Type Whitelist* below

- **File Upload Directory**—Specifies where the uploaded files are saved on the Web server. By default, the file upload directory is `Web root/ek_sitepath/uploadedfiles`. The`ek_sitepath`value is set in the`web.config` file.

  NOTE: You must create the directory in your Web root manually, before adding it in Ektron.

  See Also: *Managing the web.config File* on page 67

- **Make Directory Relative to this website**—If you want to specify the file upload directory's location as relative to your website root, check this box. (Your website root's location appears to the right of **Make Directory Relative to this website**.)

Using the File Type Whitelist

The *siteroot*/web.config file property `ek_LibFileTypeWhiteList` contains the same default file types as those on the Library Managementscreen's **Image Extensions** and **File Extensions** fields.

A server administrator can use this property to restrict which file types may be uploaded to the library. For example, if an Ektron administrator wants to add a new file type, someone who can edit files on the Ektron server must first add it to the `web.configek_LibFileTypeWhiteList` property. This provides additional security over which file types can be uploaded to the library.

Conversely, if an server administrator wants to remove an allowed file type from the Library Management screen, he must first remove it from the `ek_LibFileTypeWhiteList` property.

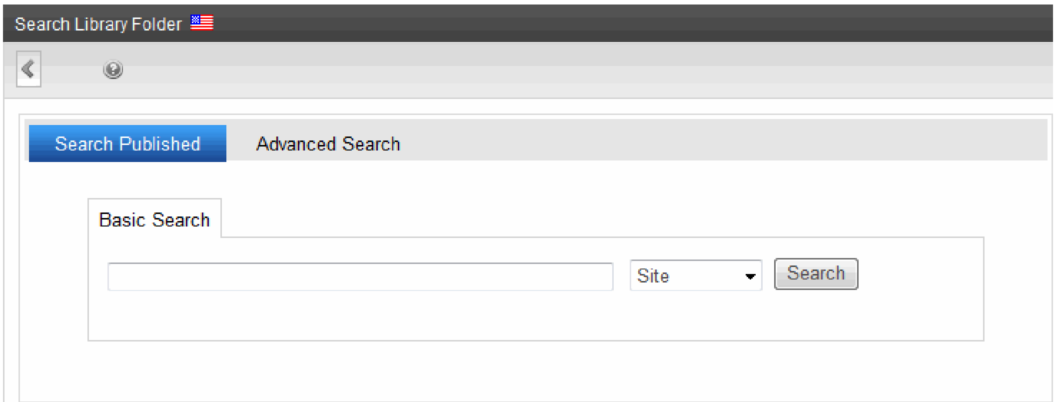
Searching the Library

NOTE: New and updated library items are available only after the next crawl completes. See Also: *Managing the Search Crawl* on page 931

You can search the library to find items if you know only some information about them. For example, you know that an image's name includes **Ektron** but don't know its filename or folder.

To search the library, first select the folder in which you want to begin the search. The search only considers files in that folder and its child folders. To search the entire library, select the Library (root) folder.

Next, click **Search** () from the library toolbar. When you do, a search screen appears (shown below).

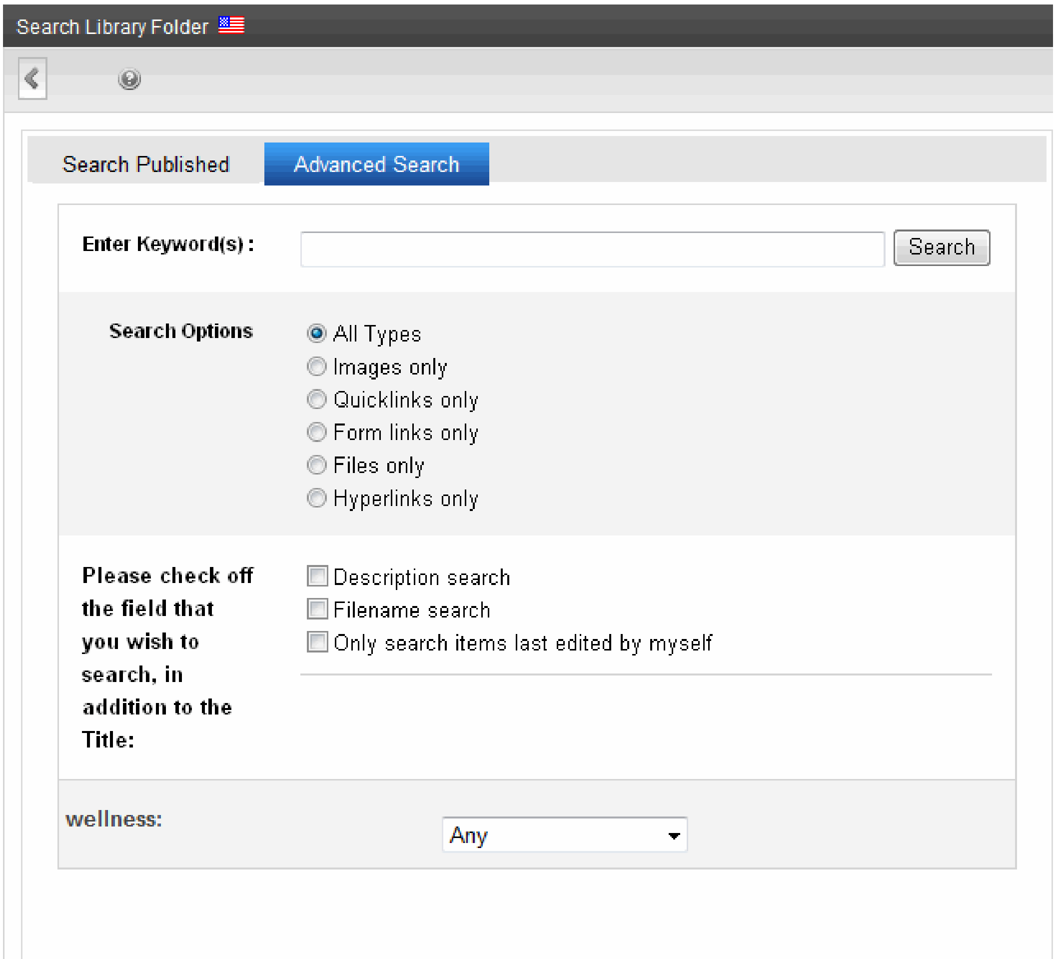


The left tab, **Search Published**, finds both library items and content that satisfies the search criteria.

- Matches selected language
- Search text is contained in title, summary, filename, or path.
- If the search text is more than one term, all terms must be found. So, multiple terms have an AND relationship.

To force an OR relationship, enter OR between search terms.

The right tab, **Advanced Search**, lets you narrow your search.



- **Enter Keyword(s)**—Specify one or more keywords that the search will use. The search looks for keywords in the file's title. (The title is assigned by the user when the file is added to the library.) If a file's title matches the keywords, the file appears on the search results screen.

  The search also uses keywords to search through the file's

  - internal name (for example, airplane.gif) if the **Filename Search** checkbox is checked
  - description if the **Description search** checkbox is checked

  A keyword can be a complete or partial word. But, you can only enter a partial term for one word. For example, you can enter **Adv** and have the search return the content titled "Adverse Drug Reactions." But if you enter **Adv Drug**, the search returns nothing.

  You can enter several complete search terms but they must be in the correct sequence. For example, to find the topic titled "Adverse Drug Reactions," you can enter **Adverse Reactions** but cannot enter **Reactions Adverse**.

  To find all files in a selected library folder, enter nothing in this field. Or, to find all files in a selected library folder of a type (for example, images), select the type and enter nothing in this field.
- **All Types**—The search considers all library file types.
- **Images only**—The search only considers images.
- **Quicklinks Only**—The search only considers quicklinks.
- **Forms Only**—The search only considers forms.
- **Files Only**—The search only considers files.
- **Hyperlinks Only**—The search only considers hyperlinks.
- **Description Search**—If you check this box, the search considers the library item's description when returning search results. Otherwise, the search ignores the description. For example, if you enter **Ektron** into the keyword field, the search returns all library files that include that string.
- **Filename Search**—If you check this box, the search considers the file name when returning search results. Otherwise, the file name is not considered by the search. For example, if you enter **ppt** into the keyword field, the search returns all files that include that string (such as all Powerpoint presentations).
- **Only search items last edited by myself**—The search only considers library files that were last modified by you.
- One or more search criteria set by your system administrator in the Metadata Definitions screen.

NOTE: Some search field check boxes are circles while others are squares. If the box is a circle, you can only choose one option. If it is a square, you can choose several.

The search displays library items that meet the search criteria. You can click any item to view its properties (such as Library ID number, Last Edit Date and Description).

Working with Files

This section explains how to work with library files (which includes files, forms, hyperlinks, images, and Quicklinks).

This section also contains the following topics.

Adding a File to the Library

After a file is copied to the library, users can add it to content. They can also add an item into the library while inserting it to content.

PREREQUISITE

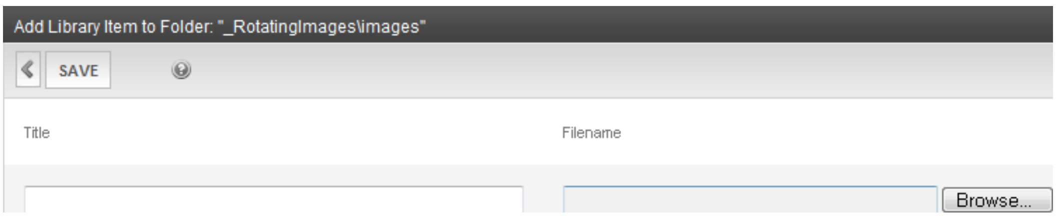
- For the file being added, its type is defined in the Library Properties screen's **Image Extensions** or **File Extensions** field. See Also: *Accessing Library Folder Properties* on page 336

To add a file to the library:

IMPORTANT: You should use the Document Management system to add files. Unlike library files, DMS files can be part of an approval chain, maintain a history, are searchable, and can have a summary, schedule, metadata, taxonomy categories, and so on.

NOTE: Microsoft lets users upload files of any name. However, IIS security blocks files with names that contain an ampersand (&), colon (:), or percentage sign (%). *Source: FIX: "HTTP 400 - Bad request" error message in the .NET Framework 1.1*
To allow these characters, add the following registry key to your Web server then reset IIS.
Reg Key: `DWORD HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\ASP.NET VerificationCompatibility = 1.`

1. In the Workarea, browse the library folder and select a folder to which you want to copy a file.
2. When you copy a file to a folder, only users with permissions to that folder can insert the file into content. A list of files in that folder appears.
3. Click **Add**. The Add Library Item to Folder screen appears.



4. Enter the necessary information according to the following list.
   - **Title**—Enter a title for the file to be copied.
   - **Filename**—Enter the path to the file to be copied. You can use the **Browse** button to find it.

IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`. See Also: *Using the File Type Whitelist* on page 337

- **Description**—Enter a full text description to help other users identify this file. The **Description** appears on the View File and Search Results screens.

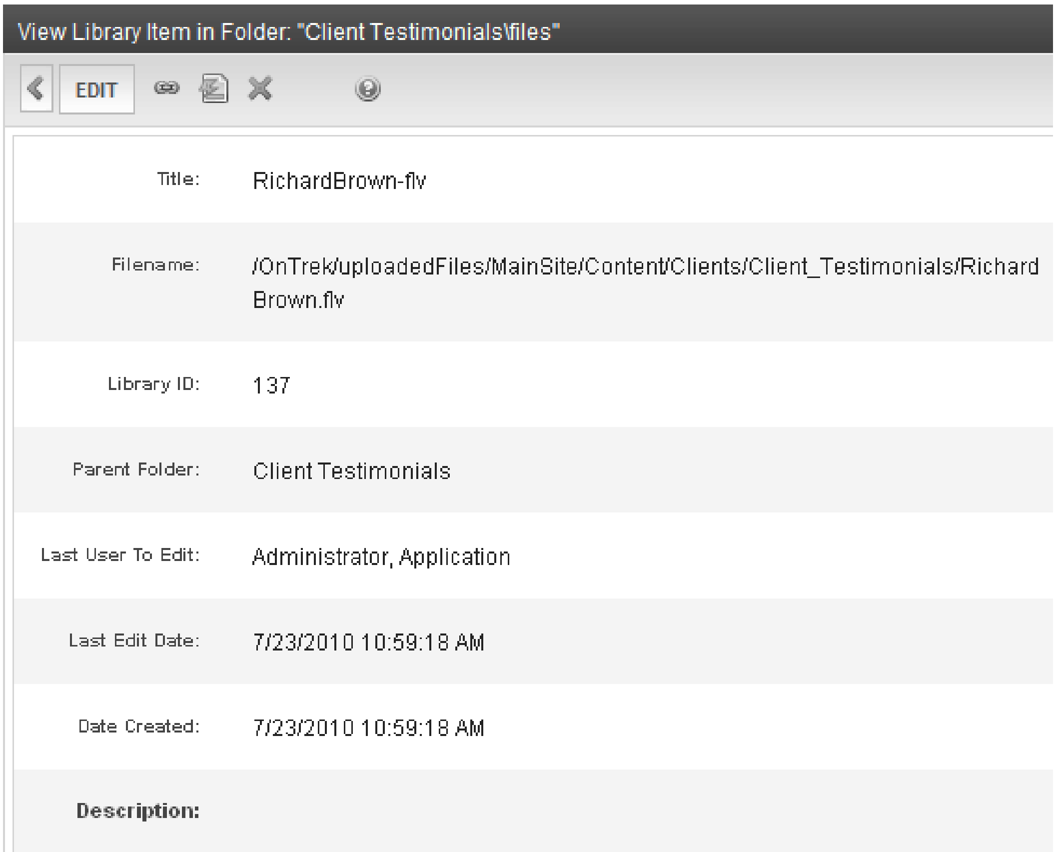
5. Click **Save** to copy the file. Users with permissions to the selected folder can insert the file into their content.

NOTE: When an image is uploaded to the Media tab for a product in the eCommerce feature, the original image and any thumbnails associated with it are added to the Library. For example, if you add an image named “TestImage” (actual file name: “case.jpg”) with a 150px and 50px thumbnails, you will see the following entries in your library (*File Name - Path*):
TestImage - /~siteroot~/uploadedImages/case.jpg
case[filename]150 - /~siteroot~/uploadedImages/case[filename]150.jpg
case[filename]50 - /~siteroot~/uploadedImages/case[filename]50.jpg

Viewing a File

When a file is copied to the library, you may preview it. To preview a copied file:

1. Navigate to the library folder to which the file was copied.
2. Click the file you want to preview. The View File screen appears.



- **Title**—Title assigned by user who copied or edited it.
- **Filename**—Filename and location on the server.
- **Library ID**—ID number assigned by Ektron when file was originally copied.

- **Parent Folder**—File's parent folder. Users need permissions to this folder to insert the file into content.
- **Last User to Edit**—Last user who changed file.
- **Last Edit Date**—When file was last edited.
- **Date Created**—When file was originally copied to library.
- **Description**—Optional, full-text description of file.

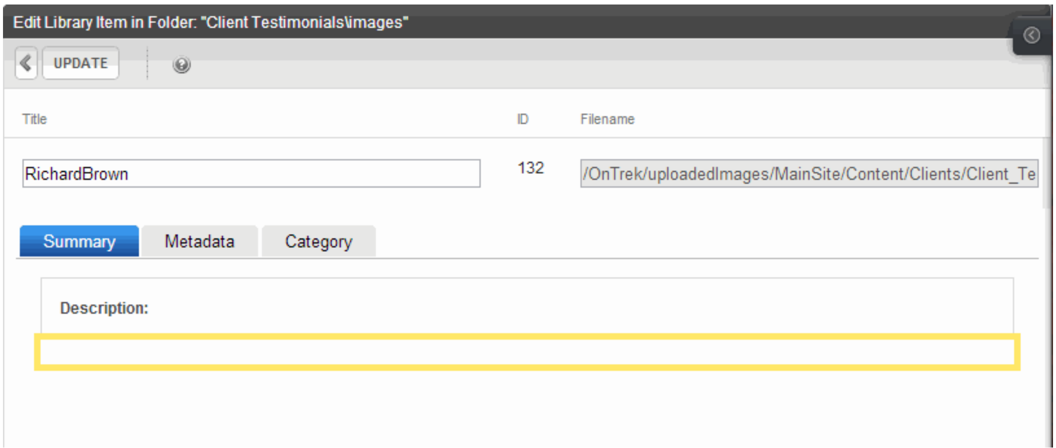
If the file can be displayed in your browser, a preview of it appears at the bottom of the screen. If it cannot display in the browser, a link to preview it in its host application appears instead.

NOTE: You may need to download some files before you can be view them (for example, .mdb, .mp3, .zip, and so on).

Editing a File

To edit the title, filename and description of any library file:

1. Access the View File screen and click **Edit**. The Edit File screen appears.



2. Change the title, file name, and/or description of the file.
3. Click **Update**.

Searching Library Links

Link searching indicates all content that includes a library link. It is useful when you want to delete a library item. With the click of a button, you see all content that you need to update to reflect the change you are making.

To perform a library item link search:

1. Access the View Library Item for any type of library item and click **Link Search** ().
2. A list of all content that references the library item appears.

You should edit that content before deleting the item.

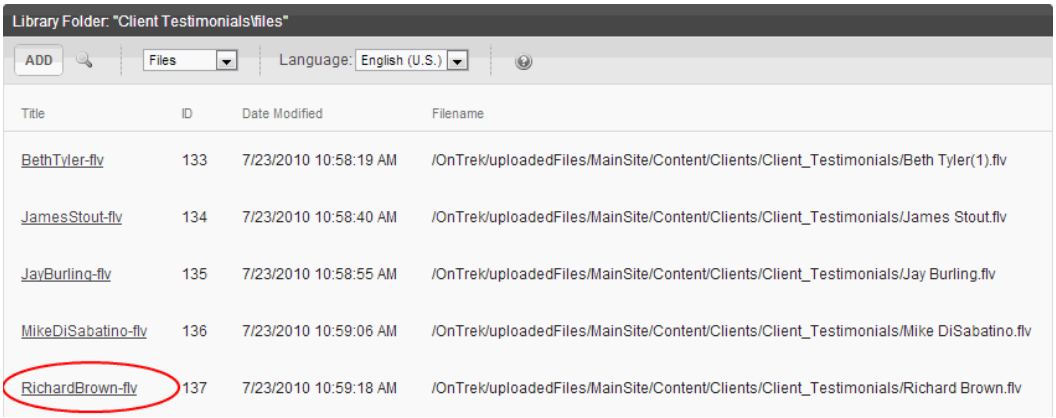
Adding a Library File to Content

After a file is copied to the library, users can add it to content. You can also insert an item into the library while adding it to content.

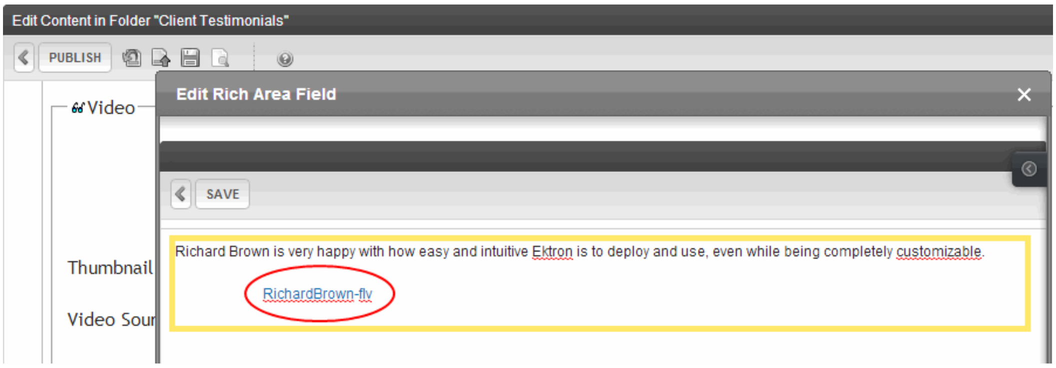
If you insert an image file, it appears within the content. If you add any other type of file, the file name appears as a hyperlink within the content. When a site visitor viewing that page clicks the hyperlink, the inserted file is launched.

NOTE: The following procedure applies to files, forms, hyperlinks, images and quicklinks.

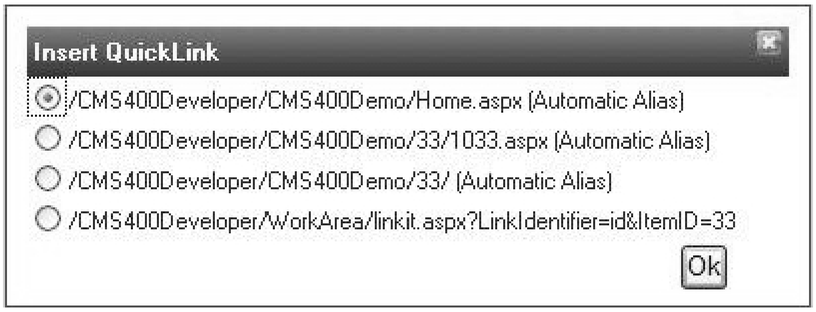
1. Invoke the editor by adding or editing content in Ektron.
2. Place the cursor within the content where you want the library file to appear.
3. Click **Library** (). The Library screen appears.
4. Navigate to the folder that contains the file you want to insert.



5. From the file types drop-down list, select the kind of file (file, form, hyperlink, image, or quicklink) you want to insert. All library files of that type in the selected folder appear on the screen.
6. Click the file you want to insert.
7. Click **Insert** () to insert the file. The content appears in your editor. In this example, inserting the file creates a link in your content. If you select an image, the image appears.



If you select **Files** from the file types list, and Aliasing is enabled for your website, the following screen appears.



Adding a File to the Library and Inserting it into Content

Use this procedure to insert an image into content that has not yet been copied to the library. This procedure inserts the item into the library then into the content.

1. Invoke the editor by adding or editing content in Ektron.
2. Place the cursor where you want the library item to appear.
3. Click **Library** ( ). The library opens.
4. Navigate to the folder that will contain the file after you insert it.
5. Select the type of file (file, form, hyperlink, image, or quicklink) you want to insert from the File types drop-down.
6. Click **Add Library**. A new screen appears.
7. Browse to the file you want to insert, or you can click **Search** ( ) to search for a file to insert.

   IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`. See Also: *Using the File Type Whitelist* on page 337

8. Enter a **Title** for the file.
9. If metadata is required for the library item, you must complete it. Metadata fields may appear in the lower section of the screen.
10. Click **Add Library**. The file is inserted into the selected library folder and the content.

Overwriting a File

If a library file or image becomes out-of-date or the wrong version was copied, you can replace it with a new version. Overwriting files lets you minimize disk space and the number of library files.

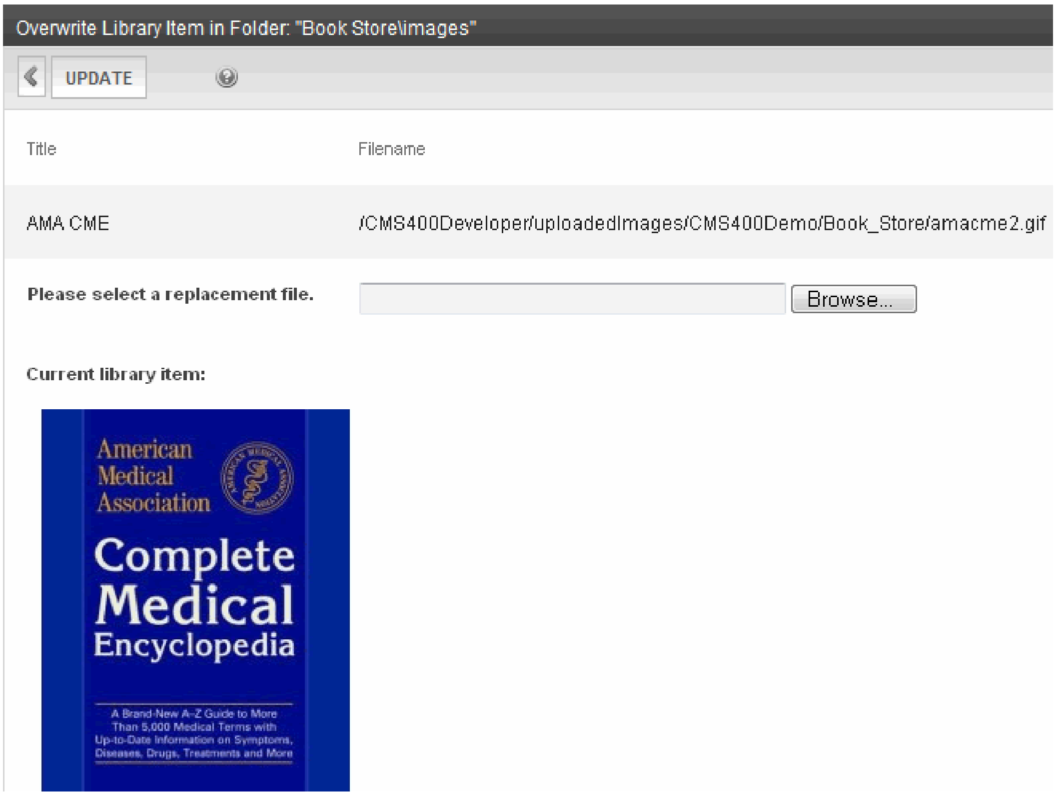
NOTE: The ability to overwrite a library file is a privilege granted by the system administrator. If you do not see an Overwrite button on the View Library Item in Folder screen, you do not have permission to overwrite. You can only overwrite images and files. The new image or file must have the same file extension as the file being replaced.

When overwriting an image, the new image uses the same size dimensions and file extension as the older image. Be sure that the 2 images have the same file extension and size or make the adjustments at each occurrence of the image.

Remember, all links that point to the overwritten file now point to the new file.

To overwrite a library file:

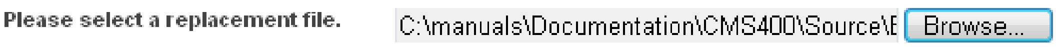
1. Navigate to the View File screen for the file you want to overwrite and click **Overwrite** ( ). The Overwrite File screen appears.



2. Click **Browse**. A window lets you navigate to the new file.

IMPORTANT: You can only add file extensions that are listed in the *siteroot*/web.config file property `ek_LibFileTypeWhiteList`. See Also: *Using the File Type Whitelist* on page 337

3. Select a file, then click **Open**. You return to the Overwrite File screen with the path to the new file in the **Filename** field.



4. Optionally, enter a description for the new file.
5. Click **Update** to overwrite the current version of the file with this version. A message appears before you can continue.
6. Click **OK** to overwrite the file.

Deleting a Library Item

You can delete obsolete items from the library. By deleting an item, you prevent users from adding it to their content. A deleted hyperlink, quicklink or form quicklink remains on your Web server, so any existing links to them are not broken.

On the other hand, if an item is a file or image, the delete window displays an additional prompt, **Remove from the server,** that lets you remove the item from the server. This feature is available to help reduce disk space taken up by these files. Before removing an image or file from your server, you should review all content with links to it and remove or update the link.

To delete an item from the library:

1. Access the View Library Item for any type of library item and click **Delete** ( ). The Delete Library Item screen appears.

2. If appropriate, check the box next to **Remove from the server**.
3. Click **Delete** ( ).

Adding a Quicklink or Form to Content

Users can insert a quicklink to it within any content. To do so, follow the procedure described in *Adding a Library File to Content* on page 342. The only difference is that you add a quicklink or form instead of a file.

You can apply a quicklink to text or an image within the content. If you do, and a site visitor moves the cursor over the text or image, the cursor indicates that a hyperlink is available. If the link is clicked, the source content or image appears.

If you do not select text or an image before inserting a quicklink, place the cursor where you want it to appear. The title of the "jumped to" content appears in the content.

To test a quicklink or form, select hyperlinked text or image and double click it.

When the page is published, a reader can click the link to jump to the quicklink or form page.

Viewing Quicklinks or Forms

To view a quicklink or form, follow the procedure described in *Viewing a File* on page 341. The only difference is that you view a quicklink or form instead of a file.

The following list describes each field on the quicklinks display.

- **Title**—Title given to the hyperlink or form by the user who added it, or last edited it.
- **URL Link**—URL link for the quicklink or form.
- **Library ID**—ID number assigned automatically by Ektron when the quicklink or form was originally added.
- **Parent Folder**—Parent folder that the quicklink or form belongs to. Users need permissions to this folder to be able to access the quicklink or form.
- **Last User to Edit**—Last user that made changes to the quicklink or form.
- **Last Edit Date**—The date the quicklink or form was last edited.
- **Date Created**—The date and time the quicklink or form was originally added to the Ektron library.

To preview a quicklink or form, click the link at the bottom of the page.

Updating the Default Template for Multiple Quicklinks

IMPORTANT: This procedure is only necessary if Link Management is set to `false` in your `web.config` file. If if Link Management is set to `true`, Ektron automatically updates the template within the quicklink when content is moved. See your system administrator for help with the `web.config` file.

When content is moved in Ektron, its quicklink does not get changed. After it is moved, you need to update the default template called in the content's quicklink.

NOTE: This action can only be performed on quicklinks.

To update the default template for one or more quicklinks:

1. In the library, access the quicklinks folder containing quicklinks you want to update.
2. Click **Update Quicklink** ( ). The Update URL Link Template Quicklinks screen appears.
3. Check the quicklinks you want to update.

NOTE: Check the box in the table header to select or deselect all.

4. In the **To:** text field, enter the name of the template you want to apply to the selected quicklinks.
5. Click **Update Quicklink** ( ) to update the changes. A confirmation message appears.
6. Click **OK** to continue. The selected quicklinks are updated to use the specified template.

Displaying Content on Your Website

The following Ektron server controls display HTML content on your website.

- **ContentList**—A comma-delimited list of content blocks. See *ContentList* on page 1708.
- **ContentBlock**—One content block. See *ContentBlock* on page 1701.

IMPORTANT: Starting from release 8.6, these Content server controls were replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using these Content server controls, you can continue to do so, but Ektron recommends using current versions of functionality.

NOTE: On a PageBuilder page, you can insert a content block using the Content Block widget. Also, you can insert list of content blocks via the Content List widget. See Also: *Widget Reference* on page 714

The following sections describe displaying content with the ContentList server control. See *ContentList* on page 1708 for information about its properties.

This section also contains the following topics.

Using Metadata to Display an Associated Content List

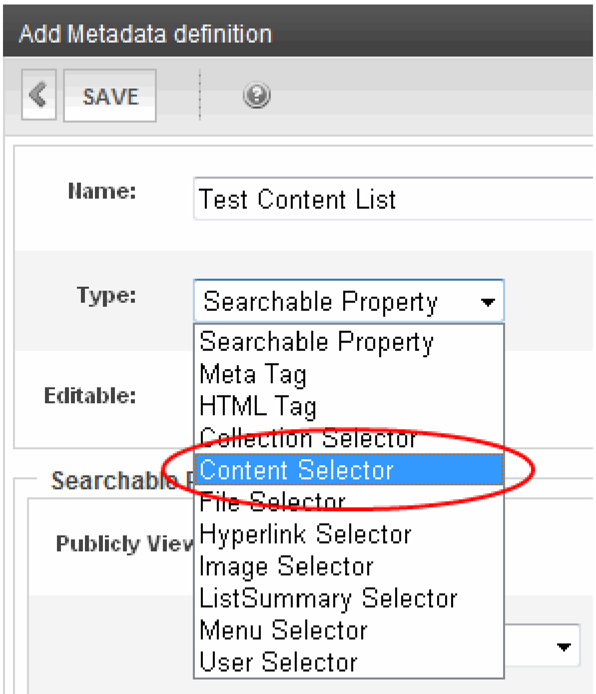
IMPORTANT: Starting from release 8.6, this functionality was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using this functionality, you can continue to do so, but Ektron recommends using current versions of functionality.

You can use the ContentList server control to display a list of content associated with a given content item. First, you define a content list in the metadata of a content block. Then, assign the ID of the content block to the `ContentID` property and specify a Metadata definition in the `MetaTag` property. The ContentList server control pulls information defined in the metadata of the content to display the list of content.

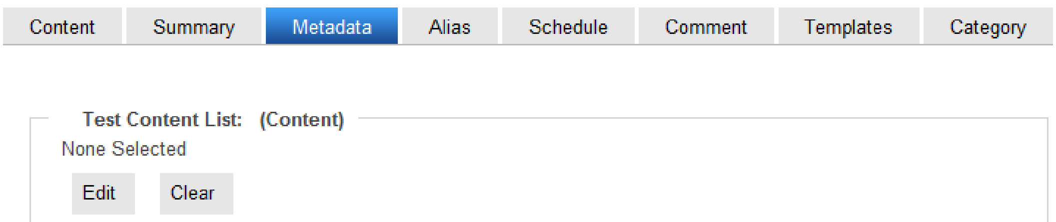
The following steps show how to use the `DefaultContentID` and `MetaTag` properties to create a content list.

1. In the Workarea, choose **Settings > Configuration > Metadata Definition**.
2. Click **Add Metadata Definition**.
3. Enter a title for the data in the **Name** field. This name is used in the `MetaTag` property for the server control.

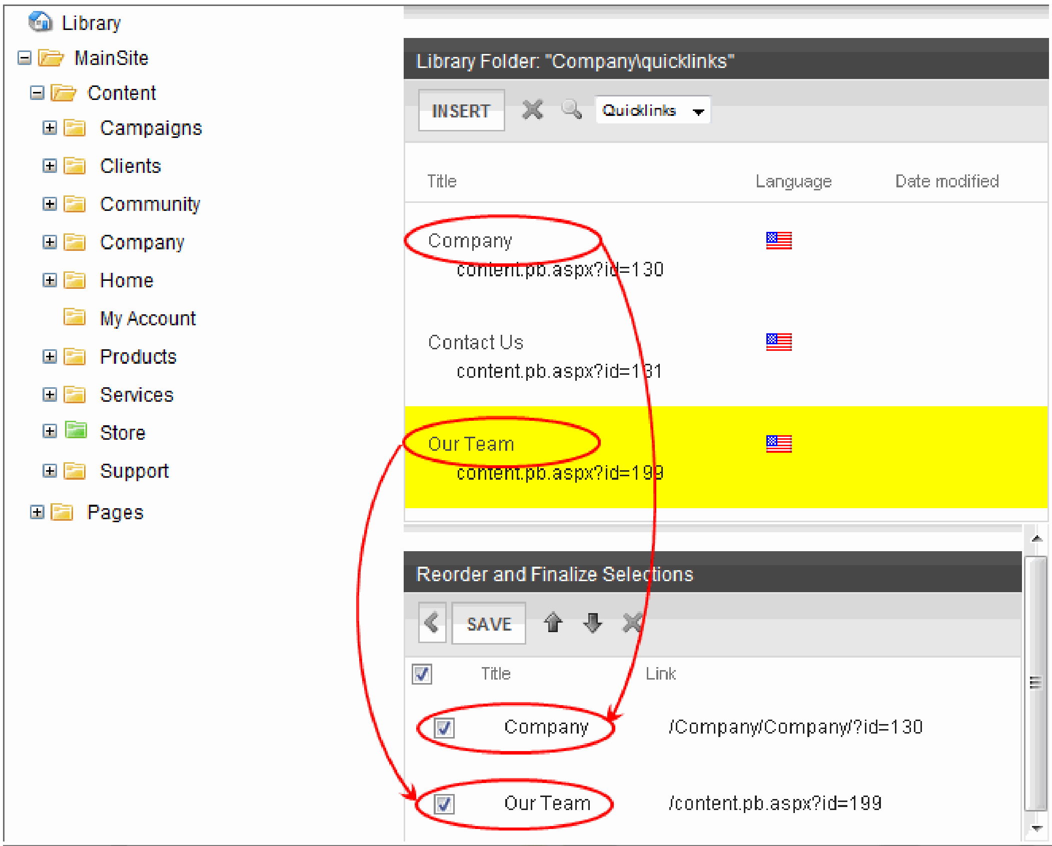
4. Fill in all standard fields. The **Type** must be **Content Selector**.



5. Click **Save**.
6. Add the definition to all appropriate folders.
   a. Right click a folder and choose **View Properties**.
   b. Click **Edit Properties**.
   c. Click the **Metadata** tab and check the boxes next to the metadata definition. (You may have to break inheritance.)
   d. Click **Update**.
7. For each content item to which you want to associate related content, access its **Metadata** tab and identify the related item(s). For example, a list of content blocks associated with motorcycle helmets. You want this list to appear whenever a helmet is being viewed. To set this up, you would
   a. Edit the content block.
   b. Click its **Metadata** tab.
   c. Find the metadata definition for the **Content List**.
   d. Click **Edit**.

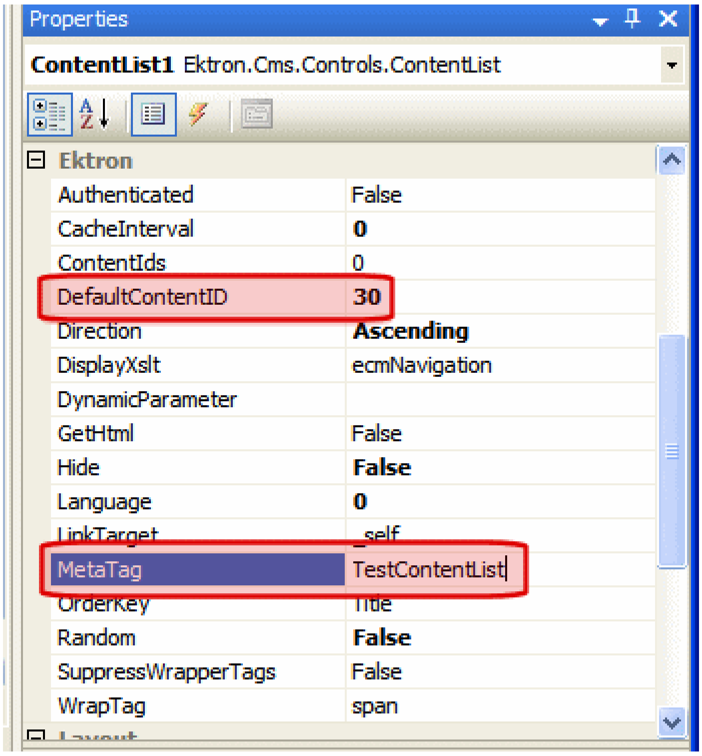


e. Select content for the list and click **Insert** to display them below.

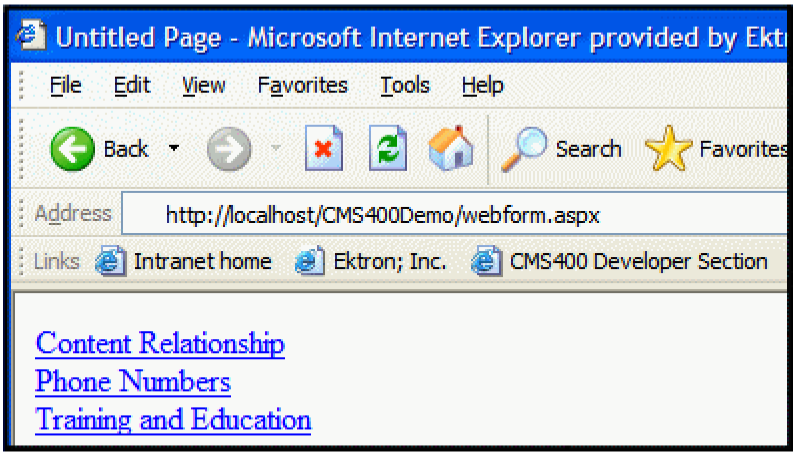


8. Optionally reorder the list, then click **Save**.
9. On a Web form in *Visual Studio*, add the ContentList server control.
10. Set the `DefaultContentID` property to the content block's ID.

11. Add the name of the Metadata field in the Workarea to the `MetaTag` property.

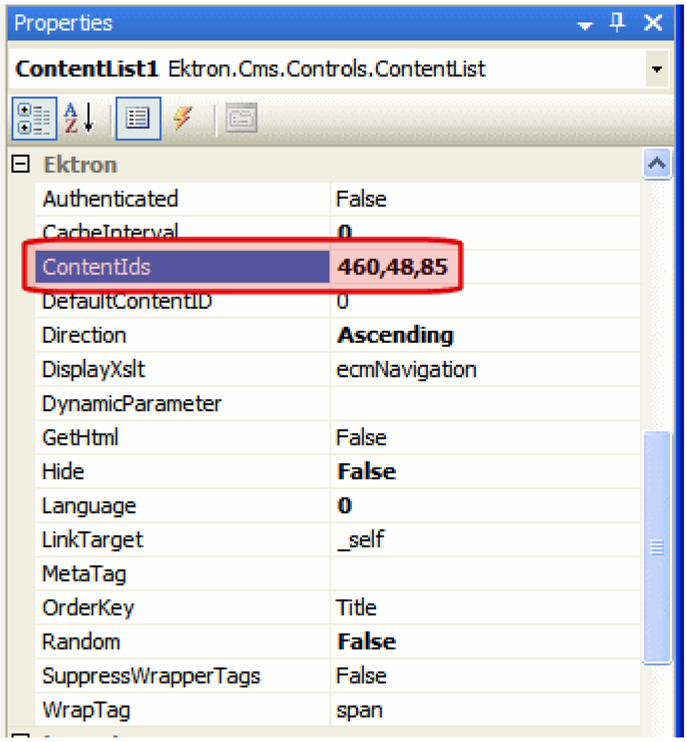


12. Set other properties using *ContentList* on page 1708.
13. When the Web form is saved, navigate to the page. The content list appears.

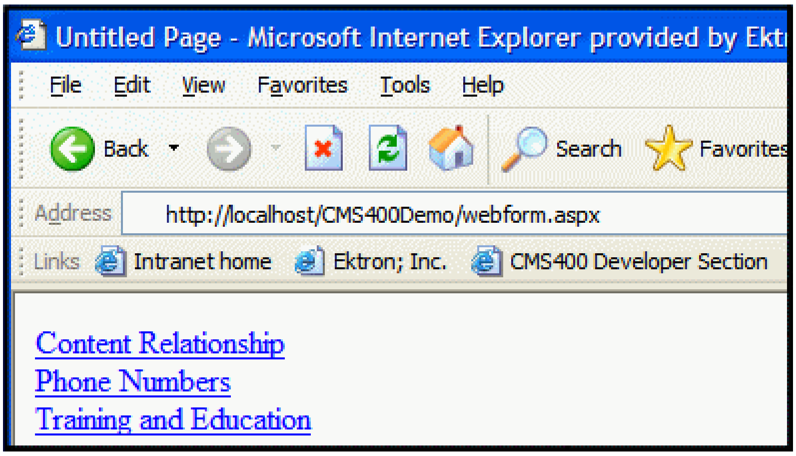


Using the ContentID Property to Display a Content List

1. On a Web form in Visual Studio, insert the ContentList server control.
2. Add a comma-delimited list of content IDs to the `ContentIds` property.



3. Set the other properties as you require.
4. Save the Web form, and navigate to the page. The content list appears.



Retrieving the XML Structure of a ContentList

Retrieving the XML structure of content allows for greater control over developing XSLs. The following example shows how to retrieve the XML structure.

1. Open a new Web form.
2. Drag and drop a ContentList server control onto it.
3. Add at least one content ID to the `ContentID` property.
4. Drag and drop a textbox on the Web form.

5. Set the `TextMode` property to **MultiLine**.

NOTE: Set the text box width to at least 400 px.

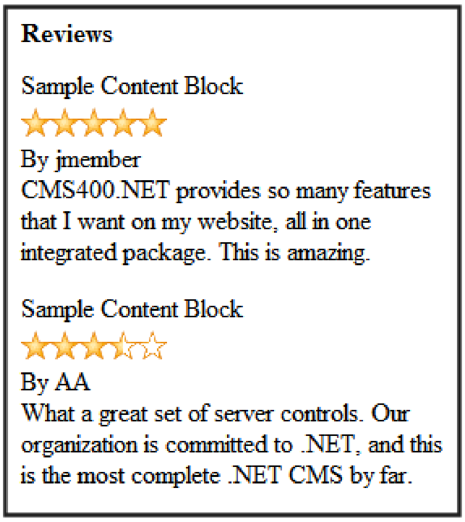
6. On the code-behind page, add the following line.

```
Textbox1.Text = ContentList1.XmlDoc.InnerXml
```

7. Build the project.
8. View the Web form in a browser. The XML structure of the ContentList appears in the textbox.

Displaying Content Reviews on the Site

1. Drag and drop a ContentReview server control on a Web form.
2. Set the `DefaultContentID` property to the ID of the content whose reviews will be displayed. To make the reviews for the content item dynamic, leave `DefaultContentID` blank and set `DynamicParameter` to **ID**.
3. Set the `DisplayXSLT` property to Review List. If you want to change the look and feel of the review list, modify an existing XSL file or create your own. If you modify an existing XSL, save the modified file with a different name. Then, enter the file path in the `DisplayXSLT` property.
4. Set the `GetReviews` property to **Content**.
5. Save the form.



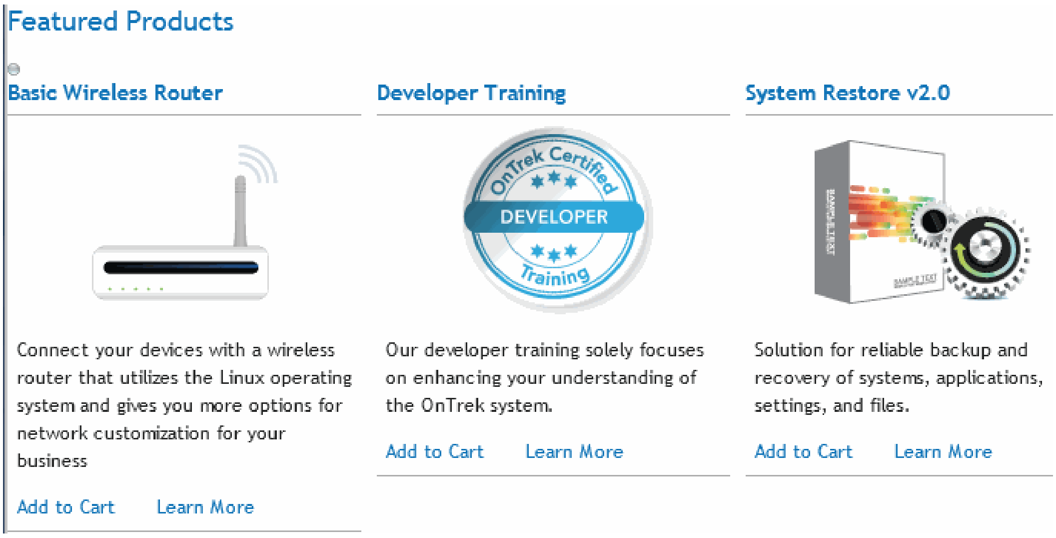
Displaying a User Review on the Site

1. Drag and drop a ContentReview server control on a Web form.
2. Set the `DisplayXSLT` property to **Review List**. If you want to change the look and feel of the review list, modify an existing XSL file or create your own. If you modify an existing XSL, save the modified file with a different name. Then, enter the path to the file in the `DisplayXSLT` property.
3. Set the `GetReviews` property to **User**.

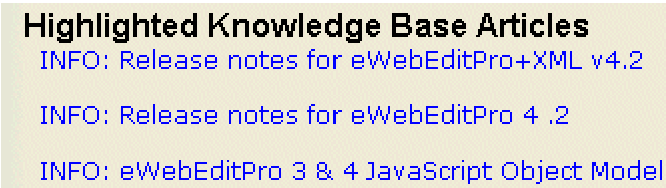
4. Set the `UserID` property to the ID of the user for whom reviews will be displayed. To make the list of reviews for a user dynamic, leave the `UserID` blank and set the `DynamicParameter` to ID.
5. Save the form.

Working with Collections

A collection is a list of content links offered to readers of a Web page. The following illustration shows a collection on a Web page.



You can use a collection to display any listing, such as job postings, press releases, and knowledge base articles. The following is a collection within Ektron's Knowledge Base.



This section explains how to find, create, and manage collections. Your system administrator then creates or updates a Web page to display the collections using the Collection server control or Collection widget.

Comparing Menu, Collection, List Summary, and Taxonomy Features

Menu, collection, list summary, and taxonomy features are similar because they let you add a list of links to a Web page. The following table compares the features to help you understand which one is best suited to your needs.

NOTE: To implement these features, the assistance of a developer is required.

IMPORTANT: Starting from release 8.6, the ListSummary server control was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the ListSummary server control, you can continue to do so, but Ektron recommends using current versions of functionality.

	Menu	Collection	List Summary	Taxonomy
Display *all* content in a folder. As folder's content changes, display changes.	✓ (folder items appear on a menu)		✓	✓
Can display all content in a folder's subfolders			✓	
Display *selected* content	✓	✓		✓
Display external hyperlinks	✓			
Display library files	✓			✓
Display content summary (optional)		✓	✓	✓
Display additional content information: • comment • last modified date • start date • end date • user who last edited it • ID number • path relative to your site's root		✓		
Can be multi-leveled	✓		✓ (recursive folders)	✓
Main purpose is navigation	✓	✓	✓	✓
Main purpose is classification				✓

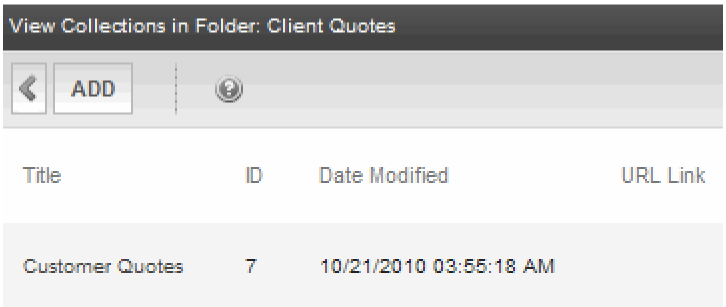
Finding Collections

Every collection is assigned to a folder. You can find collections in the following ways.

Finding Collections by their Folder

To find collections in a folder:

1. Click the content folder that contains the collection.
2. If you are using Ektron's multi-language support features, select the language by choosing **View > Language**. See Also: *Working with Multi-Language Content* on page 1057
3. Choose **View > Collection**. The View Collections screen appears.

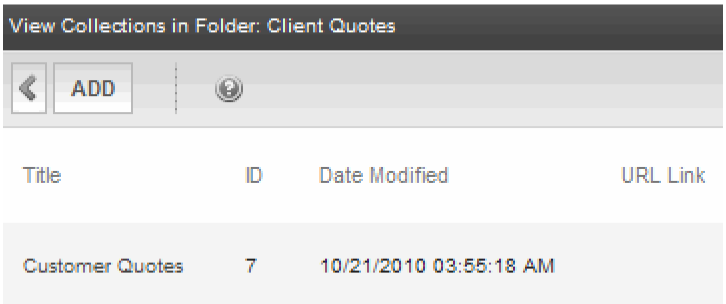


Finding All Collections

The **Content** tab has a **Collections** panel that displays *all* collections, regardless of folder.

To view *all* collections in *all* content folders:

1. From the Workarea, click the **Content** tab.
2. In the lower left, choose **Collections > Collections.** The View Collections screen appears.
3. Select a collection.



If you have a large number of collections, use the screen's **Search** box to find one.

Creating a Collection

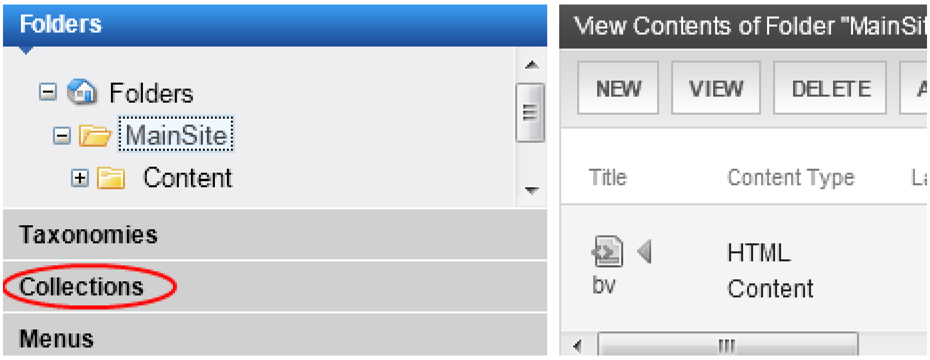
This section explains how to create a collection in a site that does not support multiple languages. To create collections in several languages, see *Working with a Collection in a Multi-Language System* on page 365.

Prerequisites

To create, edit, remove, delete, or reorder a collection, you must have one of these criteria.

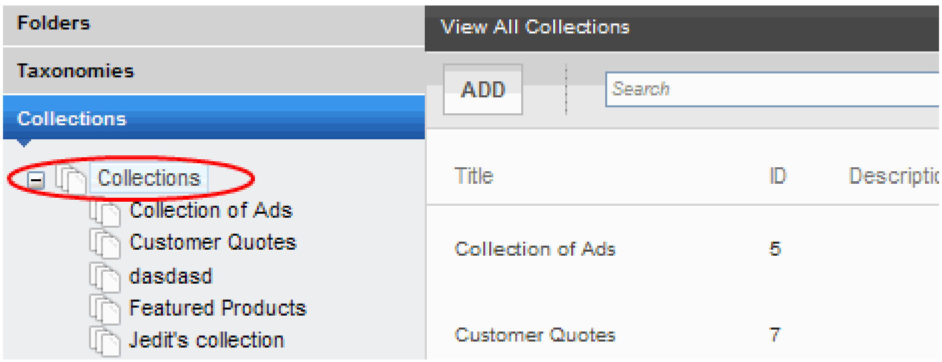
- Administrators group member
- assigned one of these roles See Also: *Defining Roles* on page 1120
  - Collection and Menu Admin
  - Collection Admin
  - Folder User Admin
  - Collection Approver
- granted Collections permission for the collection's folder. Permission is granted on the folder Permission screen > **Advanced** tab. See Also: *Managing Folder Permissions* on page 257

NOTE: Only users assigned to the Administrators group, Collection and Menu Admin role, Collection Approver, or Collection Admin role can work with Collections via the **Collections** tab. Users who do not belong to one of these groups can work with collections (if they have Collections permission for the collection's folder) by selecting a folder then **New > Collection** or **View > Collection**.



To create a new collection, use one of these methods. The Add Collection screen appears.

- To create a collection in a specified folder, navigate to it, and choose **New > Collection**.
- To create the collection in the root folder, choose **Content > Collections > Collections** then click **Add**.



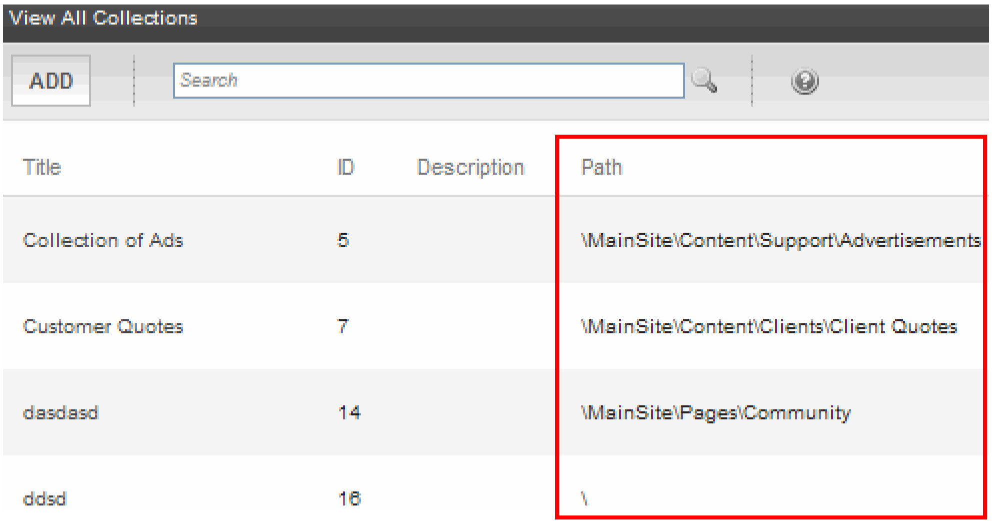
- Hover the cursor over **Collections** (see red rectangle above), right click the mouse, and click **Add Collection.**

  Complete the screen using the following information.

  - **Title**—Assign a unique title to the collection.
  - **Template**—Enter the default template for the collection. This template displays the content of the links generated if no template is assigned in the custom function. If left blank, the links use their respective Quicklinks. See Also: *Creating a Collection* on page 357
  - **Description**—Add a more detailed description for the collection.
  - **Include Subfolders**—Check if you want to be able to add to the collection content in subfolders of the collection's content folder.
  - **Approval is Required**—See *Setting Up Collection Approval* on page 366

  Click **Save** when finished.

A collection’s folder appears on the **Content > Collections > View All Collections** screen, in the **Path** column. No value (****) indicates root folder.



Title	ID	Description	Path
Collection of Ads	5		\MainSite\Content\Support\Advertisements
Customer Quotes	7		\MainSite\Content\Clients\Client Quotes
dasdasd	14		\MainSite\Pages\Community
ddsd	16		\

After creating the collection, you typically add content to it. See *Creating New Content for a Collection* on the next page and *Assigning Content to the Collection* on page 361.

Deleting a Collection

1. From the Workarea, go to **Content > Collections**.
2. Click the collection you want to delete.
3. Click **Delete** (). A confirmation message appears.

   Alternatively, hover the cursor over the Collection, right click the mouse, and click **Delete *collection name***.

   If this collection requires approval, and the user who is deleting cannot approve changes, the following occurs. See Also: *Setting Up Collection Approval* on page 366

   - The collection’s status changes to Marked for Deletion (M), and an email notification is sent to all approval users for the collection. One of the approval users must open the Edit Collection screen and click the **Delete** or **Decline** button.

- If an approval user clicks **Delete** (), the collection is removed from your website.
- If an approval user clicks **Decline** (), the user who submitted the deletion is notified by email but no website changes are made.

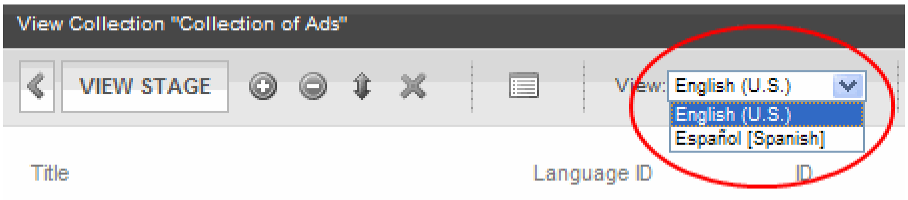
NOTE: Any user with permission to edit a collection can perform the undo function until the content is approved

4. Click **OK** to proceed.

Creating New Content for a Collection

To create new content while adding content links to a collection:

1. Navigate to the content folder containing the collection.
2. Choose **View > Collection**. The View Collections screen appears. Alternatively, choose **Content > Collections > Collections**.
3. Choose a collection.
4. Accept or change the language.



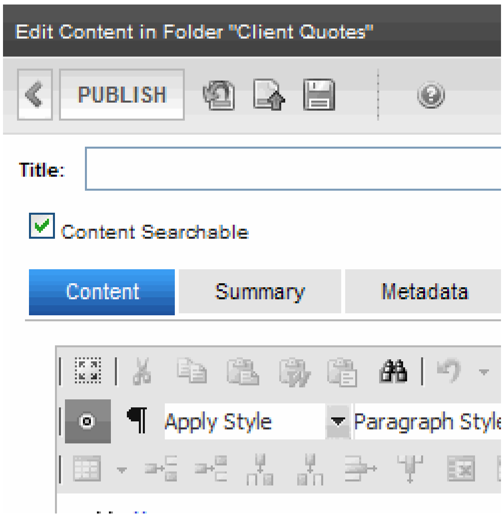
5. Click **Add Items**. The Add Items to Collection screen appears, displaying all subfolders within the selected folder and content in the folder that is not part of the collection. (Subfolders are available if the **Include subfolders** checkbox was checked for the collection.)

   Alternatively, hover the cursor over the collection in the left panel, right click the mouse, and click **Add Items.**

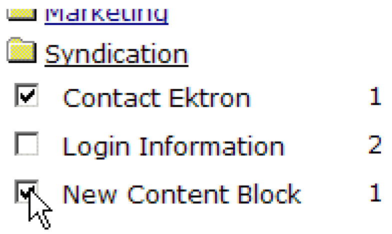
NOTE: If your collection includes subfolders and you want to add the content to one of them, navigate to that subfolder. Otherwise, proceed to the next step.

6. Click **Add Content** (). The Add Content screen appears.

NOTE: If you are using Ektron's multi-language support, the content's language appears next to the title. The language is derived from the collection's language and cannot be changed.**



7. Create the content.
8. Click a workflow option in the Add Content screen, such as Publish. The Add Content screen closes, and the new content link appears.
9. Check the content you created and other content.



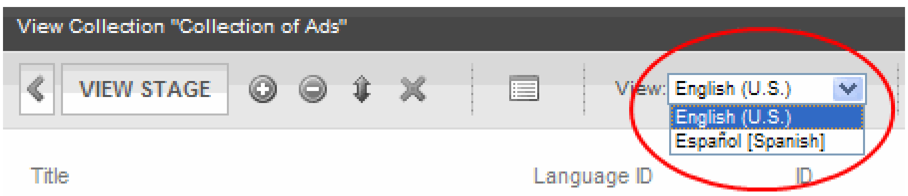
10. Click **Add**.

Assigning Content to the Collection

After creating a collection, you assign content to it as described in the following steps.

NOTE: When viewing a Collection on the website, a site visitor sees last published version of content. If it was never published, nothing appears.

1. Navigate to the content folder containing the collection to which you want to add content.
2. Choose **View > Collection**. The View Collections screen appears.
   Alternatively, choose **Content > Collections > Collections**.
3. Choose a collection.
4. Accept or change the language.

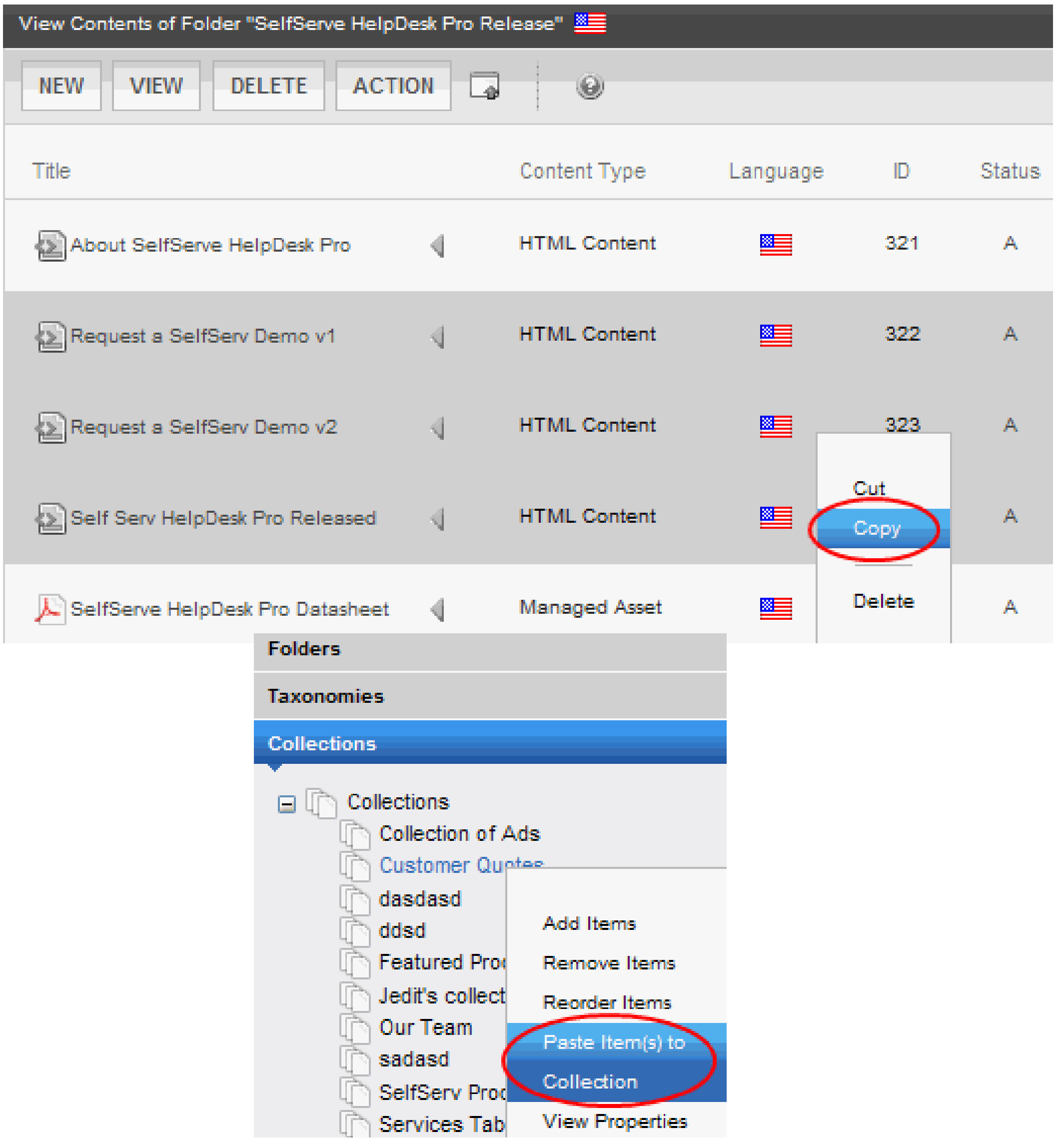


5. Click **Add Items**. The Add Items to Collection screen appears, displaying all subfolders within the selected folder and content in the folder that is not part of the collection. (Subfolders are available if the **Include subfolders** checkbox was checked for the

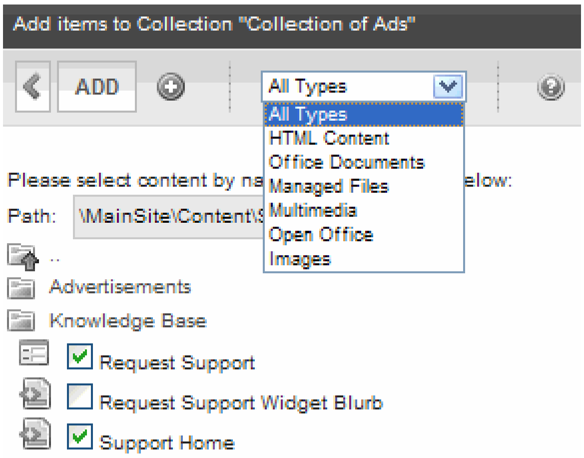
collection.)

Alternatively, hover the cursor over the collection in the left panel, right click the mouse, and click **Add Items**.

As another alternative, navigate to a content folder, click items to be assigned, right click the mouse and select **Copy**. Then, locate the collection, right click the mouse, and select **Paste Items to Collection**.



NOTE: The file types pulldown remembers your most recent choice and can filter which files appear. You can change the selection if desired.



6. Check content to add to the collection. You can only add content from the selected folder or its subfolders. (Subfolders are available if the **Include subfolders** checkbox is checked for the collection.)
   - Click a subfolder to view its content.
   - To return to the parent folder, click the folder with the up arrow ( ).
   - Navigating between subfolders deselects content.
- Click **Add** to add selected content to the collection.

Editing Content in a Collection

1. Navigate to the content folder that contains the collection that you want to edit.
2. Choose **View > Collection**. The View Collections screen appears.
   Or from the **Content** tab, click **Collections**.
3. Click the collection whose information you want to change.
4. Select a language.
5. Click **Properties** ( ).
6. Click **Edit**.
7. Change any field values.
   - **Title**—Assign a unique title to the collection.
   - **Template**—Enter the default template for the collection. This template displays the content of the links generated if no template is assigned in the custom function. If left blank, the links use their respective Quicklinks. See Also: *Creating a Collection* on page 357
   - **Description**—Add a more detailed description for the collection.
   - **Include Subfolders**—Check if you want to be able to add to the collection content in subfolders of the collection's content folder.
   - **Approval is Required**—See *Setting Up Collection Approval* on page 366

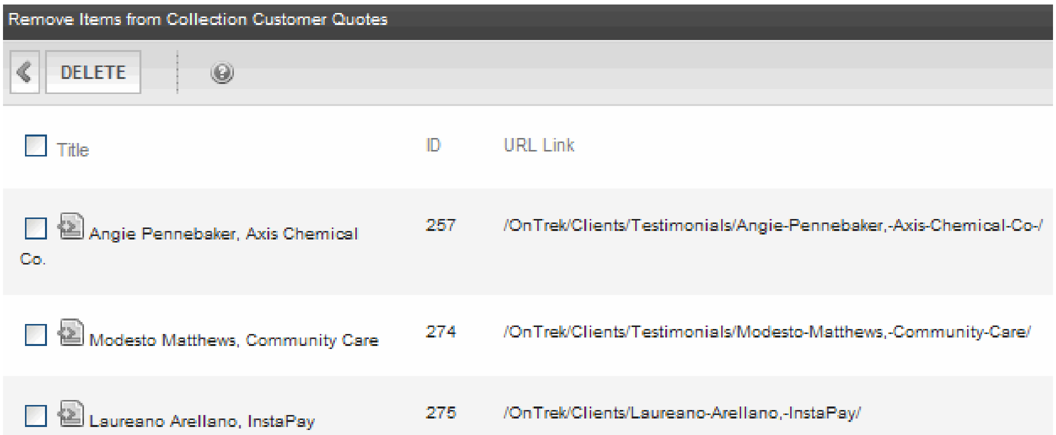
Removing Content from a Collection

1. Navigate to the content folder that contains the collection and click **View > Collection**.
   Or from the **Content** tab, click **Collections**.
2. Click a collection.

3. Click **Remove Items** (). The Remove Items from Collection screen appears.

   Alternatively, hover the cursor over the Collection, right click the mouse, and click **Remove Items**.

4. Check boxes next to content you want to delete.



5. Click **Delete**.

Reordering a Collections List

After a collection is created, and more than one content item is assigned to it, you can reorder a collection list as described in the following steps.

1. From the Workarea, go to **Content > Collections**.
2. Click the collection you want to reorder.
3. Click the Reorder button (). The Reorder Collection screen appears.

   Alternatively, hover the cursor over the Collection, right click the mouse, and click **Reorder Item**.

4. Click the content whose order you want to change.
5. Click the up or down arrow to move the content.
6. When you have the desired order, click **Update**.

Using a Default Template vs. Quicklinks for a Collection

You can specify a template that determines the screen display for a collection when it is published on a Web page. You also can disable the template and, instead, use quicklinks to determine the page template. (See Also: *Viewing Quicklinks or Forms* on page 346)

- If you use *quicklinks*, every page in the collection uses its original template. As a result, the surrounding information may change for every content item in the collection.

  The following example shows links using Quicklinks. Notice that content uses several templates. As a result, when a user clicks content in the collection, the screen information around the content is determined by its template.

Title	ID	URL Link
Home Page Content	1	/CMS400Demo/index.asp?id=1
Support Page	8	/CMS400Demo/index.asp?id=8
Plastic Molder #123	13	/CMS400Demo/hr.asp?id=13
RC Cheetah	5	/CMS400Demo/products.asp?id=5
RC Redstar	7	/CMS400Demo/products.asp?id=7
New Content Block	17	/CMS400Demo/index.asp?id=17
Contact Ektron	15	/CMS400Demo/index.asp?id=15

- If you use a *template*, all content in the collection uses the template other than the specific content. For example, the page header, footer and information in the right frame of the screen are all the same.

  The following example show links when you use a template named `index.asp`.

Title	ID	URL Link
Home Page Content	1	/CMS400Demo/index.asp?id=1
Support Page	8	/CMS400Demo/index.asp?id=8
Plastic Molder #123	13	/CMS400Demo/index.asp?id=13
RC Cheetah	5	/CMS400Demo/index.asp?id=5
RC Redstar	7	/CMS400Demo/index.asp?id=7
New Content Block	17	/CMS400Demo/index.asp?id=17
Contact Ektron	15	/CMS400Demo/index.asp?id=15

NOTE: If a collection item is a form, **ekfrm** is used instead of **id** to denote form block.

To toggle between a default template and Quicklinks:

1. Access the Edit Collection screen for the collection you want to edit.
2. Modify the **Template** field.
3. Click **Update**.

Working with a Collection in a Multi-Language System

In a multi-language Ektron system, you can create a language-specific edition of each collection. When a site visitor selects a language, then navigates to a page with a collection, Ektron displays the collection in the selected language if available. If not, Ektron displays nothing.

NOTE: Notice the contrast between the collections and content: if a collection is not available in a selected language, nothing appears. However, if content is not available in the selected language, content in the other languages may appear.

IMPORTANT: You can only add content in the language of a collection. So, create content first, then create a collection that links to it.

When you create a collection for a foreign language, decide from the following:

- Create a foreign edition of an existing collection to provide several versions of a single page that change depending on the language selected by the user.
  1. Form the Workarea, go to **Content > Collection**.
  2. Click the Collection that you want to create in another language.
  3. From the View drop-down list, select the language of the new collection.
  4. Using **AddItems**, select content to add to the collection. Navigate through the folders to the content you want to add. You can only add content in the selected language.
- Create a new collection in a foreign language to appear only on a foreign language page, and no other edition of the collection appears on your site.
  1. Navigate to the folder in which you will create the collection.
  2. Click **View > Language** and select the language of the collection.
  3. Click **New > Collection**. The Add Collections screen appears.
  4. Click **Add** and enter basic information about the collection.
  5. Using **AddItems**, select the content to add to the collection. Navigate through the folders to the content you want to add. You can only add content in the selected language.

Setting Up Collection Approval

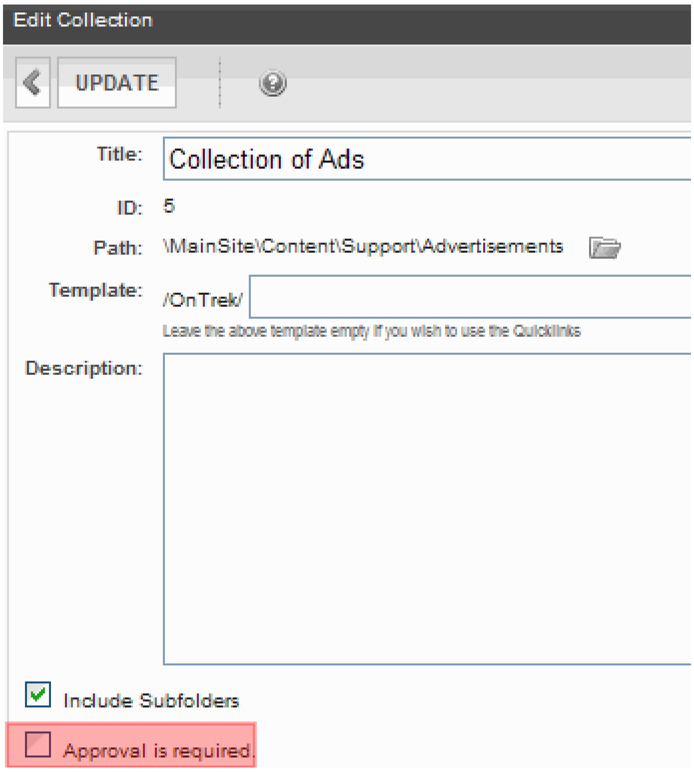
If you require a collection to be approved, only the following users have permission to create or edit a collection and can approve a change to a collection.

- a member of the Administrators group
- users to whom the Collection Approver role has been assigned and who have permission to work with the collection
- users to whom the Folder User Admin role has been assigned and who have permission to work with the collection

You can set up an approval system for any collection. As with a content approval chain, you specify users to approve changes to a collection before it can be published.

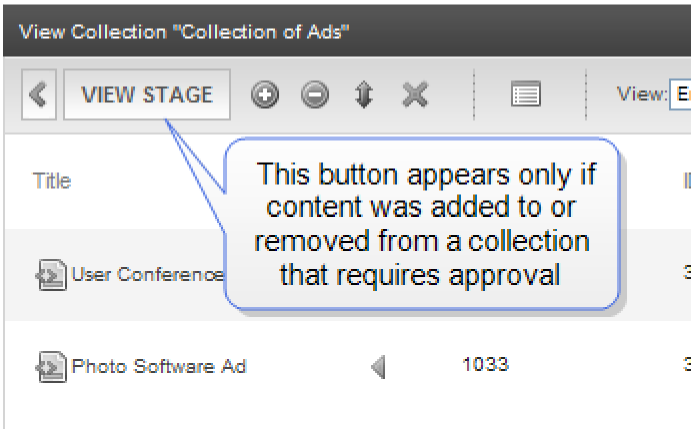
- While content can have a chain of approvers, a collection has a list of approvers. *Any collection approver can publish or decline changes for a collection*.
- While content approval is folder-specific, collection approval is not. When set up, collection approval affects the collection to which it was assigned, regardless of its folder.
- If a user who is not an approver tries to delete a collection, that action also requires approval.

Only administrators or users to whom the folder-admin role has been assigned see the **Approval is Required** checkbox on the Add and Edit Collection screens.



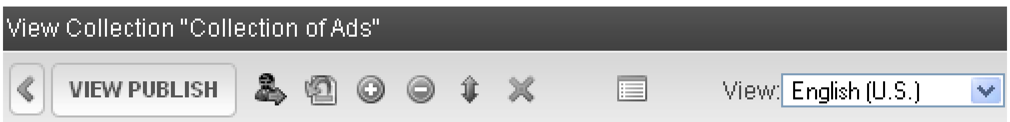
What Happens when Someone Submits Changes to a Collection

Whenever anyone changes a collection that requires approval (by adding or removing content items), the toolbar on the View Collection Screen changes, as shown below.



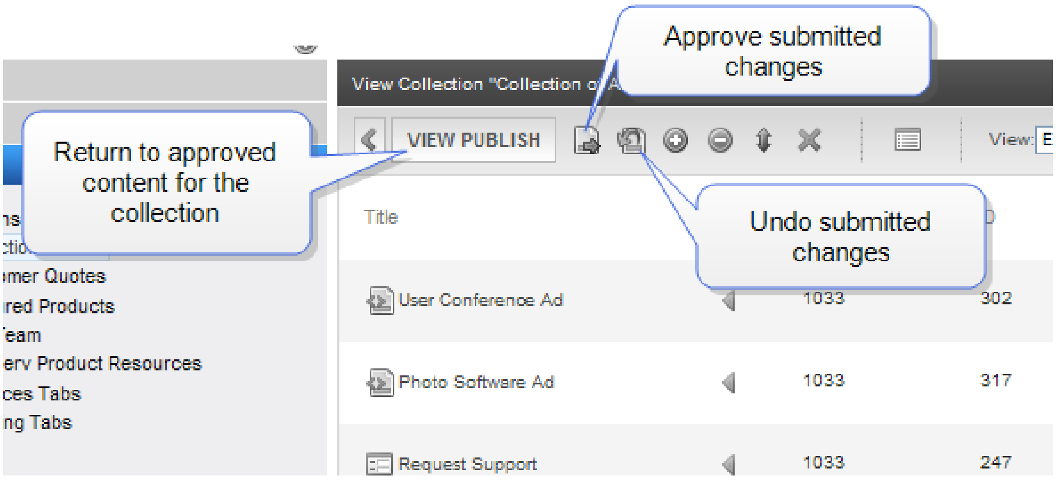
By default, you only see approved collection items. To see unapproved items, click **View Stage**.

After changing a collection's contents, if a user has permission to edit collections but not approve changes, he sees the following toolbar.



That user should click **Submit** (). This action triggers an email notification to all approval users for the collection. It also changes the collection's status to checked out. No other users can edit it in this status.

A user with permission to approve changes sees the toolbar below after clicking **View Stage**.



If the user clicks **Publish** (), the new version of the collection is published to your website.

Any user with permission to edit a collection can go to the screen and click **Undo Checkout** () any time before the approval. In this case, the submitted changes are deleted, and the collection reverts to its original state.

Working with Metadata

Metadata is information about a content item, such as its title and language. Ektron provides extensive and flexible support for metadata, which is used in both standard and innovative ways.

You define metadata in the Workarea at **Settings > Configuration > Metadata Definitions**, but you assign metadata in the Content area.

PREREQUISITE

Only Administrator group members and those defined in the Manage Members for Role: Metadata-Admin screen can view, add, or edit metadata definitions. See Also: *Using the Roles Screens* on page 1121

This section also contains the following topics.

You can add the following kinds of metadata content.

Metadata Types

- **Searchable**—Metadata that can be found by Ektron’s search and the Workarea Search screen. *Creating and Deploying a Search Tag Definition* on page 374
- **Meta tag**—Resides in a content’s source code, helping search engines find it. *Creating and Deploying a Meta Tag Definition* on page 372

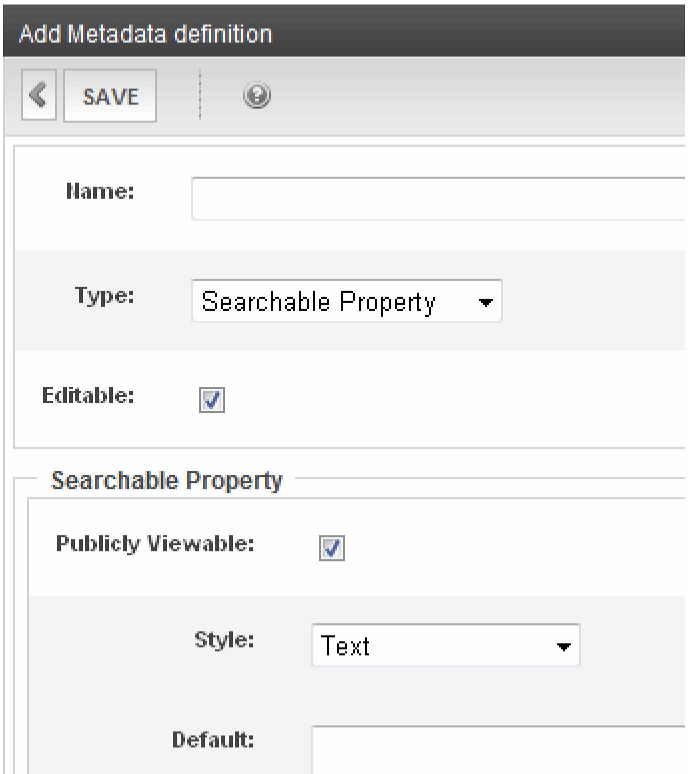
- **HTML tag**—Information about content used by a Web browser. For example, `<title>` identifies the content in the screen title, favorites list, and browser history. *Creating and Deploying a Title Tag Definition* on page 373
- **Related content**—A related content item, collection, List Summary, or library item that accompanies a content item on a Web page. *Creating and Deploying a Related Content Definition* on page 375
- **Content tags**—Keywords that can be assigned to content and library items. Content tags allow for tag-based searching. *Applying Content Tags* on page 380
- **Image**—Not part of a metadata definition; automatically appears for every content item and lets you assign an image to that content. *Assigning an Image to Metadata* on page 380
- **Simple Dublin Core**—Fifteen standard fields that cover the most useful information about content. *Applying Simple Dublin Core Metadata* on page 380

Best Practices

- When anyone creates a new Metadata definition, it is assigned the next available ID number. The ID numbers determine the order in which metadata definitions are arranged on the Folder properties screen's **Metadata** tab. By planning ahead, you can enter metadata definitions in logical groupings, which make it more intuitive for the person assigning the metadata to pick the correct ones.
- You can use metadata as a search criterion for your website content, but the metadata definition name cannot include a space. Eliminate spaces from metadata definition names.

Adding a Metadata Definition

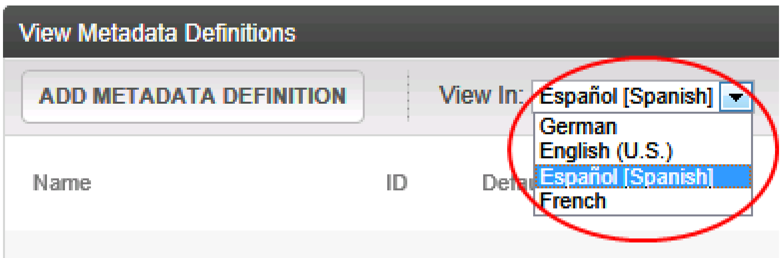
Use the Add Metadata Definition screen to define metadata (such as keywords and title). You can define as many instances of metadata as you wish. If your site supports multiple languages, you create metadata definitions for each supported language.



IMPORTANT: After creating a definition, you assign it to folders, whose content uses it. See Also: *Assigning Metadata to a Folder* on page 377

To add a metadata definition:

1. **Settings > Configuration > Metadata Definition**. The View Metadata Definitions screen appears.
2. From the language drop-down, select the primary language of the metadata definition. You may apply other languages to the definition on the Add Metadata Definition screen.



3. Click **Add Metadata Definition**. The Add Metadata Definition screen appears.
   - **Name**—Enter a name to identify this metadata. Do not include spaces. Ektron reserves a list of names that you cannot use. If you enter one, a message appears.
   - **Type**—Select a metadata type from the drop-down list. The type determines which fields appear on the lower part of the screen. See Also: *Metadata Types* on page 369
   - **Editable**—Check this box to allow users to edit metadata when applying it to content. Do not check this box if you want uniform metadata text for each content item that uses this metadata.

- For documentation of the next screen section, see the selected **Type**.
  - *Creating and Deploying a Meta Tag Definition* below
  - *Creating and Deploying a Title Tag Definition* on the facing page
  - *Creating and Deploying a Search Tag Definition* on page 374
  - *Creating and Deploying a Related Content Definition* on page 375

4. To let users apply this metadata definition to content in languages other than the primary one (which you selected in Step 2), check each allowed language.

   IMPORTANT: You can apply additional languages *only* when creating a metadata definition. You *cannot* apply them when editing.

5. Complete the fields and click **Update**.

Impact of Changing a Metadata Type

If you create a metadata definition, assign it to a folder, then users apply metadata information to content, the information takes on the characteristics of the metadata definition. For example, if the metadata is **title** and its type is **HTML tag**, this is how it appears in the Web page's source code.

```
<title>CMS Developer</title>
```

If you later change its type to **Meta**, the following occur:

- metadata to which the definition is *already assigned* maintains the previous style definition. For example, <title>CMS Developer</title>.
- *new* content that uses the metadata definition is assigned the new style. For example, <meta name="title" content="CMS developer">.

NOTE: For background information about metadata, see The Meta Element.

See Also: *Changing the Style of a Metadata Definition* on page 376

Creating and Deploying a Meta Tag Definition

Copied from *www.w3.org/MarkUp/html-spec/html-spec_5.html:*

The META element is an extensible container for use in identifying specialized document meta-information. Meta-information has 2 main functions:

- *to provide a means to discover that a data set exists and how it might be obtained or accessed*
- *to document the content, quality, and features of a data set, indicating its fitness for use*

```
<HTML>
<HEAD>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
<meta name="robots" content="index, follow">
<meta name="revisit-after" content="15 days">
<META HTTP-EQUIV="imagetoolbar" CONTENT="no">
<Title>Ektron; Inc. - Web Content Management and Document Management with
scalable flexible and affordable authoring solutions.</Title>
<meta name="Keywords" content="document management web content management
content management cms">
<meta name="Description" content="Ektron's Web Content Management and
Document Management software products manage web content and documents with
WYSIWYG XHTML/HTML editors offering easy to use browser-based web authoring
and publishing solutions for web content management and document
management">
```

1. Complete the steps in *Adding a Metadata Definition* on page 370.
2. Complete the Meta Tag description fields.
   - **Style**—Select from the drop-down list to indicate whether you want the style to be **name** or **http-equiv**. For more information, see The Meta Element
   - **Remove Duplicates**—Check this box to remove duplicate words or phrases from the metadata.
   - **Case Sensitive**—Check this box to remove duplicates only if the letters and case of each letter match.
   - **Separator**—Enter a character to separate the metadata values. The default is a semicolon (;).
   - **Selectable Metadata**—Check this box to force users to select from the options specified in the **Allow Selectable Text** and **Default Text** fields. If you do not check this box, users can create their own metadata.
   - **Allow Multiple Selections**—Check this box to let users select multiple metadata values instead of one. If multiple values are allowed, use the separator character to delimit them. If this box is not checked, all values appears in a drop-down list, and the user selects the correct one. This field is only active if the **Selectable Metadata** box is checked.
   - **Allowed Selectable Text**—Enter standard metadata that can be selected by users. Separate each option by the separator specified for the metadata definition. This field is only active if the **Selectable Metadata** box is checked.
   - **Default Text**—Enter default content for the metadata tag.
3. Click **Save**.
4. Add the definition to all applicable folders by editing the properties of the folder and checking the metadata boxes on the Metadata tab and clicking **Update**.
5. Edit the metadata on content items in the folder and click **Save** or **Publish**.
6. Add a metadata server control to every Web form (.aspx page) on which the content will appear. See *Metadata* on page 1793 server control.

Creating and Deploying a Title Tag Definition

Copied from www.w3.org/MarkUp/html-spec/html-spec_5.html.

The title should identify the contents of the document in a global context. A browser may display the title of a document in a history list or as a label for the window displaying the document.

```
<HTML>
<HEAD>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
<meta name="robots" content="index, follow">
<meta name="revisit-after" content="15 days">
<META HTTP-EQUIV="imagetoolbar" CONTENT="no">
<Title>Ektron; Inc. - Web Content Management and Document Management with
scalable flexible and affordable authoring solutions.</Title>
<meta name="Keywords" content="document management web content management
content management cms">
<meta name="Description" content="Ektron's Web Content Management and
Document Management software products manage web content and documents with
WYSIWYG XHTML/HTML editors offering easy to use browser-based Web authoring
and publishing solutions for Web content management and document
management">
```

1. Complete the steps in *Adding a Metadata Definition* on page 370.

2. Enter default content for the HTML tag. For example:
   `content="document management web content management content management cms"`
3. Click **Save**.
4. Add the definition to all applicable folders by editing the properties of the folder and checking the metadata boxes on the Metadata tab and clicking **Update**.
5. Edit the metadata on content items in the folder and click **Save** or **Publish**.
6. Add a metadata server control to every Web form (.aspx page) on which the content will appear. See *Metadata* on page 1793 server control.

Creating and Deploying a Search Tag Definition

Searchable metadata allows content to be found by a search phrase that you add to the content's metadata. The content is typically found by either a website search or a Workarea search. For example, each document stored in the Document Management functionality has a unique part number.

1. Complete the steps in *Adding a Metadata Definition* on page 370.
2. Complete the Searchable Property description fields.
   - **Publicly Viewable**—If you check the box, site visitors can find the metadata value when searching your website. Otherwise, site visitors cannot find the metadata value.

     NOTE: Regardless of whether this is checked, this metadata value can be found using the Workarea's Search Content Folder screen. Only logged-in users can access the Workarea.

   - **Style**—Select the style of the response field from these choices (available in a drop-down list). You are specifying the *kind* of information that a user adding searchable properties to content will enter to describe the data. Later, anyone using the search can search on that information.
     - **Text—**The user enters free text to describe the content.
     - **Number**—The user enters a number to describe the content.
     - **Byte**—1 byte. 0 through 255 (unsigned)
     - **Double—**8 bytes. -1.79769313486231570E+308 through -4.94065645841246544E-324 † for negative values; 4.94065645841246544E-324 through 1.79769313486231570E+308 † for positive values
     - **Float**—(single-precision floating-point) 4 bytes. -3.4028235E+38 through -1.401298E-45 † for negative values; 1.401298E-45 through 3.4028235E+38 † for positive values
     - **Integer—**4 bytes. -2,147,483,648 through 2,147,483,647 (signed)
     - **Long**—8 bytes. -9,223,372,036,854,775,808 through 9,223,372,036,854,775,807 (9.2...E+18 †) (signed)
     - **Short—**2 bytes. -32,768 through 32,767 (signed)
     - **Date**—The user enters a date to describe the content.
     - **Yes or No**—The user answers yes or no to describe the content. For example, if the content describes automobile parts, the user could answer **Yes** to include new and used parts or **No** to search for new parts only.

- **Select from a list**—The user picks a from a list to describe the content.
- **Multiple selections**—The user selects an item from a drop-down list.

- **Default**—If desired, enter the most common response to this definition. The default value is automatically applied to all existing content within folders to which this definition is assigned. While editing content that uses this definition, a user can accept the default value or change it.

3. Click **Save**.
4. Add the definition to all applicable folders by editing the properties of the folder and checking the metadata boxes on the Metadata tab and clicking **Update**.
5. Edit the metadata on content items in the folder and click **Save** or **Publish**. The next time you visit the Workarea search screen, you will see the new field.
6. If you want site visitors to use this field when searching your website, ask your developer to set the `ShowExtendedSearch` property of the Search Server Control to **true**. This value enables the website search to find searchable metadata.

Creating and Deploying a Related Content Definition

You can set up a Web page so that whenever a source content item appears, related information appears next to it by associating the following types of content with a content item.

- another content item
- a collection
- a list summary
- a menu
- a user
- image, hyperlink, or file library item

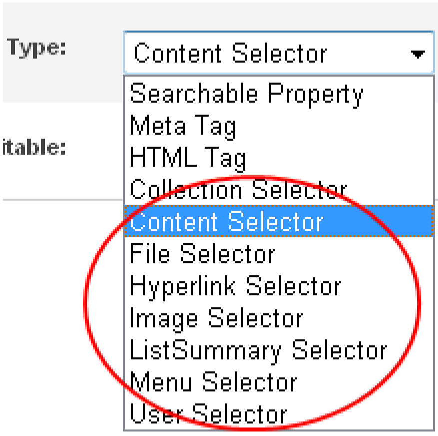
For example, your website sells motorcycle helmets. On a page that shows a particular helmet, the left column lists a collection of motorcycle drivers who wear that helmet. Another example might show the profile of a user when a certain content item appears.

Related content lets you connect a content item with several types of related content (see list above), and is associated with a content item, not a Web form. For example, you can display a library image of the company logo on a page whenever content in a certain folder appears. For content in a different folder, a different logo could appear.

NOTE: This capability is similar to the MetadataList Server control except that MetadataList shows a link to *every* content item with a selected term in the keywords or title. Also, a MetadataList is associated with a Web form (.aspx page), not a content item.

To create and deploy a related content definition:

1. Complete the steps in *Adding a Metadata Definition* on page 370. Choose a type that ends in **Selector**.



2. Add the definition to all applicable folders by editing folder properties, checking metadata boxes on the **Metadata** tab, and clicking **Update**.
3. Edit the metadata of content in the folder (associating related content) and click **Save** or **Publish**. The next time you visit the Workarea search screen, you will see the new field.
4. Have your Web developer add code to each page on which the related item appears.

IMPORTANT: If you are using **Collection Selector** type, only users with permission to work with collections can select a collection. Also, if you are using **Image, Hyperlink or File Selector** type, only users with permission at least read-only Library permissions can select a library item. See Also: *Managing Folder Permissions* on page 257.

Changing the Style of a Metadata Definition

You can change the style of a searchable property type of metadata. For example, you create a definition to collect **Part Number**. Originally, the style is text, but you later decide its style should be number.

When you change the style of searchable property type metadata, Ektron attempts to maintain data stored in content that uses the definition. For example, if data style was number but you change it to text, the number stored in that metadata definition is converted to text and maintained in the content that uses it.

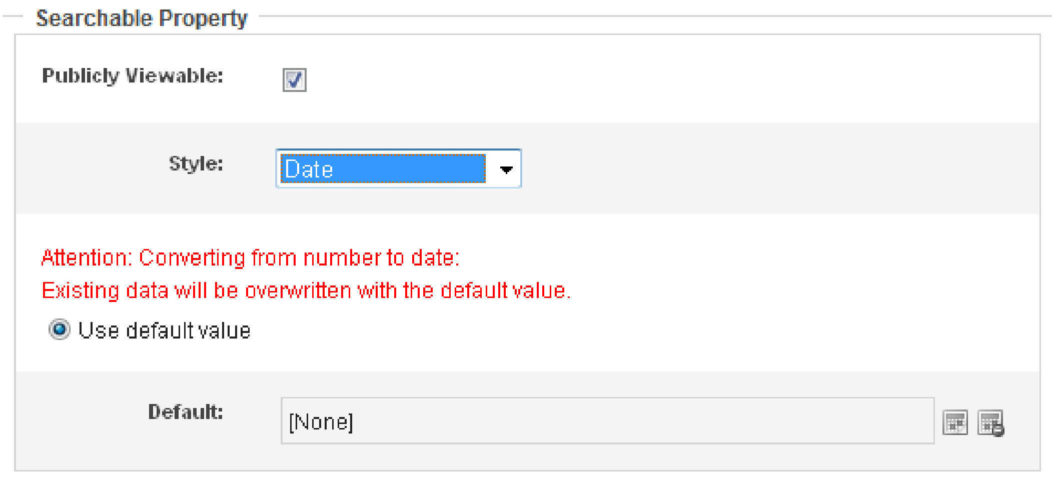
However, sometimes Ektron cannot maintain the data when you change the style. For example, if you change a metadata definition style from number to date, Ektron cannot convert those styles, in which case any data stored in metadata definitions is lost. The following table shows how Ektron handles each conversion scenario.

- **OK**—Data is maintained
- **NO**—Data is lost during conversion

	Text	Number	Date	Boolean	Single Select	Multiple Select
Text	-	**OK**	**OK**	**NO**	**NO**	**NO**
Number	**OK**	-	**NO**	**NO**	**NO**	**NO**

	Text	Number	Date	Boolean	Single Select	Multiple Select
Date	OK	NO	-	NO	NO	NO
Boolean	OK	NO	NO	-	NO	NO
Single Select	OK	NO	NO	NO	-	OK
Multiple Select	OK	NO	NO	NO	NO	-

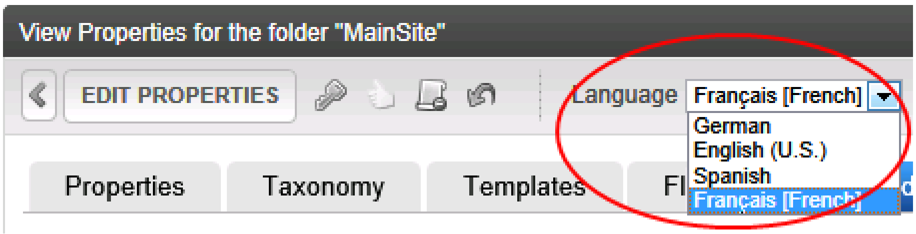
When you change metadata definition's style, the screen lets you use existing data (if possible) or the default value. Following these choices is a field that lets you define a default value. If you want to replace existing data, select **Use default value** and enter the new value in the **Default** field. If the data is convertible and you want to maintain existing data if possible, select **Use existing data if possible, else default**. Then, enter a default value below.

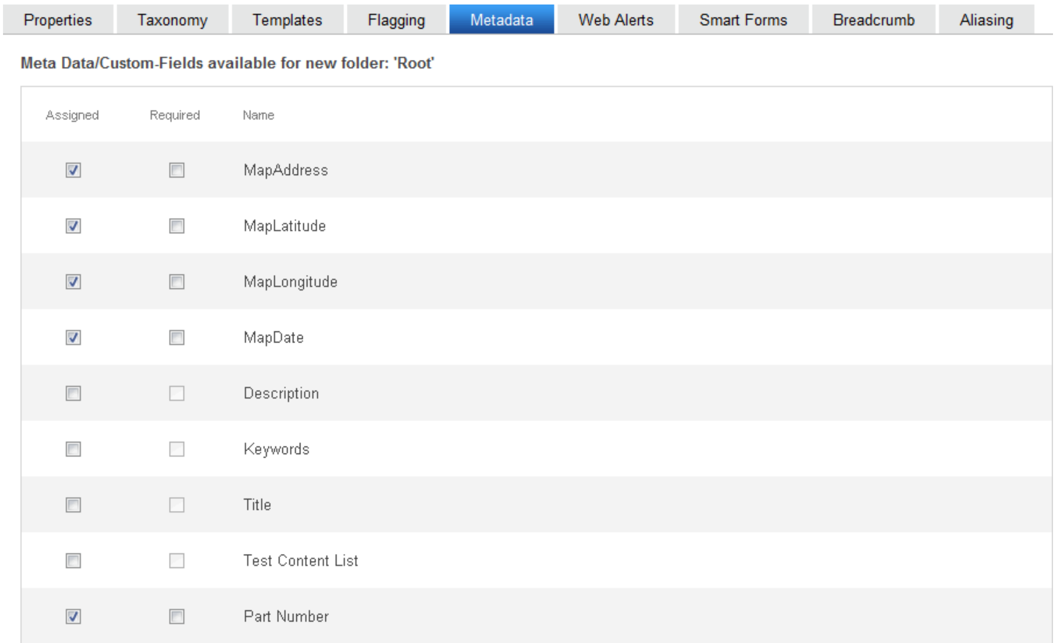


Assigning Metadata to a Folder

After you create a metadata definition, assign it to folders whose content will use it. To do that, use the folder's properties screen's **Metadata** tab > **Assigned** boxes to determine which metadata definitions can be completed by users working with content in the folder.

NOTE: Only metadata definitions created for the language in which you are viewing the folder are available. Use the language drop-down to choose a language.





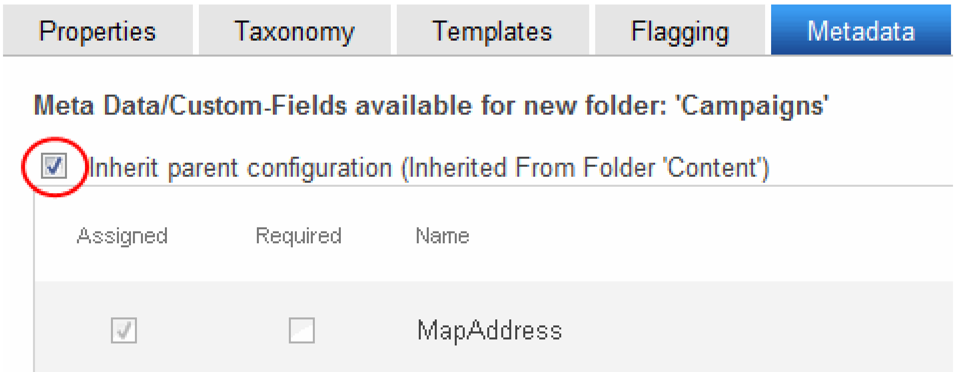
Requiring Users to Enter Metadata

You can require a metadata value to be inserted before content can be saved (see the **Required** checkboxes in the illustration above). If applied, the requirement is enforced when new content is added and existing content is edited. If you set a metadata field to be required, when an author views on the Edit Content screen's **Metadata** tab, the metadata's label is red and includes an asterisk (*).

NOTE: If a default value is supplied for a required metadata field, the default value is used when the user saves the content. So, the user is not prompted to enter a value.

Inheriting Metadata by Folder

Each folder can inherit metadata fields from its parent folder or have a unique set of them. The information includes the kinds of metadata that are *assigned,* and which are *required*. For example, you could assign the top folder (Content) all metadata definitions, while you assign the Contacts folder (directly below it) none. On every folder property's **Metadata** tab, use the **Inherit Parent Configuration** check box to determine if metadata definitions are the same as the parent folder or unique. By default, **Inherit Parent Configuration** is checked, meaning that the folders inherit their metadata definition from the parent folder. If you uncheck **Inherit Parent Configuration**, you can change the settings as desired. All inherited values appear by default (that is, **Assigned** and **Required** boxes are either checked or unchecked).



Adding Metadata to Content

When a user creates or updates content, he can define its metadata within the assignments specified for its folder. Default metadata values are applied without user intervention. To enter or edit content's metadata:

NOTE: You may only edit metadata of content that is published, checked in, or checked out by you.

1. Access the Edit Content screen for the content whose metadata you want to enter or edit.
2. Click the **Metadata** tab. The Edit Metadata screen opens with the current metadata displayed. To add metadata to content, an administrator *must* have created definitions for it in the content's language.
3. Edit the metadata.
   - Required field labels are red and marked with an asterisk (*). You must place at least one response before you can save.
   - Your system administrator may prevent you from editing a field. In this case, the field has a gray background, and you cannot place the cursor there.
   - Fields may appear in 2 columns. In this case, the system administrator provides a list of terms that you can apply to the content. You can select terms from the list or enter free text. One column is labeled **Not Included** and the other **Included**. Move terms between lists by clicking **Add** and **Remove**.
   - You may see a list of terms in one box, and a field labeled **Text** above it. You can:
     - add a new term by typing it into the **Text** field and clicking **Add.**
     - remove any term by selecting it and clicking **Remove**.
     - modify any term by selecting it. It appears within the **Text** field, where you can change it. Then, click the **Edit** button.
     - restore the terms to their default settings by pressing the **Default** button.
     - change the sequence of terms by selecting one then pressing the up and down arrows.
   - If *related content* metadata is available for the content, its name appears followed by **None Selected (ID) ChangeClear**. Click **Change** to display a window of choices. For example, if the related content type is a collection, all collections appear in the popup. Select the appropriate data for this content. Selected items appear in the bottom of the screen. You can reorder them by selecting an item then

clicking the up and down arrows. To remove items from the bottom of the screen, select them and click **Delete** (). If the related content type is content item or library image, hyperlink, or file, a window appears when you click **Change** where you can select related content.

1. Select a folder from the left frame.
2. Double click the related-content item from the top right frame. The item appears in the lower right frame
3. When all items are in the lower right frame, click **Save**.

- If default metadata is defined for a specific data type, you can click **Default** at the bottom of each field to restore it.

4. Click **Save**. The View Content screen reappears. The content is now in a checked out state to you. For the changes to take effect on the website, check in the content and submit it to the approval chain. See Also: *Setting Approval Chains* on page 262

Applying Content Tags

Use content tags to apply terms by which you want users to find content when the terms are not in the content. The search can find content using the tags.

Default content tags appear on the **Metadata** tab of every content item. Check any tag that you want to apply to a content item. You can also create a new tag and apply it to a content item. You cannot reapply that tag to other content. The following example shows Farm, Silo, and Combine added to the content tags.

Assigning an Image to Metadata

You can assign an image to any content item's metadata from a standard field that is available to every content item; it is not a definition in the Metadata fields. Use the Image field to identify an image that can be retrieved by Ektron Markup Language's (EkML) `[$Image]` and `[$ImageThumbnail]` variables. See Also: *Controlling Output with Ektron Markup Language* on page 1905.

For an example of using Image data, assume that your site promotes a soccer team. A list summary shows every player on the team. An image appears next to each player's name.

Applying Simple Dublin Core Metadata

Simple Dublin Core is a set of fifteen standard names for metadata fields designed to cover the most useful items of information on a document. From the Dublin Core site FAQ: "Dublin Core metadata provides card catalog-like definitions for defining the properties of objects for

Web-based resource discovery systems.” For more information, refer to the Usage Guide: Using Dublin Core.

To generate Dublin Core metadata, set the `GenerateDublinCore` property to True. This creates 7 of the fifteen Dublin Core metadata fields. These fields are automatically filled with the information from the equivalent Ektron property. The following list shows the 7 fields and their Ektron equivalent. For more information on the Metadata Server Control, see *Metadata on page 1793* server control.

- **DC.title**—Content block title
- **DC.description**—Plain text version of a content summary
- **DC.contributor**—Content block last editor name
- **DC.date**—Content block last edit date
- **DC.format**—"text/html"
- **DC.identifier**—URL of current page (from ASP.NET Server.Request object)
- **DC.language**—CMS language cookie / current site language, expressed as a .NET System.Globalization Culture Name

To fully comply with the Simple Dublin Core metadata element set, the administrator must create the remaining 8 Dublin Core fields as standard Ektron Metadata definitions and apply them to all Ektron folders. Next, Ektron users complete the appropriate values for each content block.

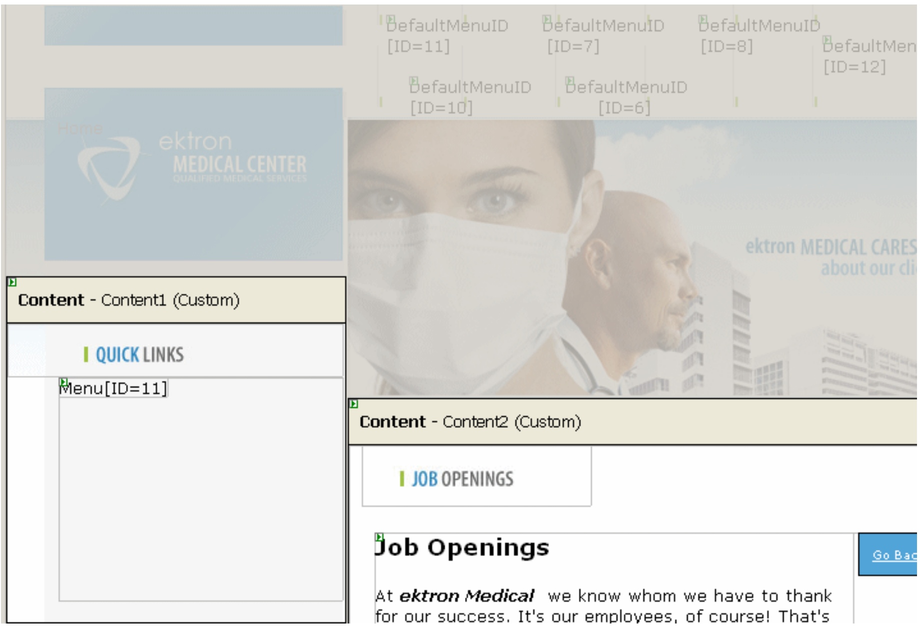
IMPORTANT: When creating the Dublin Core metadata fields in the Metadata section of the Workarea, you do not need to create the first 7 fields in the table above. In addition, the names of the fields you create must match the names in the following list. For example, in the name field, enter “DC.subject”. The DC identifies the metadata as Dublin Core metadata.

These descriptions are from the Dublin Core Metadata Initiative site.

- **DC.subject**—The topic of the content of the resource. Typically, a Subject is expressed as keywords, key phrases, or classification codes that describe the topic of the resource.
- **DC.type**—The nature or genre of the content of the resource. Type includes terms describing general categories, functions, genres, or aggregation levels for content.
- **DC.source**—A reference to a resource from which the present resource is derived. For example, DC.source=”Image from page 54 of the 1922 edition of Romeo and Juliet”
- **DC.relation**—A reference to a related resource.
- **DC.coverage**—The extent or scope of the content of the resource. Coverage typically includes spatial location (a place name or geographic co-ordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Examples: DC.coverage=”1995-1996”, DC.coverage=”Boston, MA”, DC.coverage=”17th century” or DC.coverage=”Upstate New York”.
- **DC.creator**—An entity primarily responsible for making the content of the resource.
- **DC.publisher**—The entity responsible for making the resource available.
- **DC.rights**—Information about rights held in and over the resource. Typically, a Rights element contains a rights management statement for the resource, or reference a service providing such information.

Working with Templates

As you set up your Ektron website, you create templates for your Web pages. A template typically includes page headers, footers, and placeholders for content, forms, summaries, and other page elements. The following image shows a template where the top of the screen contains headers that appear on several pages. Other areas contain links to Ektron objects, such as menus and text. A developer can modify content within these areas.

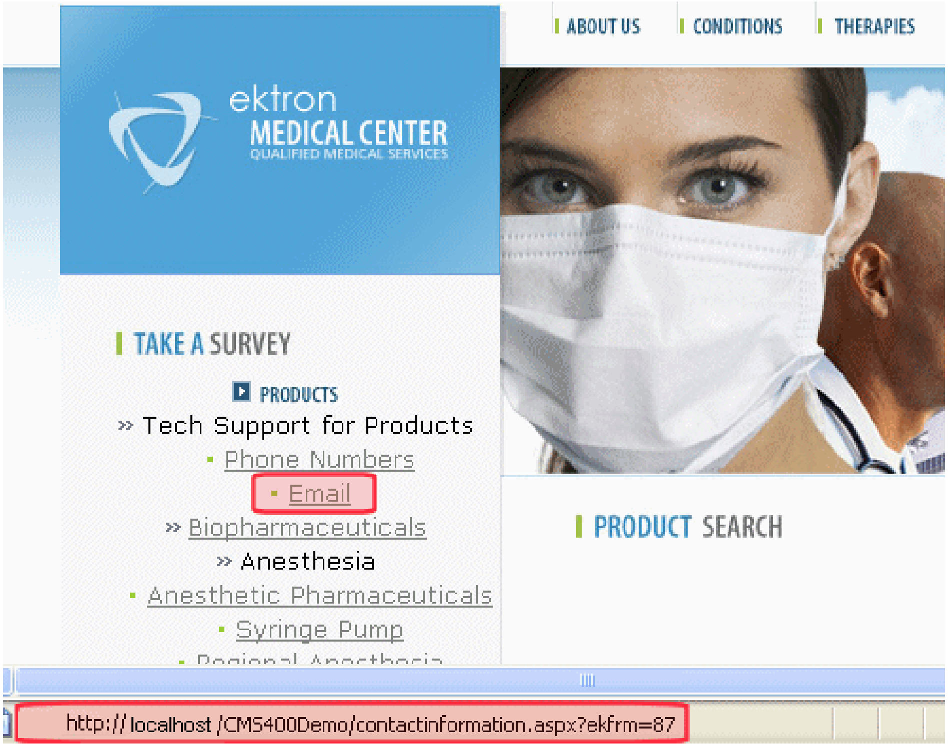


> **NOTE:** To learn more about creating templates, see *Creating a New Template in Visual Studio* on page 1609.

This section also contains the following topics.

Using Templates

Except for your website's home page, people access your site through *hyperlinks*. Hyperlinks can appear within content. They also link content items from list summaries, menus, collections, and so on. A template defines the place to display the content of a hyperlink. The following example shows that when a user selects **Email**, content item (ID 87) displays within the `contactinformation.aspx` template.

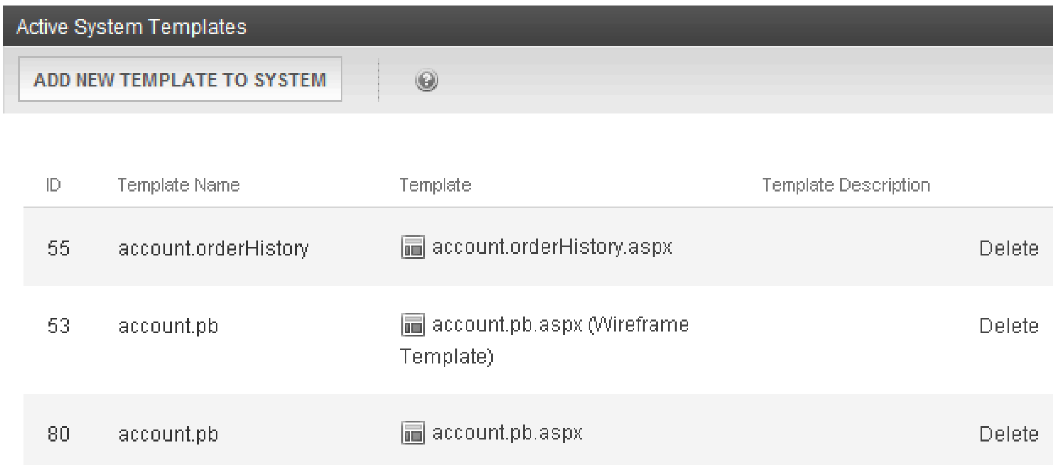


Declaring a Template

PREREQUISITE

You must be a member of the Administrators group or in the Manage Members for Role: Template Configuration screen. See Also: *Defining Roles* on page 1120.

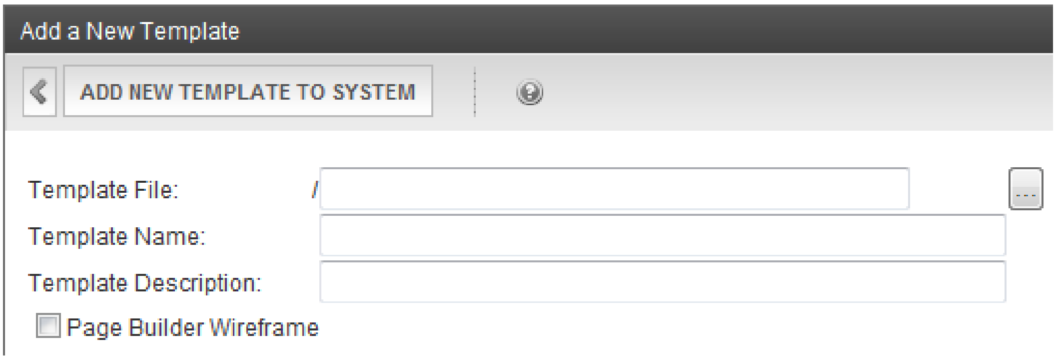
After creating templates, declare them within Ektron. To do this, go to the Active System Templates screen, available from **Settings > Configuration > Template Configuration**.



From this screen, you can add new templates, or delete or update existing ones.

Adding a Template

1. Within the Workarea, navigate to **Settings > Configuration > Template Configuration**.
2. Click **Add New Template to System**. The Add a New Template screen appears.



3. Enter the path to and name of the new template or click the ellipsis button () and navigate to it.
4. Enter a name and description for the template.
5. Click **Add New Template to System**.

Deleting a Template

To delete a template, click **Delete** in the template row.

You can only delete a template if it is not assigned as any folder’s default template. If you choose a template that is assigned as a default, a screen tells you why you cannot delete it and lists the folders for which it is the default.

Updating a Template

The **update** procedures lets you change all references from an old to a new template. For example, your old template is named `MyTemplate.aspx`. You can want to replace all references to it to `Updatetemplate.aspx`.

1. Within the Workarea, navigate to **Settings > Configuration > Template Configuration**.
2. Click the template that you want to update. A new screen appears.
3. Choose the new template file. You may also update the name or description.
4. Click **Update Template**.

NOTE: This screen has additional fields when mobile device detection is on and mobile configurations exist. For more information, see *Using Mobile Templates* on page 136

Assigning a Template to a Folder

Each folder must have at least one template and one template must be chosen as the default. By default, folders below the root folder inherit a template from their parent. However, you can assign a unique set of templates to any folder by overriding the default inheritance. To do this, go to the Edit Folder Properties screen and uncheck the box next to Inherit Parent Template Configuration.

When a folder’s default template is changed, existing template assignments remain, but new content added or moved into the folder assumes the new default template.

If you break template inheritance, inherited templates are initially assigned to the folder. You can then remove unwanted templates or add new ones. Available templates appear in the template drop-down list. Select any that you want to be available from the folder and click **Add**. (The list of available templates is managed through the Active System Templates screen.)

Adding a Template to a Folder

1. In the Workarea, navigate to the folder to which you want to apply the template.
2. Choose **View > Properties**.
3. Click **Edit Properties**.
4. Click the Templates tab.
5. Uncheck Inherit Parent Configuration.
6. Click the arrow next to Select Template and choose the template you want to apply to this folder.
7. Click **Update**.

Removing a Template from a Folder

- If you try to delete a template that is the default for a folder, you are notified that you must assign a new default to that folder before you can delete it.
- If you try to delete a template that is assigned to a content block, you are notified via the following message If you wish to continue and delete this template, the above content will be set to their parent folder's default template. Do you wish to continue?

Assigning a Template to Content

A folder’s default template is automatically applied to all content in the folder. However, you can change a content item’s template to any of those assigned to the folder.

1. In the Workarea, navigate to a content item to which you want to apply the template.
2. From the View menu of the content item, Choose **View Properties**. The view content screen appears.
3. Click **Edit**.
4. Click the Templates tab.
5. Click the arrow next to Template: and choose the template you want to apply to this content item.
6. Click **Publish**. The template assigned to the content will be used whenever a hyperlink is created to it.

Working with HTML Forms

Ektron provides powerful online form capabilities, letting you create an online dialog with visitors. Anyone can create and deploy Web forms. A form has the following components.

- **Form** (title, ID number, whether the form data is sent as email, and/or saved to a database, and so on.)
- **Content** information (title, start and/or end date, status, postback message, and so on.)
- **Form fields** (text field, password field, text area, hidden text, choices, checkbox, select list, calendar, submit button, and so on.)

By default, form permissions are inherited from a form's folder. To customize permissions for any folder that contains forms, access the corresponding folder under Content and assign permission as described in *Managing Folder Permissions* on page 257.

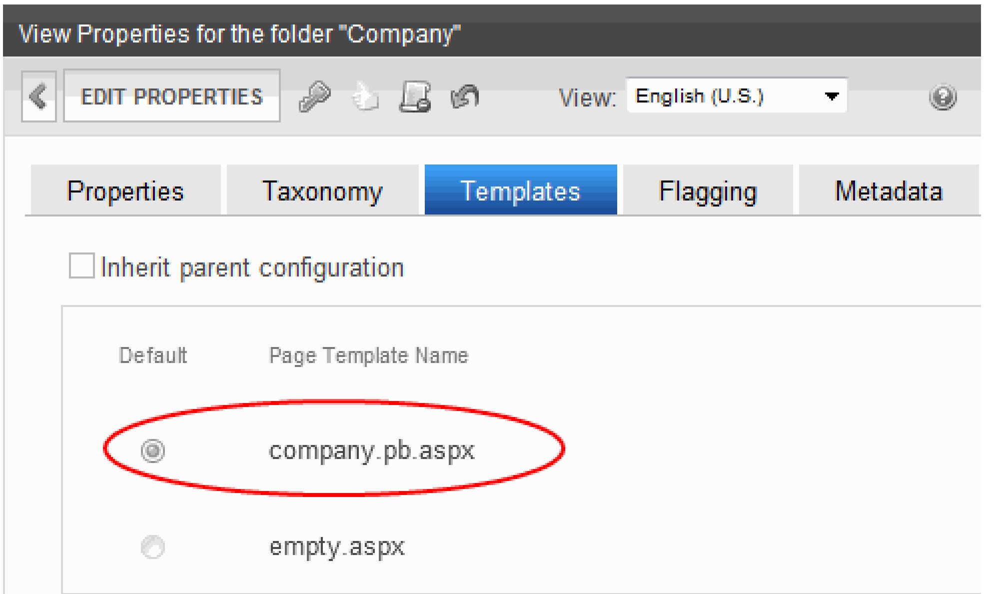
Similar to content, users in the administrator user group have full control over form features. You *must* be a member of the administrator group to add, edit, or delete a form, or assign content to a form. You may also perform all actions on a form's content. Users who are not members of the administrator user group can add, edit, delete, and restore form content if granted these permissions for the content folder or item.

This section also contains the following topics.

Creating a Form

Ektron provides sample forms to start with and then customize. Forms are saved to a database by default, but not emailed. To change either setting, use the Edit Properties screen.

You should only create HTML forms in a folder whose template uses a FormBlock or Poll server control. For example, in the OnTrek sample site, the Company folder uses the `company.pb.aspx`. template.



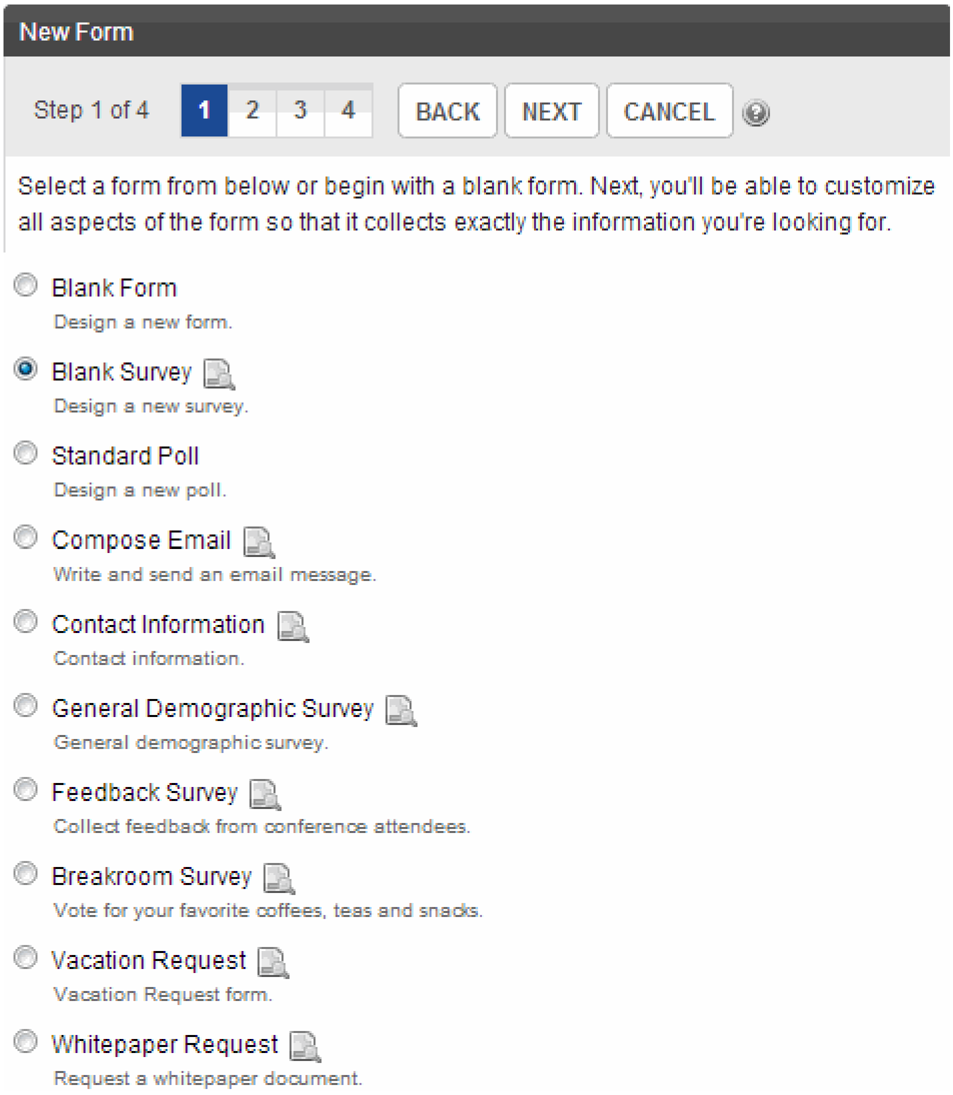
You can modify this template as needed or create a form template and assign it to any folder through its Folder Properties screen. Because folders inherit properties from their parent folder by default, new folders created under a parent folder use the correct template. Of course, you can break inheritance and assign a custom template for any folder. Consult with your Ektron administrator about the folders in which you should create forms.

To create a new form:

NOTE: You can also create a new edition of a form in another language by copying an existing form and translating it. For more information, see *Translating Content into Another Language* on page 296.

1. From the Workarea, navigate to the folder in which you will create the form.
2. From the **View** menu, click **Language**, and select the language in which to create the form.

3. Click **New** > **HTML Form/Survey**. The New Form screen appears.



4. Choose the form that you want to begin with. You can click **preview** ( ) next to any sample form to see it before choosing it. Select a sample that most closely matches the form you want to create. After creating the form, you can add/remove fields, modify possible responses, and so on.
5. Click **Next**.
6. Enter or edit the form’s **Title** and **Description**.
   - **Title**—used to reference the form within the Workarea (required)
   - **Description**—an extended description of the form
   - **DxH Mapping**—(Appears if DxH is installed and enabled.) Check this box if you want to map this form to DxH. See *Creating a Mapped Form* on page 1018.
7. The next screen lets you assign a task to a user or user group. If you do, a task will be created every time a site visitor submits this form. See Also:
8. A new screen lets you determine what happens after a site visitor completes the form. The choices are:

- **Display a message**—See

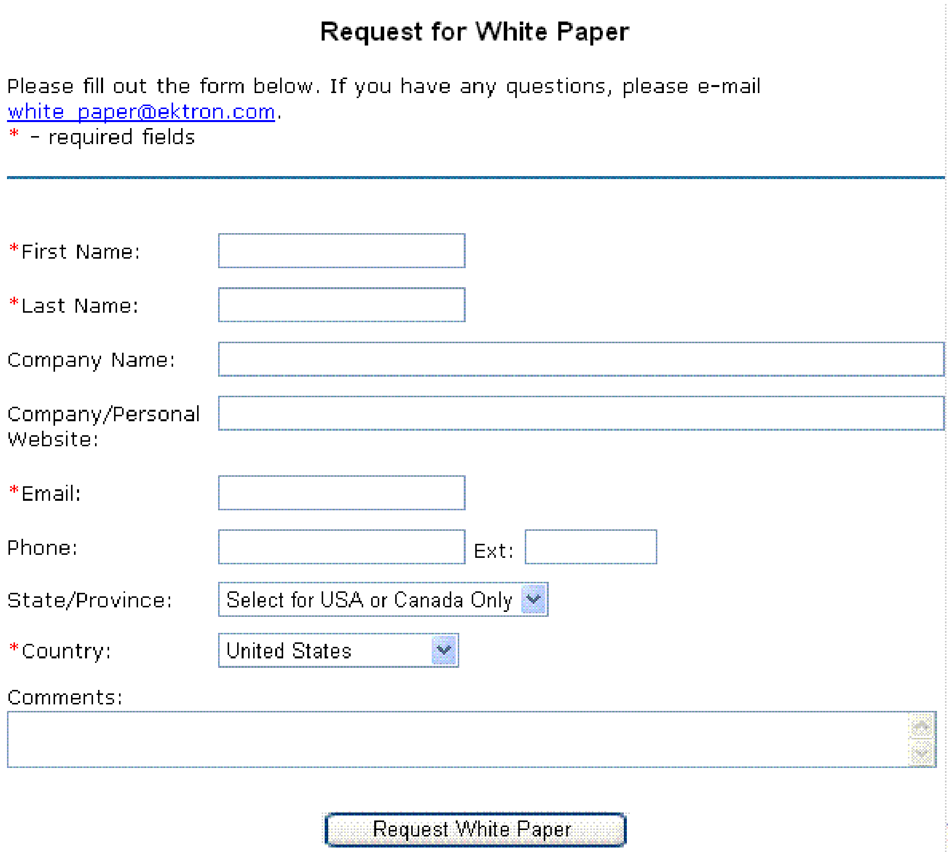
IMPORTANT: If your form/survey/poll uses either **Redirect** option, your Web developer must use a FormBlock server control to display this form on a Web page. The Web developer cannot use a Poll server control when redirecting to an action page.

- **Redirect to form data to an action page**—See
- **Report on the form**—See
- **Redirect to a file or page**—Identify a file or a page on your website that is launched when the visitor completes the form.
  - sample file—a white paper (PDF format)
  - sample page—prompts visitor to download your product

9. After completing the form information, you enter its content.

Creating a Form’s Content

Here is an example of form content that you can create.



Note that some fields are required, and some provide a drop-down list of choices. You can learn how to create such a form by following the directions below.

The final screen lets you arrange the form fields. Then, add a button that lets the user submit the data.

NOTE: The form can also contain explanatory text, lines, images, and so on. To lay out fields in columns, insert a table and place the fields within table cells.

The following list explains each field type you can enter.

- **Checkbox**—User's response is either checked or unchecked; see *Inserting a Checkbox Field* below.
- **Text**—Free text field; user cannot format text; see *Inserting a Text Field* on page 395.
- **Choices**—Several choices appear on screen. User checks any number of appropriate responses. See *Inserting a Choices Field* on the facing page.
- **Calendar**—Lets user insert a date by clicking a calendar; see *Inserting a Calendar Field* on page 393.
- **Insert Button**—Button with no text. You can easily add text to it. When a site visitor completing the form presses this button, the data on the screen is submitted to your Web server. See *Inserting Buttons* on page 402.
- **Insert Reset**—Button with **Reset** as its text. When a site visitor completing the form presses this button, the form's field values are set to their state when the form first loaded. See *Inserting Buttons* on page 402.
- **Insert Submit**—Button with **Submit** as its text.When a site visitor completing the form presses this button, the data on this screen is submitted to your Web server. See *Inserting Buttons* on page 402.

Next, click **Save** and **Submit** or **Publish** ( ). After you complete and save the form, it may need to go through the approval process. When that is complete, add it to the site by assigning it to a page template.

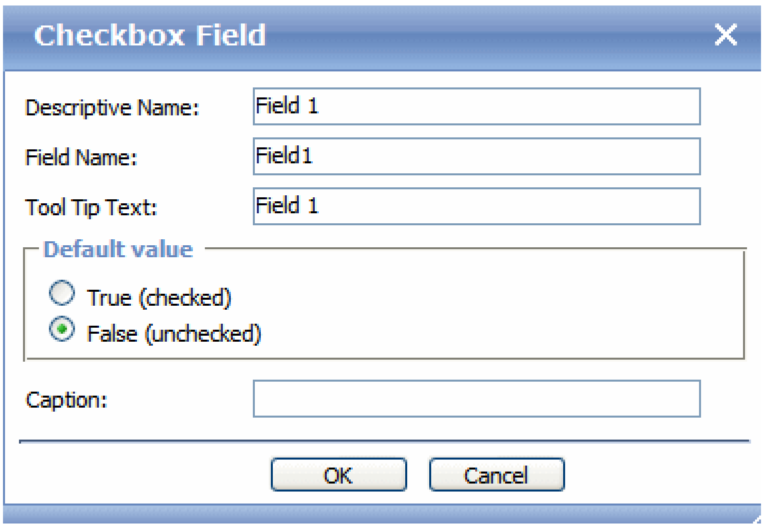
Inserting a Checkbox Field

A Checkbox field is one character wide and is checked or unchecked. For example

Check if you are over 65 ☐

To insert a checkbox field:

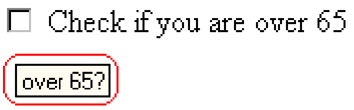
1. Place the cursor where you want the check box field to appear.
2. Click the Checkbox field button ( ). A dialog box appears.



- **Descriptive Name**—Enter a descriptive name for this checkbox.
- **Field Name**—Enter a name for this checkbox. This text identifies the field in the database and in email (if the form is mailed).

> **NOTE:** You cannot enter spaces nor most special characters (!@#$%^&*()+=<>,.:;'"{}[]|`~) into this field. If you do, they are replaced by underscores.

- **Tool Tip Text**—Enter text that appears when a site visitor hovers the cursor over this field (circled in red below).



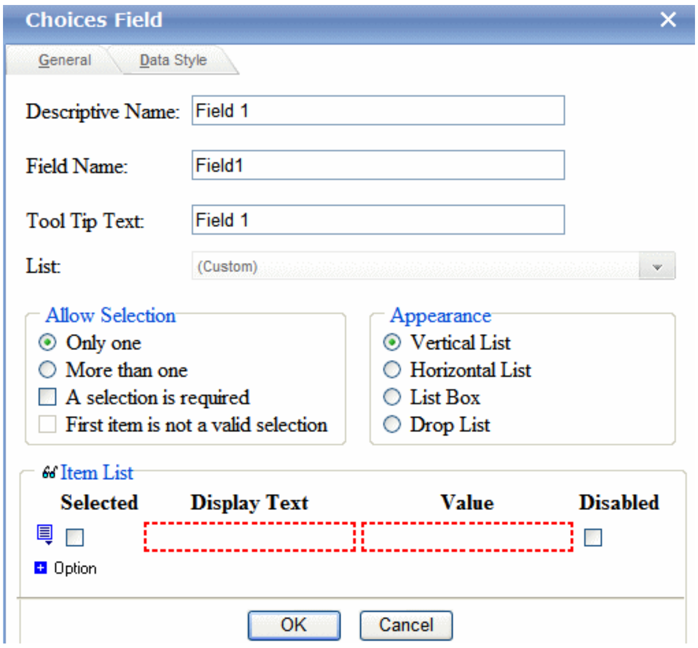
- **Default value**—If you want this field to be checked when the screen first appears, click **True**. Otherwise, click **False**. A site visitor can change the default value while completing the screen.
- **Caption**—Enter text to guide the user's response to this field. The caption appears on the screen to the right of the checkbox. To continue the above example, the caption would be **Check if you are over 65**.

Inserting a Choices Field

Use a Choices field when you want a site visitor to select from a predetermined list. You can let a site visitor select only one or more than one choice. You can also determine the list's items and appearance.

To insert a choices field:

1. Enter a field label. For example, **Country**.
2. Click **Choices** (). The following dialog appears.

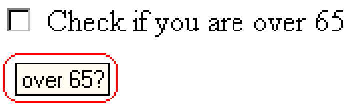


- **Descriptive Name**—Enter a description of the field. This text describes the field on form reports.

- **Field Name**—Enter a name for this field. This text identifies the field in the database and in email if the form is mailed.

  NOTE: You cannot enter spaces nor most special characters (!@#$%^&*()+=<>,.:;’"{}[]|‘~) into this field. If you do, they are replaced by underscores.

- **Tool Tip Text**—Enter text that appears when a site visitor hovers the cursor over this field (circled in red below).

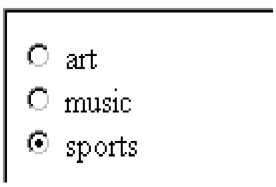


- **List**—One of the following:
  - **Custom**—You create your own set of choices. Use the **Item List** area to do this.
  - **Languages**—A standard list of languages
  - **Countries**—A standard list of countries
  - **U.S States and Territories**—A standard list of United States of America states and territories
  - **Canadian Provinces**—A standard list of Canadian provinces
  - **Age Ranges**—A standard list of age ranges
  - **Numeric Ranges**—A standard list of numeric ranges
  - **Years**—A standard list of years
  - **Gender**—Male or female
  - **Marital Status**—A standard list marital statuses
- **Allow Selection**—Click **More than one** to let a site visitor select more than one item for this field. Otherwise, click **Only one** to limit the user to one choice.
- **A selection is required**—Check this box if the user must select at least one item.

  First item is not a valid selection—You can use the first list item to prompt the user to make a selection instead of being a valid response. For example, the first item may say **Select from the list**. To do so, check this box. If you do, the site visitor must choose any selection except the first item. If the site visitor tries to file the screen without choosing a different item, this error message appears:**First item is not a valid selection.**

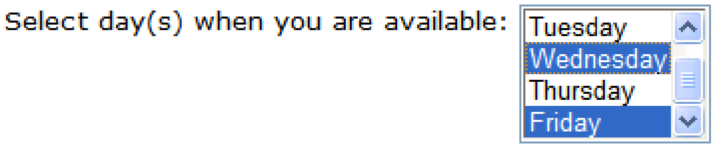
  This option is only available if **Appearance** is set to **Drop List**.

- **Appearance**—One of the following:
  - **Vertical List**—arranges choices vertically

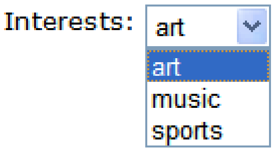


  - **Horizontal List**—arranges the choices horizontally

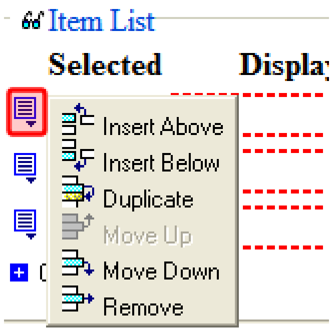
- **List Box**—displays all choices in a box. If more than 4 choices are available, the user scrolls to see additional options.



- **Drop List**—displays all choices in a drop-down list. When the user clicks the down arrow, all entries appear.



- Item List—This section of the screen displays the list items. It is only editable if the list type is Custom.
  - **The Context-Sensitive Menu**—Buttons to the left of each item (circled below) display a menu. The menu lets you remove items, rearrange them, and insert additional items anywhere on the list.

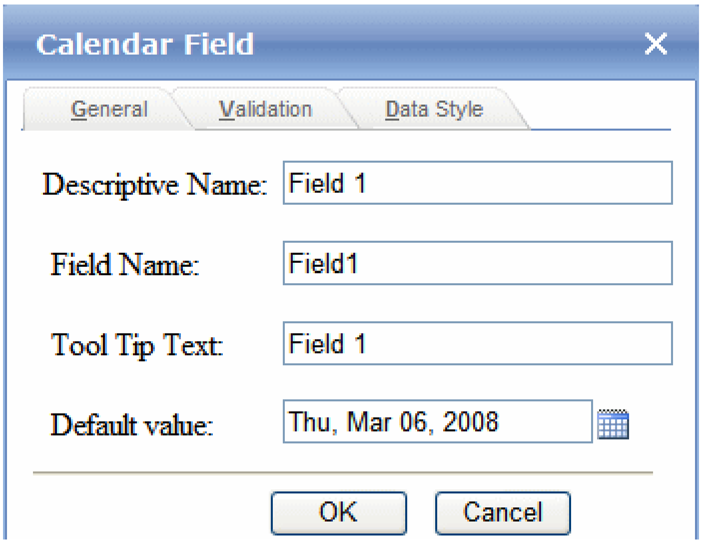


  - **The Selected Box**—Place a check in the box of any item to be checked by default on the data entry screen. If you do, the user can accept the default or uncheck the item by clicking in the checkbox. Note that if **Only One** is selected under **Allow selection** (above), only one item can be selected. If the **Appearance** is set to Drop-Down list, this value is ignored.
  - **Display Text**—Enter text to describe this item on the data entry screen.
  - **Value**—Enter the value that is collected when the site visitor selects this item. For example, if **Interests** appears in the Name field, and you want `music` to be collected when the data entry user selects this item and saves the page, enter **music** here.
  - **The Disabled Checkbox**—Check the box next to any selection that you want to disable. If you do, the option appears on the form but the user cannot select it.
  - **Option**—Click this button to add a row to the bottom of the list.

Inserting a Calendar Field

To insert a field that lets a site visitor select a date, use a Calendar Field. To do that:

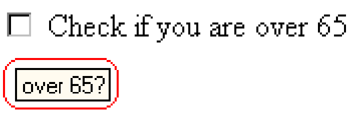
1. Enter a field label. For example, **Expiration Date**.
2. Click **Calendar** field ( ). The following dialog appears.



- **Descriptive Name**—Enter a description of the field. This text describes the field on form reports.
- **Field Name**—Enter a name for this field. This text identifies the field in the database and in email if the form is mailed.

> **NOTE:** You cannot enter spaces nor most special characters (!@#$%^&*()+=<>,.:;'"{}[]|`~) into this field. If you do, they are replaced by underscores.

- **Tool Tip Text**—Enter text that appears when a site visitor hovers the cursor over this field (circled in red below).



- **Default value**—If you want to set a default date, enter it here. The site visitor can change the default value while completing the screen.
- **Validation**—Select the kind of validation to apply to this field. The choices are:
  - **No validation**—response is not checked
  - **Cannot be blank**—Response is required. The format of the response is not checked. If you assign **Cannot be blank**, the field is surrounded by red dashes when it appears on your website.
  - **Custom**—See *Custom Validation* on page 399
- **Error Message**—Enter text that appears if a site visitor's response does not satisfy the validation criterion. For example, if the validation criterion is **Cannot be blank**, the error message could be **Please enter a response**. By default, the error message is the same as the validation criterion. Use this field to customize its text.

> **NOTE:** You can only enter double-byte characters if your Windows settings include that language. If you enter characters that are not in a language defined in your Windows settings, question marks (?) appear instead of the characters.

- **Descriptive Name**—Enter a description of the field. This text describes the field on form reports.

- **Validation**—Select the kind of validation to apply to this field. The choices are:
  - **No validation**—response is not checked
  - **Cannot be blank**—Response is required. The format of the response is not checked. If you assign **Cannot be blank**, the field is surrounded by red dashes when it appears on your website.
  - **Custom**—See *Custom Validation* on page 399
- **Message**—Enter text that appears on the screen if the site visitor's response does not satisfy the validation criterion. For example, if the validation criterion is **Cannot be blank**, the error message could be **Please enter a response**. By default, the error message is the same as the validation criterion. Use this field to customize it.

NOTE: You can only enter double-byte characters if your Windows settings include that language. If you enter characters that are not in a language defined in your Windows settings, question marks (?) appear instead of the characters.

These are the same as *Creating a Form* on page 386

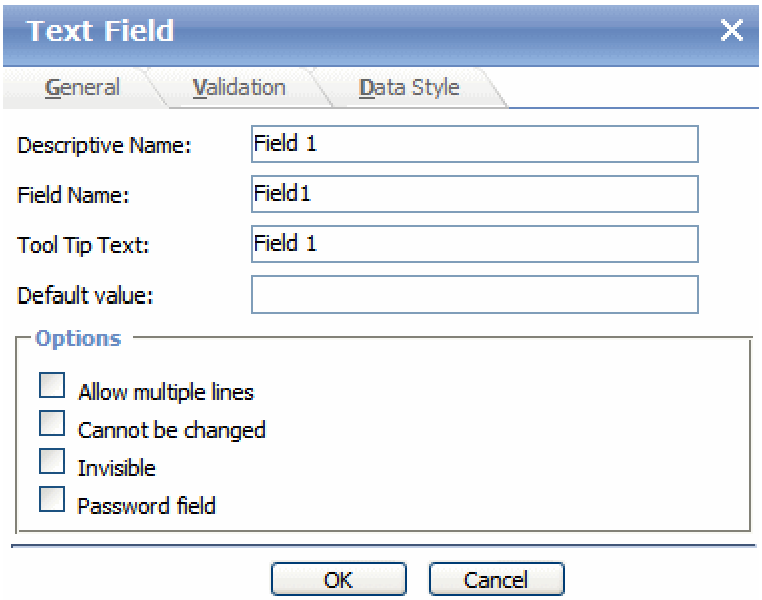
Inserting a Text Field

Use a text field when you want the user to enter a free text response, or to display text on the screen. There are many variations you can apply to such a field, such as

- a default value
- text can be read-only or hidden
- the field can expand to accommodate user input
- *validation*, requiring user input to meet criteria such as a non-negative whole number or a zip code

To insert a text field:

1. Enter a field label. For example, **Name**.
2. Place the cursor where you want the text field to appear.
3. Click **Text field** ( ). The following dialog appears.

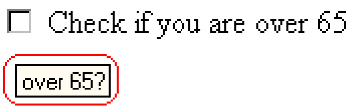


NOTE: If you are using FireFox, you cannot enter text into a text field while creating or editing the form. If you need to prefill a text field with text, use the field’s **Default Value** property.

- **Descriptive Name**—Enter a description of the field. This text describes the field on form reports.
- **Field Name**—Enter a name for this field. This text identifies the field in the database and in email if the form is mailed.

  NOTE: You cannot enter spaces nor most special characters (!@#$%^&*()+=<>,.:;’"{}[]|‘~) into this field. If you do, they are replaced by underscores.

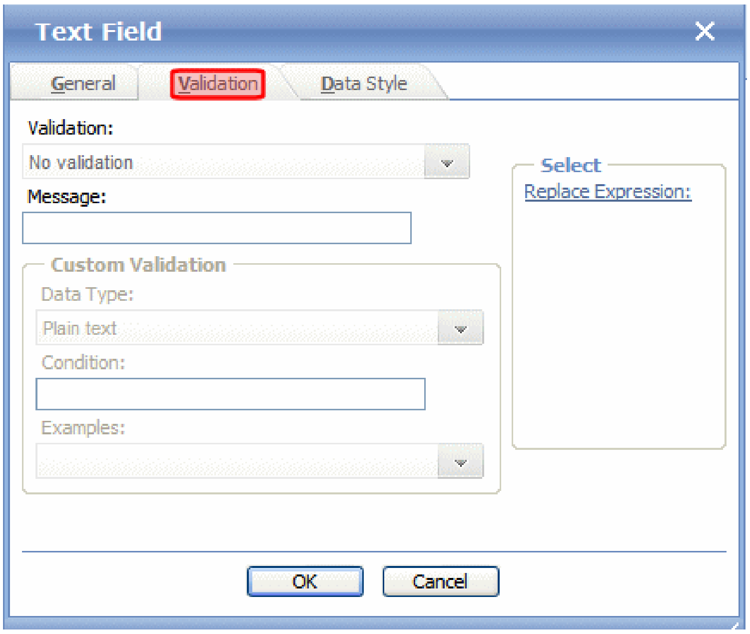
- **Tool Tip Text**—Enter text that appears if a site visitor hovers the cursor over this field (circled in red below).



- **Default value**—If you want to set a default value for this field, enter it here. For example, if this field collects a city, and most users enter New York, enter **New York** as the value. A site visitor can change the default value while completing the screen.
- **Allow multiple lines**—Check this box if you want this field to scroll vertically to allow the person completing the form to enter as much text as needed.

  NOTE: This setting cannot be applied if this is a **Password field**.

- **Cannot be changed**—Check this box to prevent the person completing this field from changing its content. For example, you want to display a license agreement. Below this field, you might place a check box prompting the site visitor to check it to indicate the agreement was read. As another example, you could provide instructions for completing the screen.
- **Invisible**—Check to make this field hidden. This option lets you store unseen information in each document. An example might be putting a version number on the form. f you apply this property to a form, the **Allow multiple lines** and **Cannot be changed** fields are automatically checked and cannot be unchecked. Also, the **Validation** tab is disabled.
- **Password field**—Use a password field when you want the user to enter a password. A password is like a text field but the user’s entry is disguised. This prevents an onlooker from seeing the password. Passwords cannot exceed 18 characters.



- **Validation**—Select the kind of validation to apply to this field. See *Validation Options* below. Your system administrator determines whether a user can save an invalid document.
- **Message**—Enter text that appears on the screen if a site visitor's response violates the validation criterion. For example, if the validation criterion is telephone number, the error message could be **Please enter 7 or 10 digits**. It would appear if the user entered, for example, S061882. By default, the error message matches the selected validation criterion. Use this field to customize the text.

  NOTE: You can only enter double-byte characters if your Windows settings include that language. If you enter characters that are not in a language defined in your Windows settings, question marks (?) appear instead of the characters.

- **Custom Validation**—See *Custom Validation* on page 399.

Validation Options

NOTE: Your Web developer can customize validation options. For details, see . However, the file that maintains custom validation is different for HTML forms: it is *siteroot/workarea/*ContentDesigner/ValidateSpace.xml.

All of the following options are used with the text field. Only **No validation** and **Cannot be blank** are also used with the calendar field.

- **No validation**—Response is not checked.
- **Cannot be blank**—Response is required. The format of the response is not checked.
- **Allow Maximum of 1000 characters**—Response cannot exceed 1000 characters. (Only available if text field is set to **Allow Multiple lines**.)
- **Minimum of 8 characters with at least one digit**—Site visitor's entry must be at least 8 characters and include one digit. (Only available if text field is set to **Password field**.)
- **Non-negative whole number or blank**—A positive whole number *or* no response.
- **Non-negative whole number (required)**—A positive whole number.

- **Decimal number or blank**—A decimal number (for example, 12.345 or 12) or blank. A leading minus sign "-" is allowed. The decimal point must be a period (.), even in locales that normally use a comma (,).

  NOTE: Decimal numbers include whole numbers because the decimal point is implied. That is, 12 is 12.0000.

- **Decimal number required**—A decimal number (it cannot be blank) of 0, 1, or 2 decimal places. A leading minus sign "-" is allowed. The decimal point must be period (.), even in locales that normally use a comma (,).

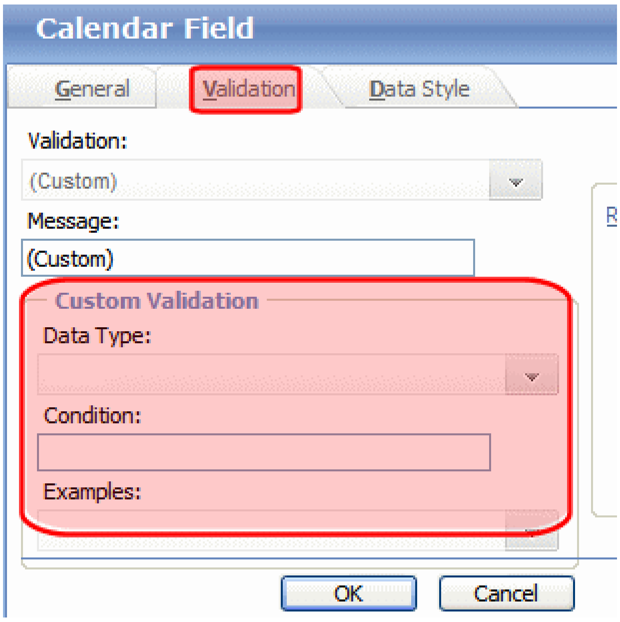
  NOTE: Decimal numbers include whole numbers because the decimal point is implied. That is, 12 is 12.0000.

- **Percent: (0-100) required** —A whole number from 0 to 100. A response is required.
- **email address**—*a@a*, where a is one or more characters.
- **email address required**—*a@a*, where a is one or more characters. A response is required.
- **email address list**—Several email addresses. Each address's format is *a@a*, where *a* is one or more characters. The user must separate each address with a semicolon (;).
- **email address list required**—Several email addresses. Each address's format is *a@a*, where a is one or more characters. The user must separate each address with a semicolon (;). A response is required.
- **Zip code (US)**—5 (*nnnnn*) or 9 digits. If 9, a dash appears after the fifth (*nnnnn-nnnn*).
- **Zip code (US) required**—5 (*nnnnn*) or 9 digits. If 9, a dash appears after the fifth (*nnnnn-nnnn*). A response is required.
- **Social Security (US)**—Nine digits in this pattern: *nnn-nn-nnnn.*
- **Social Security (US) required**—Nine digits in this pattern: *nnn-nn-nnnn.* A response is required.
- **Postal Code (Canada)**—*ana nan*, where *a* is an alphabetic character and *n* is numeric.
- **Postal Code (Canada) - (required)**—*ana nan*, where a is an alphabetic character and n is numeric. A response is required.
- **Social Insurance Number (Canada)**—A 9-digit number in the format: *nnnnnnnnn.*
- **Social Insurance Number (Canada) Required**—A 9-digit number in the format:*nnnnnnnnn.* A response is required.
- **Telephone number (US and Canada)**—A 7 or 10 digit number in the format*nnnnnnn* or *nnnnnnnnnn*. The site visitor can insert separator characters, such as dashes (-), between numbers.
- **Telephone number (US and Canada) (required)**—A 7 or 10 digit number in the format*nnnnnnn* or *nnnnnnnnnn*. The site visitor can insert separator characters, such as dashes (-), between numbers. A response is required.
- **URL**—A website address.
- **ISBN**—ISBN*is a 10 or 13-digit number that uniquely identifies books and book-like products published internationally. When printed, the ISBN number is preceded by the letters ISBN.* (Copied from www.isbn.org.)
- **ISSN**—*The ISSNis an 8-digit number which identifies periodical publications as such, including electronic serials. The ISSN takes the form of the acronym ISSN followed by 2*

groups of 4 digits, separated by a hyphen. The eighth character is a control digit calculated according to a modulo 11 algorithm on the basis of the 7 preceding digits; this eighth control character may be an "X" if the result of the computing is equal to "10", in order to avoid ambiguity. (Copied from www.issn.org.)

Custom Validation

The Text and Calendar field dialog's **Validation** tab features a validation area.



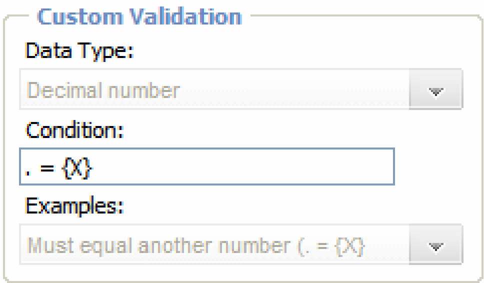
The validation feature can ensure the following aspects user input.

- The data type—the default types are
  - text
  - URL
  - whole number
  - decimal number
  - floating point number (Floating point includes scientific notation, so is appropriate for scientific numbers. Decimals usually suffice for business numbers.)
  - date (calendars only)
- The field value has one of the following relationships with another field, a number, or an expression. The default expressions are
  - between 2 values (either another field or a number that you specify)
  - less than
  - equal to
  - not equal to
  - maximum length (usually for text responses)

NOTE: Your Web developer can customize validation options. For details, see . However, the file that maintains custom validation is different for HTML forms: it is siteroot/workarea/ContentDesigner/ValidateSpace.xml.

Your system administrator determines if a user can save the invalid data.

When the **Custom Validation** option is selected from the **Validation** field, the Custom Validation screen area becomes active.

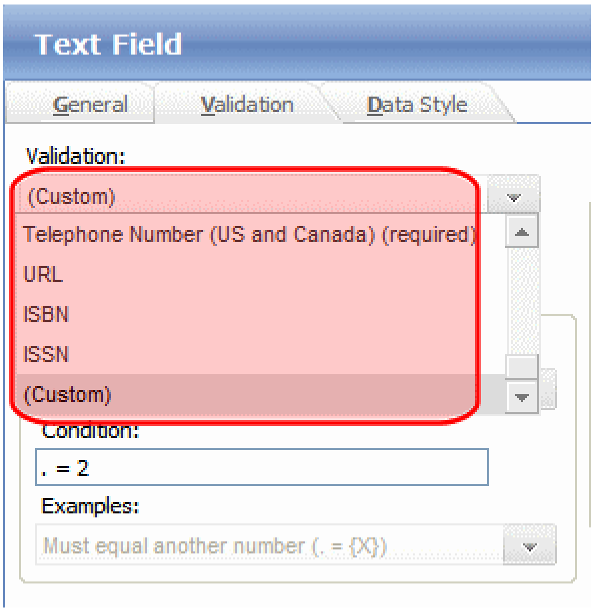


- The **Data Type** field is the value's basic type, for example, text, number, or URL.
- The **Condition** field displays the validation logic.
- The **Examples** drop-down list shows validation expressions that you can apply to the field.

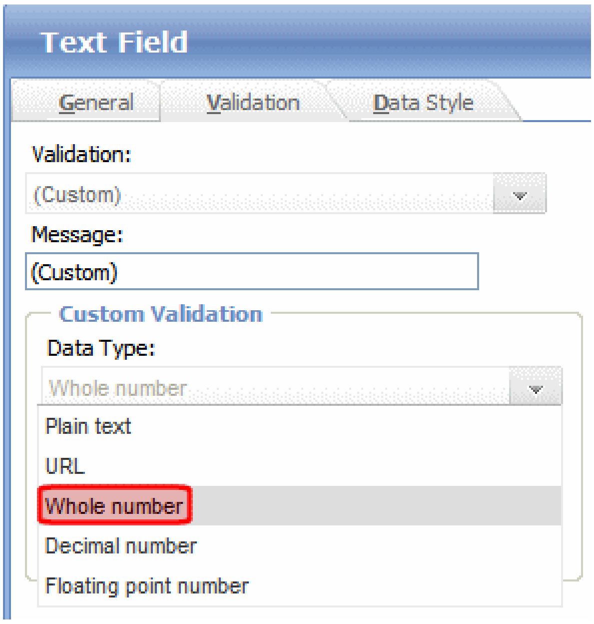
Example of Creating Custom Validation

As an example of custom validation, assume that a field collects telephone numbers, and you want to make sure the user enters 10 digits. To accomplish this:

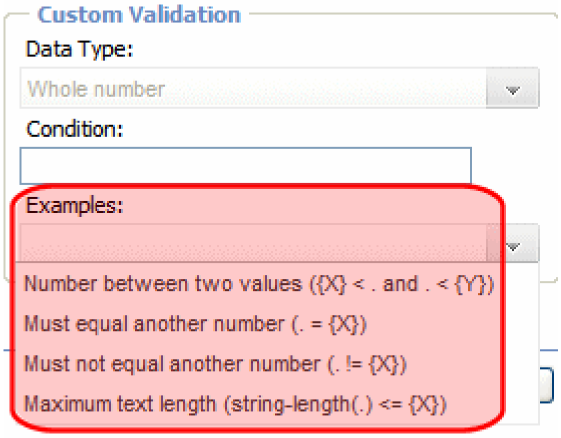
1. Insert a Text Field.
2. Complete the Text Field dialog's **General** tab.
3. Click the **Validation** tab.
4. In the **Validation**drop-down list, select**(Custom)**.



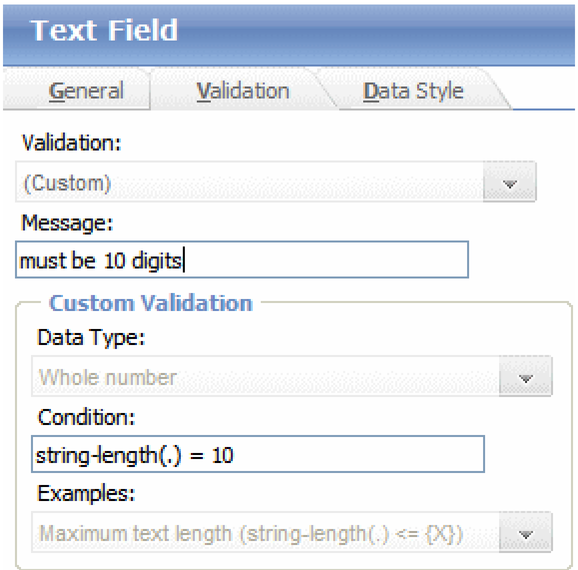
5. In the **Data Type** field, select **Whole Number** from the drop-down list. This ensures that the user can only enter digits.



6. Click the down arrow to the right of the **Examples** field to see sample logic.



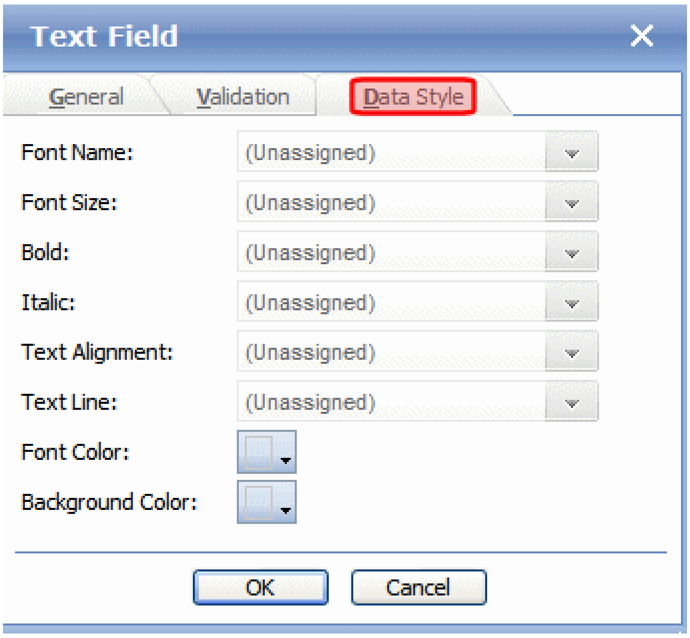
7. Click **Maximum text length...**. This option lets you specify the length of the user's response.
8. `string-length(.) <= {X}` appears in the **Condition** field.
9. Because you want the user's input to equal 10, remove the less than sign (<) from the calculation. Now it looks like this: `string-length(.) = {X}`.
10. Replace the `{X}` with 10. Now, it looks like this: `string-length(.) = 10`.
11. Move the cursor up to the **Message** field and compose a relevant error message. For example: `must be 10 digits`.



12. Click **OK**.

Click the **Data Style** tab to apply formatting to a field that accepts user input.

When you do, the following tab appears.

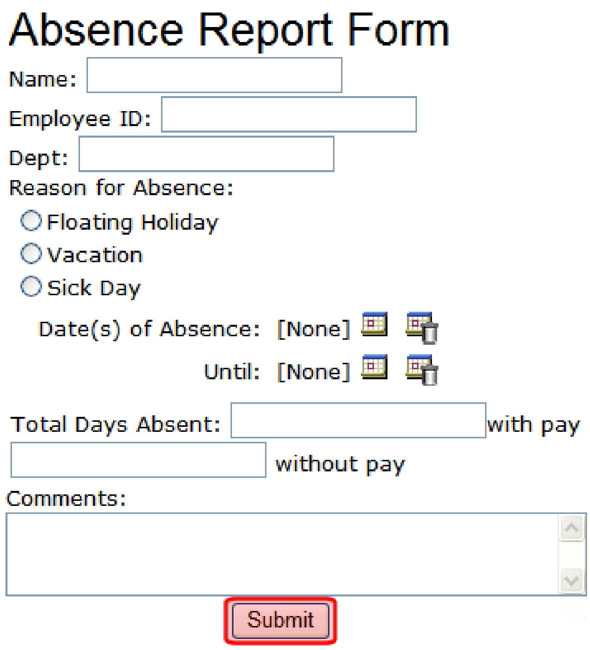


Use the tab to assign the following formatting attributes to a response field.

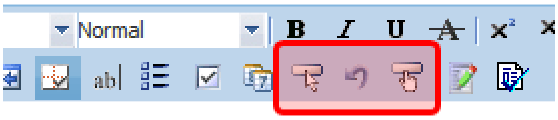
- Font style and size
- Bold and italic
- Text alignment (especially helpful for formatting dollar amounts in a plain text field)
- Underline or strikethrough
- Font color and/or background color

Inserting Buttons

A form typically includes one or more *buttons*, which let a site visitor submit a completed form.



You can place 3 buttons on a form (circled below).

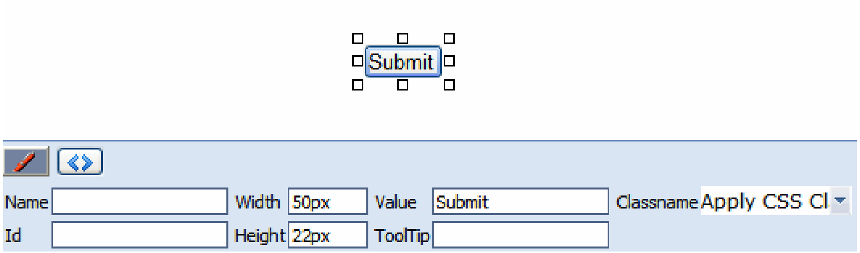


- **Insert**—Submits form information to your Web server. By default, it has no text. To learn how to add button text, see *Editing a Button's Properties* below.
- **Reset**—Changes a form's field values back to their state when the form first loaded.
- **Submit**—Submits form information to your Web server. Its default text is **Submit**.

Editing a Button's Properties

After you insert a button, you may want to enter or change its properties, such as its text, height, and width. To edit a button's properties:

1. Click the button so that it is selected. A selected button is surrounded by small squares, as shown below. Below the editor screen, several fields appear.



2. Update the button fields as needed.
   - **Name**—Give the button a unique name.
   - **Id**—If needed, give the button a unique ID.

- **Width**—Enter or change the button's width in pixels.
- **Height**—Enter or change the button's height in pixels.
- **Value**—Enter or change the button text.
- **Tooltip**—Enter or change the button's *tooltip* (that is, text that appears in a small window when someone hovers the mouse over the button).
- **Classname**—Enter or change the style sheet class assigned to the button.

Entering Additional Form Information

Link other Ektron content, you use tabs on the Edit Content screen to enter the following information about the form:

- Metadata—*Working with Metadata* on page 369
- Aliases—*Creating User-Friendly URLs with Aliasing* on page 835
- Schedule—*Scheduling Content* on page 296
- Comment
- Templates—Be sure to apply a template that uses a FormBlock or Poll server control. For example, in the OnTrek sample site, the Company folder uses the `company.pb.aspx`. template. See Also: *Working with Templates* on page 382
- Map to DxH—*Configuring DxH for Mapping Form Data* on page 1018

Viewing Form Properties

After a form is created, you can view its information in the Forms folder. To view a form:

1. Access the folder that contains the form you want to view.
2. Click the form you want to view. The View Form screen displays.
3. Click the **Form Properties** tab.
   - **Form Title**—Title used to reference the form.
   - **FormID**—ID number automatically assigned to form.
   - **Status**—The form's current status.
   - **Description**—Extended description for the form.
   - **Form Data**—The type of form data: Mail or Database.
   - **Form Submissions**—The maximum number of times a user can submit the form. This is typically used with polls and surveys to limit one user's influence over the results.
   - **Assign Task to**—Users and groups to whom a task will be automatically assigned whenever a site visitor completes the form.
   - **Content Properties**—Displays the properties of the form's content.
   - **Content Title**—Title of content associated with form.

   NOTE: The content name is the same as the Form name.

   - **Content ID**—Content ID number assigned to content.
   - **Status**—The status of the content.
   - **Last Editor**—Last user to edit the content.

- **Start Date**—Date and time when content will go live on website (if set for future date).
- **End Date**—Date and time when content will be removed from website (if set for future date).
- **Action on End Date**—What happens to a form when its end date is reached.
- **Date Created**—Date and time when content was created.

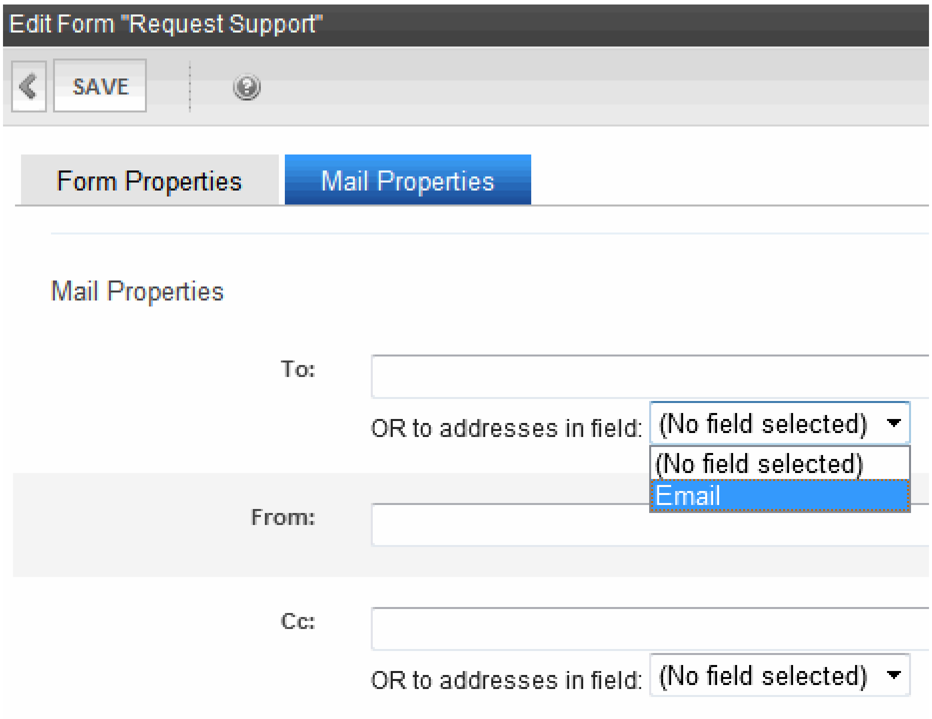
Editing a Form's Properties

To update additional form information that does not appear on the View Form screen, navigate to the form's View Form screen and click **Form Properties** (). The Form Properties screen displays a subset of form information.

- Title and Description
- Database or Mail—if form data is emailed whenever a site visitor submits it, enter mail property information.
- Autofill form values—checked by default, this allows the form's fields to fill automatically when a logged-in site visitor has previously completed the form.
- Limit Submission—when checked, you can enter the number of times a user can submit a form in the **Number of Submissions** text field.
- Assign task to users and groups to whom a task will be automatically assigned whenever a site visitor completes the form.
- Form block's ID number
- Mail properties
    - **To**—Email address to which the form is sent when submitted.
    - **From**—Text that appears in the email's **From** field.
    - **CC**—Text that appears in the email's **CC** field.
    - **Subject**—Text that appears in the email's subject field.
    - **Preamble**—Beginning text of the email.
    - **Send data in XML Format**—A green check means email data will be in a structured XML packet. A red X means the email data will be in a standard mailto format. For more information, see .

Retrieving an email Address from a Submitted Form

In the **Mail Properties** section of the Edit Form screen, you can select email addresses submitted on the form to be inserted into the To, From, and CC **Mail Property** fields. Instead of entering a static email address, it can be dynamically retrieved from the user's form submission. For example, you want to retrieve the "from" field of an email from the information a user enters when completing the form. To do this, use the **OR to addresses in field** drop-down lists shown below. These lists contain fields that dynamically retrieve data from the submitted form.



Note that the **To** and **CC** fields can accept fields whose validation type is **email address** or **email address list**. On the other hand, the **From** field can only accept fields whose validation type is **email address** (that is, a single email address).

To set up email address retrieval:

1. Add a form field whose **Validation** type is **Email address** or **Email address list**. The field prompts the user completing the form to enter an email address. Label the field something like **Enter your email address**. If the field allows more than one address, add on-screen instructions to separate each address with a semicolon (;).

2. Go to the **Edit Form** screen > **Mail Properties** section.
3. Move to the field labeled **From:**.
4. At the drop-down list following **OR to addresses in field**, select the field you created in Step 1.

When a user completes the form, the value entered in the field created in Step 1 is used for the email's From address.

Retrieving Form Data Into the Subject and Preamble Fields

You can retrieve data from a submitted form directly to the form's **Subject** and **Preamble** fields. (The subject is a standard mail field, and the preamble is text that appears at the beginning of the email.)

For example, the form may provide a list of your products. While the user is completing the form, the user selects a product that the user is interested in. The product then becomes the subject line of the email.

NOTE: Because a Textarea field can span multiple lines, it can only be used with the preamble. However, a plain text field can be used with both the subject and preamble.

To retrieve data dynamically from a form field into the email's subject line or preamble:

1. Add a form field that collects the information you want to insert into the email's subject line or preamble.
2. Go to the **Edit Form** screen > **Mail Properties** section.
3. Move to the field labeled **Subject** or **Preamble**.
4. At the drop-down list following **OR use text in field**, select the field you created in Step 1.

Creating Surveys and Polls

Surveys and polls are a type of form. All of the same functionality is available and applies.

- *A survey* is usually multiple questions and appears on your site for a longer time than a poll.
- A *poll* is generally one question and appears on a site for a very short time: an hour or a day.

Surveys and polls can show ongoing results to site visitors after they submit their answers. For information about how to display a poll or survey on a website, see *Poll* on page 1811 server control.

This section also contains the following topics.

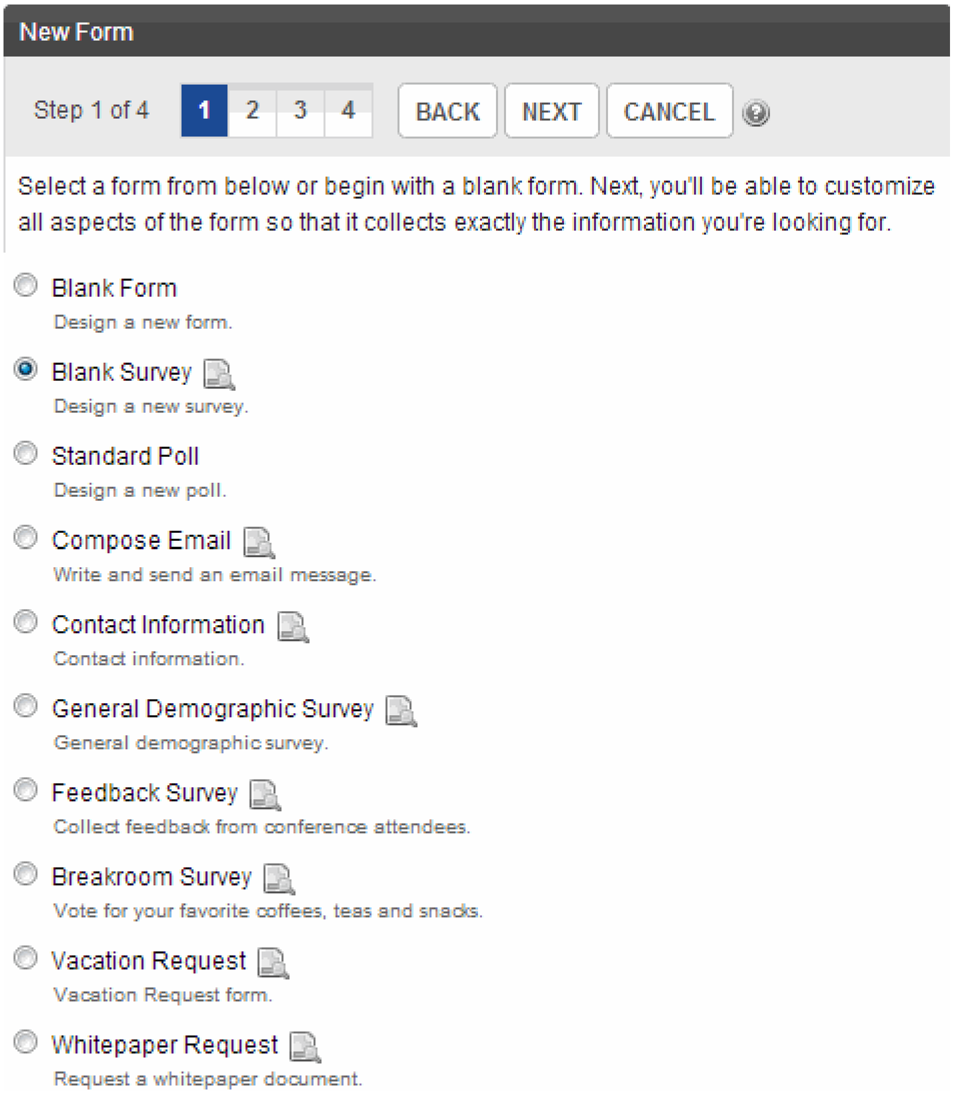
Creating a Survey

NOTE: You can also create a new edition of a survey in another language by copying an existing form and translating it. For more information, see *Translating Content into Another Language* on page 296

To create a new survey:

1. From the **View** menu, click **Language**, and select the language in which to create the form.

2. Click **New > HTML Form/Survey**. The New Form screen appears.



NOTE: When you choose Standard Poll or Blank Survey, the number of steps in the Forms Wizard changes from 5 steps to 4 steps. This happens because the Assign Tasks step is removed.

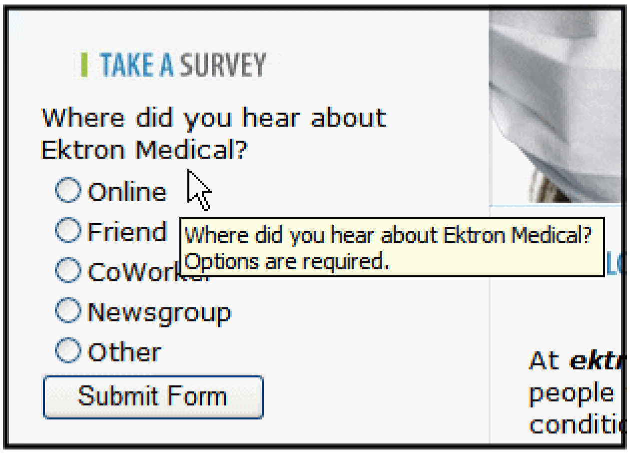
3. Choose **Blank Survey**. You can click **preview** ( ) next to any sample form to preview it before choosing it.
4. Click **Next**.
5. Enter or edit the form's **Title** and **Description**.
   - **Title**—used to reference the survey within the Workarea (required)
   - **Description**—an extended description of the survey.
6. Click **Next**. This screen lets you determine what happens after the site visitor completes the survey. The choices are:
   - **Display a message**—See *Creating a Postback Message* on page 412
   - **Redirect to a file or page**—Identify a file or a page on your website that is launched when the visitor completes the form. An example of a file is a white paper (a common file format is .PDF) that the visitor requested. An example of a page is one that lets the visitor download your product.

- **Redirect to an action page and forward form data**—See *Redirecting Form Data to an Action Page* on page 414
- **Report on the form**—See *Letting Site Users See the Form Results* on page 416

7. Click **Next**. A screen indicates that you have entered basic information about the survey and should click **Done** to enter the survey's content. This procedure is described in *Managing Form Responses* on page 412.

Creating a Poll

The following example shows a poll. Note that when a site visitor hovers over the poll, the question also appears as Tooltip text.

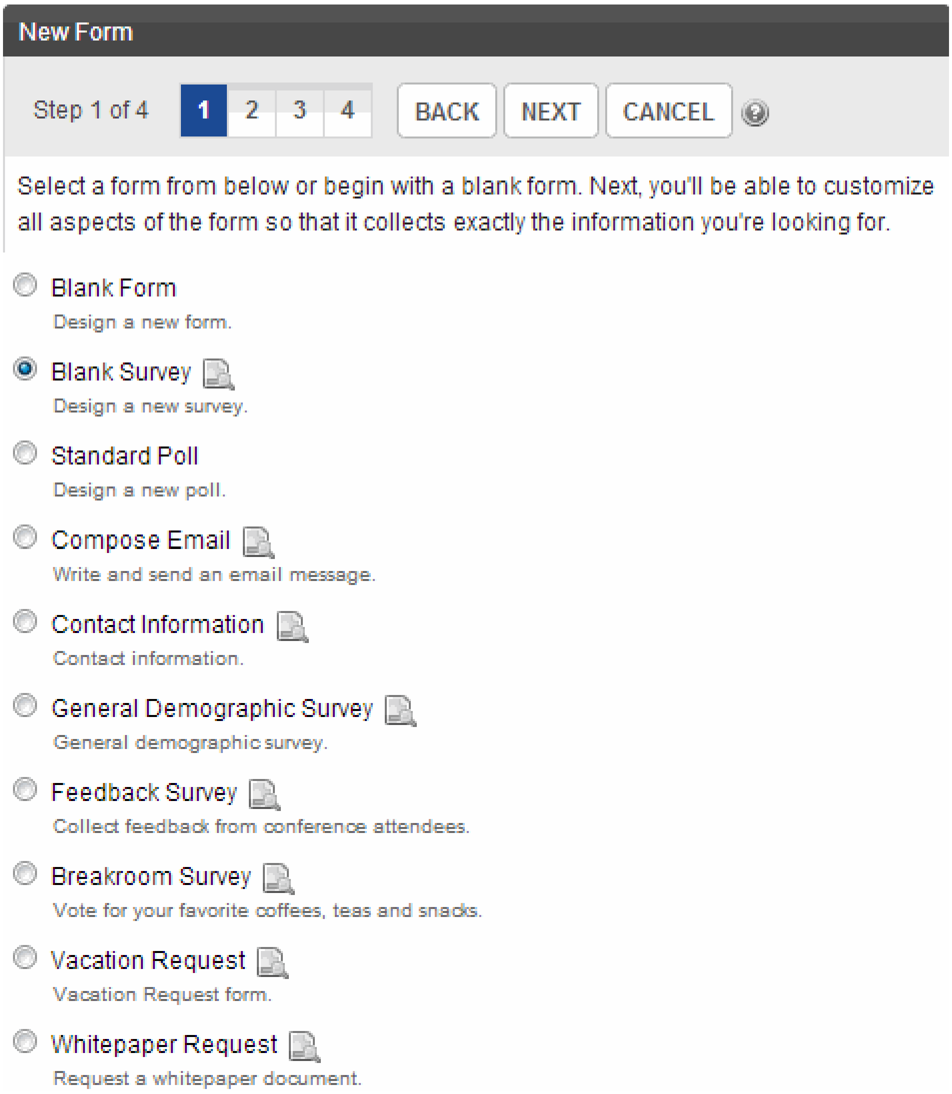


To create a new poll:

NOTE: You can also create a new edition of a poll in another language by copying an existing poll and translating it. For more information, see *Translating Content into Another Language* on page 296.

1. From the **View** menu, click **Language**, and select the language in which to create the poll.

2. Click **New > HTML Form/Survey**. The New Form screen appears.



3. Choose **Standard Poll**. You can click **preview** ( ) next to any sample form to preview it before choosing it.
4. Click **Next**.
5. Enter or edit the form's **Title** and **Description**.
   - **Title**—used to reference the poll within the Workarea (required)
   - **Description**—an extended description of the poll
6. Click **Next**. You can add a poll question and up to 8 replies. If you have more than 8 replies, you can add them in the forms editor after clicking **Done**.
7. Click **Next**. This screen indicates that you have entered the basic poll information and should click **Done** to further edit and view the form's fields. After clicking **Done**, the form editor launches so you can edit existing fields and properties. In addition, you can set post back and schedule information, add metadata and comments, change the title, and submit the poll for publication. From this screen, you can add more replies to your poll by right clicking on the choices field and clicking properties.

Editing a Poll from a Website

WARNING! If you are logged into the site and create a new poll by right clicking on a poll selecting **New**, the existing poll is replaced by the new one.

To edit an poll on a website:

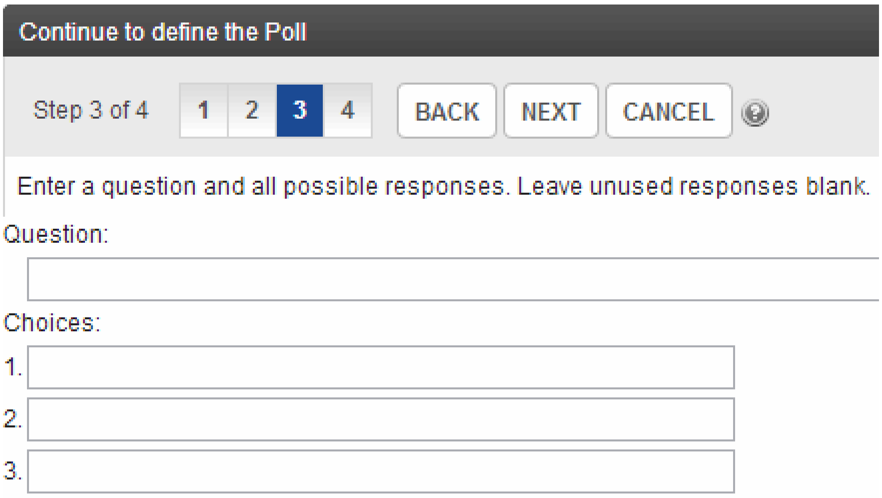
1. Click the access point (◉) on the poll you want to change and choose **Edit**.
2. Make changes to the poll using the Forms editor.
3. Submit the poll to the Approval Process.

Replacing a Poll from a Website

When logged into Ektron, you can right click on a poll and choose **New Poll** to replace the current one. The title of the poll, its ID, and properties stay the same. Only the questions and answers change.

To replace a poll:

1. At the location of the poll, click the access point (◉) and choose **New Poll**. The Workarea opens, indicating you are at step 3 of the Poll Wizard.



2. Add a new question to the **Question** text box.
3. Add possible responses to the **Choices** text boxes.
4. Click **Next**.
5. Click **Done**. The form editor launches, allowing you to edit the fields and properties. In addition, you can set post back and schedule information, add metadata and comments, change the title and submit the poll for publication. When published, the updated poll appears on the site.

Editing the Poll Results Bar Chart

To edit the style and appearance of the bar chart, modify the following files:

- `siteroot/workarea/csslib/reportchart.css`
- `siteroot/workarea/controls/forms/HistogramReportPoll.xslt`

Those files include extensive comments that explain how to customize the bar chart's appearance.

NOTE: You cannot edit pie charts.

Managing Form Responses

This section also contains the following topics.

Applying Validation Rules to a Form

You can apply validation rules to text or calendar field types. Validation rules ensure that the information entered by site visitors meets your criteria. For example, a validation rule specifies that a response to the **Telephone** field is 10 digits. If the response does not conform, an error message indicates the problem. The input must conform before the form can be submitted.

Validation rules are applied when a site visitor submits an entire form, not when the input is entered. If an invalid response is found, the error message that you define appears.

The site visitor must change the response to conform to the validation rule; then, the next field is checked and, if that is invalid, its error message appears, and so on.

NOTE: If you apply validation rules to more than one field, include the field name in the error message. For example, enter **The name field only allows text**. This is good practice because error messages only appear *after* a form is submitted. If the message does not identify the field, the user may not know which field needs correction.

Creating a Postback Message

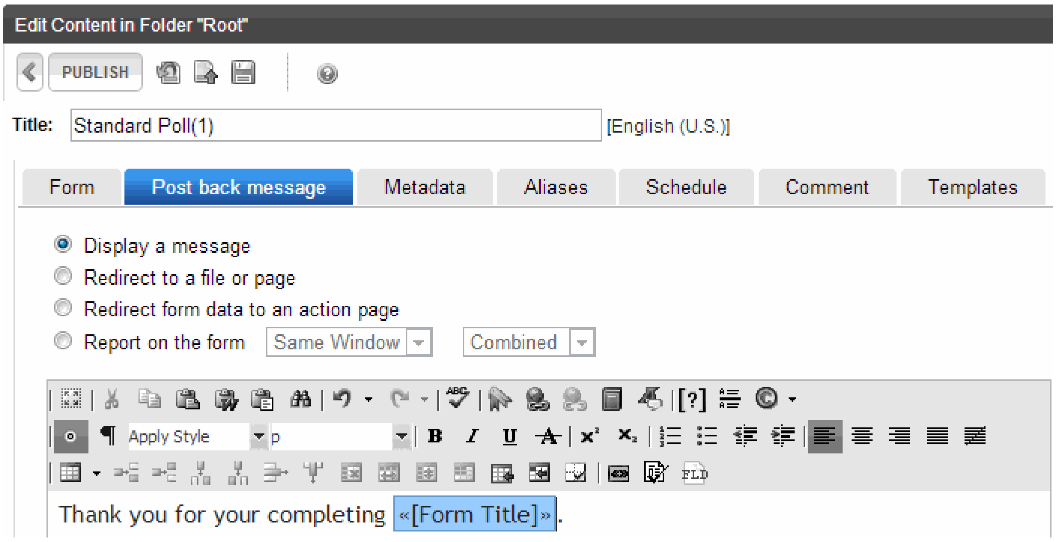
The postback message is HTML content, so can contain text or graphics. Typically, the message acknowledges a site visitor's completion of the form. For most sample forms provided, sample text appears in the editor. Modify it as you wish, using Ektron's editor to change the style sheet class, insert library items, and so on. You can also insert fields into the Postback Message that retrieve form information. For example, your postback message may be:

```
Thank you «Full Name» for completing the «[Form Title]».
```

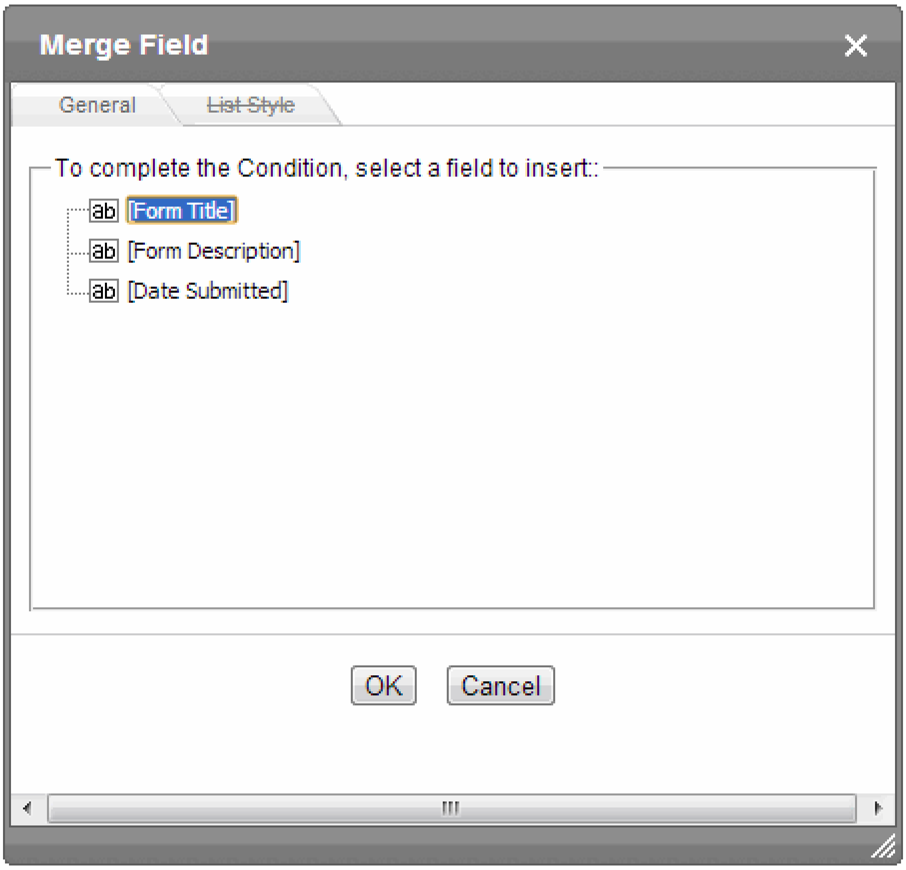
When the message appears, it looks like this.

```
Thank you Jay Kohler for completing the breakroom survey.
```

When you click the **Post back message** tab and select **Display a message**, the **Merge Field** button ( ) appears on the toolbar.



When you click that button, a dialog like the one below appears.



The list includes all fields on the form plus the following fields.

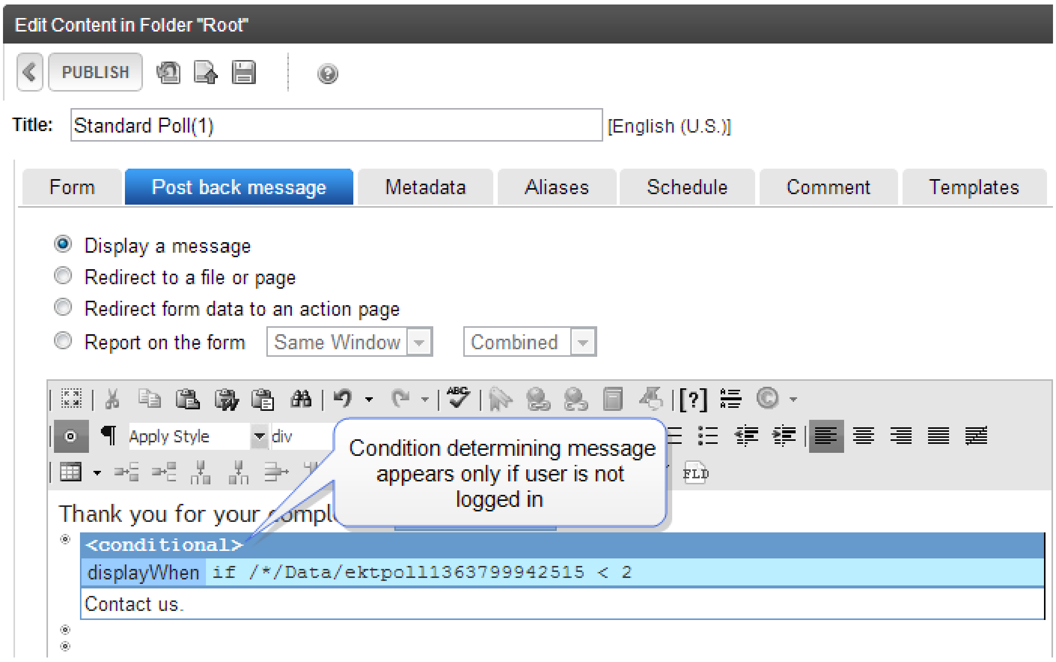
- Form title
- Form description
- Date submitted

Click any field to insert it into the form. The postback message retrieves the field's value and displays it within the message.

Specifying Conditional Text in the Postback Message

You can apply conditions to any portion (or all) of a postback message. For example, you can display one paragraph if the user browsing your Web page is using a smart phone, and different text if the user is not on a smart phone. As another example, you could display a postback message only if the user is not logged into the website as an Ektron author.

The image below shows the message content after a condition is applied.



To designate a condition within a postback message, select it then click **Conditional Section** ([?]).

Redirecting Form Data to an Action Page

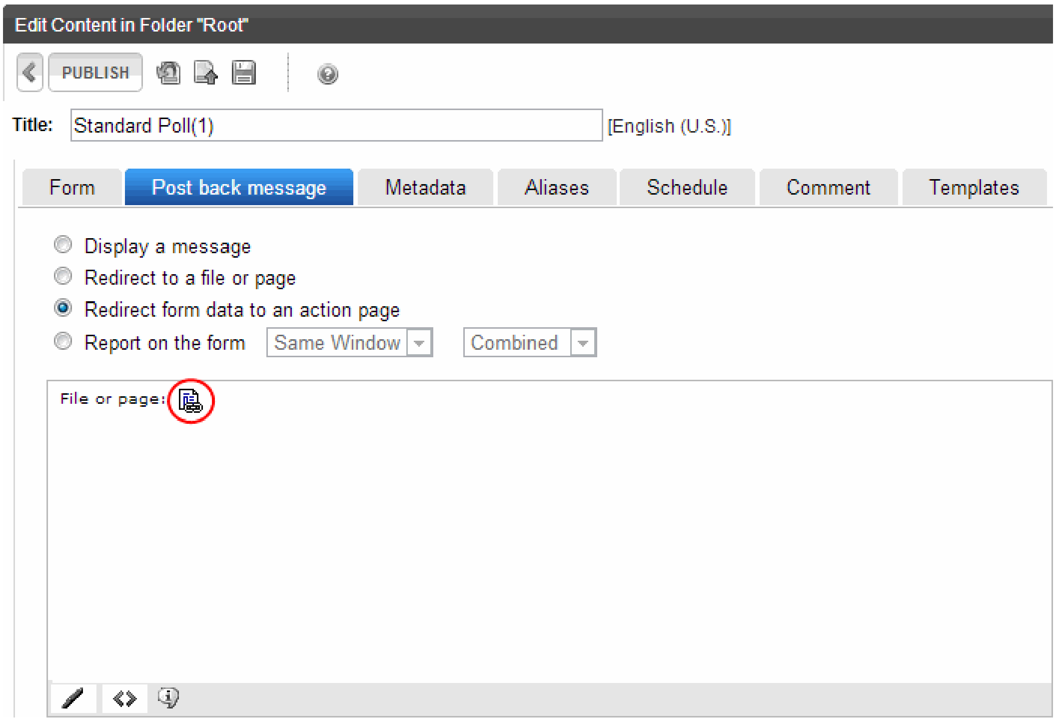
PREREQUISITE

Obtain the folder and hyperlink name from your administrator who set up an action page.

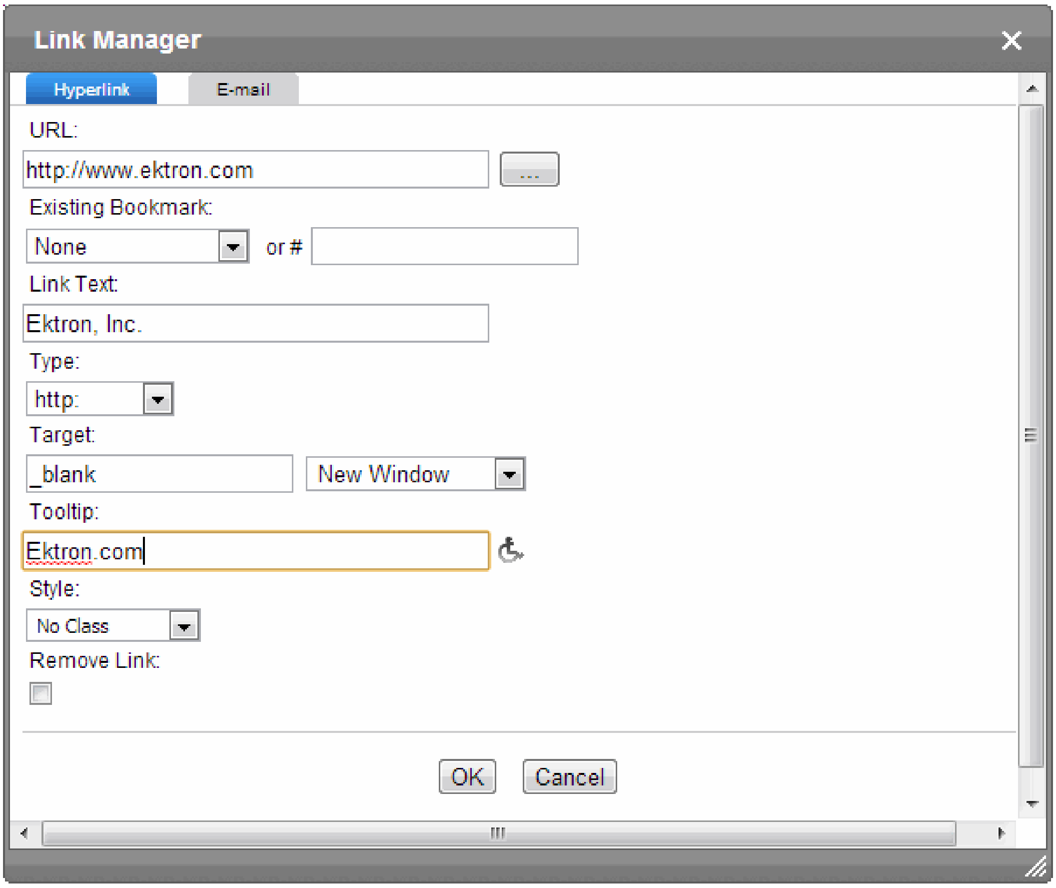
To redirect submitted form data to an action page:

1. Go to the page on which you determine the form’s response.
2. To modify an existing form, select the form’s folder, then the form. Next, select Edit and click the **Post back message** tab.

3. Select **Redirect form data to an action page**.



4. Click the icon next to **File or page**. The Link Manager screen appears.



5. Fill in the fields and click **OK**. The hyperlink is inserted.

Letting Site Users See the Form Results

When you create polls and surveys, you can choose to display the results after a site visitors completes the form. The results can display in the same window or a new window. In addition, you can choose how to chart the data. See *Chart Types* below.

To show site visitors poll/survey results:

1. Go to the page on which you determine the form’s response. If this is a new form, it is page 4 of the Forms Wizard. To modify an existing form, select the form’s folder, then the form. Next, select Edit and click the **Post Back Message** tab.
2. Select **Report on the form**.
3. Choose whether you want the results to appear in the **Same Window** or a **New Window**.
4. Choose the style of the report. (Bar Chart, for example.)

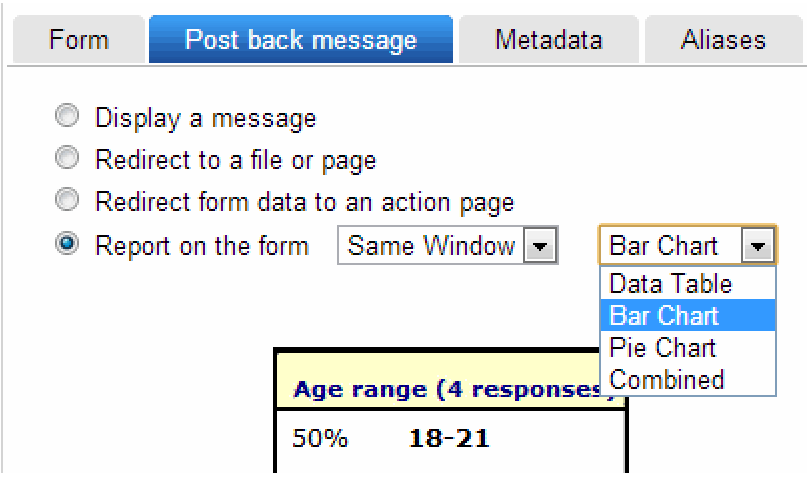
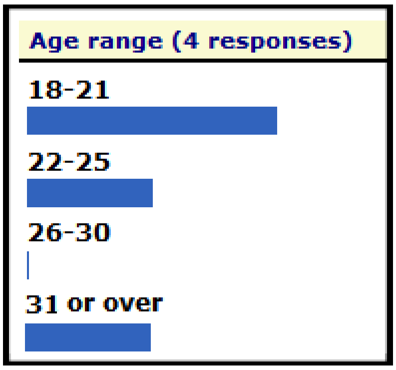


Chart Types

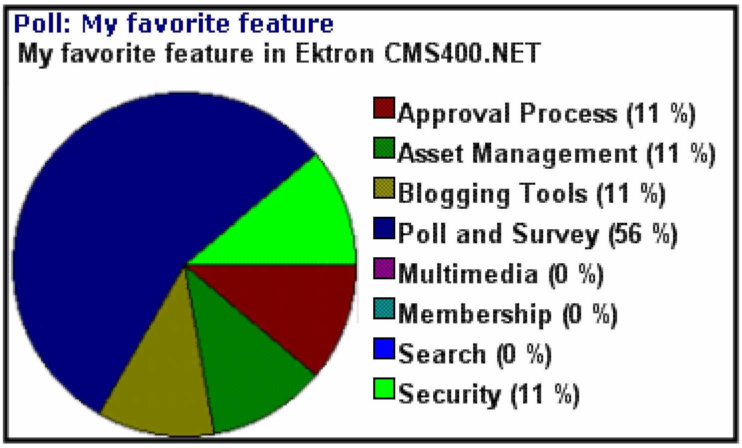
- **Data Table**—Poll/survey answers, with the percentage of users who responded to each item.

Age range (4 responses)	
50%	**18-21**
25%	**22-25**
0%	**26-30**
25%	**31 or over**

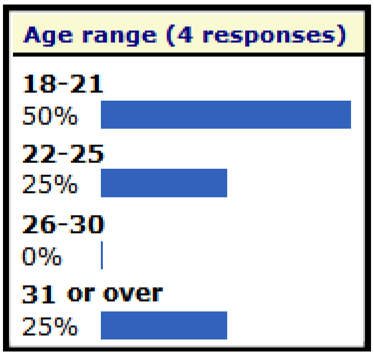
- **Bar Chart**—Poll/survey answers as a bar graph. Provides a quick, visual representation of responses.



- **Pie Chart**—Standard pie chart. Poll/survey answers are color coded, and percentage of people who chose each answer is shown.



- **Combined**—Combines Data Table and Bar Chart.



NOTE: Data entered into a text box cannot be charted. For example, if one choice in a poll is **Other**, and the survey has a text box for site users to enter additional information, the text in the box is not charted. However, the fact that a user chose **Other** is charted.

Viewing Form Reports

If a form is set to store data in the database, you can run a report that displays the submitted data.

To view a form report:

1. Navigate to the folder for which you want to view the report. The View Contents of Folder screen appears.

2. Click the form you want to view. (If you do not see your form in the folder, make sure the Content Type drop-down box is set to All Types or Forms.)
3. Click **View Reports** ( ). The View Forms Report screen appears.
   - **Start Date**—If desired, specify a start date. The report displays only forms that were submitted on or after the start date.
   - **End Date**—If desired, specify an end date. The report displays only forms that were submitted on or before the end date.
   - **Report Display**—Specify the format to display the report. See Also: *Choosing a Format to Display Form Data* below
   - **Select Legacy Report**—Specify the version of the form or poll for which to get a report. Using this option lets you see the results from previous polls and forms.
4. Click **Get Result** to display the report.

Choosing a Format to Display Form Data

The submitted form data can be viewed in any of these formats.

Table with Totals

The table of values shows the following information for each completed form.

- a checkbox that lets you delete the response
- an internal identification number of the response
- the name of the user who submitted the form, if the user signed in to Ektron beforehand. If the user did not sign in, **anonymous** appears.
- date response was submitted
- The name of each field on the survey
  - under each field name is the submitted response for the each user
- the bottom line sums the numerical and percentage totals for each response

General Demographic Survey

(Delete) ☐	ID	Submitted By	Date Submitted	Gender		Age range			Education Level		An
				Male	Female	22-25	26-30	31-40	High School/GED	Master's Degree	$30,000-$39,999
☐	22	Member, John	12/6/2005 4:18:50 PM	✓		✓			✓		
☐	23	anonymous	12/6/2005 4:22:58 PM		✓			✓		✓	
☐	24	Edit, John	12/6/2005 4:23:40 PM	✓			✓		✓		✓
			Total:	2	1	1	1	1	2	1	1
			Average (3 rows):	66.67%	33.33%	33.33%	33.33%	33.33%	66.67%	33.33%	33.33%

The `siteroot\Workarea\controls\forms\FormReportTotals.xslt` file has a `largeListSize` property that affects this report's display. By default, this property's value is 5, but you can change it as desired.

If the number of *form responses* is less than the `largeListSize` value, the report lists all responses. In the sample report above, the question **Age range** has 3 possible responses:

- 22-25
- 26-30

- 31-40

On the other hand, if the number of form responses exceeds the `largeListSize` value, the report only displays responses that have data. A response accumulates data when a site visitor selects it.

Summary of Selected Choices

This format totals, for choice and select type fields, the number of times each choice was selected. Only choices that were selected at least once appear.

General Demographic Survey

Field	Value	Count
Age range	22-25	1
	26-30	1
	31-40	1
Annual Income	$30,000-$39,999	1
	$40,000-$49,999	1
	$70,000-$79,999	1
Education Level	High School/GED	2
	Master's Degree	1
Father's Education Level	High School/GED	1
	Master's Degree	1
	Some College	1
Gender	Female	1
	Male	2
Household Income	$100,000-$149,000	1
	$30,000-$39,999	1
	$60,000-$69,999	1
Marital Status	Legally Separated	1
	Married	1
	Single	1
Mother's Education Level	High School/GED	2
	Master's Degree	1
Race	African-American	1
	Native American	1
	White	1

Table of Values

The table of values shows the following information for each completed form.

- a checkbox that lets you delete the response
- an internal identification number of the response

- the name of the user who submitted the form, if the user signed in to Ektron beforehand. If the user did not sign in, **anonymous** appears.
- date response was submitted
- descriptive name of each form field appears in the column header; the value entered for each field appears below the header.

General Demographic Survey

(Delete) ☐	ID	Submitted By	Date Submitted	Gender	Age range	Education Level	Annual Income	Household Income	Marital Status	Religious
☐	22	Member, John	12/6/2005 4:18:50 PM	Male	22-25	High School/GED	$40,000-$49,999	$60,000-$69,999	Legally Separated	Evangelical Christian
☐	23	anonymous	12/6/2005 4:22:58 PM	Female	31-40	Master's Degree	$70,000-$79,999	$100,000-$149,000	Married	Protestant Christian
☐	24	Edit, John	12/6/2005 4:23:40 PM	Male	26-30	High School/GED	$30,000-$39,999	$30,000-$39,999	Single	Other

List of Submitted Values

The List of Submitted Values format provides the same information as the Table of Values, but is formatted vertically rather than horizontally.

General Demographic Survey

(Delete) ☐	ID	Submitted By	Date Submitted	Field	Value
☐	22	Member, John	12/6/2005 4:18:50 PM	Gender	Male
				Age range	22-25
				Education Level	High School/GED
				Annual Income	$40,000-$49,999
				Household Income	$60,000-$69,999
				Marital Status	Legally Separated
				Religious	Evangelical Christian
				Other Religious Affiliation	
				Race	African-American
				Mother's Education Level	High School/GED
				Father's Education Level	Some College
☐	23	anonymous	12/6/2005 4:22:58 PM	Gender	Female
				Age range	31-40
				Education Level	Master's Degree
				Annual Income	$70,000-$79,999
				Household Income	$100,000-$149,000
				Marital Status	Married
				Religious	Protestant Christian

Submitted Data as XML

Displays the results of the form in an XML format. The following information is included:

- **<Title>**—title of the form block

> **NOTE:** You can create a new poll question to replace an existing poll question. By default, the poll still has the same Title, ID, and other properties. You can change the title of a new poll question when you are editing the poll.

- **<Description>**—description of the form
- **<SubmittedData>**—information that was submitted

```
<Form>
<Title>Where did you hear about Ektron Medical?</Title>
<Description>Poll for finding out where visitor's heard about
our site</Description>
<SubmittedData>
<Date value="2006-05-16T17:25:35">5/16/2006 5:25:35 PM</Date>
<User id="1" member="false">
<Name><FirstName>Application</FirstName>
<LastName>Administrator</LastName></Name>
<Username>admin</Username>
<Email></Email>
</User>
<Data form_data_id="250">
<ektpoll1147812046505>Navigation_2</ektpoll1147812046505>
</Data>
</SubmittedData>
<SubmittedData>
<Date value="2006-05-16T16:48:22">5/16/2006 4:48:22 PM</Date>
<Data form_data_id="248">
<ektpoll1147812046505>Everything_4</ektpoll1147812046505>
```

Exporting a Form's Raw Data

After you run a report, you can export its data to a Microsoft Excel spreadsheet file (.xls) for further analysis. If a form uses an XML structure, each XML tag becomes a column header in the spreadsheet.

1. Access the View Form Reports screen for the report you want to export.
2. Click **Export Report**. A File Download dialog box appears. Choose the option that best suits your needs.
3. After the data is exported, you can analyze and modify the .xls file.

Assigning a Task to a Form

While tasks typically help Ektron users track content activities, you can also assign a task to users or user groups whenever a form is submitted.

For example, your website offers a free product demonstration to anyone who completes a form. Whenever a site visitor submits the form, a task is assigned to your sales department's administrative assistant who uses the form information to schedule a demonstration. The sales manager can review the task history to audit sales leads and ensure demonstration requests are being handled in a timely manner.

To set up a task that it is assigned to users or groups whenever a site visitor completes the form:

NOTE: You should be familiar with tasks before beginning this procedure. See Also: *Assigning and Managing Tasks* on page 1027

1. If you are creating a new form, assign the task using the Forms Wizard.
    - If you are editing a form, assign the task on the form's Edit Properties screen.
    - In either case, you identify only users and groups to whom the task will be assigned whenever a site visitor completes the form. Ektron assigns the remaining task information.
2. Complete the form and make it available on your website.

    When a site visitor completes and submits the form, Ektron creates a task and assigns it to users and groups you identified in Step 1. The task created upon form submission has the following information.

    - **Title**—Form title, as entered by the author
    - **Assigned to**—As set up by the user who created or edited the form
    - **Assigned by**—User who created or last edited form
    - **Priority**—Normal
    - **Task Category**—Form Submission Task Category
    - **Task type**—Form Submission Task
    - **Created by**—User who created or last edited form
    - **State**—Not specified
    - **Due date**—Not started
    - **Start date**—Not specified
    - **Description**—Data from form "*form name*" was received on *date time*.
    - ***form description***—Name of every field on the form: value submitted by user into that field

An email is automatically sent to every specified user who has a valid email address in the User Information Screen. The email's subject line is the form name. The body of the email contains a name and a value submitted by the user for each field on the form.

Working with Smart Forms

Use Smart Form configurations to display, save, and validate the content properly. Smart Form configurations use XML tags (that are hidden from users) and serve content to various presentation devices (PDAs, mobile phones, and so on), which saves users from creating duplicate content. An XML schema validation ensures the accuracy and format of your Web content, which reduces review and revision time.

PREREQUISITE

Smart Form configurations can be created only by members of the Administrators group or those defined in Manage Members for Role: Smart Forms Admin screen

Ektron Smart Forms provide the following benefits:

- Strictly enforce content and page layout with Ektron's editor, XSLT, and WYSIWYG templates for content contributors
- Deliver content to multiple devices (for example, PDAs, mobile phones, and so on)
- Easily share content across B2B transactions
- Advanced XML authoring: Ektron's highly-acclaimed XML editor lets developers hide XML tags from content contributors and provides an easy-to-use WYSIWYG editing interface

The following are examples of industries that can benefit from XML Indexing.

- Health Care—A cardiologist whose practice is located in your city
- Human Resources—Sick time policy
- Real Estate—A house with a zip code of 03031 priced under $200,000
- Hospitality—A hotel in the city
- Online Retail—Fleece gloves for men
- Educational—A course in .NET programming

You should use XML content whenever possible because of the following advantages.

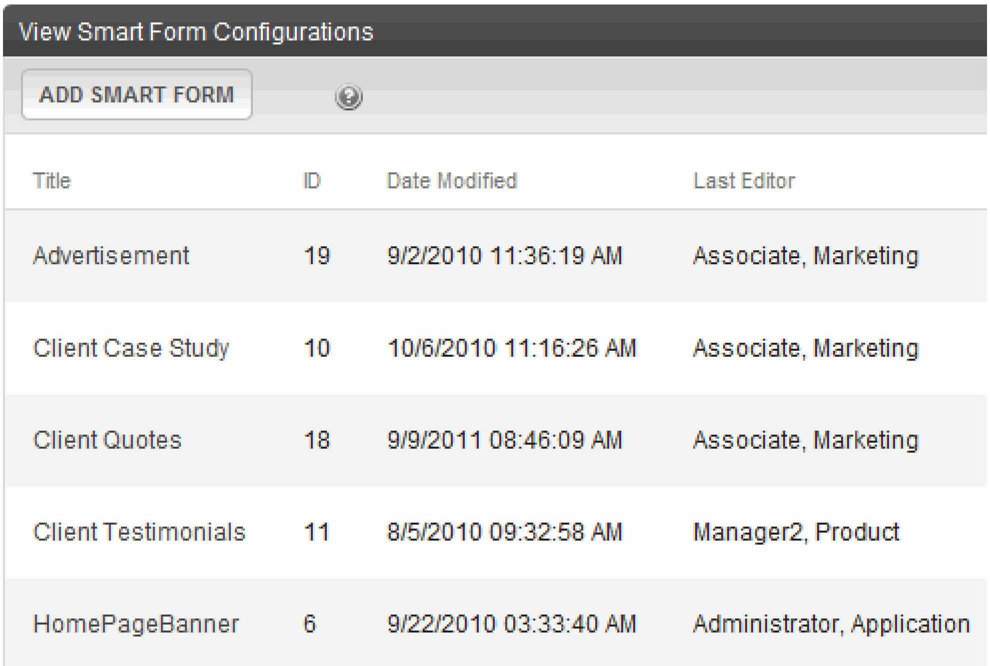
- Standardized format for capturing content
  - You can create an XML Smart Form then require anyone creating content in a folder to use the form. The result is more uniform and consistent information.
  - Within an XML Smart Form, you can require authors to complete fields in a specified format. So, for example, if you want the author to enter a date, XML can ensure that it’s captured in a standard format. Several standard formats are provided (email address, zip code), and you can create your own.
- Superior control over content display
  - Authors contribute XML content but have virtually no control over its format. The Web administrator determines the format through an XSLT file. By customizing the XSLT, you can exert maximum control over your website’s appearance.
  - Because one file controls several (even hundreds of) pages, you can update just that file to efficiently change the look of all pages whose content is based on the Smart Form.

- Improved search capabilities
  - Because XML data is captured in individual fields, you can focus a search on relevant fields. For example, if your XML content captures data about books, you can place an author search on your website. Because that search only looks through content in the Author field, it is much faster and returns more reliable results than a search of HTML content.

This section also contains the following topics.

Accessing Smart Form Configurations

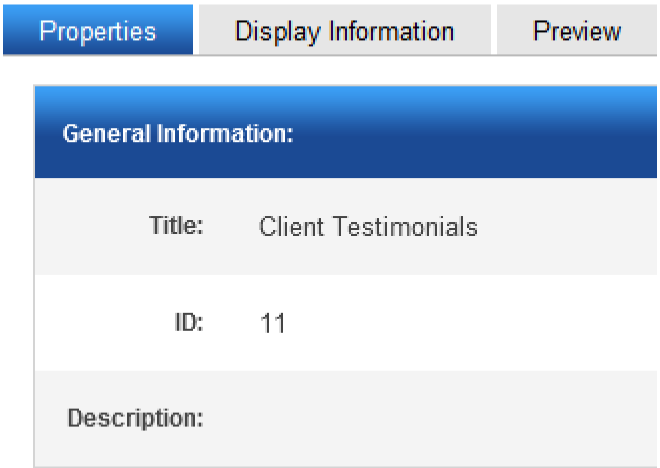
To access the Smart Form section of the Workarea, go to **Settings > Configuration > Smart Form Configuration**. The View Smart Form Configurations screen appears.



When you click a Smart Form configuration to view its information, you can do the following:

- **Edit**—Edit a Smart Form configuration
- **Data Design**—Open Data Designer
- **Add Smart Form**—Create a new Smart Form configuration from scratch or based on an existing one
- **View XSLT**—Display a Smart Form configuration’s XSLT

- **DeleteAssociated Content**—Delete content assigned to Smart Form configuration
- **Delete**—Delete Smart Form configuration (only available if no content is assigned to configuration) See Also: *Deleting a Smart Form Configuration* on page 438
- **Back**—Return to previous screen



Properties Tab

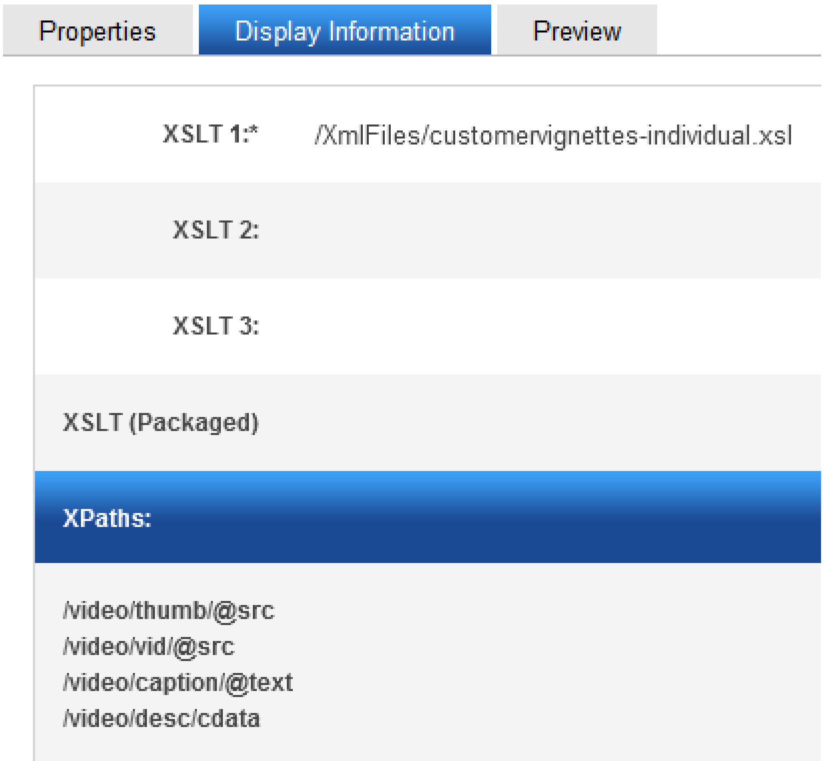
- **Title**—Name given to Smart Form configuration.
- **ID**—ID number assigned by Ektron upon creation of the configuration.
- **Description**—Detailed description of configuration given by creator or last editor.

If the Smart Form configuration was created using external XML files (instead of the Data Designer), the following information also appears:

- **Edit XSLT**—XSLT applied to the content when being edited.

NOTE: If no edit XSLT is specified, the Edit Data Design option is enabled in the toolbar.

- **Save XSLT**—XSLT used to transform the XML created in the editor when the Smart Form is saved to the database.
- **Advanced Configuration**—XML file that contains display information, schema validation, and other advanced XML data.
- **XML Schema**—Specify the .xsd file used to validate the XML content that the Smart Form will be assigned to.
- **Target Namespace**—Specify the default namespace used for outgoing XML.



Display Information Tab

The display information tab lists the XSLTs that are used when displaying XML in the respective environment.

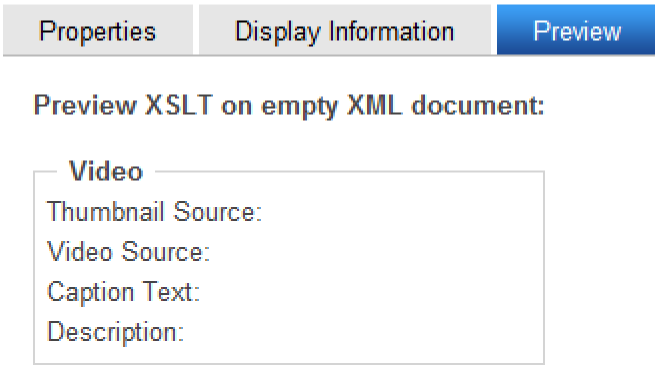
- **XSLT1**—Display XSLT 1
- **XSLT2**—Display XSLT 2
- **XSLT3**—Display XSLT 3
- **XSLT (Packaged)**—Display XSLT Package (created using the Data Designer)
- **XPaths**—Location of the XSLT

NOTE: When a Smart Form configuration is created using the Data Designer, a default display XSLT is also created which looks similar to the edit XSLT created in the editor. This default XSLT can be applied to the XML content.

An asterisk (*) denotes a Smart Form's default XSLT.

Preview Tab

The **Preview** tab displays the XSLT applied to the editor when XML content is created. This is the XSLT that was created for the Smart Form configuration.



Copying a Smart Form Configuration

If you need to make major changes to a Smart Form configuration, copy it and modify the copy so that you do not affect the content controlled by the original configuration. To copy a Smart Form:

1. Choose **Workarea > Settings > Configuration > Smart Form Configurations**.
2. Click a Smart Form configuration.
3. Click **Add Smart Form**. The Add Smart Form Configuration screen appears.
4. Specify a Title for the copy of the Smart form and click **Add Smart Form**. The new title appears in the Smart Forms list and its description shows that it was derived from an existing Smart form.
5. Click **Update**.
6. Design your Smart Form configuration in the Data Designer. See *Creating a Smart Form Configuration* on page 430 for information about creating XSLTs using the Data Designer.
7. You are ready to assign the Smart Form configuration to a folder or content item. See *Assigning a Smart Form Configuration to a Folder* on page 437 for more information.

A verification button ( ) appears to the right of some fields on the Add Smart Form screen. After you identify an XSLT or schema, you can click this button to verify that the file exists in the location specified and contains well-formed XML.

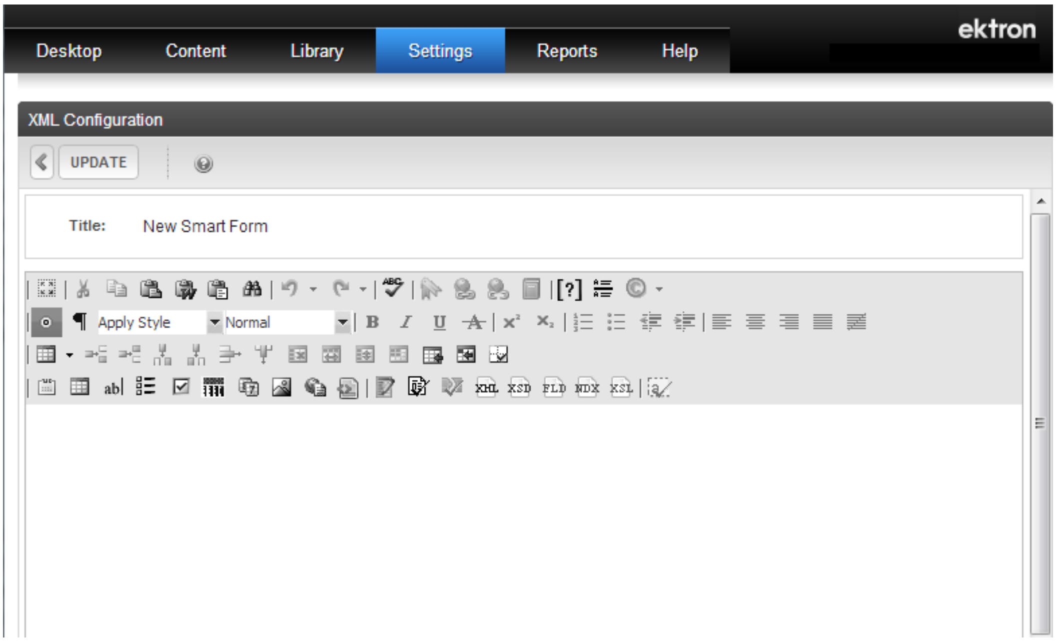
NOTE: The XML Verification feature does *not* validate the contents of the XML file.

Possible results when clicking the verification button:

- **Verified**—File passes all verification parameters.
- **Not Verified**—The file either does not exist in the specified location, or does not contain well-formed XML. Review current settings. Ensure the file is in the proper location, and that it contains well-formed XML

Adding a Smart Form Configuration Using the Data Designer

1. Choose **Workarea > Settings > Configuration > Smart Form Configurations**.
2. Click **Add Smart Form**. The Add Smart Form configuration screen appears.
3. Enter a **Title** for the Smart Form configuration and click **Save**. The Smart Form Data Designer screen appears.



4. Design your Smart Form configuration in the Data Designer. See *Creating a Smart Form Configuration* on page 430 for information about creating XSLTs using the Data Designer.
5. Click **Update**.

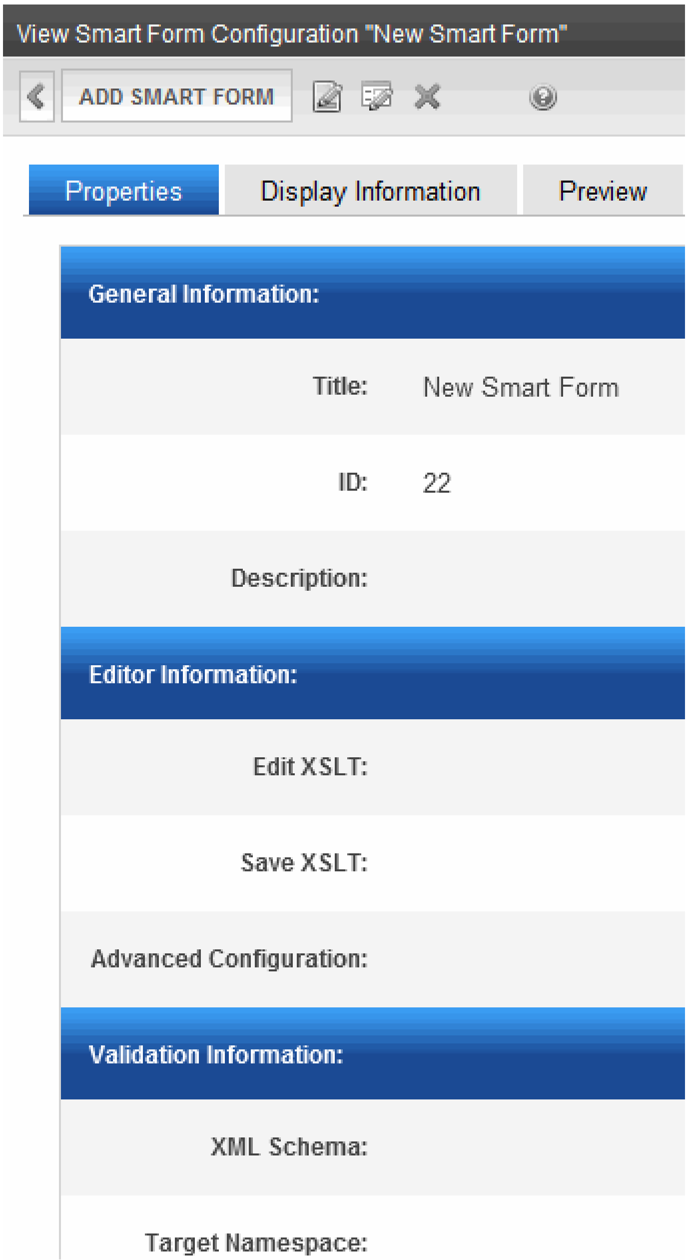
You are ready to assign the Smart Form configuration to a folder or content item. See *Assigning a Smart Form Configuration to a Folder* on page 437 for more information.

Adding a Smart Form Configuration Using External XML Files

NOTE: If you want users to insert Smart Form information using eWebEdit400, you cannot create or edit Smart Forms using external files. However, you can access eWebEdit400's source view, paste the external file's XML, then return to design view.

To add a Smart Form configuration using external XML files:

1. Choose **Workarea > Settings > Configuration > Smart Form Configurations**.
2. Click **Add Smart Form**. The Add Smart Form configuration screen appears.
3. Enter a **Title** for the Smart Form configuration.
4. Click **Save**. The Smart Form Data Designer screen appears.
5. Click **Backarrow** ( ) to exit. The View Smart Form screen for the new Smart Form configuration appears.



6. Click **Edit** ( ). The Edit Smart Form screen appears.
7. Enter the following information.

   General Information

   - **Title**—Name given to Smart Form configuration.
   - **ID**— (display only)ID number assigned when configuration is created.
   - **Description**—Detailed description given to configuration by its creator or last editor.

   Editor Information

   - **Edit XSLT**—XSLT applied to content while being edited.
   - **Save XSLT**—XSLT used to transform the XML when saved to the database.

- **Advanced Configuration**—XML file that contains display information, schema validation, and other advanced XML data.

Validation Information

- **XML Schema**—The .xsd file used to validate the XML content.
- **Target Namespace**—The default namespace used for outgoing XML.

Display Information

- **XSLT1**—XSLT 1 applied to XML data when viewed on a device.
- **XSLT2**—XSLT 2 applied to XML data when viewed on a device.
- **XSLT3**—XSLT 3 applied to XML data when viewed on a device.
- **XSLT (Packaged)**—XSLT package applied to XML data when viewed on a device.

NOTE: When a Smart Form configuration is created using the Data Designer, a default XSLT is created based on the configuration. To learn about modifying the packaged XSLT, see *Editing a Smart Form Configuration's XSLT* on page 436.

8. Specify the default display XSLT for the configuration by clicking the corresponding radio button.
9. Click **Update**.

Creating a Smart Form Configuration

For each field on the screen:

1. Insert a field label.
2. Place the cursor at the desired location.
3. Click the button corresponding to the desired field type.

Ektron provides several options that let you insert or edit fields in the editor. Each field type is described below.

- Data Field Types ( )

NOTE: For information about these data field types, see *Using Data Field Types* on page 442.

- **Calculated**—Performs calculations using other fields on the screen. See *Calculated* on page 443.
- **Calendar**—Lets user insert a date by clicking a calendar. See *Calendar* on page 451.
- **Checkbox**—User's response is either checked or unchecked. See *Checkbox* on page 455.
- **Choices**—Several choices appear on screen. User checks appropriate boxes. All user choices are inserted as values within single XML tag. See *Choices* on page 456.
- **Group Box**—Groups related fields, which can be surrounded by a box and have a caption. See *Group Box* on page 460.
- **Image Only**—Lets user insert an image. See *Image Only* on page 471.

    - **Link Field**—Lets user insert a link to a file, such as a PDF document. See *Link* on page 473.
    - **Resource Selector**—Lets user place content or folders on a Smart Form. See *Resource Selector* on page 476.

    IMPORTANT: You can place content from folders of the following types on a Smart Form: standard, root, site, blog, and eCommerce catalog. You **CANNOT** place content from Community, Discussion Board, or WebCalendar folders on a Smart Form.

    - **Tabular**—Same as group box, but fields can be presented in a table format. See *Tabular Data* on page 481.
    - **Text**—Lets user insert and format free text using editor See *Text* on page 485.
- **Check Compatibility**—Checks the design against existing data.
- **Field Properties**—Lets you change a field's properties. Select field then click this button. This option is also available on the right click menu.
- XML XSD FLD NDX XSL **View Data as...**
    - The XML data document

```
- <root>
- <Information>
<LastName />
<FirstName />
<MiddleName />
<Gender>male</Gender>
<Address />
<city />
<state>MA</state>
<Zip />
<SSN />
<BDate />
<HomeTel />
<WorkTel />
<x-ray />
- <Dental_Insurance>
<Field1 />
<OtherInsurance>N/A</OtherInsurance>
<Account_Number>N/A</Account_Number>
</Dental_Insurance>
<medication />
<lastAppointment />
<clincal />
</Information>
</root>
```

    - The structure, content, and semantics of an XML document

```
<xs:schema elementFormDefault="qualified"
  attributeFormDefault="unqualified"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="root">
  <xs:complexType>
  <xs:sequence>
  <xs:element name="Information">
  <xs:complexType>
```

```
  <xs:sequence>
<xs:element name="LastName">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength xmlns:xs="http://www.w3.org/2001/XMLSchema" value="1" />
    </xs:restriction>
  </xs:simpleType>
</xs:element>
  <xs:element name="FirstName">
  <xs:simpleType>
  <xs:restriction base="xs:string">. .. ..
```

- A list of all fields and information about them (as XML)

```
<fieldlist>
<field name="LastName" datatype="string" basetype="text"
  xpath="/root/Information/LastName" title="Last Name">Last Name</field>
<field name="FirstName" datatype="string" basetype="text"
  xpath="/root/Information/FirstName" title="First Name">First Name</field>
<field name="MiddleName" datatype="string" basetype="text"
  xpath="/root/Information/MiddleName" title="Middle Name">Middle Name</field>
<field name="Gender" datatype="choice" basetype="text"
  xpath="/root/Information/Gender" datalist="IDAPK3KC">Gender</field>
  . .. .. ..
```

- xpath information for any indexed field on the screen

```
<indexable>
  <xpath type="string">/root/Information/SSN</xpath>
  <xpath type="string">/root/Information/HomeTel</xpath>
  <xpath>/root/Information/WorkTel</xpath>
</indexable>
```

- The Data Design document’s presentation XSLT

```
<xsl:stylesheet version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="xml" version="1.0"
    omit-xml-declaration="yes" indent="yes" encoding="utf-8" />
  <xsl:strip-space elements="*" />
  <xsl:variable name="ektdesignns_fieldlist"
    select="/*/ektdesignpackage_list/fieldlist" />
- <xsl:template match="/" xml:space="preserve"> <p> </p>
- <fieldset id="Information" title="Demographic Information">
    <legend>Patient Information</legend>
- <div>
- <p> <strong>Last Name</strong> <xsl:text> </xsl:text>
<xsl:value-of select="/root/Information/LastName" />
    <strong>First Name</strong>
<xsl:text> </xsl:text>
<xsl:value-of select="/root/Information/FirstName" />
.. .. ... ..
```

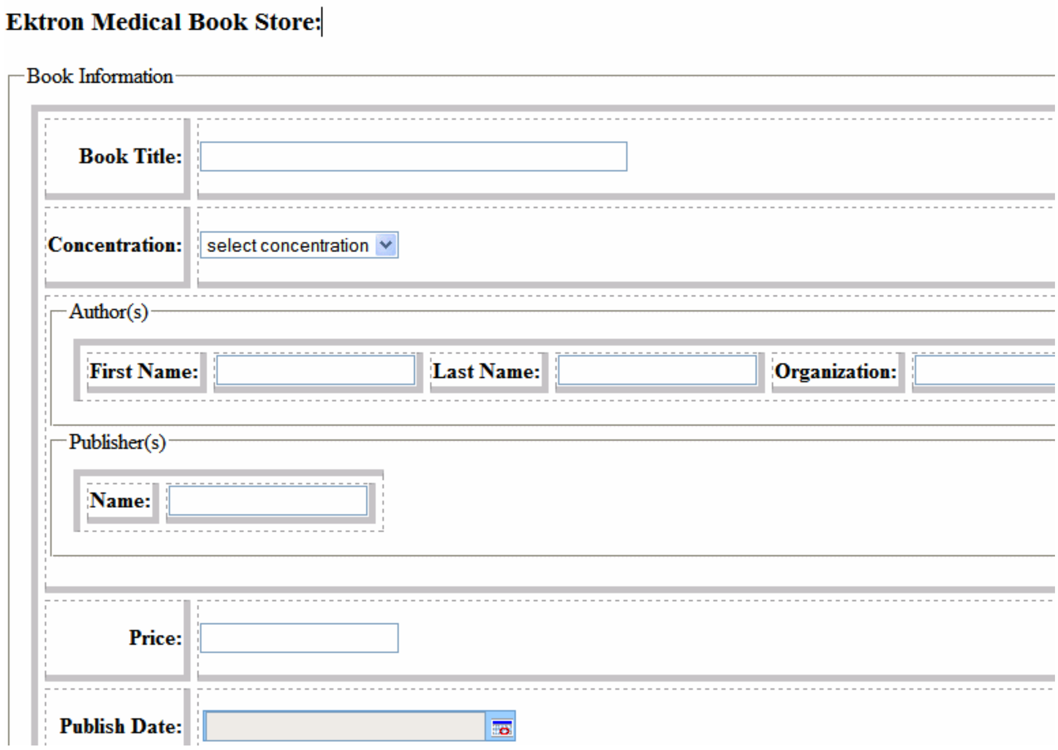
- **Validate**—Validates data when previewing data entry. This button is available in data entry and data design modes.

Buttons at the bottom of the Data Designer screen let you edit the content several ways.

- **Data Design** mode —lets you insert and remove fields from the screen.
- **XML** mode—lets you edit the XML source code. If the edited source XML is not well-formed, you are notified and must remain in source view until you fix it.
- **Data Entry** mode— simulates the screen’s appearance during data entry.

To edit any field's properties, select it, right click the mouse, and select **Field Properties**.

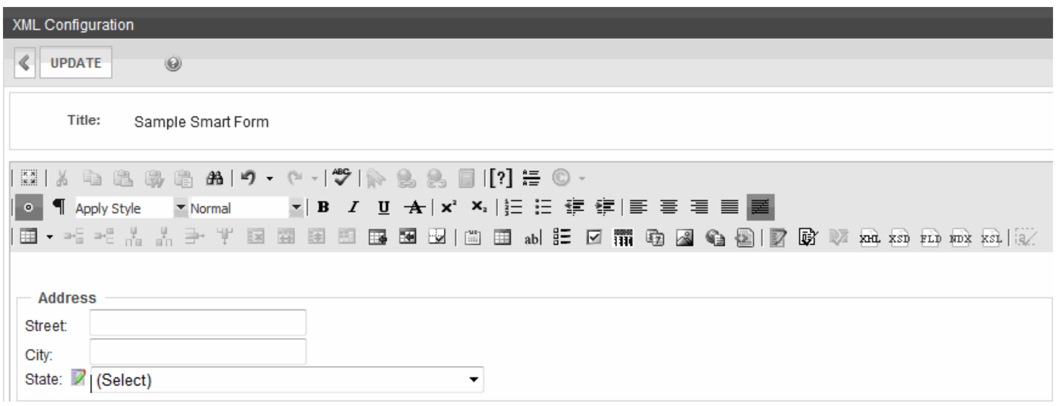
You also can use Ektron’s rich formatting capabilities to design the screen. For example, you can format text, and use tables, images and hyperlinks to guide the user through the data entry process. The following sample screen was created with the Data Designer.



Creating a Simple Data Entry Screen

The following example shows how to create a simple data entry screen that has a group box with 2 text fields and a choices field.

—Image—



Prerequisite

You must be a member of the Administrators group or a Smart Form administrator.
See Also: *Defining Roles* on page 1120

1. **Workarea >Settings > Configuration > Smart Form Configurations**.
2. Click **Add Smart Form**.
3. Assign the form a title and click **Save**. For example, `Sample Smart Form`. The screen refreshes and the editor appears.
4. Click **Group Box** ( ).
5. Type `Address` in the **Descriptive Name**, **Field Name**, and **Caption** fields and click **OK**. The Address group box appears on the form.
6. Click in the **Address** box and type the label "`Street:` " then click **Text Field** ( ).
7. Type `Street` in the **Descriptive Name**, **Field Name**, and **Tool Tip** fields and click **OK**. The text field box appears on the form inside the Address group box.
8. Under the Street label, type the label "`City:` " then click **Text Field** ( ).
9. Type `City` in the **Descriptive Name**, **Field Name**, and **Tool Tip** fields and click **OK**. The text field box appears on the form inside the Address group box.
10. Under the **City** label, type the label "State:" then click **Choices Field** ( ).
11. Type `State` in the **Descriptive Name, Field Name, and Tool Tip** fields.
12. Choose **U.S. States & Territories** from the List menu.
13. Click **OK**. The field box appears on the form inside the Address group box.

Inserting a Conditional Section

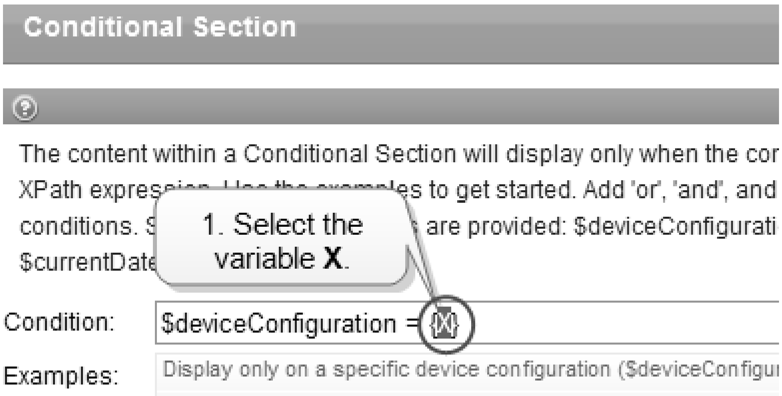
You can specify a field or group of fields to appear on a Smart Form configuration only under certain conditions. For example, a Winter outdoor image does not appear until November, and drops off on April 1. As another example, one group of fields appears if the user is using a mobile device (such as a smart phone), and a different set of fields appears if the user is not on a mobile device.

1. After you insert the fields on a Smart Form configuration, click **Conditional Section** ([?]). The Conditional Section dialog appears.
2. Specify the condition. The **Examples** pull-down has sample conditions that you can insert then modify.
   —Examples—
   - The user is viewing the Web page on a Smart Phone
     `$deviceConfiguration = 'Smart Phones'`
   - The user is viewing the Web page on a device that is not a smart phone
     `not($deviceConfiguration = 'Smart Phones')`
   - The user is viewing the Web page on January 1, 2011 or later
     `$currentDate >= '2011-01-01'`
   - The person viewing the Web page is a logged-in Ektron user
     `$userId != '0'`

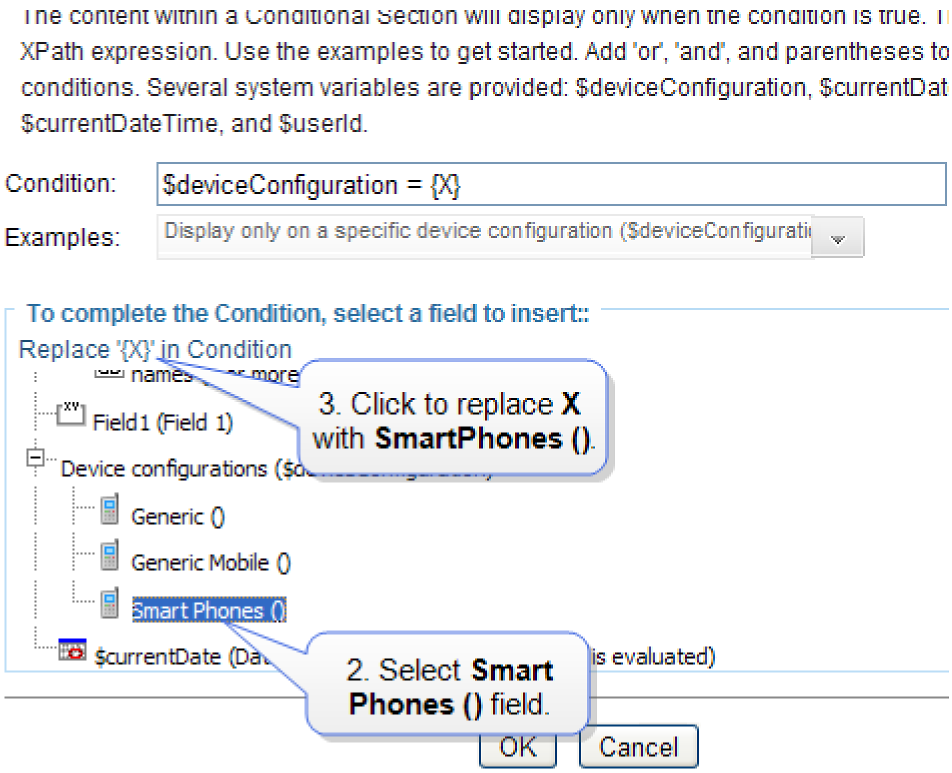
   Use xpath to build the expression. For example, `$deviceConfiguration = 'Smart Phones'`. You can click **View Data as Index** ( ) to see the configuration's xpath structure.

NOTE: Developers can modify the examples by editing `workarea/ContentDesigner/ConditionalExamples.xml.`

3. Select a variable to replace. For example, select **X**.

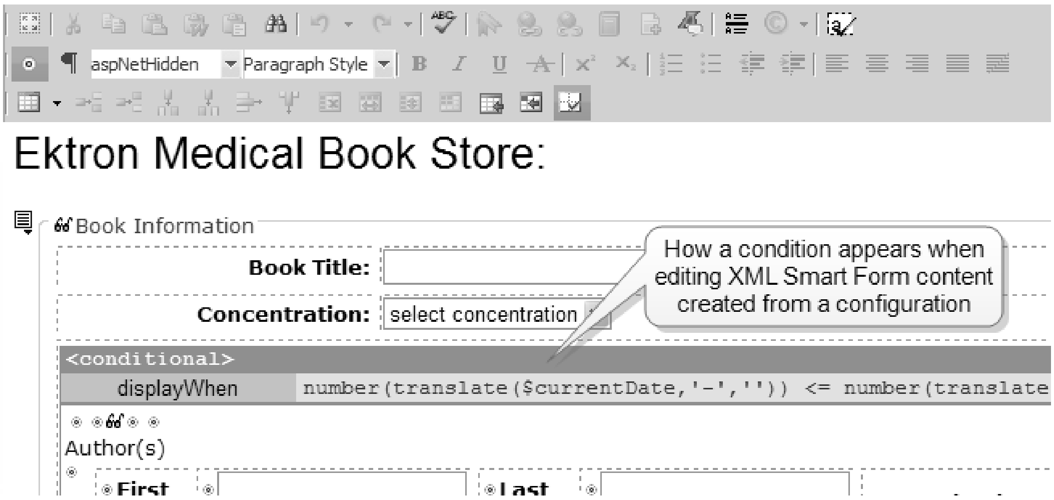


4. Select a field from the lower section of the dialog. For example, select **Smart Phones**.
5. Click **Replace** *field* **in Condition**.



The expression looks like this: `$deviceConfiguration = 'Smart Phones'`

- You cannot apply a conditional section to a rich area field.
- You can only apply a conditional section to a Smart Form configuration. You *cannot* apply a conditional section to Smart Form content created from a configuration. But, authors working that content see conditions



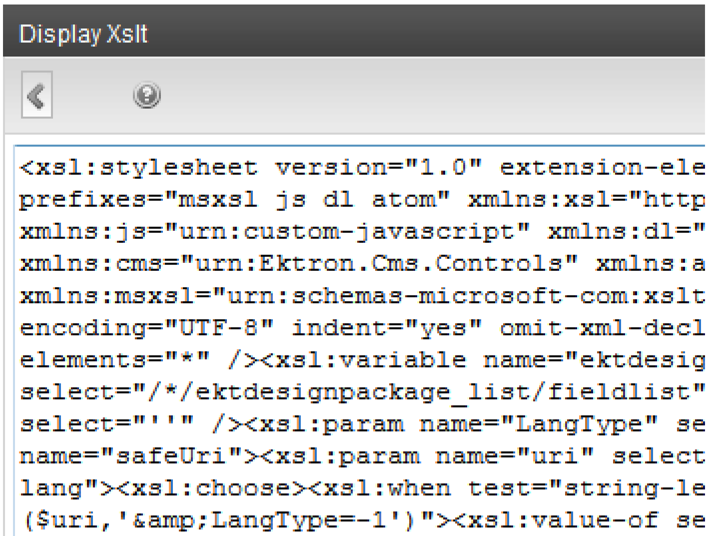
Editing a Smart Form Configuration’s XSLT

Every Smart Form configuration has a packaged XSLT, which is a default XSLT created from the configuration’s display information. To modify the Smart Form’s appearance:

1. Go to **Settings > Configuration > Smart Form Configurations**.
2. Click the Smart Form configuration whose XSLT you want to customize.
3. Click **View XSLT** ( ).
4. Select and copy the XSLT and paste it into an XSLT editor.
5. Customize the file.
6. Save it with an `.xslt` extension to your site *root*`/xmlfiles` folder.
7. Return to the Smart Form configuration you selected in Step 2 and click **Edit**.
8. In the **XSLT1** field, enter the Xslt you saved in Step 6.
9. Click the radio button next to **XSLT1**.
10. Click **Update**.

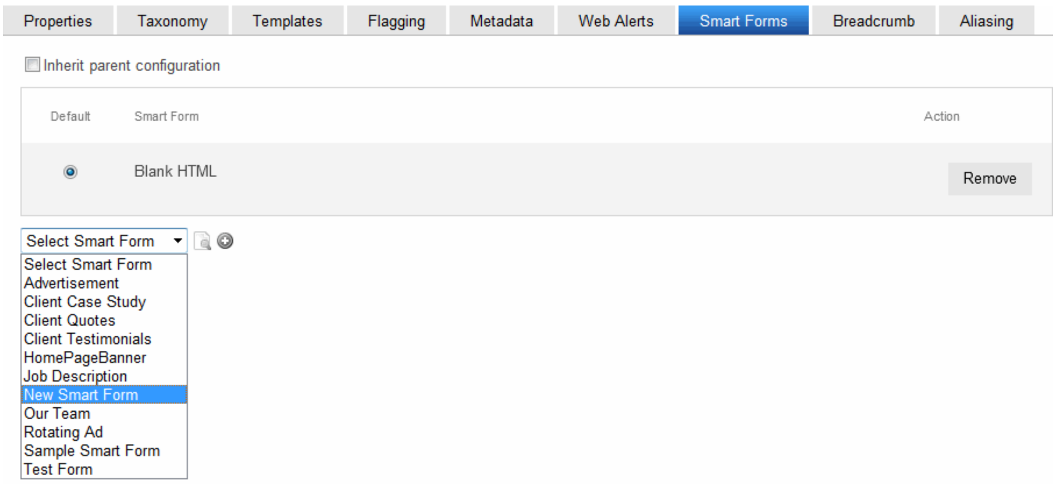
You can edit the custom XSLT at any time. The changes immediately affect the appearance of the Smart Form on your website. So, the XSLT is quite different from other aspects of the Smart Form configuration, which generally cannot be edited for existing content.

To view a Smart Form's XSLT, click ( ). The View XSLT screen appears. You can use this information to create your display XSLT.



Assigning a Smart Form Configuration to a Folder

If you break inheritance on the Smart Forms tab of a folder properties screen, you can select the Smart Form configurations to be assigned to content in the folder.



- To preview a Smart Form, click **Preview** ( ).
- To add any Smart Form, select it from the drop-down list and click **Add** ( ).
- To remove a Smart Form, click **Remove**.
- You can require a Smart Form to be the only type of content that can be added within a folder by checking the box next to **Require Smart Forms**. If you do, the user can only choose enabled Smart Forms when viewing that folder's **New** menu—all other content types are suppressed.

Deleting a Smart Form

You may delete a Smart Form in the same way that you delete other content. See *Deleting Content* on page 291.

Deleting a Smart Form Configuration

You can delete a Smart Form Configuration *only* if no content is assigned to it. If no content is assigned, click **Delete** ( ) to delete a configuration.

If content is assigned, you must first delete all assigned content.

Deleting Assigned Content

PREREQUISITE

You have permission to delete the assigned content. See Also: *Managing Folder Permissions* on page 257

1. From the Smart Form Configuration screen, click **Associated Content** ( ) to access the Delete Contents of Smart Form screen.
2. Delete content assigned to the Smart Form.
3. The Smart Form Configuration screen appears. Click **Delete** ( ) to delete the configuration.

Searching XML Information

XML indexing lets site visitors search XML information collected from Smart Forms and view the results. The results appear as a list of topic titles, optionally followed by the content summary. The Ektron Windows Service manages the background processing that creates XML indexes. See Also: *Ektron Windows Service* on page 1877.

There are 2 ways that XML indexing can make XML content available to your site visitors.

- *Present a screen of search criteria.* A site visitor uses the screen to select the desired kind of information. For example, your site sells outdoor clothing, and a user searches for wool hats under $20.00.
- *Determine the search and display criteria programmatically using a custom function*. Your Web developer inserts a control that specifies search and display criteria. For example, your site sells books. A site visitor sees a navigation link **Find books under $5.00**. When the link is clicked, the control searches your XML content and returns all books whose price is less than $5.00.

You can choose the XML fields to index with the Data Designer. You can also validate those fields to be numbers, dates, Boolean, or string values. After you identify fields to be indexed, a search dialog is created. Where appropriate, the dialog automatically populates drop-down lists from the indexed data.

Important Notes:

- XML indexing is only available for information collected on XML Smart Forms. It cannot find information in other types of content.

- Ektron content has a **Content Searchable** check box, which you must check if you want the Index Search to find Smart Form content. See Also: *Ensuring Your Content is Searchable* on page 942
- Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.
- For Smart Form fields to searchable, they must be stored as elements *not* attributes.If you are upgrading to version 7.5 or higher, inspect your Smart Forms and change field properties as needed so they are stored as elements not attributes.

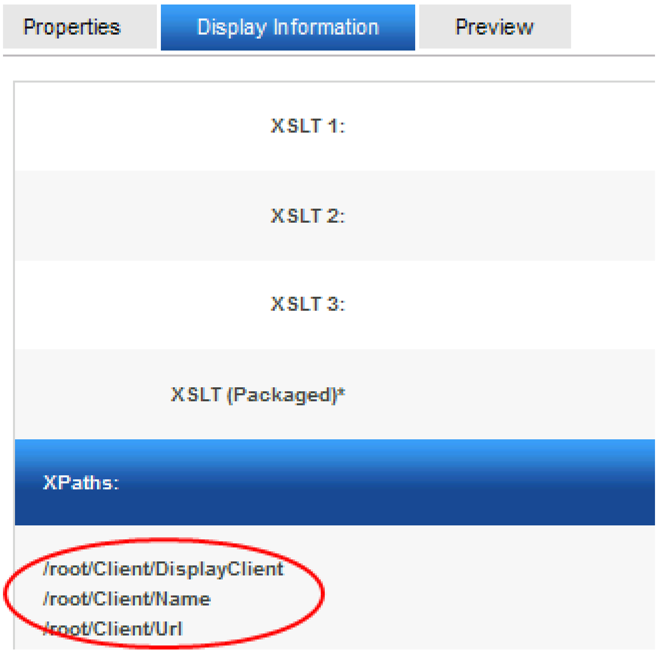
This section also contains the following topics.

Setting up a Search

To create a search:

1. Select a Smart Form.
2. Assign indexing to each field to be searched. You can index the following types of fields: Checkbox, Plain Text, Choices, List, Calculated, Image Only, Link, Calendar.
   a. Choose **Workarea > Settings > Configuration > Smart Form Configuration**.
   b. Select a Smart Form configuration that you want to index and open its Data Design.
   c. Move the cursor to the first field you want to index, right click the field, and choose **Field Properties**. A dialog box appears.
   d. Check **Indexed**.
   e. Repeat these steps for every field by which you want site visitors to search the Smart Form.

   IMPORTANT: If a Smart Form configuration field's xpath exceeds 64 characters, Microsoft Search Server 2010 cannot search it. So, if you need to index such a field, reduce the length of its xpath to less than 64 characters.
   To see a configuration's XPaths, click the **Display Information** tab.



3. Set up the search screen.
    - **Xpath**—The xpath to each indexed field.
    - **Label**—The index field's field name, as defined on its dialog.
    - **Multiple**—Check this box if you want to allow the user performing the search to select more than one value. This checkbox only appears with List and Choice fields.
4. When you save a Data Design form, a dialog appears that lets you view all and modify indexed fields.

    - Xpath—The xpath to each indexed field.
    - Label—The index field's field name, as defined on its dialog.
    - Multiple—Check this box if you want to allow the user performing the search to select more than one value. This checkbox only appears with List and Choice fields.

NOTE: To select more than one value on the search screen, the user holds down the **Ctrl** key while selecting additional options.

If you choose **NoSelection** in a search field, the search disregards that field when compiling results. However, you must select a value (or range of values) in at least one field to get results.

NOTE: The IndexSearch server control has been deprecated. Use the XML Search server controls to display a Smart Form's search screen on a Web form. If you are already using the IndexSearch server control, you can continue to do so, but Ektron recommends using current versions of functionality.

Validation

Validation ensures that the user completing an XML form enters the right type of data. You can decide if the user's input should be a number, boolean, date, string, zip code, and so on. If you do not specify type attributes using validation data, the field is a string.

Validation is especially important when users search XML data, because it helps the search find the correct information. For example, if a field collects a zip code but you set its type to plain text, a user completing the form can insert anything into the field. If the user inserts the letter "o" instead of the number zero (0), the field accepts that input but the search will not find that record. On the other hand, if you set validation to zip code, the user can only insert 5 or 9 digits—any other entry is rejected.

User- versus Developer-Selected Search Criteria

There are 2 ways that XML Indexing can make XML content available to your site visitors.

- *Present a screen of search criteria.* A site visitor uses the screen to select the desired kind of information. For example, your site sells outdoor clothing, and a user searches for wool hats under $20.00.
- *Determine the search and display criteria programmatically using a custom function*. Your Web developer inserts a control that specifies search and display criteria. For example, your site sells books. A site visitor sees a navigation link **Find books under $5.00**. When the link is clicked, the control searches your XML content and returns all books whose price is less than $5.00.

NOTE: The Ektron Windows Service manages the background processing that creates XML indexes. See Also: *Ektron Windows Service* on page 1877.

Ektron content has a **Content Searchable** check box, which must be checked if you want the Index Search to find Smart Form content. See Also: *Ensuring Your Content is Searchable* on page 942

Types of SearchCriteria

XML Indexing allows multi-dimensional searches on all types of XML data.

- **Plain text**—Use an exact phrase, or any word or letter in a phrase
- **Numerical and date information**—Use expressions such as greater than, less than, or between 2 values
- **List and choice fields**—Display the field values and let the user select relevant ones.

  NOTE: Choices field values can consist of single letter.

- **Image Only**—Use the `alt` or `src` attribute value
- **Link**—Use the text or `href` attribute value

For every search field, **NoSelection** is a value. If this is chosen, the search disregards that field when compiling results. However, the user must select a value (or range of values) in at least one field to get results.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

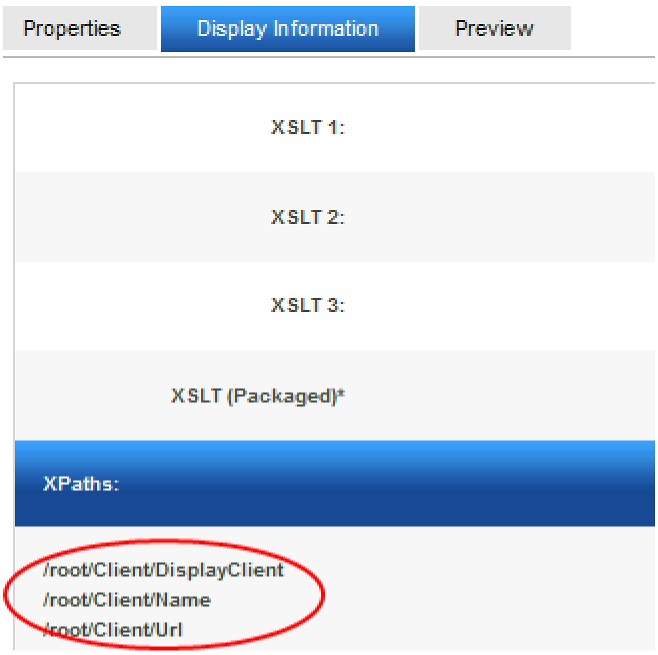
For Smart Form fields to searchable, they must be stored as elements *not* attributes. If you are upgrading to version 7.5 or higher, inspect your Smart Forms and change field properties as needed so they are stored as elements not attributes.

Specifying Which XML Elements are Indexed

XML indexing allows multi-dimensional searches on all types of XML data.

- Plain text—Use an exact phrase, or any word or letter in a phrase
- Numerical and date information—Use expressions such as greater than, less than, or between 2 values
- List and choice fields—Display the field values and let the user select relevant ones. Choices field values can consist of single letter.
- Image Only—Use the `alt` or `src` attribute value
- Link—Use the text or `href` attribute value

If a Smart Form configuration field's xpath exceeds 64 characters, Microsoft Search Server 2010 cannot search it. So, if you need to index such a field, reduce the length of its xpath to less than 64 characters. To see a configuration's XPaths, click the **Display Information** tab.



Using Data Field Types

You can insert the following data field types into a data entry screen.

IMPORTANT: For Smart Form fields to searchable, they must be stored as elements or attributes not content.If you are upgrading to version 8.5 or higher, inspect your Smart Forms and change field properties as needed so they are not stored as content.

This section also contains the following topics.

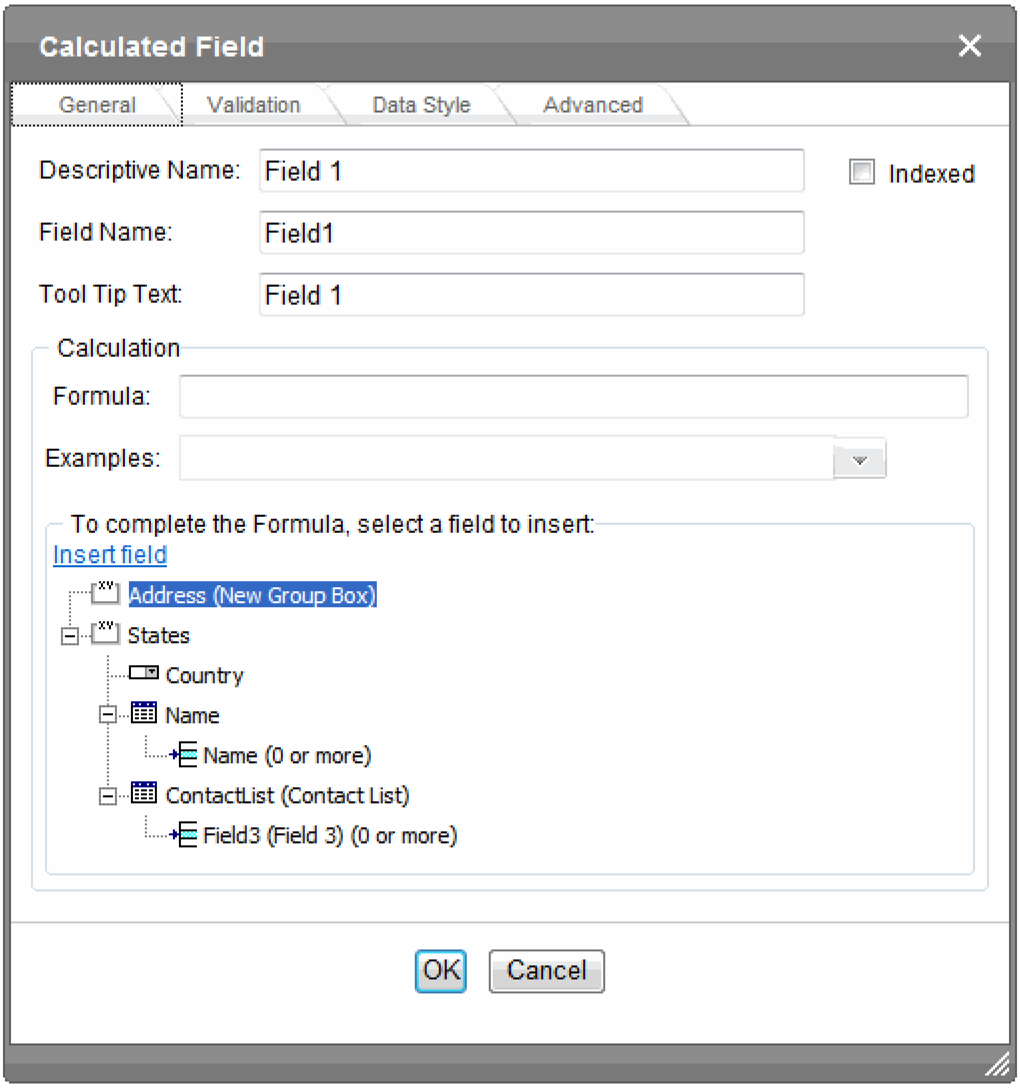
Calculated

Use a calculated field to perform a calculation based on values in other fields. For example, if your screen collects mortgage information, you could create one field to collect the mortgage and interest payment and another to collect taxes and insurance. The calculated field could sum those 2 numbers and display the monthly payment.

You can validate a calculated field. For example, you can require a positive number between 100 and 1,000.

Calculated fields are display only.

IMPORTANT: If a field is referenced in a calculation, use validation to require a value. This forces the user to enter a number used in the calculation.



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The **Indexed** field may or may not appear, depending on how your administrator has set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over this field.
- **Formula**—Enter the calculation that this field will perform. See Also: *Using the Formula Field* on the facing page
- **Select Field**—Click this button to select a field to reference in the calculation.
- **Examples**—Click the down arrow next to this field to see sample calculations. If you select an example, it is copied into the **Formula** field. See Also: *Formula Example Descriptions* on page 447
- **Validation**—Select the kind of validation to apply to this field. Your choices are:
  - **No validation**—the user's response is not checked
  - **Non-negative number (required)**—the result of the calculation must be a

positive number

- **Custom Validation**—See *Creating Custom Validation Criteria* on page 488

If you assign any value other than **No validation**, the field is surrounded by red dashes in Data Entry mode. If the user's response does not meet the validation criteria, the field remains surrounded by red dashes. Your system administrator determines if a user can save a screen with invalid data.

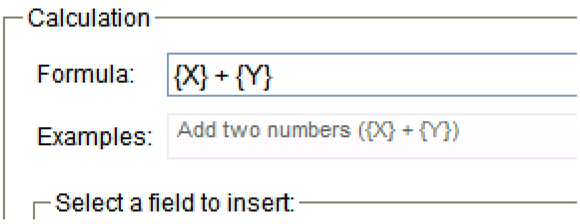
- **Error message**—If you select **Non-negative number**, insert text that appears on the screen if the user's response does not meet this criterion.
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

> **NOTE:** The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if `<button command="cmdfontname" />` is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.

- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

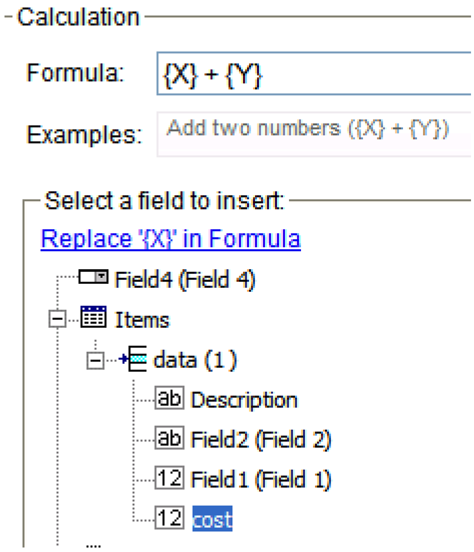
Using the Formula Field

1. Copy a sample calculation into the **Formula** field by clicking the **Examples** field.
2. Select an operation from the drop-down list. For example, if you click **Examples Add 2 numbers {X}+{Y}**, **{X}+{Y}** appears in this field.



3. Replace the variables with fields on the screen. Be sure to select the curly brackets ({}) with the letter between them. Then, when the user enters data into those fields, the calculation is performed using the current field values.
4. Select the first variable to replace. To continue the example, select **{X}**.

5. Select a field to replace that variable in the calculation.



6. Click **Replace X in Formula**.
7. Replace all variables in the formula.

Important information about calculated variables

- If the user does not replace *all* variables, validation will fail.
- If a variable appears more than once in a formula (for example, `{X} * number({X}<={Y}) + {Y} * number({X}>{Y})`, you only need to replace the first occurrence—the editor replaces subsequent occurrences for you.
- If a calculated field tries to perform a numerical calculation with a value that is blank or contains letters, `NaN` appears in the field. (`NaN` stands for "not a number.")
- If a calculated field tries to divide by zero, `Infinity` appears.
- If an XML document contains several occurrences of a field that is referenced in a formula, the value is derived as follows:
  - When using the XPath functions `sum()` and `count()`, all values with the field name are considered. For example, a document includes 3 books whose prices are $10, $20 and $30. In this case, `sum`'s value is $60.
  - When using all other functions, the first value is used. For example, a document includes 3 books whose prices are $10, $20 and $30. If a calculation formula refers to <price>, its value is $10.
- You can replace a variable with a number instead of a field. For example, replace `{X} * {Y}` with `../price * 1.15`.
- The expression can be complex, such as `(round(Field1 * 0.80) + (1 div Field2)) - 2`.
- You can use a string expression that creates a text message. For example, to calculate a full name from its parts: `concat( title, ' ', givenname, ' ', familyname)`, which could produce "Dr. Jonathan Smythe".
- A calculated field can only reference other calculated fields that appear before it in a document. For example, a document collects a series of numbers.
  - One calculated field counts the number of numbers.
  - Another totals their values.

- A third computes the average by dividing the total by the count.

In this example, you must place the third field below or to the right of the first 2 fields. Calculated fields that are defined later in a document do not appear in the Select Field or Group dialog.

Formula Example Descriptions

These formulae appear in the **Examples** drop-down list of the Calculated Field dialog. Your system administrator can customize the list.

Example Field Text	Example Field Formula	Description
Add 2 numbers	{X} + {Y}	Add the value in the first field (X) to the value in the second field (Y).
Subtract 2 numbers	{X} - {Y}	Subtract the value in the second field (Y) from the value in the first field (X).
Multiply 2 numbers	{X} * {Y}	Multiply the value in the first field (X) by the value in the second field (Y).
Divide 2 numbers	format-number({X} div {Y},'0.###')	Divide the value in the first field (X) by the value in the second field (Y).
Format as a percentage	format-number({X} div {Y},'#0%')	Determine what percentage one number (X) is of another (Y). For example, if {X}=10 and {Y}=100, the result of the calculation is 10%.
Absolute value of a number	{X} * (number({X} > 0)*2-1)	The number regardless of the sign (negative or positive).
Minimum of 2 numbers	{X} * number({X} <= {Y}) + {Y} * number({X} > {Y})	The smaller of 2 field values.
Maximum of 2 numbers	{X} * number({X} >= {Y}) + {Y} * number({X} < {Y})	The larger of 2 field values.
Zero if subtraction is negative	({X} - {Y}) * number(({X} - {Y}) >; 0)	Subtract one number (Y) from another (X). If the difference is less than zero, insert zero.

Example Field Text	Example Field Formula	Description
Multiply by another number if checkbox is checked	`{X} * ( {Y} * number ( {Z} ='true') + number( {Z} !='true'))`	X is a numeric field. Y is another numeric field to multiply by X if a checkbox is checked. Z is the checkbox. For example, {X}=2 and {Y}=3 • if the checkbox is checked, the result is 2 * 3, which is 6 • If the checkbox is not checked, the result is 2
Round a decimal number	round({X})	Rounds the number to the nearest integer. For example, `round(3.14)`. The result is 3.
Round up a decimal number	ceiling({X})	Returns the smallest integer that is greater than the number. For example, `ceiling (3.14)`. The result is 4. For negative numbers: ceiling(-3.14) = -3
Round down a decimal number	floor({X})	Returns the largest integer that is not greater than the number argument. For example, `floor(3.14)`. The result is 3. For negative numbers: floor(-3.14) = -4
Format decimal number 0.00	format-number({X},'0.00')	Rounds a value either up or down to the hundredth place. As examples, 100 becomes 100.00, and 3.14159265 becomes 3.14.
Total numeric values from multiple fields	sum({X}[text()] | {Y}[text()] | {Z}[text()])	Add the values in all referenced fields. Only elements that contain a value are summed. Empty elements are excluded.

Example Field Text	Example Field Formula	Description
Total a list of numeric values	sum({X}[text()])	Total all values in a single repeating field. Here's an example. Plain Text Field properties Name: Miles Allow: more than one Validation: non-negative whole number XML Data <root> <Miles>89</Miles> <Miles>12</Miles> <Miles>23</Miles> <Miles>19</Miles> </root> sum(Miles) equals 89+12+23+19=143 Only elements that contain a value are summed. Empty elements are excluded.

Example Field Text	Example Field Formula	Description

Average a list of numeric values	format-number(sum({X}[text()]) div count({X}),'0.###')	Calculate the average of all values in a single repeating field.
		To continue the example from the **Total a list of numeric values field**:
		Plain Text Field properties
		Name: Miles
		Allow: more than one
		Validation: non-negative whole number
		XML Data
		`<root>`
		`<Miles>89</Miles>`
		`<Miles>12</Miles>`
		`<Miles>23</Miles>`
		`<Miles>19</Miles>`
		`</root>`
		Average=89+12+23+19=143
		divided by the number of values (4)= 35.75
		Only elements that contain a value are summed. Empty elements are excluded.

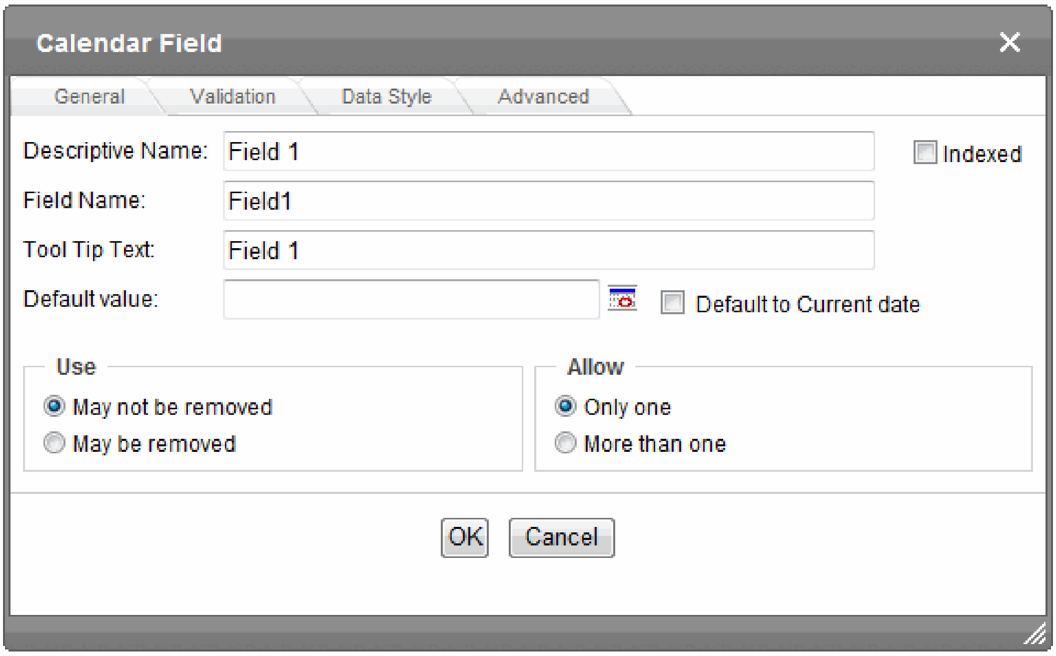
Example Field Text	Example Field Formula	Description

Count the number of values in a list	count({X})	Calculate the number of values in a single repeating field.
		To continue the example from the **Total a list of numeric values field**:
		Plain Text Field properties
		Name: Miles
		Allow: more than one
		Validation: non-negative whole number
		XML Data
		`<root>`
		`<Miles>89</Miles>`
		`<Miles>12</Miles>`
		`<Miles>23</Miles>`
		`<Miles>19</Miles>`
		`</root>`
		Count = 4

Lowercase text	translate ({X},'ABCDEFGHIJKLMN OPQRSTUVWXYZ', 'abcdefghijklmnopqrstuvwxyz')	Replace all uppercase characters with the lowercase version of that character
Uppercase text	translate({X},'abcdefghijklmn opqrstuvwxyz', 'ABCDEFGHIJKLMN OPQRSTUVWXYZ')	Replace all lowercase characters with the uppercase version of that character
Remove extra spaces	normalize-space({X})	Remove extra space characters from content\
Concatenate text	concat({X}, ' ', {Y})	Link text strings together into a single string. For example, `concat('The',' ','XML')` yields `The XML`.
Size of a text string	string-length({X})	Count the number of characters in a selected field's value. For example, if the referenced field's value is Hello, string-length = 5.

Calendar

Insert a calendar field when you want a Smart Form to include a date field. You may use the current date or click one from a calendar. Because users cannot enter digits, a standard date format is ensured. The date is stored as a standard XML date (in the format yyyy-mm-dd), and localized to the computer of the user viewing it.



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The **Indexed** field may or may not appear, depending on how your administrator has set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over this field.
- **Default value**—If you want this screen to have a default date when the user first sees it, click the calendar icon to the right and select a date. The user can change the date in Data Entry mode. Check **Default to Current date** if you want to use the date on which the content is created or edited.

  NOTE: If you enter a default date, you cannot later remove it. You can change it. If necessary, you can delete the field and enter a new one.

- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

  If you check **May be removed**, when this field appears on a data entry screen, an icon ( ) appears to the left of the field. If the user clicks the icon, a drop-down menu provides an option to remove the field.

  If the user removes the field, *field name* replaces the field on the data entry screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is `street address`, and the user removes the field, add Street Address appears in place of the field.

NOTE: The menu icon ( ) can also indicate that the user can add instances of a field (see the Allow field). So, if a field is required, the icon could appear but omit a **Remove** option.

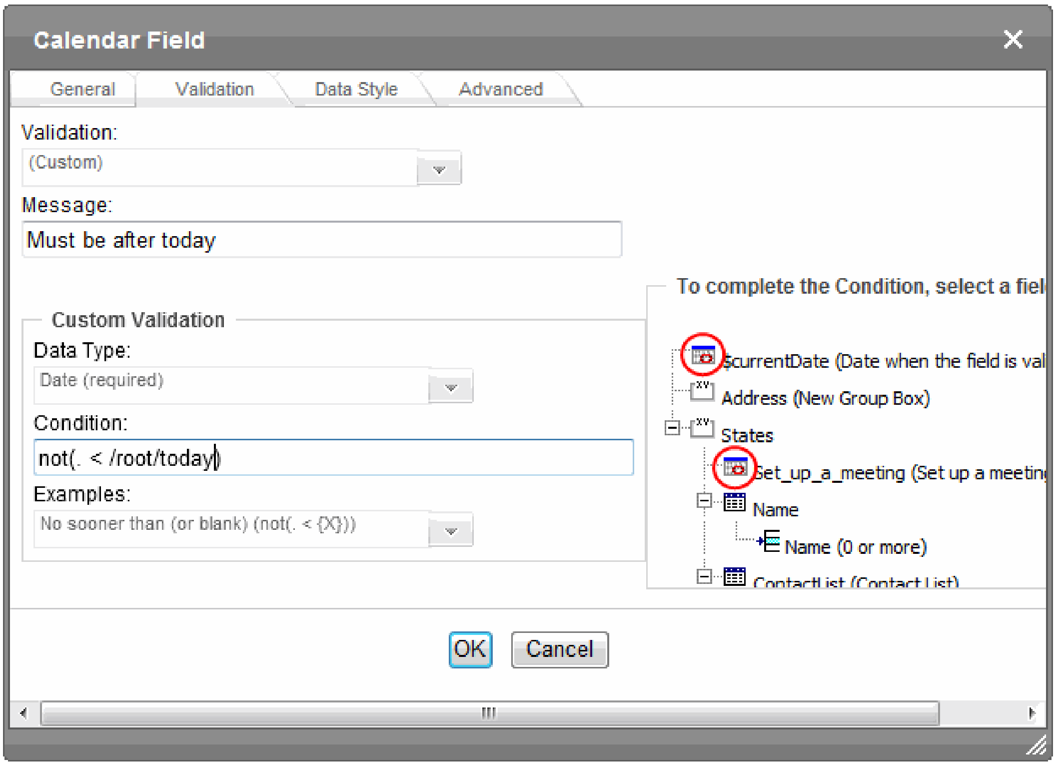
- **Allow**—Check **more than one** if you want to let the user entering data add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you are allowing the user to insert an entirely new table, not an additional table row.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

NOTE: The menu icon ( ) can also indicate that the user can remove a field (see the Use field). So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Validation**—If you want to require the user using the calendar to enter a response, click the down arrow to the right of this response field and select **Cannot be blank**. You can also choose a date in the past/future option or **Custom**.
- **Error Message**—If you select **Cannot be blank**, insert text that appears on the screen if the user's response does not meet this criterion.
- **Custom Validation**—You can ensure the user's input is greater or less than the date you are inserting on the Data Design screen.



- **Message**—displays in Data Entry mode when the user inserts an invalid value. Your system administrator determines if a user can save the invalid data.
- **Data Type**—shows **Date**.
- **Condition**—displays the validation logic.
- **Examples**—drop-down list shows validation expressions that you can apply to the field.
- **Select a Field to Insert** area—displays fields that can be inserted into the **Condition** field. You must choose a calendar type field (note the calendar icon to the left of these fields).
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

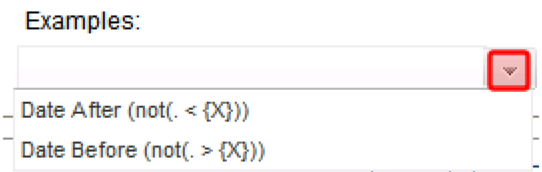
  NOTE: The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if `<button command="cmdfontname" />` is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.

- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

Creating a Custom Validation

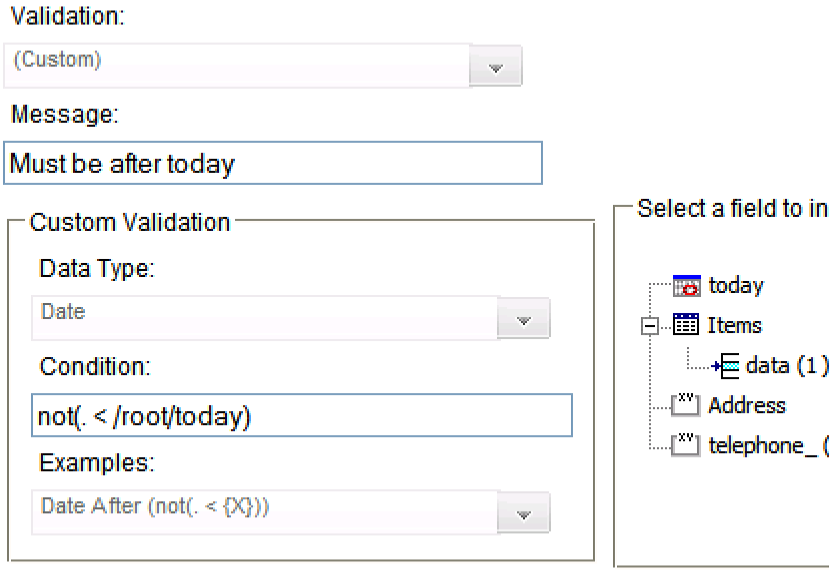
As an example of custom validation, assume a field collects the date when a patient's health insurance policy expires. You want to make sure the date is later than today. To accomplish this:

1. Create a calendar field that prompts for today's date.
2. Create another calendar field that prompts for a patient's health insurance policy expiration date.
3. While creating the second field, in the **Validation** section, click **Custom Validation**. The Custom validation screen appears.
4. Click the down arrow to the right of the **Examples** field to see sample logic.



5. Click **Date After (not(. >={X})**. This option lets you specify that the user's response must be later than a specified date.
6. In the **Condition** field, select **{X}** and click the **Select Field** button. The Select Field or Group screen appears.
7. Select the field that prompts for today's date, which you created in Step 1. That field replaces **{X}** in the **Condition** field.

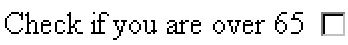
8. Move the cursor to the **Error Message** field and compose an error message. For example: `Must be after today`. Your screen should look like this.

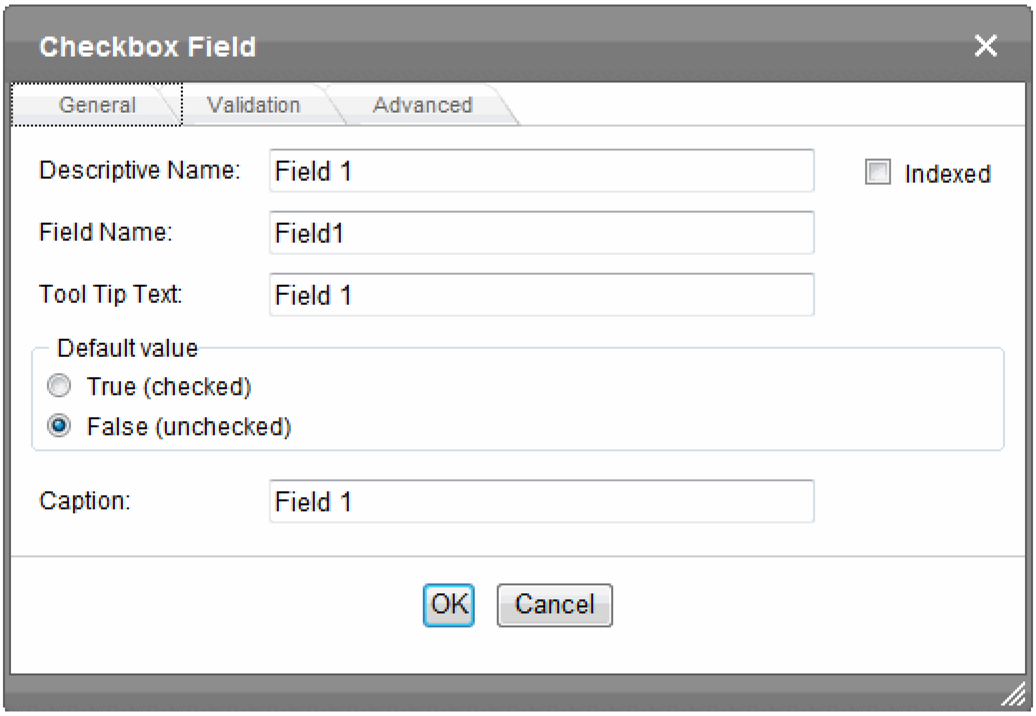


9. Click **OK**.
10. Click **OK** to save that dialog and test the validation on the date field. To do this, switch to Data Entry mode and enter a date earlier than today to verify that validation works as expected.

Checkbox

A Checkbox field is only one character wide and accepts one of 2 possible values: checked or unchecked. For example:





- **Descriptive Name**—Enter text to guide the user's response to this field. To continue the example, the caption would be **Check if you are over 65**. After you insert this field onto the screen, the Descriptive Name appears to the right of the checkbox. You can use the editor's formatting capabilities to modify its size, font, color, and other attributes.

NOTE: The Descriptive Name field only appears on this dialog when you create the Check Box field. If you later try to edit the field, it is not on the dialog. However, you can edit the Descriptive Name text within the editor.

- **Indexed**—Check if you want to index this field. See Also: *Searching XML Information* on page 438. The **Indexed** field may not appear, depending on how your administrator set up your system.
- **Field Name**—Enter the field's element name. This will define the field in the XML.
- **Tool Tip Text**—Enter text that appears when a user hovers the cursor over this field.
- **Default value**—If you want this field to be checked when the screen first appears, click **True**. Otherwise, click **False**.
- **Validation tab**—You can use this screen to specify if the checkbox must be checked or unchecked.
- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

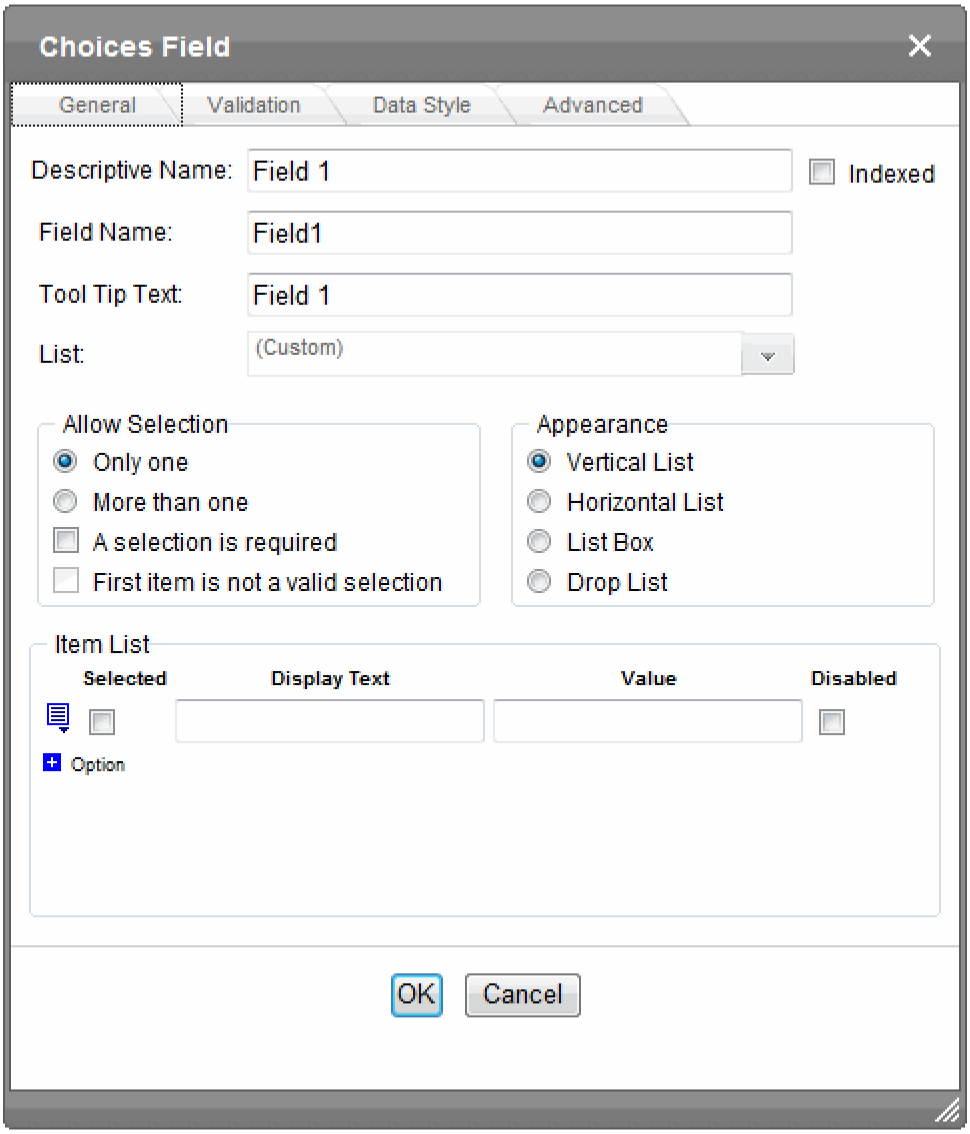
Choices

Use a Choices field to give a data entry user several options. For example, you create a Choices field named **Interests** that lists these options. The data entry user could check the first 2 and leave the third blank.

- music
- art
- sports

You can do the following with a Choices field.

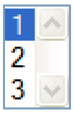
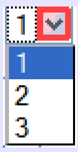
- Limit a user's response to one item, or allow more than one.
- Require a response.
- Determine the list's appearance.
- Choose from a standard list of choices (such as Languages, Countries, and so on) or create your own list.



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The **Indexed** field may or may not appear, depending on how your administrator set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over this choice list.
- **List**—Select from a standard list or choose Custom to create your own.
- **Allow selection**—Click **More than one** to let the data entry user select more than one item on the data entry screen. Otherwise, click **Only one**. For example, if you click **More than one**, and the choices are: music, art, sports, the user could select all 3 choices.
  - **A selection is required**—Check this box if the user must select at least one list item.
  - **First item is not a valid selection**—Check here if the first list item is text that prompts the user to respond to the field. An example of such text for a list of states

is **Select a state**. If you check this box and the user selects the first value on the list (most likely by default), an error appears when he tries to save the screen.

- **Appearance**—Determine the style of list.

List type	Example	Description
vertical		All choices appear, arranged vertically.
horizontal		All choices appear, arranged horizontally.
list box		All items appear. The default one is selected when the screen first appears, but can be changed.
drop list		Only the top item appears. To its right, a down arrow appears (circled). The user clicks the arrow to display all items and select one.

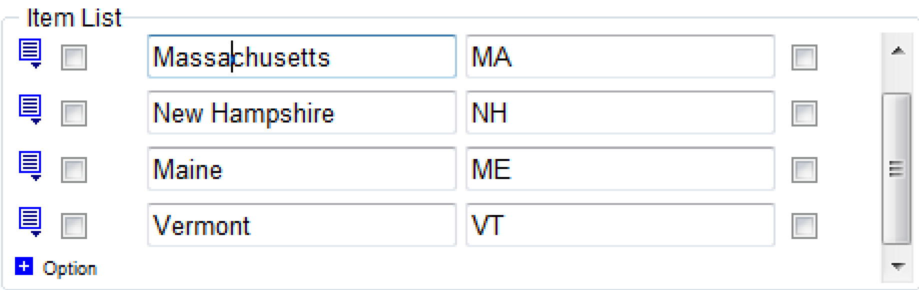
- **Item List**—See *Creating a Custom Choice List* below.
- **Value**—Enter the value collected when a data entry user selects this item. For example, if **Interests** appears in the Name field, and you want `music` to be collected when the data entry user selects this item and saves the page, enter **music** here.
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

  NOTE: The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if `<button command="cmdfontname" />` is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.

- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

Creating a Custom Choice List

To create your own set of list options, accept the List field's default value, **Custom**. Then, enter the list values using the **Item List** section of the screen.



To indicate an option is the default choice, check the **Selected** checkbox.

- In the **Display Text** field, enter text to describe this item on the data entry screen. After you insert this field onto the screen, you can format it. For example, you can apply bold, assign a style, and so on.
- In the **Value** field, enter the value that is collected when the data entry user selects this item.

  For example, if Interests appears in the **Name** field, and you want music to be collected when the data entry user selects this item and saves the page, enter **music** here.

To add a new choice, delete an existing choice, or move a choice up or down within the list, click the menu icon ( ) next to that choice. Then select a menu option.

Creating a Custom List in Configuration File

Although you can create a custom list of choices using the **Item List** area of the Choices Field dialog, that list is only available in that field of that screen. If you want to insert the same list in another section of the screen or a different screen, you must re-enter all options. However, if you create a list according to the following steps, your custom list is stored in the configuration file (along with the standard choice lists, such as **Countries**). As a result, any user connected to your server can insert the list into any **Choices Field** on any screen.

To insert a custom list of choices:

1. Open the Ektron configuration file, *siteroot*/workarea/contentdesigner/DataListSpec.xml.
2. Insert the new list following the pattern of the other lists in the file, like the following list.

```
<datalist name="MyNewList">
  <schema datatype="string" />
  <item default="true" value="Green" />
  <item value="Red" />
  <item value="Blue" />
</datalist>
```

NOTE: You can specify a data type of value: string, nonNegativeInteger, date, decimal. You also can specify a default value (as shown in the third line).

Creating a Dynamically Populated Choice List

You specify the elements of the custom options list described in the configuration data. You can also create a dynamically-populated list from any XML source. The source can be on your server or on a remote website. Follow these steps to add a dynamic data list to the **Choices** field.

1. Open the Ektron configuration file, *siteroot*/workarea/contentdesigner/DataListSpec.xml.
2. Insert the new list following the pattern of the other lists in the file, like the following list.

```
<datalist name="MyNewList">
  <schema datatype="string" />
  <item default="true" value="Green" />
  <item value="Red" />
  <item value="Blue" />
</datalist>
```

3. Insert a new datalist item according to this pattern.

```
<datalist
  name="MyNewList"
  src="{url to xml data source}"
  select="{xpath to data item element}"
  captionxpath="{relative xpath to data item's display text}"
  valuexpath="{relative xpath to data item's value}">
```

IMPORTANT: The `datalist name` must match the `listchoice data` attribute.

For example

```
<datalist
  name="USPS-CA"
  src="[eWebEditProPath]/uspsca.xsd"
  select="/xsd:schema/xsd:simpleType/xsd:restriction/xsd:enumeration"
  captionxpath="xsd:annotation/xsd:documentation"\
  valuexpath="@value"
  namespaces="xmlns:xsd='http://www.w3.org/2001/XMLSchema'"
  validation="select-req">
```

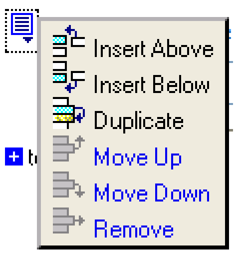
In this example, the data list is stored in the `uspsca.xsd` file, located within the `ewebeditpro` folder. However, it could be in any XML data source.

Group Box

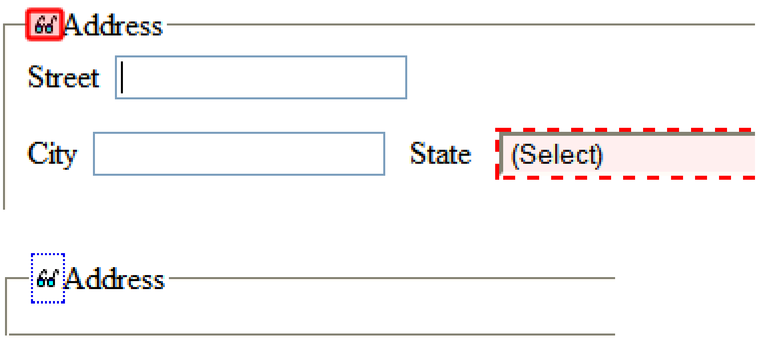
A Group Box field lets you group related fields together by surrounding them with a box and optionally placing a caption above them. After you insert a Group Box field, to insert other kinds of fields within the box, place the cursor inside the box then select a field type button.

NOTE: The tabular data field type might better accommodate your needs. See *Tabular Data* on page 481.

Grouping fields in Data Entry mode lets you add another instance of a group. For example, if a screen collects information about each telephone call, you can click **Insert Below** to insert a new group of fields, ready to collect information about the next call.



Use the eyeglass icon to expand or collapse fields within a group.



You also can suppress a group of irrelevant fields. For example, assume a screen includes 2 groups of fields that collect information about hardcover and paperback books. When adding information about a hardcover book, you can collapse paperback book questions because they are not relevant.

Group Box General Tab

- **Descriptive Name**—Enter the name of this field, which is used internally as the field’s caption. By default, the Data Designer assigns a name made up of **Field** followed by the next available number. So, the first field’s default name is **Field1**, the second field’s default name is **Field2**, and so on. You can change the default if you want.
- **Field Name**—Enter the field’s element name. This defines the field in the XML.
- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

  If you check **May be removed**, when this field appears on a data entry screen, an icon ( ) appears to the left of the field. If the user clicks the icon, a drop-down menu provides an option to remove the field.

If the user removes the field, *field name* replaces the field on the data entry screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is street address, and the user removes the field, add Street Address appears in place of the field.

NOTE: The menu icon ( ) can also indicate that the user can add instances of a field (see the **Allow** field). So, if a field is required, the icon could appear but omit a **Remove** option.

- **Allow**—Check **more than one** if you want to let the user entering data add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you are allowing the user to insert an entirely new table, not an additional table row.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

NOTE: The menu icon ( ) can also indicate that the user can remove a field. So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Appearance**—Click **Show border and caption** if you want to surround the fields in this group with a box. You can also create a caption to appear in the top line of the box. Click **No border** if you do not want to surround the fields in this group with a box.
- **Caption**—If desired, enter text to describe this group of fields on the data entry screen. For example:

After you insert this field onto the screen, you can use the editor's formatting capabilities to modify its size, font, color, and other attributes.

NOTE: The Caption field only appears on this dialog when you create the Group Box field. If you later try to edit the field, the Caption field is not on the dialog. However, you can edit Caption text within the editor.

- **Advanced Tab**—See *Group Box Advanced Tab* on the facing page.
- **Relevance**—See *Group Box Relevance Tab* on page 465.

Using a Tag Other Than <Root>

By default, Ektron surrounds your Data Design with <root> tags. To replace <root> tags with another element name:

1. After creating a new Data Design screen, insert a Group Box as the first field.
2. In the Group Box dialog's **Field Name** field, enter the root text.
3. On the Group Box Dialog box, click the **Advanced** tab.
4. In the **Root tag** section, select **Use this element as the Root tag** and press **OK**.
5. Place all other screen elements within the Group Box field.

Group Box Advanced Tab

The Advanced tab lets you generate XML microformats made up of standard XHTML tags and attributes that contain a specific structure and values.

For example, the microformat of an event looks like this.

```
<span class="event">
<a class=
  "url" href="https://www.lisa.org/events/2006nyc/
  package_registration.html?from=fn1206 ">
  LISA Global Strategies Summit</a>
</span>
```

NOTE: If the element is a group box or table, its type must be **Element** because it surrounds other elements. If the element is a Rich Area field, its type must be **Element** or **Content**.

- **Element**—A unique tag. The user’s response to the field becomes its value.

  ```
  <Lastname>Rogers</Lastname>
  ```

- **Attribute**—An attribute of the containing field. The containing field is typically a Group Box. If you insert an **Attribute** field type, the Field Name field on the dialog box is grayed out. The field name and type can only be edited on the Advanced Field properties screen.

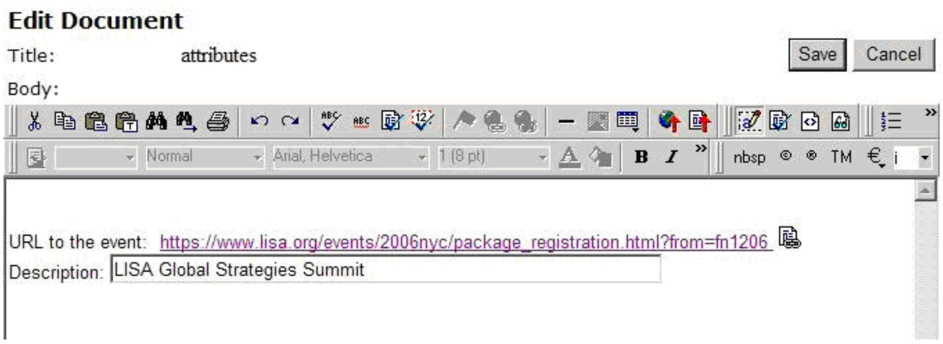
  ```
  <PtInformation Lastname="Rogers">
  </PtInformation>
  ```

- **Content**—The content of the containing field, typically a Group Box. Note that, in this case, field name is not used (it's is grayed out). The field name and type can only be edited on the Advanced Field properties screen. Because most fields define their own content, this option is typically used to define a value to a Group Box that contains other fields defined as attributes.

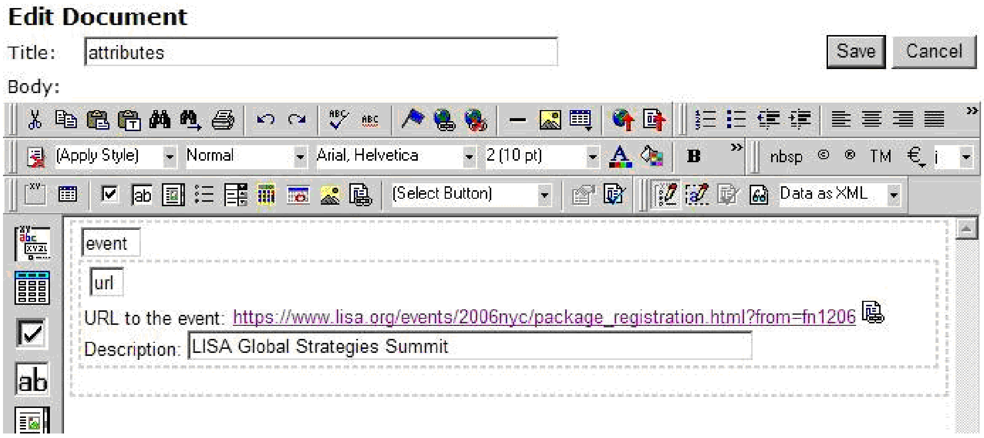
  NOTE: Only one Content type field is valid within a containing field.

  ```
  <PtInformation>
  Rogers
  </PtInformation>
  ```

Data Entry View



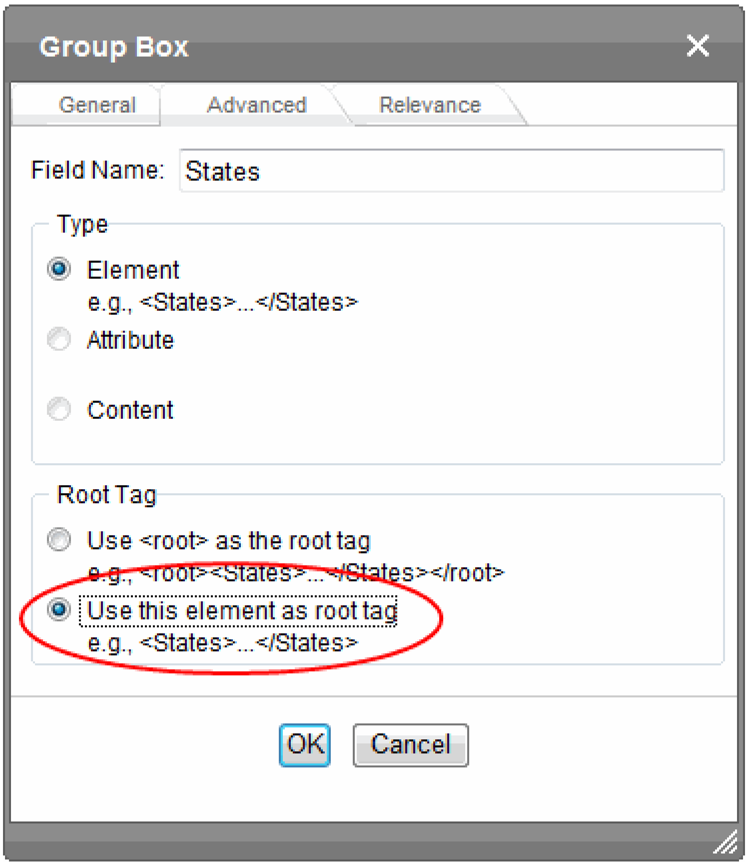
Data Design View



Replacing the XML <Root> Tag

By default, Ektron surrounds your Data Design with `<root>` XML tags. You can replace the `<root>` tags with another element name by following these steps.

1. After creating a new Data Design screen, insert a Group Box as the first field.
2. In the Group Box dialog box **Field Name** field, enter the root text. For example, "state" to replace <root> with <state>.
3. Click the **Advanced** tab.
4. In the Root tag section of that screen, select **Use this element as the Root tag** and click **OK**.



5. Place all other screen elements within the Group Box field.

Group Box Relevance Tab

The **Relevance** tab allows a group of fields to appear or disappear according to the value of other fields in the configuration. It appears on both the Group Box and Tabular Data Box dialogs.

Here are some example uses.

- Questions about pregnancy that appear only if the patient is female.
- A list of states that appears only if the user selects **United States** as the person's country.
- A list of car manufacturers. When a user chooses one, all of its models appear in a second list.

Fields that can be Used in Relevance Conditions

Only the following field types can be used in a Relevance condition.

- Check box
- Text
- Calculated
- Choices

NOTE: If using a **Choices** field, in the **Appearance** area of the dialog, you can only choose **List Box** or **Drop Box**. **Vertical List** and **Horizontal List** are not supported.

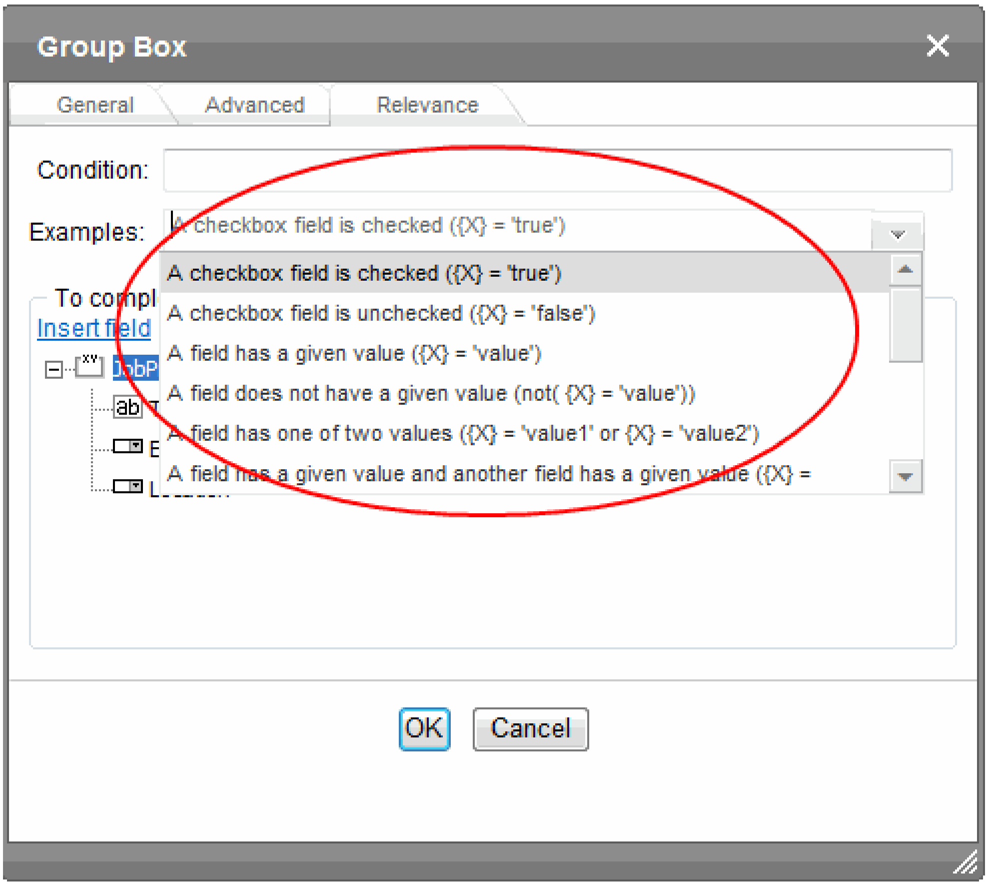
To apply relevance to a Group Box field:

Applying Relevance to a Group Box Field

1. Edit a Smart Form configuration in Data Design mode to which you want to apply Relevance.
2. If necessary, insert the field(s) on which the group box’s appearance depends.
3. Insert a Group Box field. See Also: *Group Box* on page 460

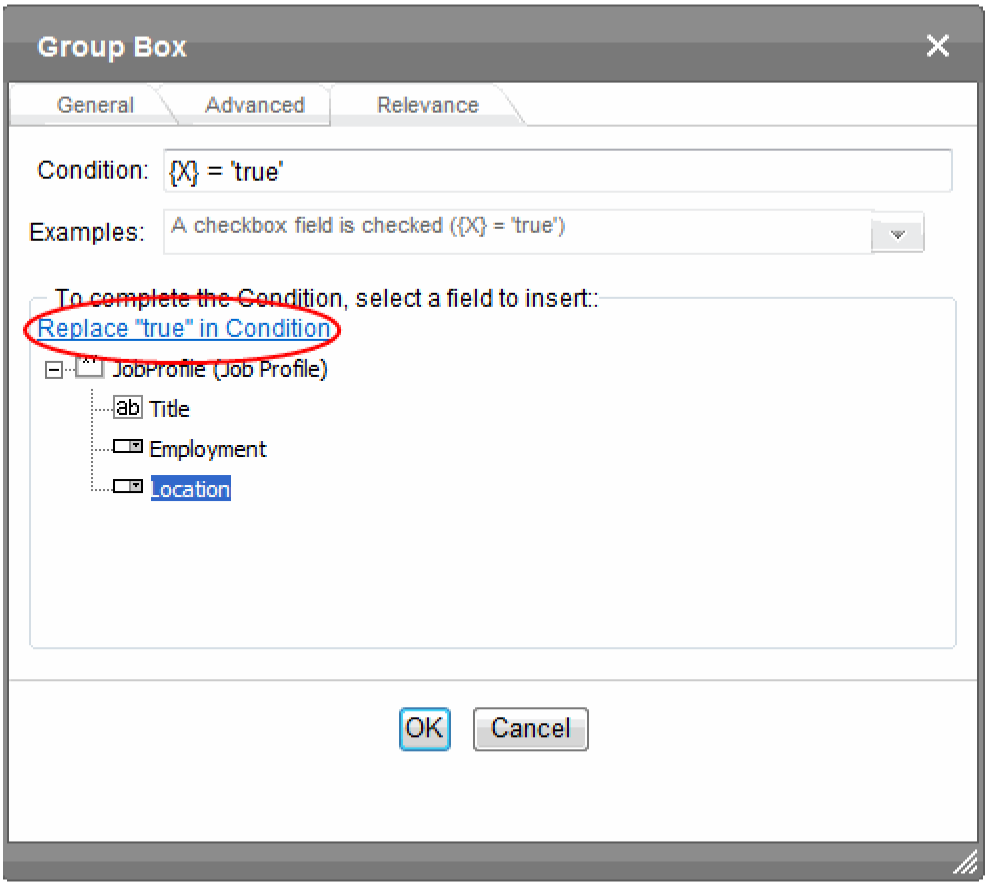
   NOTE: The location of the Group Box field is independent of the location of the fields to which you will apply conditions.

4. Click the Group Box dialog’s **Relevance** tab.
5. The **Relevance** tab appears.
6. Scroll through the list of sample conditions to determine which one best fits your situation.

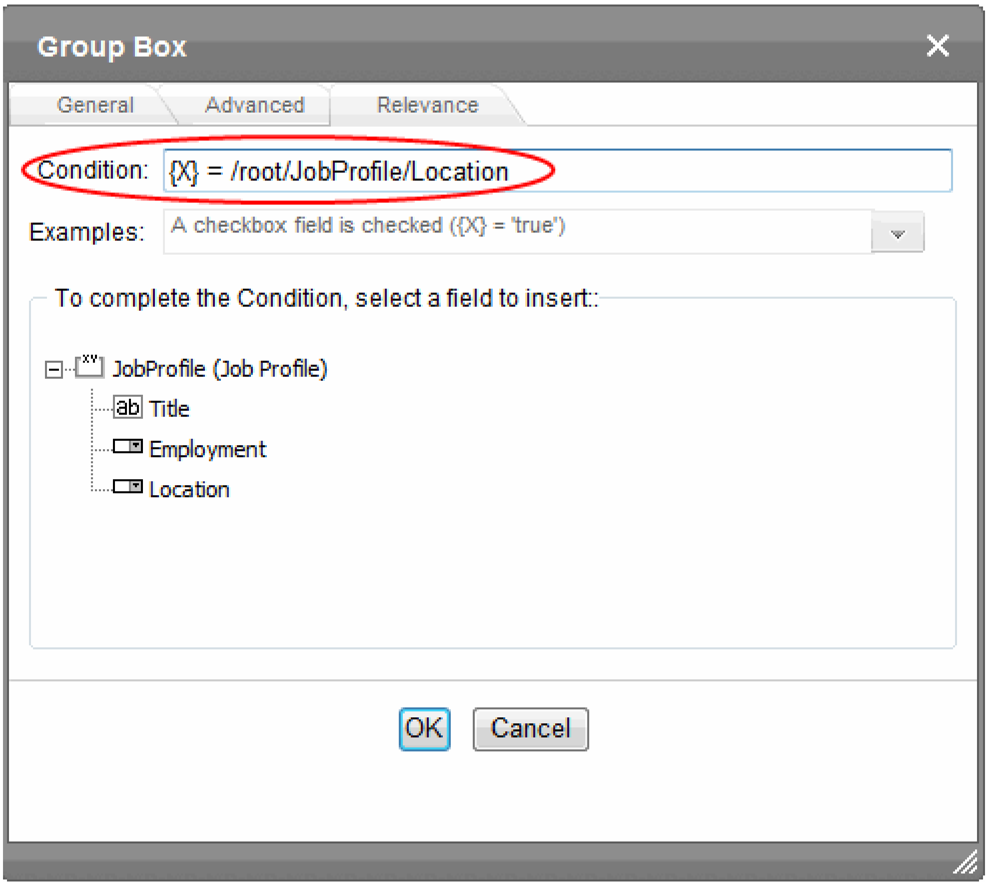


7. Select a field from the lower half of the screen to replace the first variable (X or Y) in the condition. For example, if the condition is `A checkbox field is checked ({X} = 'true')`, click the check box field whose value must be `true` for this group to appear.

8. Click **Replace {X} in Condition**.



9. Notice that, in the **Condition** field, the variable was replaced by the selected field.

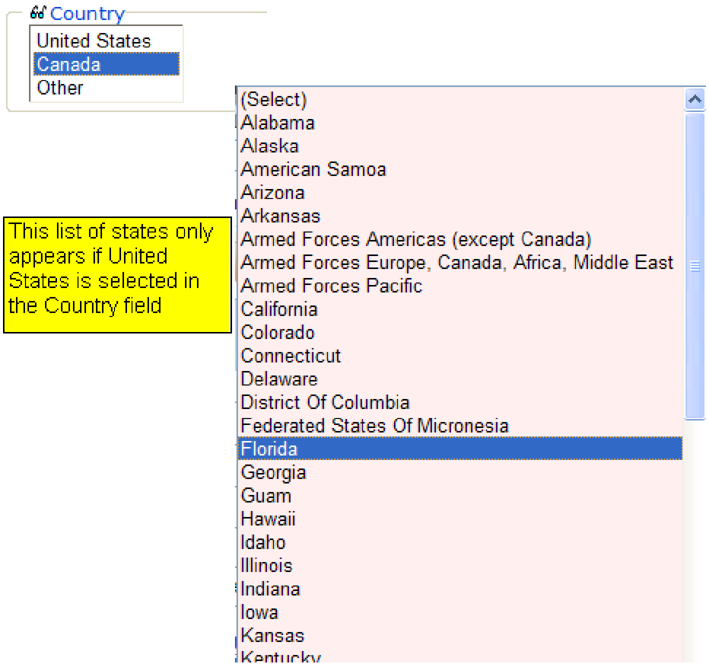


10. If the condition has another variable, repeat Steps 7 and 8.
11. Click **OK**.

You should switch to Data Entry mode and test the Relevance conditions.

Example of Applying Relevance to a Group Box Field

Assume you want a list of states in the United States to appear only if a user selects United States from the Country field.

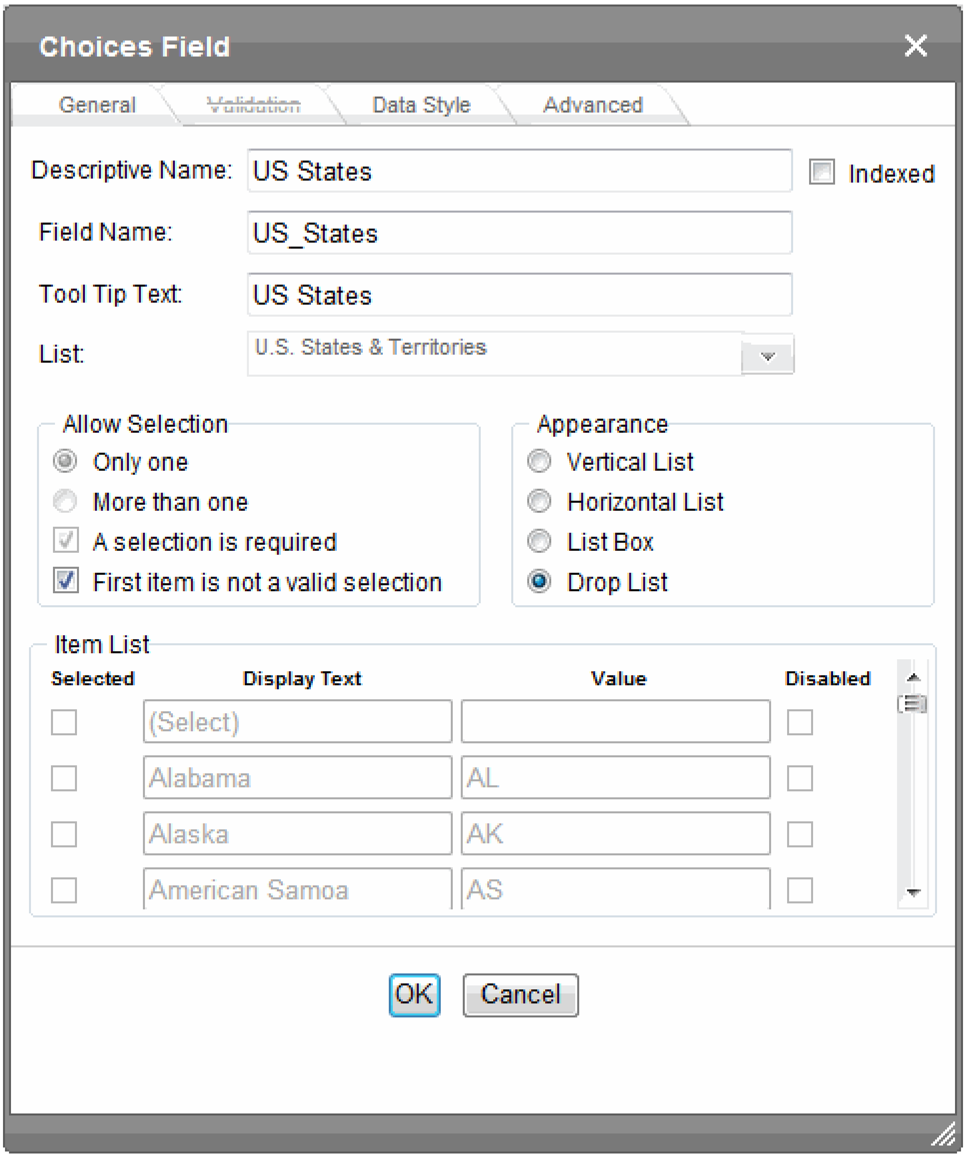


To accomplish this:

1. Create a Choices field and assign it 3 values:
   - United States
   - Canada
   - Other

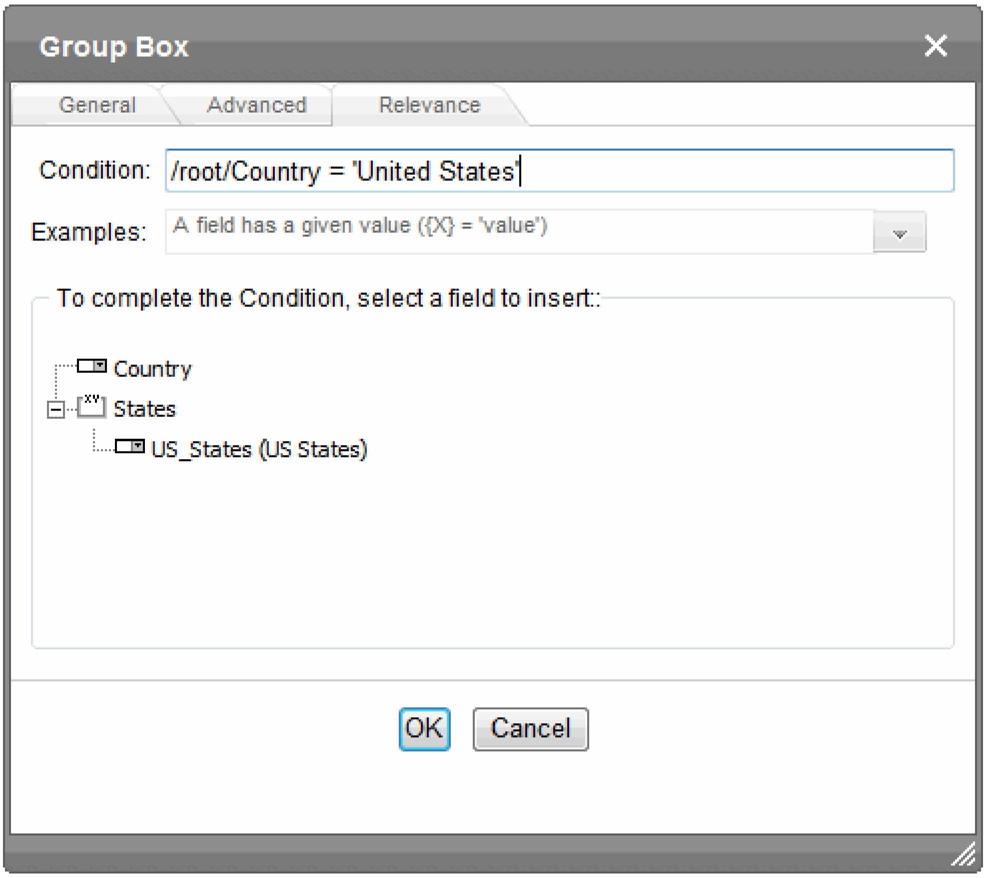
   See Also: *Choices* on page 456
2. Create a Group Box field and name it **States**.
3. With that Group Box field, create a new Choices field.
   - Name it **US States**.
   - In its **List** field, select **U.S. States & Territories**.
   - In **Allow Selection**, check **First item is not a valid selection**
   - In the Appearance field, select **Drop List**.

4. Click **OK**. The field appears on the form.



5. Place the cursor on the **States** Group Box field and click **Group Box**.
6. Click its **Relevance** tab.
7. Pull down the **Examples** list.
8. Click `A field has a given value ({X} = 'value')`.
9. Scroll through the lower half of the screen until you see the **country** Choices field.
10. Click **Replace '{X}' in Condition**. Notice that the Condition field now reads /root/Country **= 'value'**.

11. In the **Condition** field, replace **Value** with **United States**.



IMPORTANT: The text that replaces **Value** must *exactly* match the desired value of the selected field.

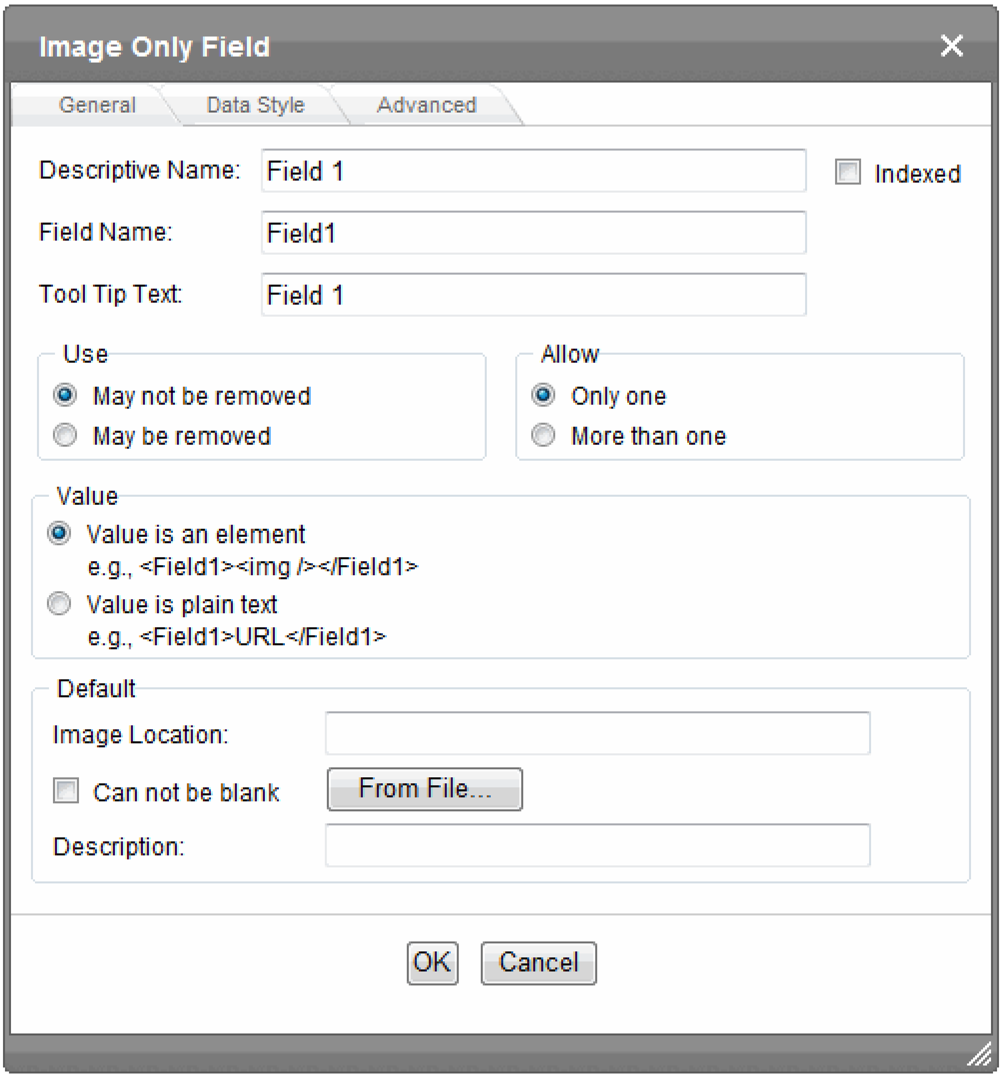
12. Click **OK**.

Image Only 

Use an Image Only field to place an icon on the screen, which the user can click to insert an image into the content. You can insert a default image if desired. To let the user insert any file, such as a Microsoft Word document, use a *Link* on page 473 field.

In Data Entry mode, the image's caption appears, followed by a default image (if you specify one) and this icon: 

NOTE: The user can only insert a file whose extension is defined within the <validext> element of the configdataentry.xml file. Your system administrator can help you do this.



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The **Indexed** field may or may not appear, depending on how your administrator has set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over this field.
- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

  If you check **May be removed**, when this field appears on a data entry screen, an icon ( ) appears to the left of the field. If the user clicks the icon, a drop-down menu provides an option to remove the field.

  If the user removes the field, *field name* replaces the field on the data entry screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is `street address`, and the user removes the field, add Street Address appears in place of the field.

NOTE: The menu icon ( ) can also indicate that the user can add instances of a field (see the Allow field). So, if a field is required, the icon could appear but omit a **Remove** option.

- **Allow**—Check **more than one** if you want to let the user entering data add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you are allowing the user to insert an entirely new table, not an additional table row.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

NOTE: The menu icon ( ) can also indicate that the user can remove a field. So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Value**—Whether the value is an element or plain text.
  - **Value is an element** renders the field as `<img src="url" alt="text" />` for an image.
  - **Value is plain text** renders the field as just the url.
- **Default Image Location**—If desired, you can insert a default image, which might be the most common image or a reminder that an image needs to be inserted. To find the image, click **From File** and navigate to image file. The image file's extension must appear between the `<validext>` tags in the configdatadesign.xml file. For example:

```
<validext>gif,jpg,png,jpeg,jpe,doc,txt

</validext>
```

- **Cannot be blank**—To require the user to enter a response, check this box.
- **Description**—Enter the image's alt text, which is used as a replacement for an image whenever it cannot be seen. For example, a visually impaired person is using a screen reader.
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

  NOTE: The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if `<button command="cmdfontname" />` is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.

- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

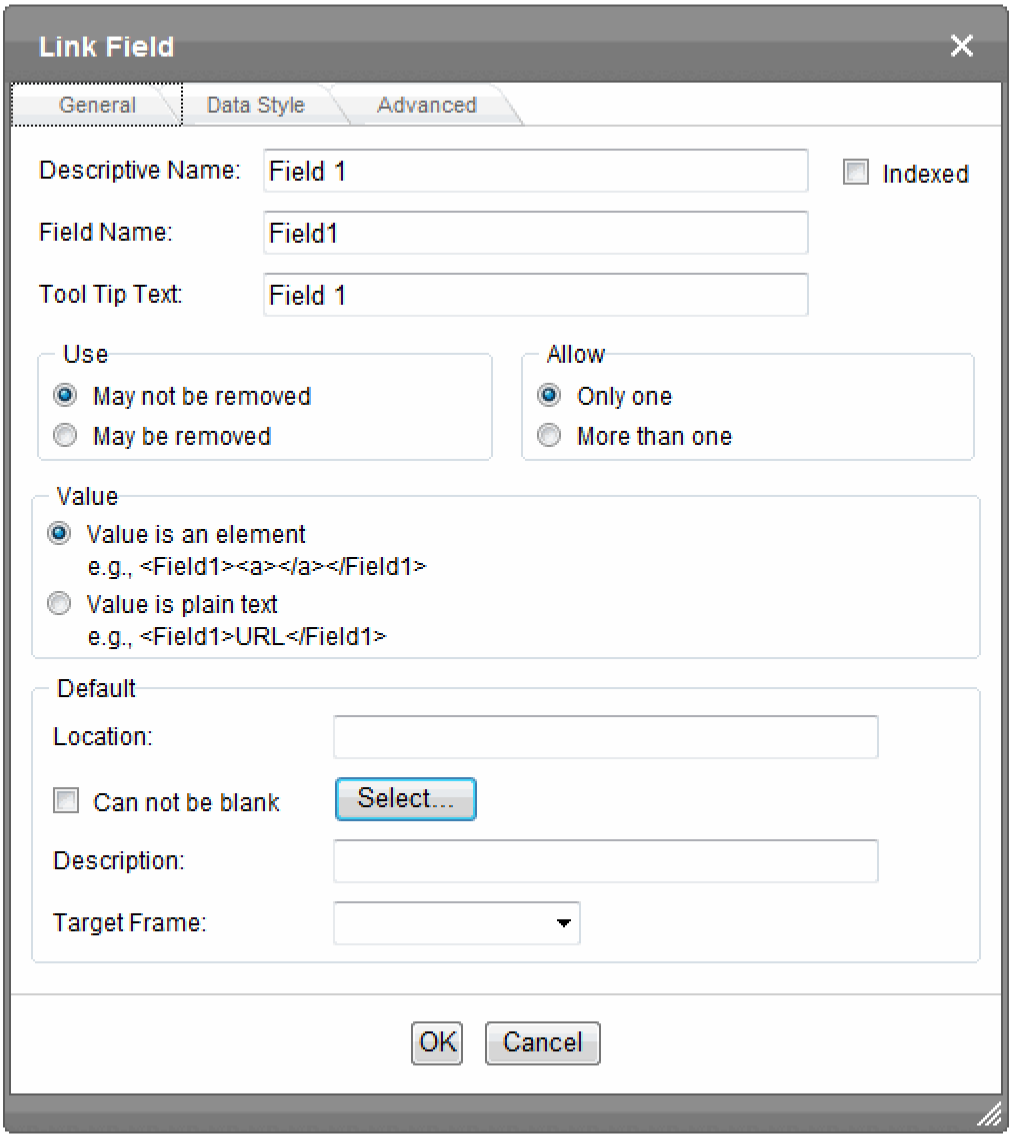
Link

Use a Link field to place an icon on the screen. A user in Data Entry mode can use the icon to link to any Library file, such as a Microsoft Word document or a .gif image file. (You can also use an Image Only field to let the user insert an image. See Also: *Image Only* on page 471)

The File Link field does *not* let you link to Ektronassets.

In Data Entry mode, the file link field's caption appears, followed by this icon: . When the user clicks the icon, a hyperlink screen prompts you to specify information about the link.

NOTE: Only insert a file whose extension is defined within the `<validext>` element of the configdataentry.xml file. Your system administrator can help you do this.



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The indexed field may or may not appear, depending on how your administrator has set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Tex**t—Enter the text that appears when a user hovers the cursor over this field.

- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

  If you check **May be removed**, when this field appears on a data entry screen, an icon () appears to the left of the field. If the user clicks the icon, a drop-down menu provides an option to remove the field.

  If the user removes the field, *field name* replaces the field on the data entry screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is `street address`, and the user removes the field, add Street Address appears in place of the field.

  NOTE: The menu icon () can also indicate that the user can add instances of a field (see the Allow field). So, if a field is required, the icon could appear but omit a **Remove** option.

- **Allow**—Check **more than one** if you want to let the user entering data add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you are allowing the user to insert an entirely new table, not an additional table row.

  IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

  If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

  NOTE: The menu icon () can also indicate that the user can remove a field. So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Value**—Whether the value is an element or plain text.
  - **Value is an element** renders the field as `<img src="url" alt="text" />` for an image.
  - **Value is plain text** renders the field as just the url.
- **Default Location**—If desired, you can insert a default link, which can be the most common link or simply an example. To help find the link, click the **Select** button and navigate to a file. You can only insert a file whose extension appears between the `<validext>` element of the configdatadesign.xml file. For example:

  `<validext>gif,jpg,png,jpeg,jpe,pdf,doc</validext>`

- **Cannot be blank**—If you want to require the user completing this field to enter a response, click this check box.
- **Description**—If desired, enter text that the user can click to access the linked file.
- **Target Frame**—Use this field to indicate how the hyperlinked files will appear when clicked.
  - **New Window(_blank)**—In a new browser window, on top of the current browser.
  - **Same Window(_self)**—In the same position within the browser window. The new window replaces the current one.
  - **Parent Window(_parent)**—If your page contains frames, in the frame that contains the frame with the hyperlink.

  - **Browser Window(_top)**—If your page contains frames, in the full display area, replacing the frames.
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

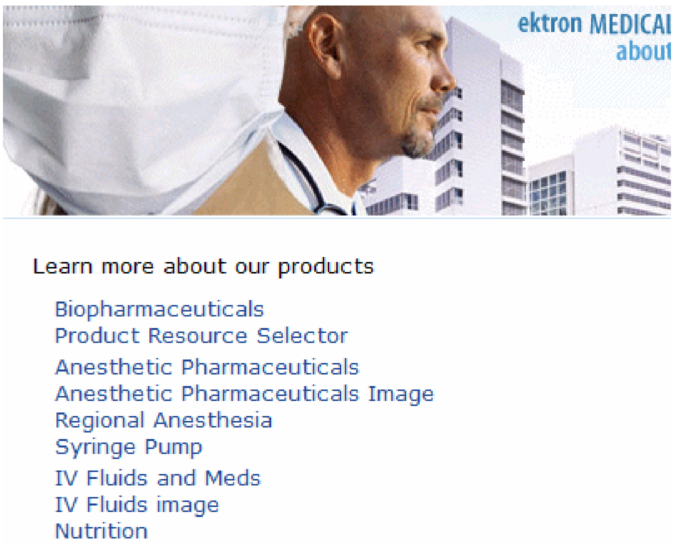
  NOTE: The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if <button command="cmdfontname" /> is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.
- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

Resource Selector

A Resource Selector field lets you place elements of Ektron content, taxonomies, collections or folders on a Smart Form. For example, on the following page, content in a selected folder appears.

IMPORTANT: You can place content from these folder types on a Smart Form: standard, root, site, blog, and eCommerce catalog. You *cannot* place content from Community, Discussion Board, or WebCalendar folders on a Smart Form.

Each content item in the folder is represented as a hyperlink followed by its summary. A site visitor can click the link to view the content. An alternative display showing hyperlinks only appears as follows.



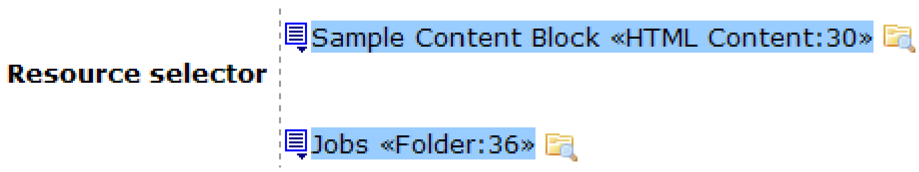
A Resource Selector field acts like server controls that let you place content on a Web page, such as the Content Block and List Summary server controls. The advantages of the Resource Selector field are:

- You can add individual content or all content in a folder, collection or taxonomy category to a Smart Form. So, you can position resources then surround them with text, images, and so on, to place them into proper context.
- Management is handled within the Workarea. So, Ektron administrators can display content via a Smart Form without needing a developer to create/modify templates and server controls.

These steps summarize how to use a Resource Selector on a Smart Form.

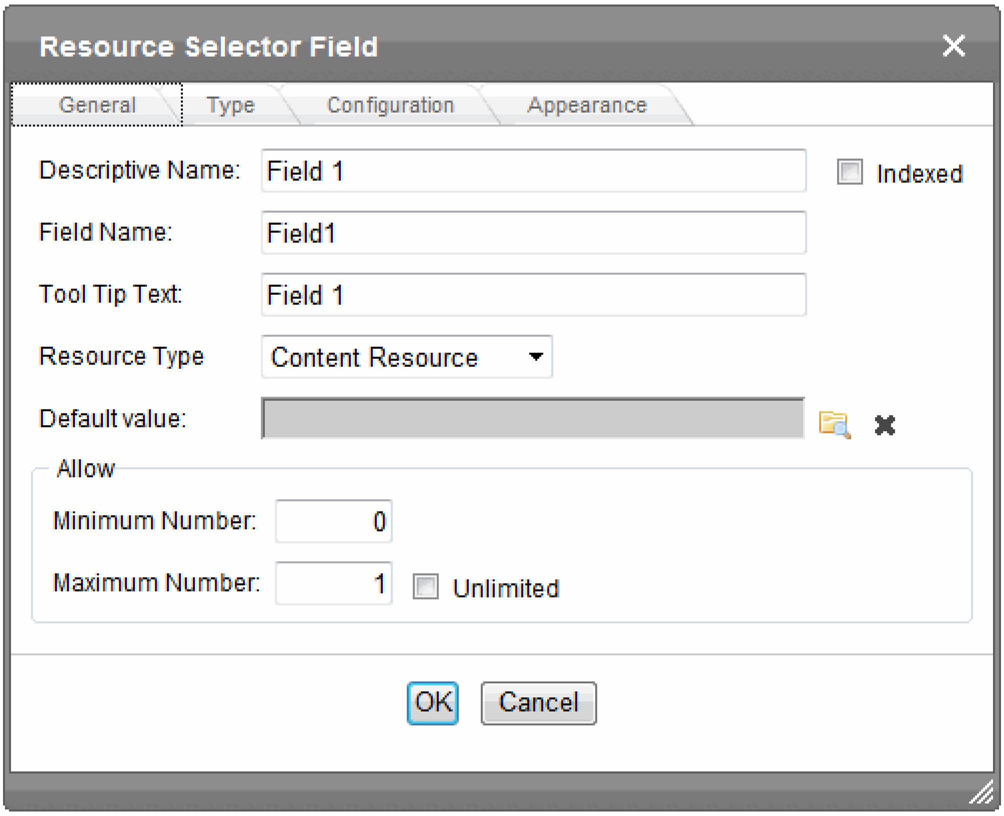
1. Create a Smart Form configuration.
2. Edit its Data Design, placing a Resource Selector field on it.
3. Set the Resource Selector properties. For example, determine whether the content author can select content, a taxonomy category, a collection, or a folder.
4. Assign the configuration to an Ektron folder. See Also: *Assigning a Smart Form Configuration to a Folder* on page 437
5. An author creates a Smart Form based on that configuration.
6. The author adds content, a collection, a taxonomy category, or a folder to the Smart Form, along with other field types.
7. A site visitor browses to the page and views the assigned content.

To a content author, a Smart Form's Resource Selector fields appear as follows.



The upper field lets the author select content (ID 30 is the default), and the lower one lets the person select a folder (ID 36 is the default). To select either one, click the folder to its right, then select. If working with content, the tabs that appear on the dialog are determined when the resource is placed on the Smart Form configuration.

NOTE: If someone changes the title of content used in a Resource Selector field, the title is not updated on the Smart Form. In the illustration, if someone changed the title of content ID 30, you would still see **Sample Content Block** when viewing the Resource Selector field.

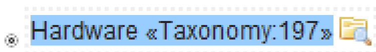


General Tab

- **Descriptive Name**—Enter the name of this field. Internally, the name is used as the field’s caption. By default, the Data Designer assigns the name **Field** followed by the next available number. So, the first field’s name is **Field1**, the second field is **Field2**, and so on. You may change the default.
- **Field Name**—Enter the field’s element name. This defines the field in the XML.
- **Tool Tip Text**— Enter the text that appears when a user hovers the cursor over the field.
- **Resource Type**—Select Content, Folder, Taxonomy, or collection.

IMPORTANT: You can place content from these folder types on a Smart Form: standard, root, site, blog, and eCommerce catalog. You *cannot* place content from Community, Discussion Board, or WebCalendar folders on a Smart Form.

- **Default Value**—Select the default content, folder, taxonomy or collection item by clicking the folder icon and selecting. The following example shows a taxonomy default item. The author can accept the displayed default or change it by clicking on the folder icon.



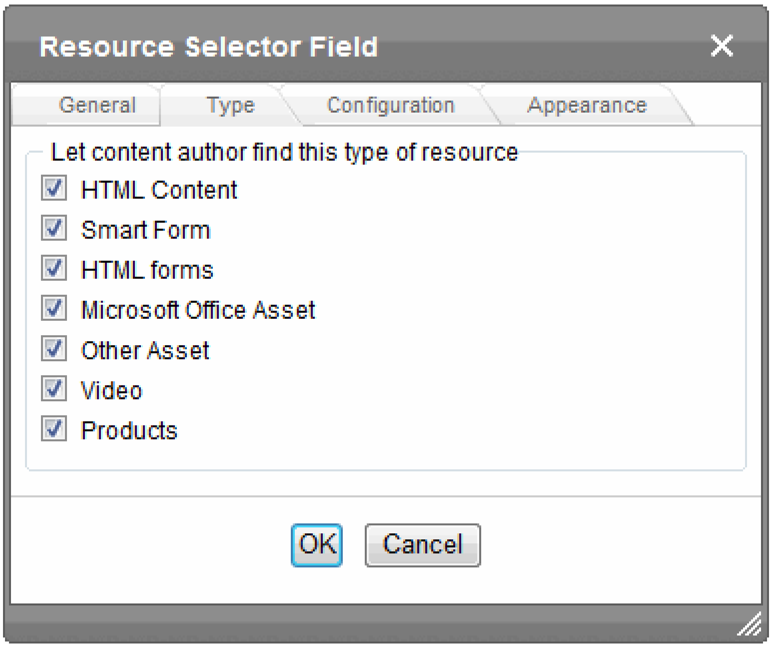
- **Minimum Number**—Define the minimum number of content items that can appear where you insert the Resource Selector.
- **Maximum Number**—Define the maximum number of content items that can appear where you insert the Resource Selector.

These settings affect the content author's work with this field on a Smart Form in the following way. Assume you set a minimum of 1 and a maximum of 2. After the content author adds 2 content items for this resource selector, the only options are to remove or rearrange fields; you cannot add more.

Type Tab

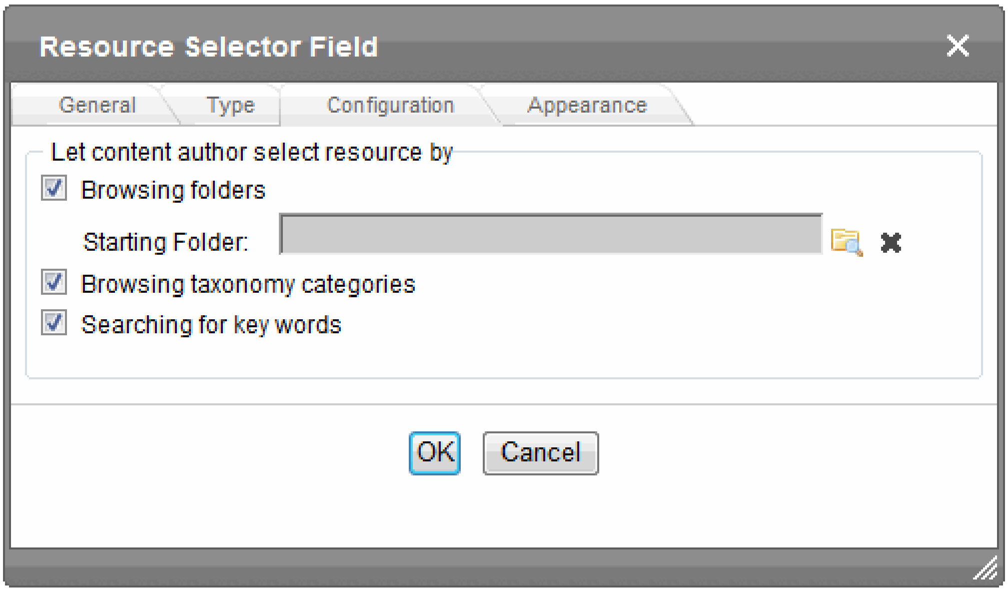
Use the **Type** tab to limit the type of content that a content author may choose. It is available only if the Resource type is **Content Resource**.

NOTE: eCommerce products are also known as catalog entries.



Configuration Tab

The Configuration tab determines how a content author may select content or a folder on a Smart Form. It is available only if the **Resource Type** is Content or Folder.



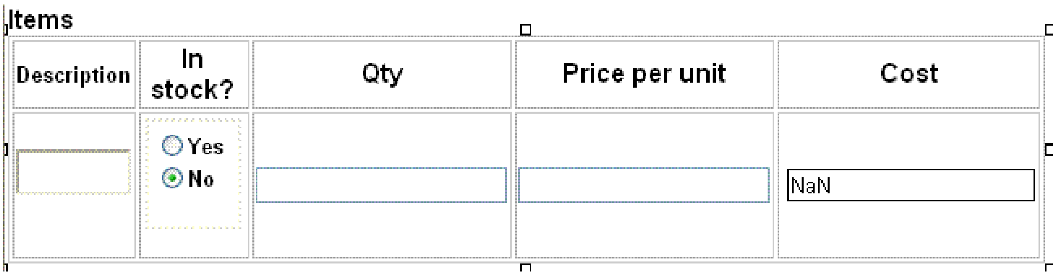
- Check **Browsing folders** to let content authors select content or a folder by browsing through folders.
  - If you want to set a beginning folder from which an author can browse, use the **Starting Folder** field. Otherwise, browsing begins at the Root folder.
- Check **Browsing taxonomy categories** to let a content author select content by browsing through taxonomies. (Available only if the **Resource Type** is Content.)
- Check **Searching for key words** to let a content author select content using the Workarea search. (Available only if the **Resource Type** is Content.)

Appearance tab

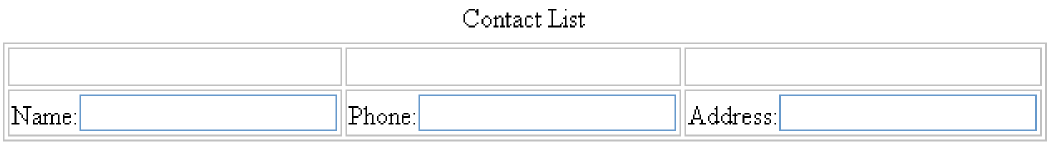
The Appearance tab determines the default appearance of the resource on your website.

Tabular Data

The Tabular data button inserts a table into which you can place other types of fields. It's similar to a group box but its advantage over a group box is that it lets you place fields in columns. After you insert a table, you can insert an appropriate field type into each column. For example, the **Description** field type is plain text, while the **In Stock?** field type is a choice.



If you insert a field into a table and its caption appears to the left of the data entry region, move the caption to the column header.

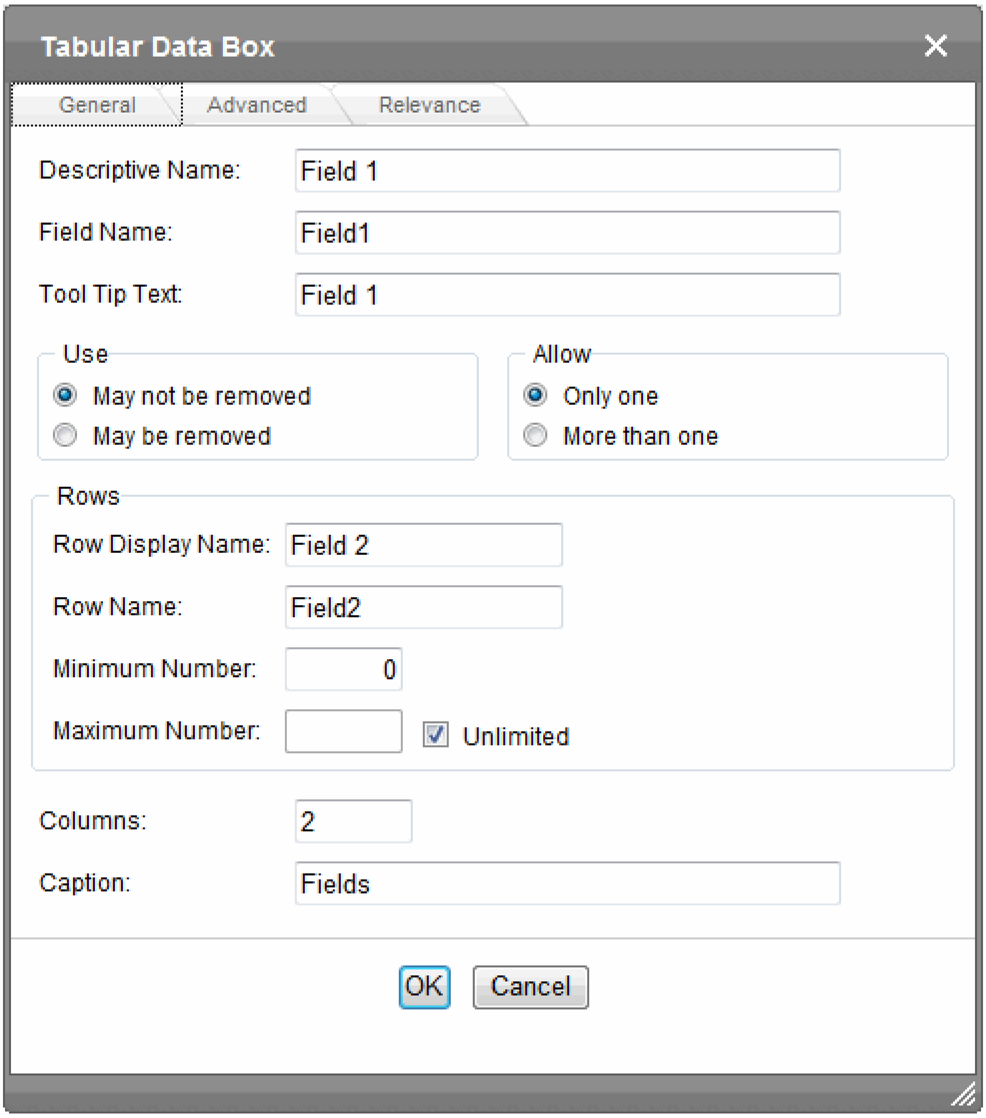


- To access table commands (such as add row and add column), place the cursor inside a table cell and right click the mouse.

  NOTE: To delete a column, place the cursor in the column, right click the mouse, and select **Delete Column**. You cannot reduce the number of columns by editing the Tabular Data dialog's **Columns** field.

- To edit tabular data, hover the cursor over a table border line until you see a 4-headed arrow. Then, click the right mouse button and select **Field Properties**.

IMPORTANT: Only table cells into which you place a field are available to visitors of your Web page.



- **Descriptive Name**—Enter the name of this table. By default, the Data Designer assigns a name made up of **Field** followed by the next available number. So, the first field's default name is **Field1**, the second field's default name is **Field2**, and so on. You can change the default if you want.
- **Field Name**—Enter the table's element name. This will define the table in the XML. See Also: *Tabular data creates 3 levels of XML tags:* on page 484
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over the table's column headers.
- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

  If you check **May be removed**, when this field appears on a data entry screen, an icon () appears to the left of the field. If the user clicks the icon, a drop-down menu provides an option to remove the field.

If the user removes the field, *field name* replaces the field on the data entry screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is `street address`, and the user removes the field, add Street Address appears in place of the field.

NOTE: The menu icon ( ) can also indicate that the user can add instances of a field (see the Allow field). So, if a field is required, the icon could appear but omit a **Remove** option.

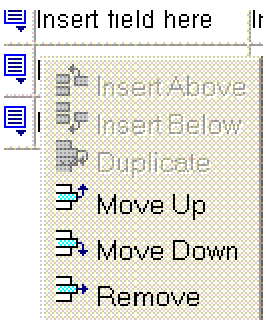
- **Allow**—Check **more than one** if you want to let the user entering data add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you are allowing the user to insert an entirely new table, not an additional table row.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

NOTE: The menu icon ( ) can also indicate that the user can remove a field. So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Row display name**—Enter the text that appears when a user hovers the cursor over the table's cells. Use this field to describe the kind of information to be inserted into the table's cells.
- **Row name**—Enter the name of the XML tag used to collect data for each entry in the table.
- **Minimum number**—If desired, enter the minimum number of rows for this table. If you enter a number and the data entry user tries to save the screen without inserting at least the minimum number of rows, the user is informed that **Element content is incomplete according to the DTD/Schema**. By default, the user is allowed to cancel or save the screen anyway. However, the system administrator determines whether or not the user can save an invalid document.
- **Maximum number**—If desired, enter the maximum number of rows for this table. If you don't want to assign a maximum number, check **Unlimited**. When this table appears on a data entry screen, if a user adds the maximum number of rows, the **Insert Above** and **Insert Below** menu options are grayed out.



- **Columns**—Enter the number of columns to appear in the table.

- **Caption**—Optionally enter text to describe this table on the data entry screen. The caption appears centered above the table. After you insert this field onto the screen, you can use eWebEditPro+XML's formatting capabilities to modify the caption's size, font, color, and other attributes.
- **Advanced Tab**—This is the same as the *Group Box Advanced Tab* on page 463.
- **Relevance**—This is the same as the *Group Box Relevance Tab* on page 465.

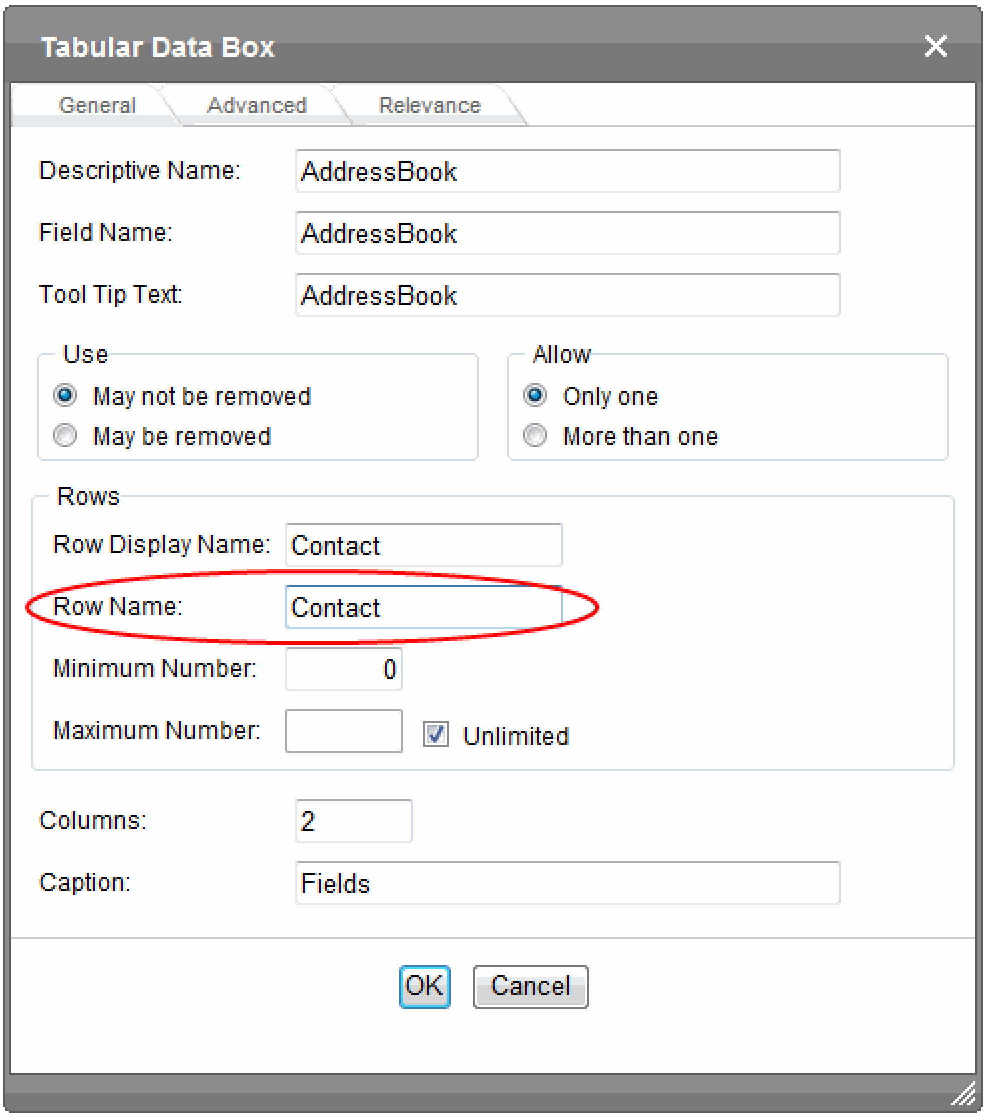
Tabular data creates 3 levels of XML tags:

- inner level: each field in the table
- middle level: each row in the table
- outer level: the entire set of table data

To explain how this works, use the following contact list as an example.

- John Doe, 555-1212, john.doe@example.com
- Mary Smith, 555-8765, msmith@example.net

When you insert a field into a table, a dialog helps you define the field type. For example, when inserting a plain text field, the Plain Text Field dialog appears. On that dialog, the value of the **Phone** field defines the tags that enclose that field's contents.



To continue the example, every contact is represented in XML as:

```
<Name>John Doe</Name>
<Phone>555-1212</Phone>
<Email>john.doe@example.com</Email>
       and
<Name>Mary Smith</Name>
<Phone>555-8765</Phone>
<Email>msmith@example.net</Email>
```

Each row of the table collects information for one contact. On the Tabular Data Box dialog, the **Row Name** field defines the XML tag that groups information for *each contact*. For example, the **Row Name** field value is **Contact**.

```
</AddressBook>
<contact>
<Name>John Doe</Name>
<Phone>555-1212</Phone>
<Email>john.doe@example.com</Email></Contact><Contact>
<Name>John Doe</Name>
<Phone>555-1212</Phone>
<Email>john.doe@example.com</Email>
 </Contact>
Contact>
<Name>Mary Smith</Name>
<Phone>555-8765</Phone>
<Email>msmith@example.net</Email>
</Contact>
</AddressBook>
```

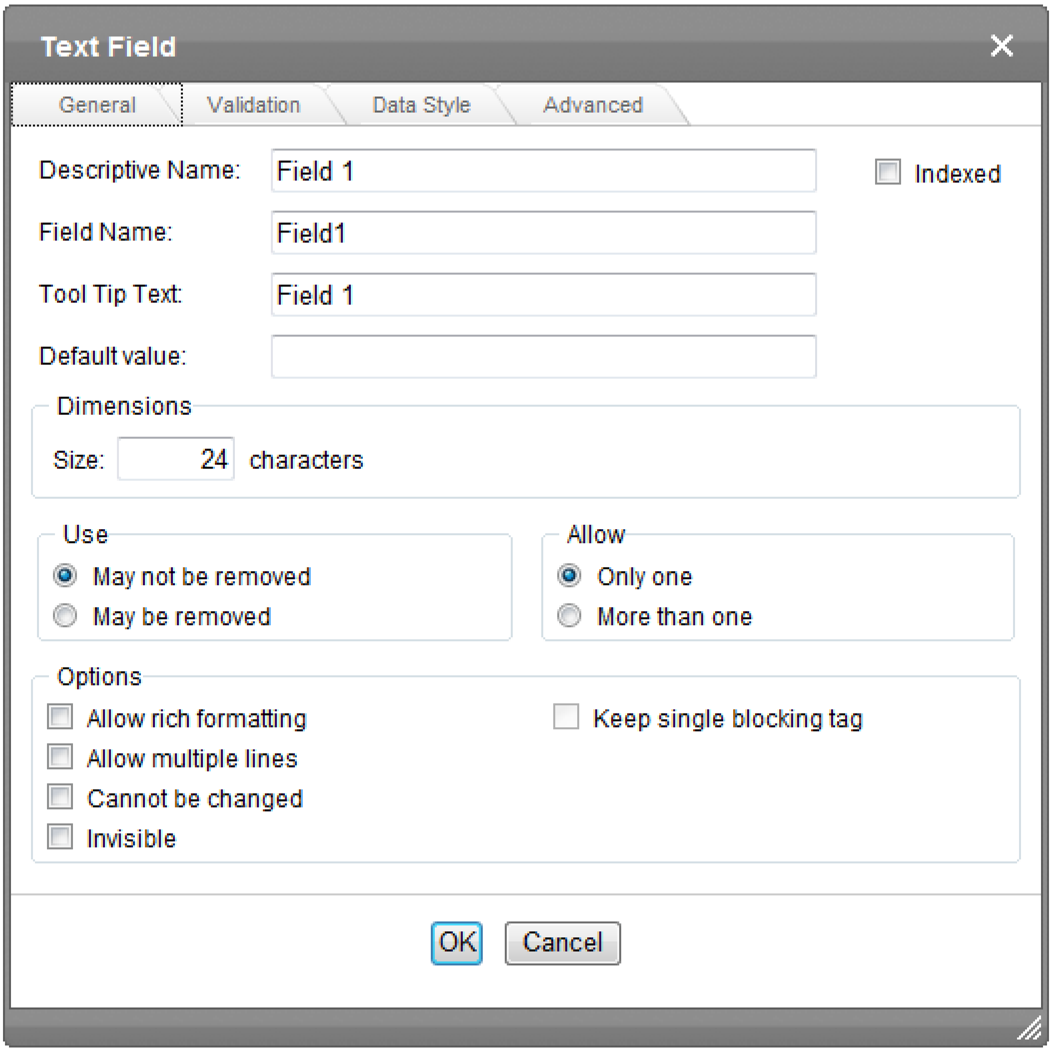
Text ab|

Use a text field when you want the user to enter a text response.

NOTE: If a plain text field tries to perform a numerical calculation with a value that is blank or contains letters, `NaN` appears in the field. (`NaN` stands for "not a number.")
If a plain text field tries to divide by zero, `Infinity` appears.

The following capabilities are available with a text field.

- Text can be read-only or hidden
- Can allow plain text only, or let the author apply formatting
- Can consist of one or several lines



- **Descriptive Name**—Enter the name of the field.
- **Indexed**—Check if you want to index this field. For more information, see *Searching XML Information* on page 438. The **Indexed** field may or may not appear, depending on how your administrator set up your system.
- **Field Name**—Enter the field's element name. This defines the field in the XML.
- **Tool Tip Text**—Enter the text that appears when a user hovers the cursor over this field.
- **Default Value**—If you want to set a default value for this field, enter it here. The default value appears in Data Entry mode, where the user can accept, change, or delete it. For example, if this field collects a city, and most users enter New York, enter `New York` as the value.
- **Dimensions**—Set the size of the text field in characters.
  - **Size** (or **Width**)—Enter the width of this textbox in characters. This field is available only if **Allow Rich Formatting** is not checked.
  - **Height**—Enter the height of this textbox in characters. This field is available only if **Allow Multiple Lines** is checked and if **Allow Rich Formatting** is not checked.
- **Use**—Click **May not be removed** if this field must be included on the screen. Otherwise, click **May be removed**.

If you check **May be removed**, when this field appears on a data entry screen, an icon ( ) appears next to the field. If the user clicks the icon, a menu provides a remove option.

If the user removes the field, *field name* replaces the field on the screen to indicate that the field was removed and can be re-added if necessary. For example, if the field's display name is `street address`, and the user removes the field, add Street Address appears in place of the field.

NOTE: The menu icon ( ) can also indicate that the user can add instances of a field (see the Allow field). So, if a field is required, the icon could appear but omit a **Remove** option.

- **Allow**—Check **more than one** if you want to let the user add instances of this field. Otherwise, check **only one**. For example, if a screen is collecting names and addresses and you want to let the user enter several of them, check **more than one**. If you check **More than one** here, you allow the user to insert a new table, not an additional table row.

IMPORTANT: Do not insert a calendar field into a Smart Form that allows multiple entries (using the **Allow more than One** option on the dialog). If you do, you cannot search the Smart Form using that field.

If the user entering data clicks , a menu appears, which lets the user click **Duplicate** to add instances of the field to the screen.

NOTE: The menu icon ( ) can also indicate that the user can remove a field (see the Use field). So, even if a field allows only one instance, the icon could appear but the menu would only display **Remove**.

- **Allow Rich Formatting**—Check this box if you want to let the Smart Form author format text in this field. If you do not check the box, the author can enter plain text only. If you allow rich formatting, a content author uses the editor selected in either the web.config file's `ek_EditControlWin` key (for Windows computers) or the `ek_EditControlMac` key (for Apple computers). Or, if `UserPreferred` is the `web.config` value, the author uses the editor selected in the user profile.
- **Keep Single Blocking Tag**—This checkbox is active only if **Allow Rich Formatting** is checked. Check this box if you want the editor to maintain `<p>` tags around a single line of text. Uncheck this box if you want the editor to strip `<p>` tags from a single line of text.

NOTE: This checkbox has no effect if text that allows rich formatting consists of more than one line.

Sample Results
Checked: `<p>Here is sample text</p>`
Unchecked: `Here is sample text`

- **Allow Multiple Lines**—Check here to let this text box expand to accommodate the user's input. If you do not check this box, a single line box appears on the screen to accept user input.
- **Cannot be Changed**—Check here to make this field read-only. You might use this option to provide instructions for completing the screen.
- **Invisible**—Check to make this field hidden in Data Entry mode. This option lets you store unseen information in an XML document. An example might be putting a version

number for the data design so that XML documents can be upgraded to newer versions using an XSL transform.

- **Validation**—Select the kind of validation to apply to this field. Your choices are:
  - **No validation**—the user's response is not checked.
  - **Cannot be blank**—the user must enter a response.
  - **Custom**—You can create custom validation. See Also: *Creating Custom Validation Criteria* below

  If you assign to this field any value other than **No validation**, the field is initially surrounded by red dashes in Data Entry mode. If the user's response does not meet the validation criterion, the field remains surrounded by red dashes. The system administrator determines whether or not the user can save an invalid document.

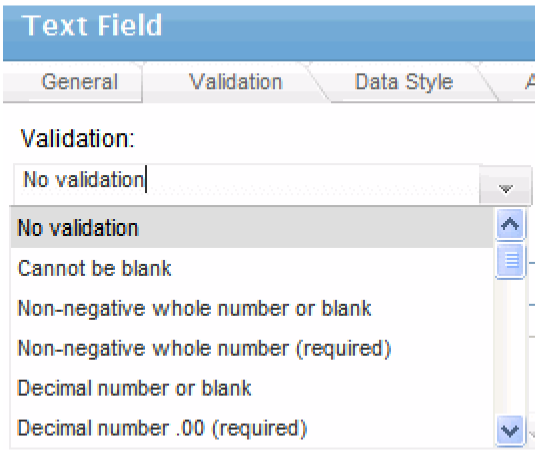
- **Data Style** tab—You can specify the following data styles:
  - Font style and size
  - Bold and italic
  - Text alignment (especially helpful for formatting dollar amounts in a plain text field)
  - Underline or strikethrough
  - Font color and background color

  NOTE: The configuration data controls a command's appearance on the toolbar and on the Data Style dialog. For example, if `<button command="cmdfontname" />` is removed from configdatadesign.xml, it disappears from the toolbar and the Data Style dialog.

- **Advanced tab**—This is the same as the *Group Box Advanced Tab* on page 463.

Adding Standard Validation Options

By default, the Data Designer provides several standard validation options. You can see them by clicking the down arrow to the right of the **Validation** drop-down.



Creating Custom Validation Criteria

If the standard validation options do not provide the flexibility you want, use the custom validation feature to ensure the following about the user's input.

- The data type—the default types are
  - text
  - URL
  - whole number
  - decimal number
  - floating point number (Floating point includes scientific notation, so is appropriate for scientific numbers. Decimals usually suffice for business numbers.)

  NOTE: Your system administrator may customize the choices.

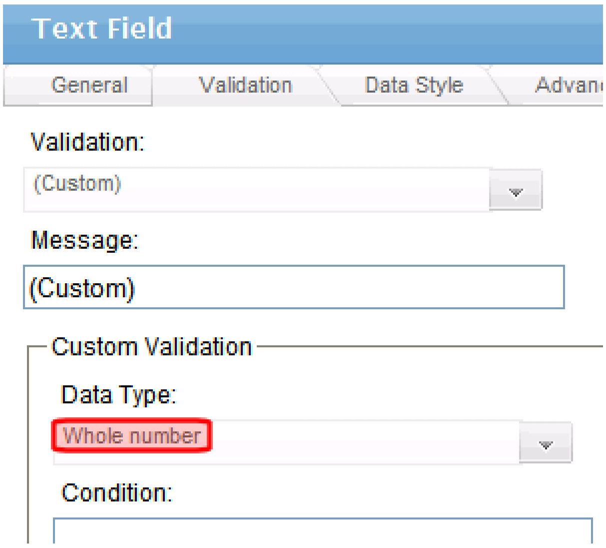
- The field value has one of the following relationships with another field, a number, or an expression—the default expressions are
  - between 2 values (either another field or a number that you specify)
  - less than
  - equal to
  - not equal to
  - maximum length (usually for text responses)

  NOTE: Your system administrator may customize the choices.

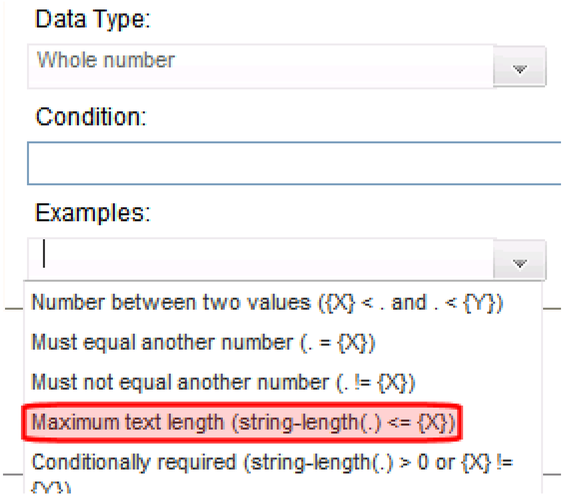
If the user's response fails to meet the criteria, you can compose an error message that appears when that happens. Your system administrator determines if a user can save the invalid data.

As an example of custom validation, assume that a field collects telephone numbers, and you want to make sure the user enters 10 digits. To accomplish this:

1. Click the Plain Text Field dialog and complete the screen.
2. In the validation section, click **Custom Validation**. The Custom validation screen appears.
3. In the **Data Type** field, select **Whole Number** from the drop-down list. This ensures that the user can only enter digits.



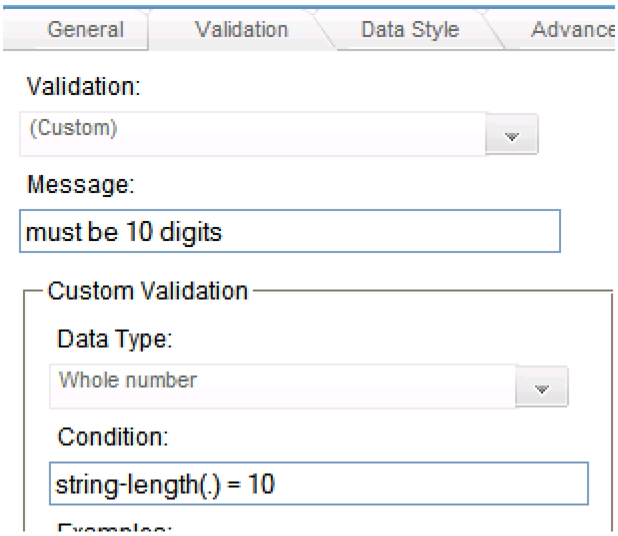
4. Click the down arrow to the right of the **Examples** field to see sample logic.



5. Click **Maximum text length...**. This option lets you specify the length of the user's response.

   `string-length(.) <= {X}` appears in the **Condition** field.

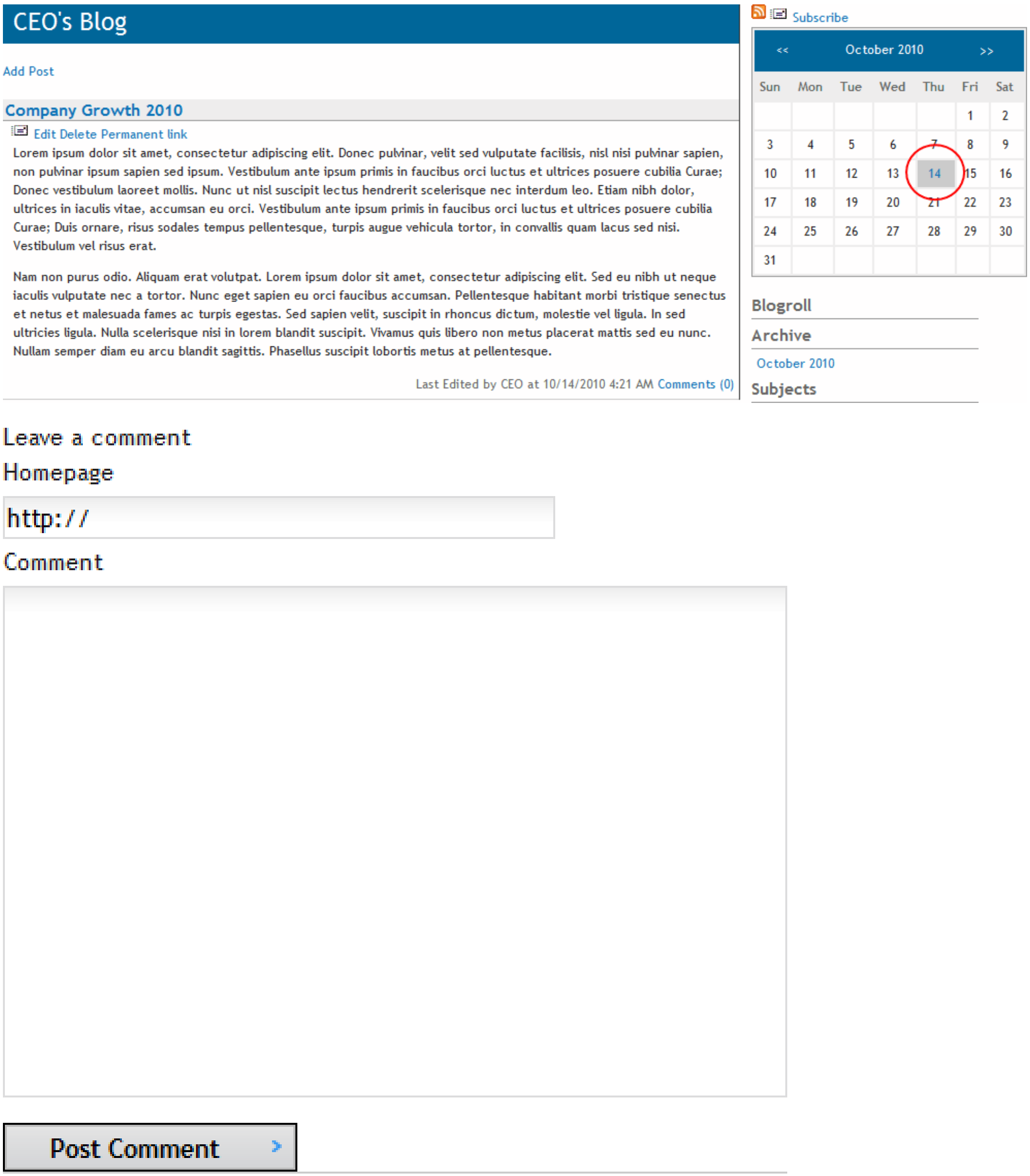
6. Because you want the user's input to equal 10, remove the less than sign (<) from the calculation. Now it looks like this: `string-length(.) = {X}`.
7. Replace the `{X}` with 10. Now, it looks like this: `string-length(.) = 10`.
8. Move the cursor to the **Error Message** field and compose a relevant error message. For example: `must be 10 digits`. Your screen should look like this.



9. Click **OK** and return to the **Plain Text** field dialog.
10. Click **OK** to save that dialog and test the validation on the phone number field. To do this, switch to Data Entry mode and enter more or fewer than 10 digits, as well as non-digit characters to verify that validation works as expected.

Working with Blogs

A blog is a form of online information sharing. You create a main blog post, and others can comment on it. Or, you can use a blog to create an online diary of everyday life. Your most recent blog post appears at the top with associated blogs following. Some blogs display a calendar on which days when blogs were created are highlighted.



In the Workarea, a blog looks like a content folder but has a distinct icon ( ).

You can use a Smart Form to implement *structured blogging*, which provides a form for the blogger to complete instead of free-form writing. For example, you create a book review blog and want to make sure that an author submitting a review provides:

- Title
- Author

- Date of review
- Review text

For information about working with Smart Forms, see *Working with Smart Forms* on page 423.

NOTE: Unlike the Smart Forms you can assign to regular folders, you cannot require the user to select a Smart Form when creating a new post. It is only an option.

This section also contains the following topics.

Blog Workflow

The following list explains the workflow of a blog.

1. An administrator creates a blog in the Workarea, assigns blog subjects, creates a blog roll, and decides how comments are handled. See *Adding a Blog* on page 494.
2. A developer adds the blog to a Web form using blog server controls, then publishes the form. See the *Blogs* on page 1645 server controls.
3. Ektron users can add blog posts, either from the Workarea or the website. Depending on permissions, the post is either published immediately or submitted to the blog's approval chain. See *Working with Blog Posts* on page 504.
4. When published, site visitors can view the post and add comments. See *Controlling Blog Comments* on page 500.

Blog Elements

The following list shows elements commonly found in a blog.

- **Blog Title**—The name of your blog as you want it to appear on the site. For example, "My Life Story."
- **Blog Post**—The main entry for each topic. A blog post consists of these elements. See *Working with Blog Posts* on page 504.
  - **Headline**—title of the post
  - **Commentary**—details of the post
  - **Comment Link**—links to a comments page, where site visitors can view or add comments
  - **TrackBack URL**—a URL visitors can use to notify you when they discuss the post on their site. See Also: Trackback (Wikipedia)

- **PingBack**—Pings back any URLs in the blog post See Also: Pingback (Wikipedia)
- **Images**—add images to a blog post the same way you add them to content. See Also: *Adding a Library File to Content* on page 342

- **Blog Comments**—A Comments link appears at the end of the blog post. The link includes a number in parentheses (for example (3)), which denotes how many comments have been made. Click this link to move to the comments page, where you can read comments on the post and possibly enter your own. See *Controlling Blog Comments* on page 500.
- **Blog Roll**—Other blogs that the blog's creator wants site visitors to view. See *Adding Blog Roll Links* on page 497.
- **Blog Subjects**—Subjects associated with the blog. If you click a subject, links to all posts associated with the subject appear. See *Adding Blog Subjects* on page 496.
- **Calendar**—Indicates when blog posts were made. This lets site visitors navigate your blog by clicking a day that has blog posts.

A blog folder has the same functionality and features as other folders in the following areas:

- Permissions
- Approvals
- Purge history
- Language Support
- Search

For more information, see *Setting Approval Chains* on page 262 and *Managing Folder Permissions* on page 257.

Editing Blog Properties

PREREQUISITE

To edit blog properties, you must have permission to **Edit Folders** on the blog's Advanced Permissions screen.

To edit blog properties:

- Workarea: navigate to the blog folder, click **View > Properties**, then click **Edit Properties**.
- website: log in, navigate to the blog, open the menu for the blog, and select **Properties**.

You have more options when you edit the properties of a blog than when you create it. This saves time when you are adding multiple blogs to a site. You can set these properties when creating or editing a blog.

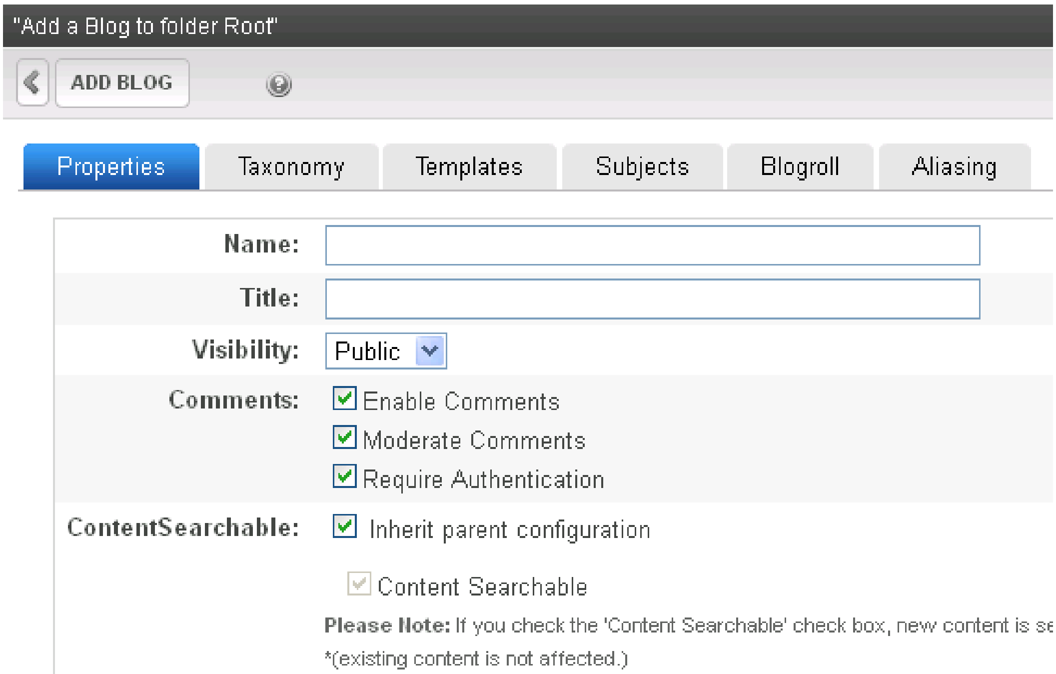
- **Name**—Create blog, Edit properties—The name of your blog as it appears in the content folder tree.
- **Title**—Create blog, Edit properties—The title of your blog as it appears on the website blog. It only appears if the `ShowHeader` Blog server control property is set to `true`.
- **Visibility**—Create blog, Edit properties
  - **Public**—any site visitor can view the blog
  - **Private**—Membership and Ektron users must log in to see the blog.
- **Tagline**—Edit properties—A line of additional information that describes the blog. It appears below the title if the `ShowHeader` Blog server control property is set to `true`. For

example, the title of a blog is "John's Blog Page." The tag line could be "A place to learn about John's past, present, future, and his current state of mind!"

- **Post Visible**—Edit properties—The number of posts visible on the blog page. If the number of posts exceeds this number, only this many of the most recent posts appear. For example, if this property is set to 10 and you add 11 posts, only the 10 most recent posts appear. This number can be from 1 to 999. If you leave this field blank, all posts made during the current day are visible.
- **Comments**—Create blog, Edit properties—Choose how to handle comments by checking the appropriate boxes. For more information, see *Controlling Blog Comments* on page 500.
- **Update Services**—Edit properties—Enter a service that notifies a blog search site when blog posts are added to your blog site. These blog search sites allow Web users to search content contained in blogs around the world. To use this feature, check the **Notify blog search engines of new posts** box and enter a path to a search site. An example path is: `http://rpc.technorati.com/rpc/ping`.
- **Style sheet**—Edit properties—If you want to provide a custom style sheet for the blog, enter the path to it relative to the site root. For example, `WorkArea/csslib/my_custom_blogs.css`. Leave this field blank to inherit the default style sheet, blogs.css, located in `Workarea/csslib`. You can customize the default style sheet but your modifications will get overwritten when you upgrade Ektron.
- **Content Searchable**—Edit properties—Specify whether the blog can be found through site searches.
- **Display Settings**—Edit properties—Specify the tabs that you want displayed when you create or edit blog content.

Adding a Blog

1. From the Workarea, choose **Content**.
2. Click the folder in which the blog will reside.
3. Choose **New > Blog**. (You also can right click on a content folder and choose **Add Blog**.) The **Add a Blog** screen appears.



4. Complete the **Properties** tab according described below.
   - **Name**—The name of your blog as it appears in the content folder tree.
   - **Title**—The title of your blog as it appears on the website.
   - **Visibility**—Choose whether the blog is private or public. If private, only logged-in site visitors can see it.
   - **Comments**—Choose how to handle comments by checking the appropriate boxes. See *Controlling Blog Comments* on page 500.
   - **Taxonomy** tab—Select taxonomy categories to apply to the blog. See Also: *Using Taxonomies* on page 777
   - **Templates** tab—Select templates to apply to the blog. See Also: *Working with Templates* on page 382
   - **Subjects** tab—Add subjects to the blog. See Also: *Adding Blog Subjects* on the next page
   - **Blog Roll** tab—Add blog sites that you want blog readers to visit. See Also: *Adding Blog Roll Links* on page 497
5. Specify the information in the tabs, and click **Add Blog**.

NOTE: To create a blog, you must have permission to **Add Folders** on the blog's Advanced Permissions screen. See Also: *Managing Folder Permissions* on page 257

Deleting a Blog

1. In the **Workarea**, navigate to **Content** then the blog folder. (From the website, open the menu for the blog and click **Properties**.)

   NOTE: To delete a blog from the website, you must be logged in and have permission to **Delete Folders** on the blog's Advanced Permissions screen.

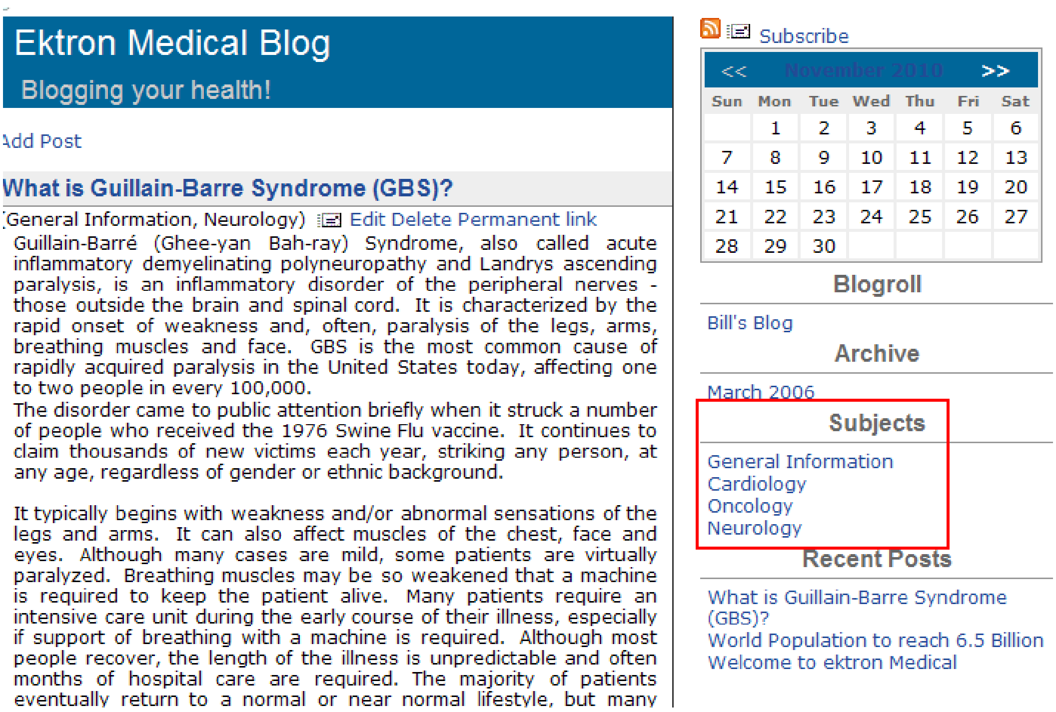
2. Choose **Delete > This Blog**. A dialog box asks you to confirm.
3. Click **OK**.

WARNING! Deleting a blog removes the blog and all of its posts, comments, and quicklinks. After a blog is deleted, you cannot retrieve its posts, comments, or quicklinks.

Adding Blog Subjects

Subjects make it easier for site visitors scanning a blog page to find posts that interest them. An author assigns one or more subjects to a blog post. When the post is published, a list of subjects assigned to all posts appears in a column. A site visitor can click a subject to see all related posts.

For example, a blog's subjects are General Information, Cardiology, Oncology, and Neurology. A blog is written about the importance of screening and then assigned to the Oncology subject. When a user clicks Oncology, the screening blog appears with other blogs related to Oncology. By default, a blog's subjects appear with other blog components when a Blog Server control is placed on a Web page. A developer can place a list of blog subjects only on a Web page via the *BlogCalendar* on page 1654server control.



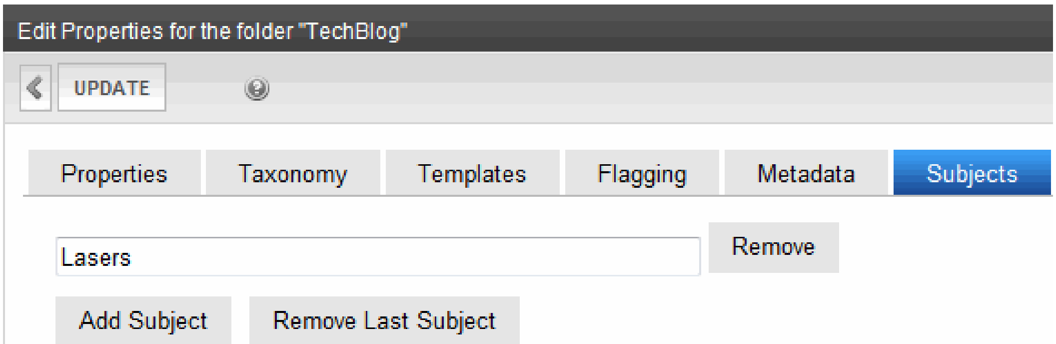
A subject only can be assigned to the blog in which it is created—it cannot be reused with other blogs. With each new blog, you must create new subjects. This gives you the flexibility to tailor unique subjects to each blog.

To add or edit a blog subject:

NOTE: To add a blog subject from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder. (From the website, open the menu for the blog and click **Properties**.)
2. Choose **View > Properties**.
3. Click **Edit Properties**.

4. Click the **Subjects** tab, then **Add Subject**.

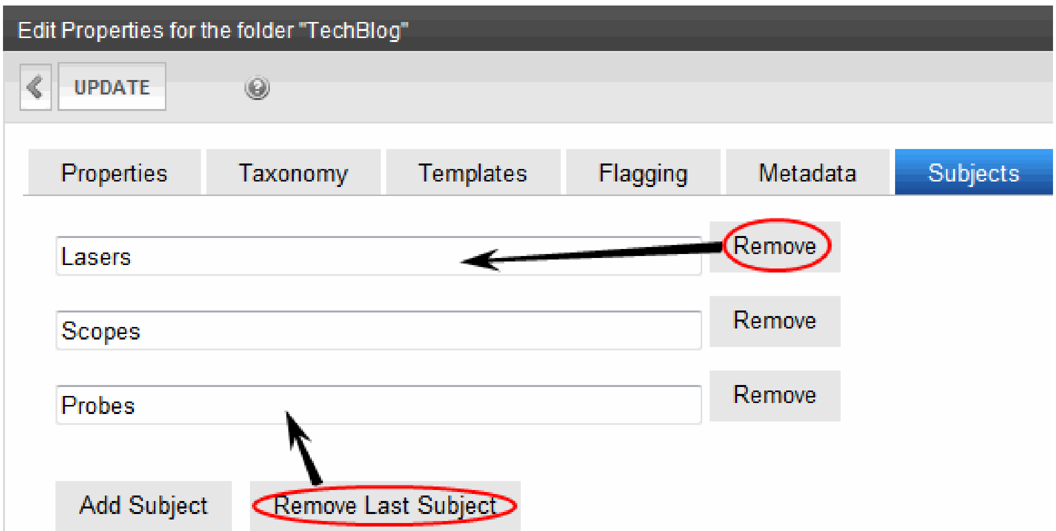


5. Enter the subject. Add as many subjects as you want by clicking **Add New Subjects**.
6. Click **Save**.

Removing Blog Subjects

NOTE: To remove a blog subject from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder. (From the website, open the menu for the blog and click **Properties**).
2. Choose **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Subjects** tab.
5. Click **Remove Last Subject** to remove the subject from the end of the list, or click **Remove** to remove a specific subject.



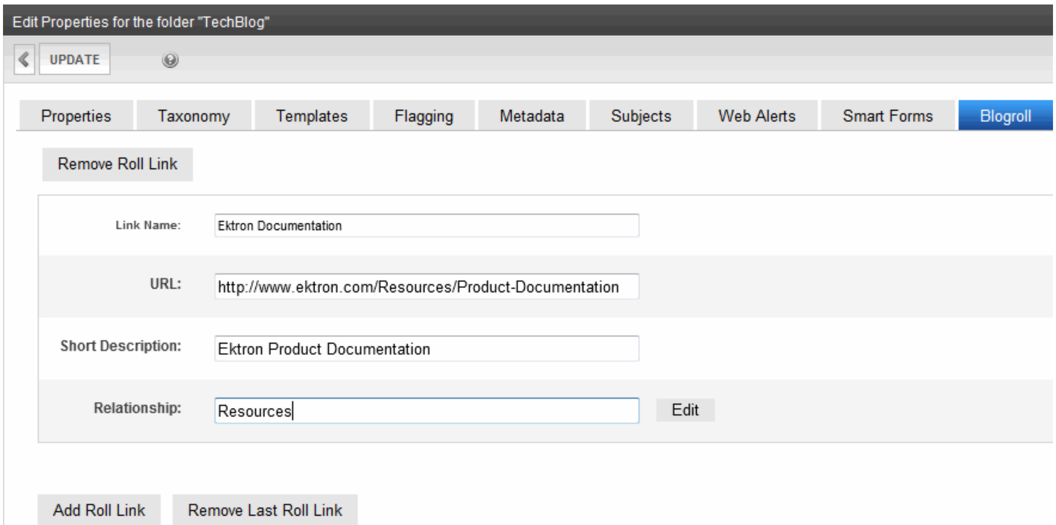
6. Click **OK** to confirm removal of the last subject. You can continue to remove subjects at the end of the list by clicking the **Remove Last Subject** link.
7. Click **Save** to save your changes.

Adding Blog Roll Links

A blog roll lists website links to your blog page; a list of related blogs, or blogs that you want your visitors to view. See Also: *BlogRoll* on page 1659 server control.

NOTE: To add a blog roll link from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder. (From the website, open the menu for the blog and click **Properties**.)
2. Choose **View > Properties**.
3. Click **Edit Properties**.
4. On the **Blog Roll** tab, click **Add Roll Link**. The **Add Blog Roll Link** form appears.



5. Fill out the form. Add as many links to the blog roll as you would like.
   - **Link Name**—Describes the link in the blog roll.
   - **URL**—Enter the URL of the blog you are adding to the blog roll. It must begin with `http://`.

- **Short Description**—Add a short description of the site.
- **Relationship**—Enter the relationship of the blog roll link to you or to the site. For example, brother. Click **Edit** for a pop up screen that helps you choose the site's relationship.
  - **URL**—Check this box if the address is owned by the same person or company.
  - **Friendship**—Choose your level of friendship with the site owner.
    - Contact
    - Acquaintance
    - Friend
    - None
  - **Physical**—Check this box if you have physically met the person who owns this blog.
  - **Professional**—Check if the site owner has a work relationship with you. Select all that apply.
    - Co-worker
    - Colleague
    - Geographical—Select one.
    - co-resident
    - neighbor
    - none
  - **Family**—If the site owner is a family member, select the relationship.
    - Child
    - Parent
    - Sibling
    - Spouse
    - Kin
    - None
  - **Romantic**—Check your feelings toward the site owner.
    - Muse
    - Crush
    - Date
    - Sweetheart

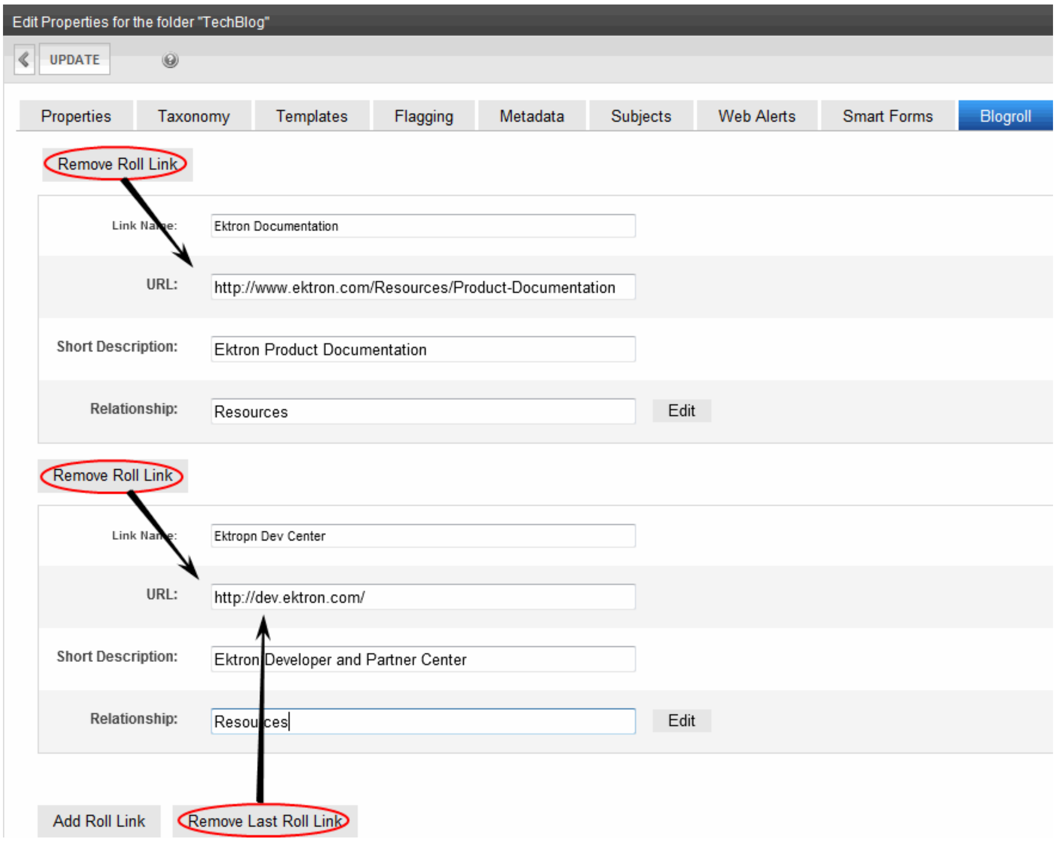
6. Click **Save**.

Removing Blog Roll Links

NOTE: To remove a blog roll link from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder. (From the website, access the blog’s menu from the site and click **Properties**.)
2. Choose **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Blog Roll** tab.

5. Click **Remove Last Roll Link** to remove the roll link from the end of the list, or click **Remove Roll Link** to remove a specific roll link.



6. Click **OK** to confirm removal of the last blog roll link.
7. Click **Save**.

Controlling Blog Comments

Blog comments let site visitors add their thoughts about a blog post.

IMPORTANT: Do not confuse blog comments with history comments. You can add a history comment to the blog post by clicking the **Comment** tab. This is not the same as adding a comment to a blog post on a site. When you add a history comment, it has the same properties as a comment associated with content.

The blog administrator controls commenting by deciding who can add comments and whether a comment requires approval for publication. By default, comments are fully controlled. This means they are enabled, must be approved, and a site visitor must log in to create them. The following blog properties control comments. See Also: *Editing Blog Properties* on page 493.

- **Enable Comments**—Allows user in Workarea and site visitor to add blog comments. Also displays comments on site and in Workarea.

  NOTE: An Administrators group member can add comments, regardless of how this checkbox is set.

- **Moderate Comments**—Determines if comments must be approved before they appear on site. If this field is checked, only Ektron users with permission to edit the post can

approve comments. If a user without edit permission adds comments, they only appear on the website after being approved by someone with edit permission.
An unapproved comment is indicated by a red exclamation point (). If a user with edit permission logs in, comments are automatically approved.

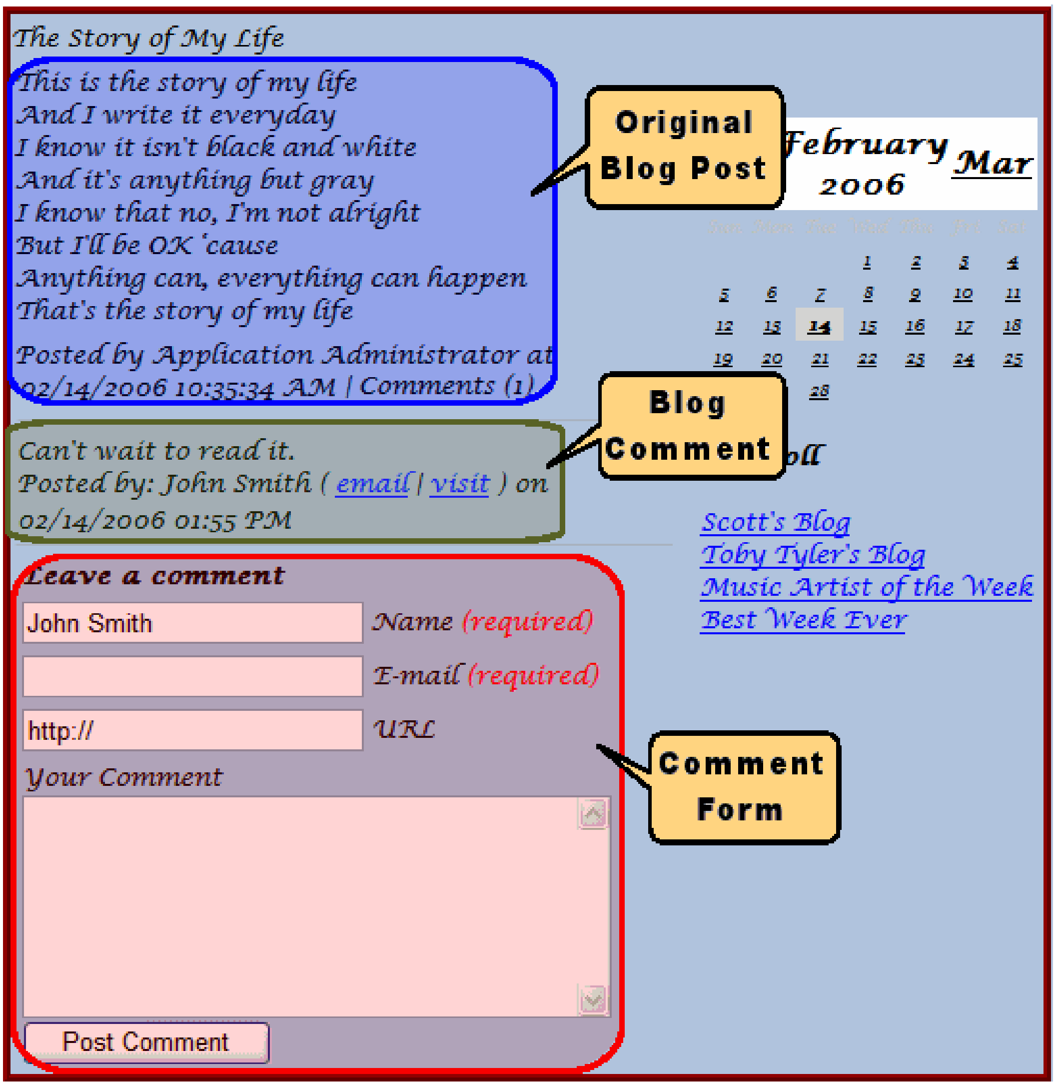
NOTE: Membership users cannot approve blog comments.

- **Require Authentication**—Determines if a user must be logged in as an Ektron or membership user to add comments via the website.

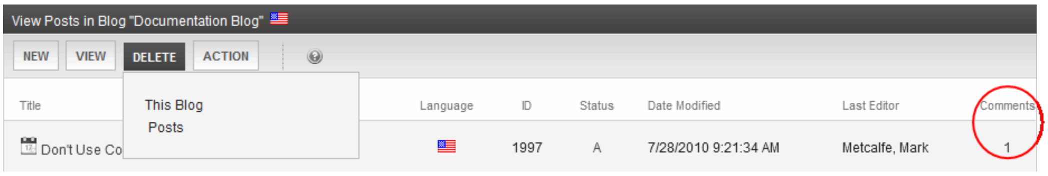
If comments are enabled but not moderated, any site visitor can add a comment. If you want to ensure comments on your site meet certain criteria, moderate them.

IMPORTANT: If comments are not moderated, they appear on your site as soon as a site visitor submits them.

On the site, blog post comments appear when you click the Comments link or the Title of the blog post. The comment page contains the original post, any comments, and a form to post new comments. Depending on how the page is designed, the calendar and blog roll also may appear.



The Workarea’s View Posts in Blog screen lets you add, view, approve, edit, and delete comments for a blog post. The Comments column indicates the number of comments. An unapproved comment is indicated by a red exclamation point ( ).



This section also contains the following topics.

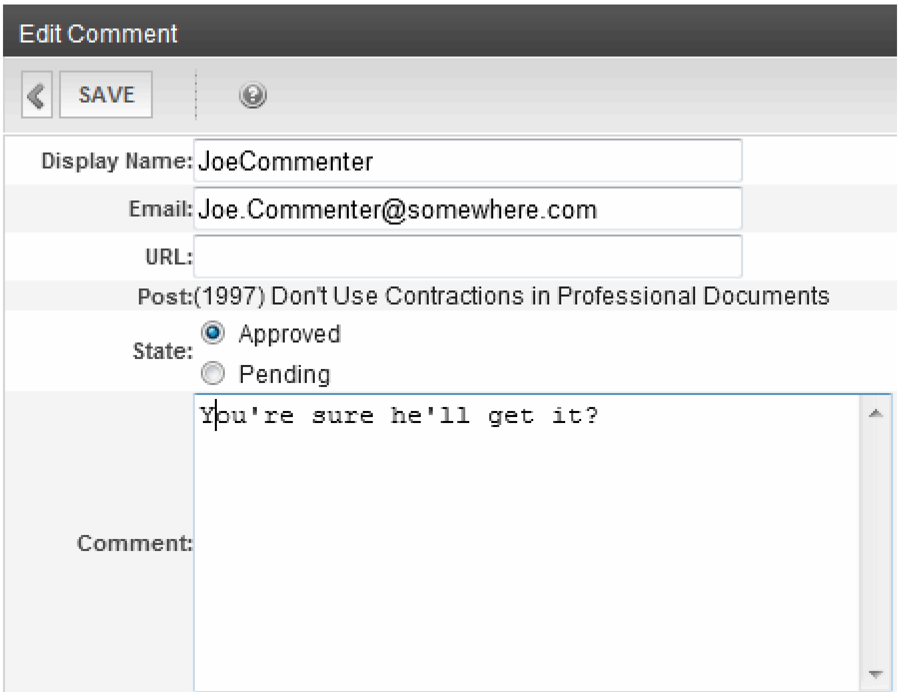
Adding a Blog Comment

PREREQUISITE

To add a comment, you must have **Add** permission on the blog’s Standard Permissions screen.

To add or edit a blog post comment from the Workarea:

1. From the **Content** area, navigate to the blog and find the post that you want to edit.
2. Click the number in the **Comments** column. The View Comments for Post screen appears.
3. Choose **New > Comment**. The Add Comment screen appears.



- **Name**—The person submitting the comment. This information is required.

NOTE: This text box appears only when a site visitor, who is not a regular user or membership user, is adding a comment. If a regular user or membership user adds a comment, their name and email address is taken from their user profile.

- **Email**—The email address of the person submitting the comment. This information is required.

NOTE: This text box appears only when a site visitor, who is not a regular user or membership user, is adding a comment. If a regular user or membership user adds a comment, their name and email address is taken from their user profile.

- **Homepage**—A URL for the person's website.
- **State**—Set the comment's state to approved or pending.
  - *Approved* comments appear on the site immediately.
  - *Pending* comments must be approved before they appear.
- **Comment Section**—A text area to insert comments about the post.
- **Post Comment** button—Post a comment by clicking this button. Depending on the comment's settings, it either posts immediately or is submitted for approval.

Deleting a Blog Comment

When a comment is deleted, you cannot retrieve it.

1. From the **Content** area, navigate to the blog.
2. Find the post that you want to edit.
3. Click the number in the **Comments** column. The View Comments for Post screen appears.
4. Click **Delete**. A dialog box asks you to confirm.
5. Click **OK** to delete the comment.

Approving a Blog Comment

Comments can require approval if:

- they are submitted from the website and **Moderate Comments** is checked in the blog's folder properties.
- a user submits the comment from the Workarea and sets its state to **Pending.**

Only users with permission to edit content (posts) within the blog folder can approve comments.

To approve a comment:

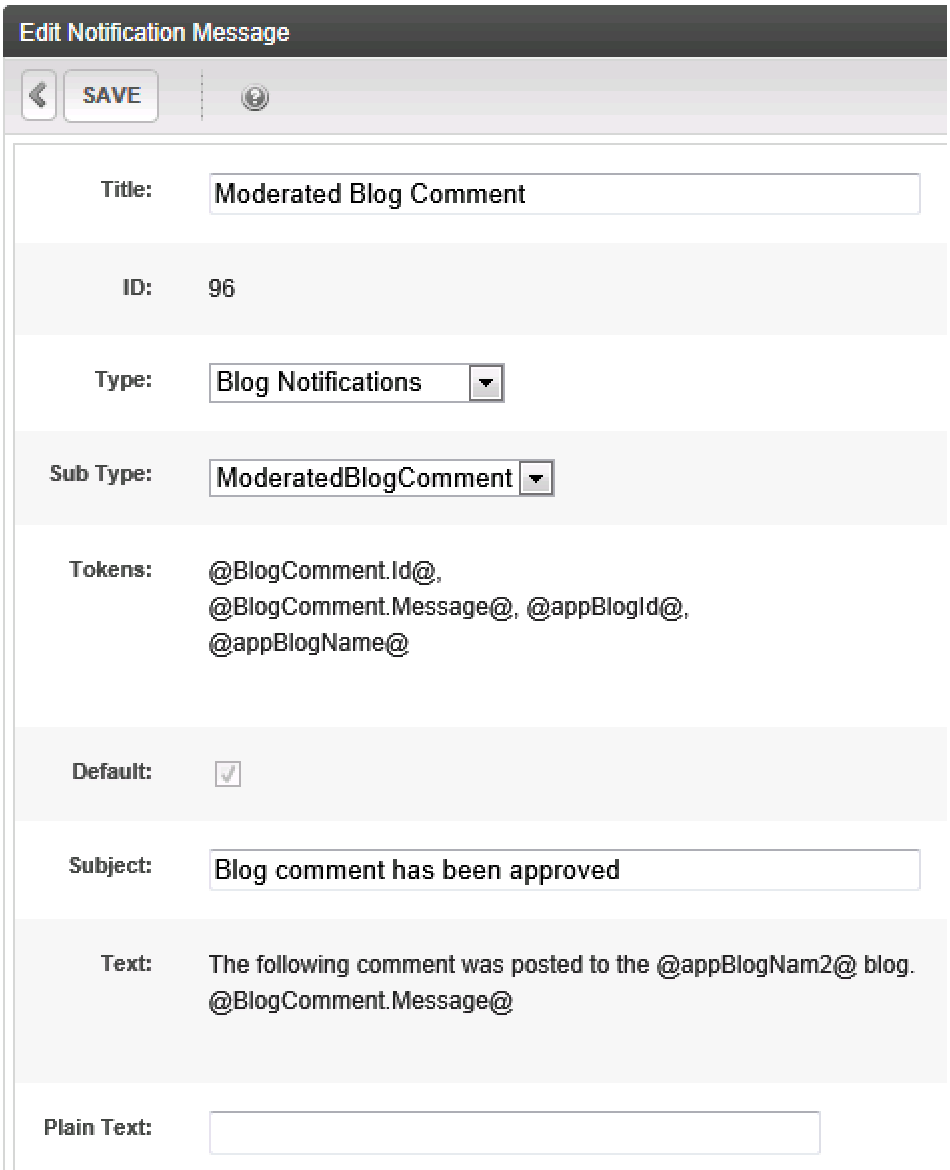
1. From the **Content** area, navigate to the blog.
2. Find the post that has a comment that requires approval.
3. Click the number in the **Comments** column. The View Comments for Post screen appears.
4. Click **Approve**.
5. The comment's status changes to approved.

Notification of blog comments

Notification of Moderated Blog Comments

Whenever a moderated blog comment is published, the Notification system can notify interested recipients. See *Sending Notifications to a Community* on page 1194.

Upon the posting a moderated blog comment, a `Moderated Blog Comment` message may be generated.



Working with Blog Posts

Your website displays only published blog posts. However, you can see all blog posts in the Workarea, regardless of status. In the Workarea, you can also create, edit, delete, and archive blog posts in the same way you work with content. See Also: *BlogPost* on page 1656 server control.

This section also contains the following topics.

Blog Posts on the Website

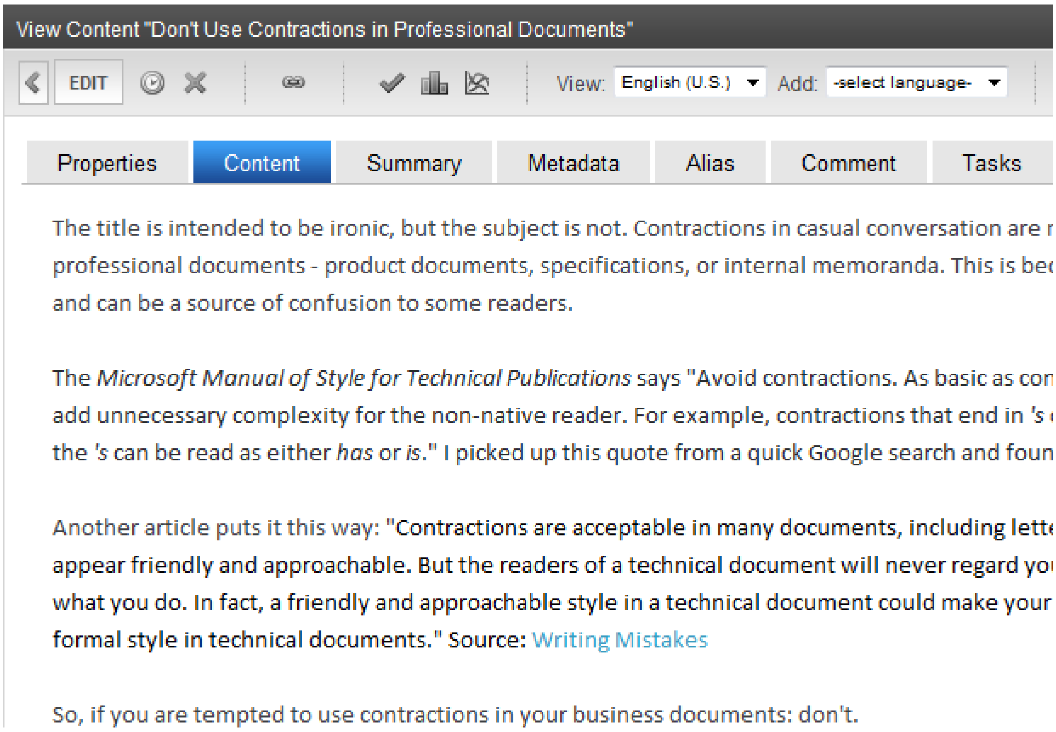
You can view published blog posts on the website. A blog post has a Title, Content, Comments Link, Post Time, Date, and Editor Information.

- **Title**—The headline of the post. Usually what a site visitor scans through to find a post to read.
- **Permanent Link**—If you click this link, a new screen appears. The new screen indicates the *permanent link* to this blog post. As long as the blog post is active within Ektron, you can access it via the URL in the browser's address bar. Most blog pages show only recent posts. After a post is moved off the blog's front page, it is still accessible via this link.
- **Content**—The body of the post.
- **Comments Information**—The comments link shows the number in parentheses of comments for a post . When this link is clicked, a new page of comments for the post appears. Also on the page is a form to add comments about the post. The comments only appear if a site visitor has logged in or authentication is not required for blog comments.

- **Editor Information**—The person who created or last edited the blog post.
- **Post Time and Date**—The date and time a blog post was created or last edited.

Blog Posts in the Workarea

Viewing a blog post in the Workarea is similar to viewing content in the Workarea. Navigate to the folder that contains the blog then click the title of the blog post in the View Posts in Blog screen.



The View Posts in Blog screen shows the following information about each blog post.

- **Title**—The headline of the post. Usually what a site visitor scans through to find a post to read.
- **Comments Information**—The comments link shows the number in parentheses of comments for a post . When this link is clicked, the View Comments for Post screen appears. If a red flag ( ) appears next to the comments icon, they are awaiting approval.
- **Editor Information**—The person who created or last edited the blog post.
- **Post Time and Date**—The date and time the blog post was created or last edited.
- **Status**—The status of the blog post. For example, if the blog post is checked in, the status is **I**.

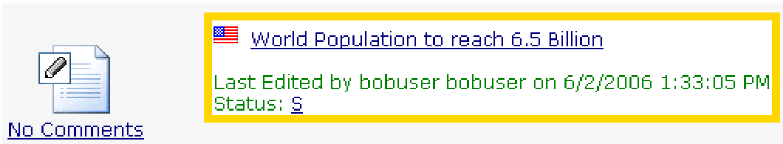
From this screen, you can perform all functions with a blog post that you can with content. You can give it a summary, add metadata, associate a task, assign Web Alerts, and so on. You must have Edit permission for the blog to perform these functions.

NOTE: You can also add a history comment to a blog post by clicking the **Comment** tab. This is not the same as adding a comment to a blog post on a site. A history comment has the same properties as a comment associated with content.

Adding a Blog Post

NOTE: To be able to add a blog post, you must have **Add** permission on the blog's Standard Permissions screen. To add a blog post from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder and choose **New > HTML Post**. (From the website, open the menu for the blog then choose **New Post**.)
2. When the Add Content screen appears, use the editor to create the blog post. You create a blog post the same way you create content. See Also: *Editing in Ektron* on page 207.
   If you are a member of the blog's approval chain, it is published immediately. If not, the post is surrounded by a yellow border. An approval chain member must approve it before it appears on the website



When the post is published, it appears within the blog on the website.

You can add tags to a blog post to further define information about it for blog search engines. For example, you create a blog post about your favorite band and enter the following tags:

- Music
- Guitars
- Rock & Roll

When a person visiting a blog search site searches for Rock & Roll music, your blog post appears. Some blog search sites have a page specifically for searching blog tags.

Editing a Blog Post

NOTE: To be able to edit a blog post, you must have **Edit** permission on the blog's Standard Permissions screen. To add a blog post from the website, you must be logged in. Also, if another editor changes a blog post, the posting information reflects the new editor, the date, and the time the information was changed. This is important to remember if you want the original person who posted the blog to get credit for the post.

1. In the Workarea, navigate to the blog folder. (From the website, open menu for the blog then choose **Properties**, then choose the post.)
2. Click the blog post title you want to edit.
3. Click **Edit**.
4. Change the blog post. When the blog is published, the changes appear in the blog post on the website.

Approving a Blog Post

If someone who is not a member of the blog's approval chain creates or edits a blog post, its status is set to Submitted. It only appears on the website after a member of the approval chain approves it. While its status is Submitted, it has yellow border on the View Posts in blog screen. To approve a blog post, see *Approving or Declining Content* on page 267.

Deleting a Blog Post

NOTE: To be able to delete a blog post, you must have **Delete** permission on the blog's Standard Permissions screen. To delete a blog post from the website, you must be logged in.

1. In the Workarea, navigate to the blog folder. (From the website, log in, open the menu for the blog, choose **Properties** and then choose the post.)
2. From the menu, choose **Delete > Posts**. The **Delete Contents** screen appears.
3. Click the check box next to each post you want to delete. To select all posts, click the check box next to **Title**.
4. Click **Delete Contents** ( ). A dialog box asks you to confirm.
5. Click **OK** to delete the selected posts.

Adding or Editing Blog posts with Windows Live Writer

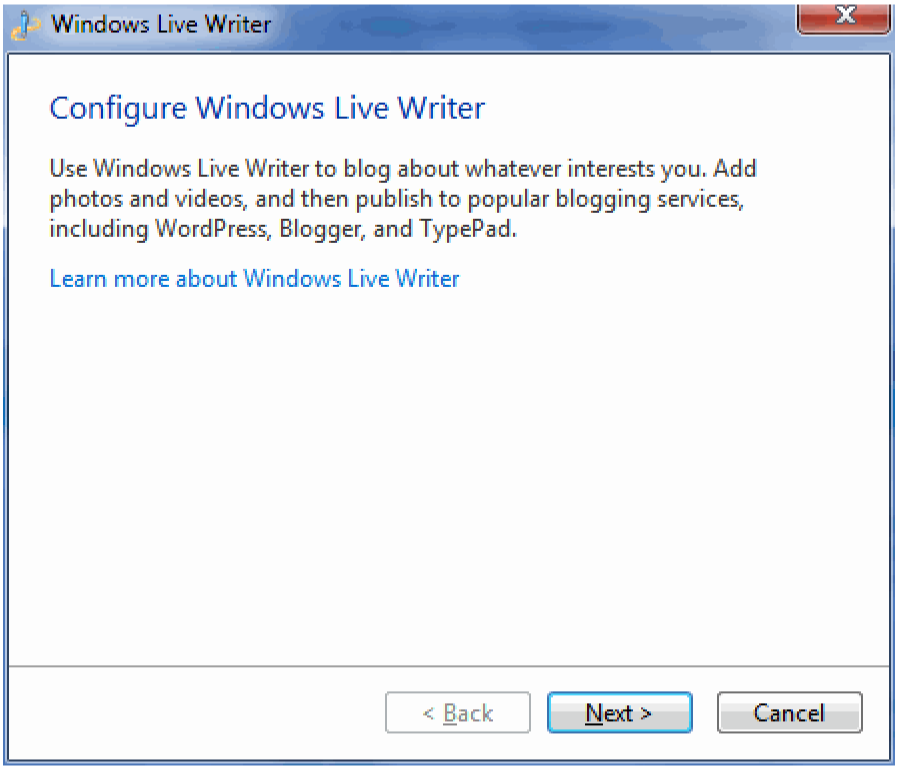
Ektron authors and membership users can use Windows Live™ Writer to add and edit blog posts to your site. If users have the proper permissions, they upload images and attach files from their system. For additional Windows Live Writer help from Microsoft, click here and sign into the Microsoft website.

NOTE: Ektron only supports the 2010 version of Live Writer.

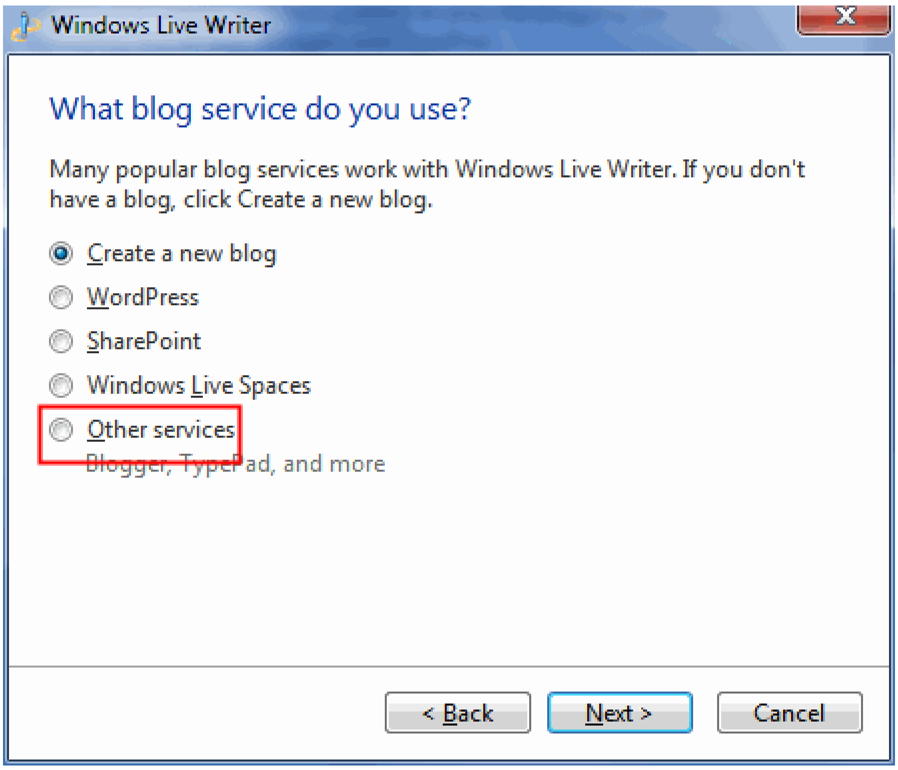
If you have previously set up Windows Live Writer, choose **Weblog > Edit Weblog Settings**. Then, skip to step 4.

To set up Windows Live Writer to work with your Ektron blog:

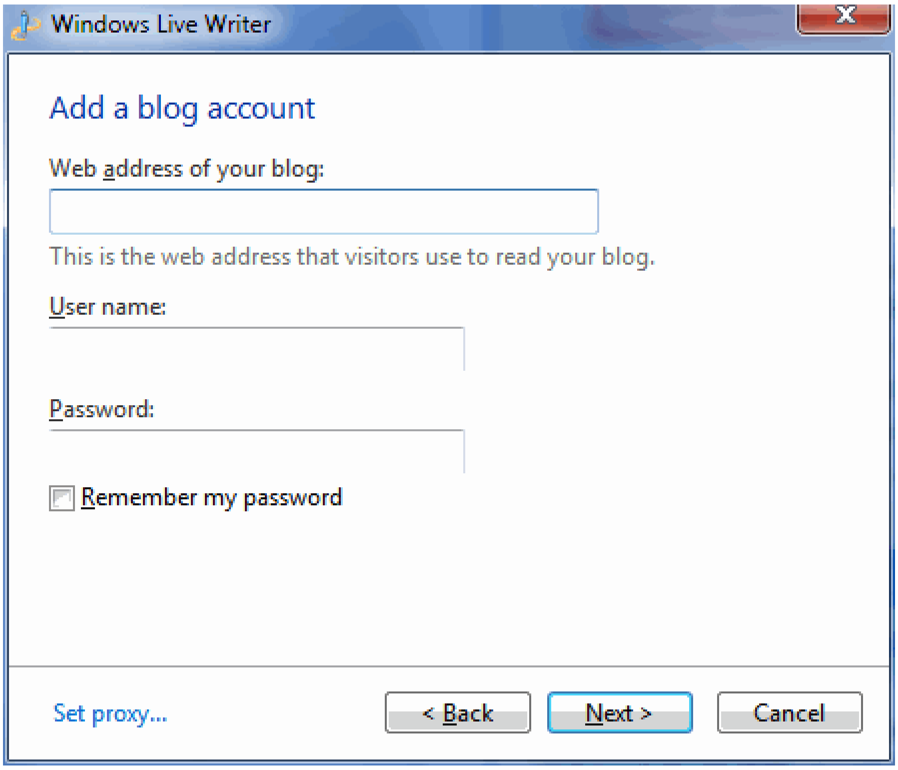
1. Go to Windows Essentials: Other Programs and download Windows Live Writer.
2. Begin to install Live Writer. The Welcome window appears. Click **Next**.



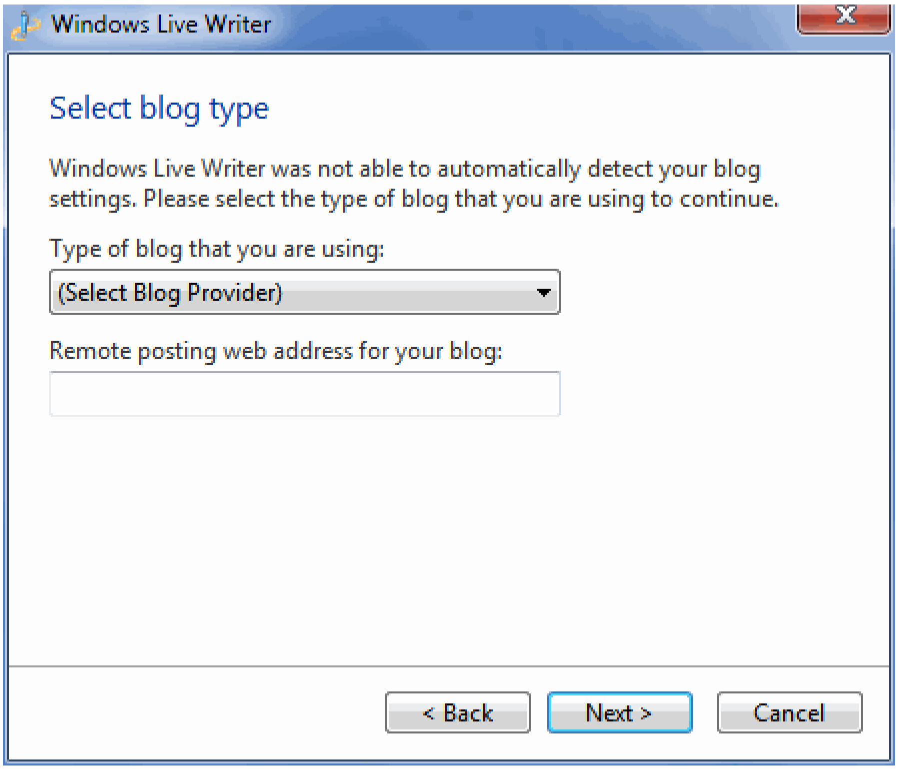
3. In the What blog service do you use? window, select **Other services**, then click **Next**.



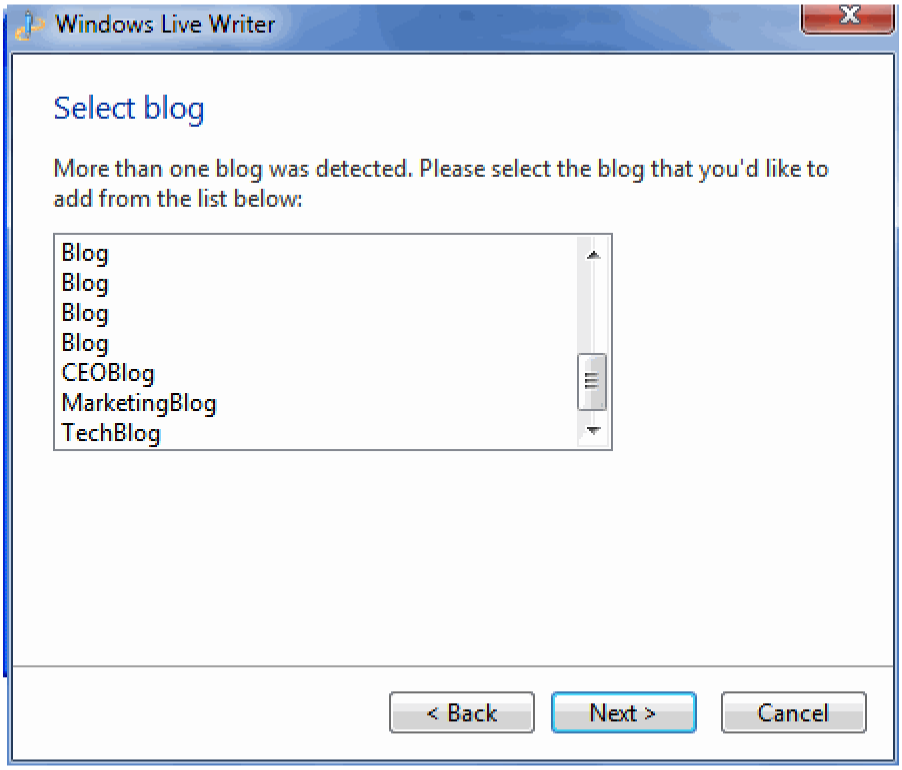
4. In the Add a blog account window, enter the following information:
   - **Web address of your blog**—the page that contains the blog. For example, `http://<your site>/CMS400Min/blogs.aspx`.
   - **Username**—your username to log on to the Ektron site.
   - **Password**—your password to log on to the Ektron site.
   - **Set Proxy...**—if needed, edit the proxy settings, then click **Next**.



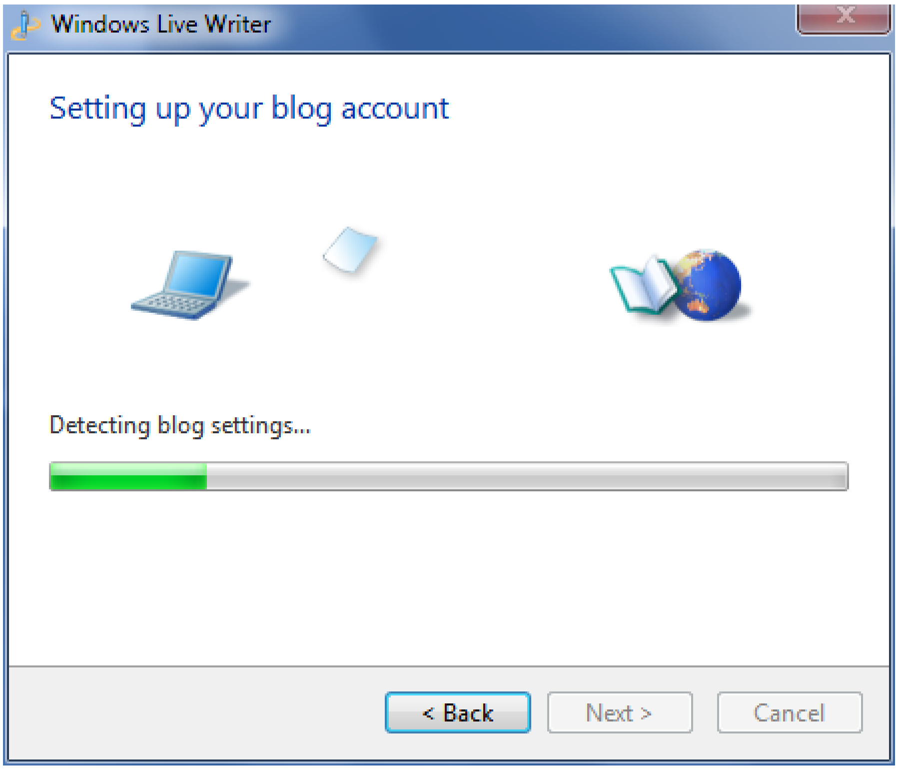
5. In the Select blog type window, from the **Type of weblog that you are using** drop-down, choose **Custom (Metaweblog API)**.

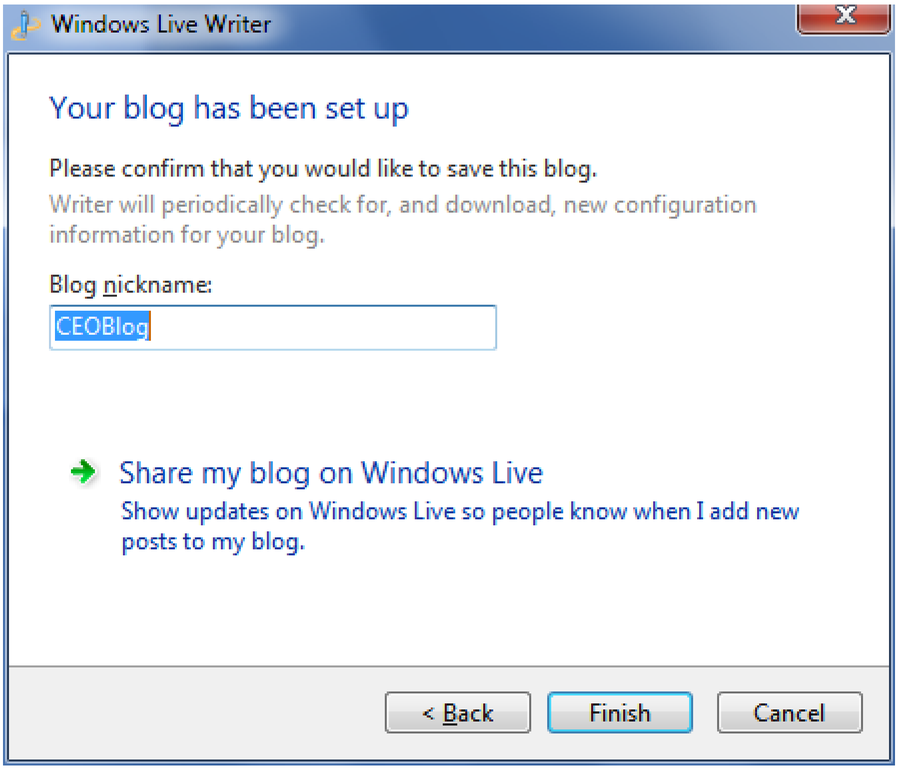


6. In the **Remote posting web address for your blog** field, enter the path to the site's `xmlrpc.aspx` file. The default location is `http://`*`site root`*`/Workarea/Blogs/xmlrpc.aspx`. Then click **Next**.
7. The Select Blog window appears. Select the Ektron blog that you will edit with Live Writer, then click **Next**.



8. Windows Live Writer is installed.





Subscribing or Unsubscribing to a Blog or Blog Post

Logged-in site users and Membership users can subscribe to a *blog* or a *blog post*.

- By subscribing to a blog, you are notified whenever posts are added to it.
- By subscribing to a blog post, you are notified whenever comments are added to a post.

If you want to stop receiving notices, you can unsubscribe.

The steps are the same for blogs and blog posts.

To subscribe to a blog or blog post:

1. Navigate to the blog on the site.
2. Click **Subscribe** ( ). The Subscribe/Unsubscribe screen appears.
3. Select the Notification Type.
4. Click **Add Subscription**.

To unsubscribe to a blog or blog post:

1. Navigate to the blog on the site.
2. Click **Subscribe** ( ). The Subscribe/Unsubscribe screen appears.
3. Select a **Notification Type**.
4. Check the **Unsubscribe** check box.
5. Click **Update Subscription**.

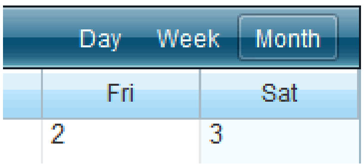
Working with Calendars

Web Calendars keep site visitors informed about upcoming events. Any authorized user can add events to a calendar. Ektron has System, User, and Group calendars. The calendar type determines where events are stored in the database, and what permissions are needed to edit them. See Also: *WebCalendar* on page 1859server control.

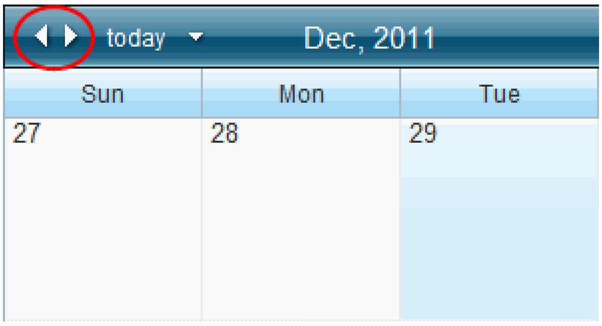
	System Calendar	User Calendar	Group Calendar
Where events are stored	Workarea > Content > Calendar Folder	Community User Calendar	Community Group Calendar
Where events are added or edited	The Web page or Workarea folder	The community user's profile Web page	The community group's Web page
Where permissions are set	Folder Permissions	Community Users and Colleagues	Community Group Membership
How it appears on a Web page	Web page with Server Control or widget		
For more information, see	*Adding a Calendar* on the facing page	*Creating a Calendar in My Profile* on page 522	*Creating a Calendar in a Group* on page 523

When first viewed, a Web calendar shows the current day, month, or week, whether you are on a Web page or in the Workarea. After logging in, you can add or edit calendar events if you have permission to do so.

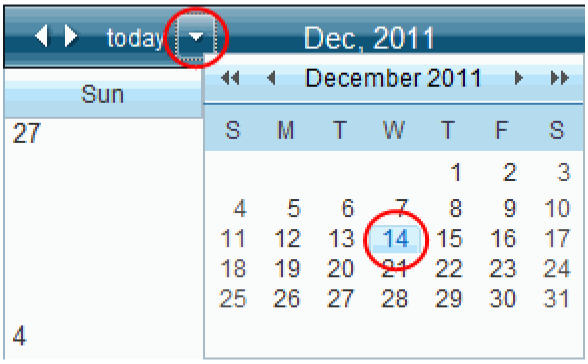
- To select the Day, Week or Month View, click a button in the top right corner to choose the view. (The WebCalendar server control's `DisplayType` property determines the appearance of these buttons.)



- To select the previous or next period, click the left or right arrow to move the calendar forward or backward one period of time.



- To choose a date, click the arrow to open the Date popup. Then, click a date to show on your calendar.



This section also contains the following topics.

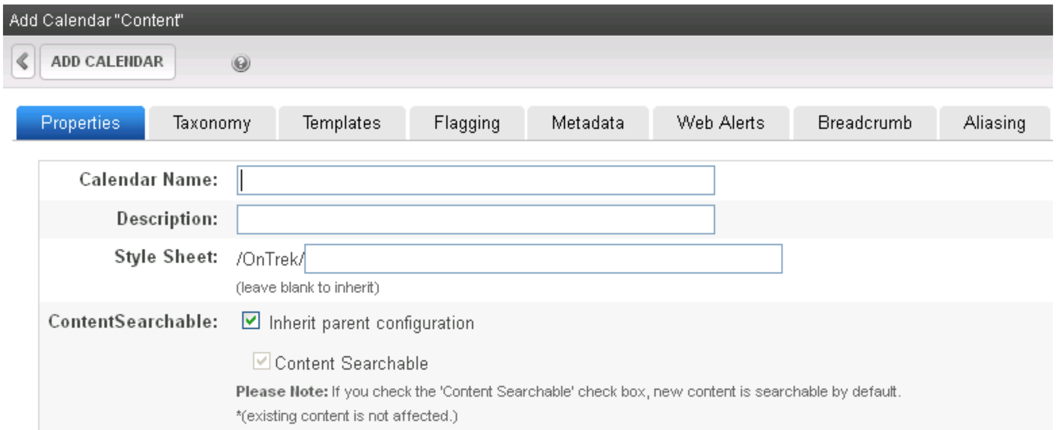
Adding a Calendar

PREREQUISITE

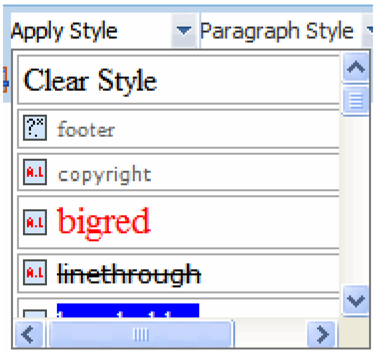
To add, edit or delete a calendar, you must be a member of the Administrators Group or have permission to **Add, Edit**, and **Delete** folders on the Advanced Permissions screen. See Also: *Setting Up Your CMS Folder Structure* on page 241

To create a system calendar:

1. In the Workarea, click **Content** > the folder to which you want to add a calendar.
2. Click **New > Calendar**. The Add Calendar screen appears.



3. Enter the **Calendar Name**.
4. Enter the **Description**.
5. Enter a **Style Sheet**.—Specify a style sheet that defines styles that may be applied to event content in this folder. The style sheet must reside in the site root folder. Or, leave this field blank to inherit the parent folder's style sheet. The style sheet populates the style drop-down list within the editor.



NOTE: This style sheet affects event content being edited. It does not necessarily affect the content's appearance on your website. To set or edit the style sheet that determines your Web pages' appearance, open the page's Web form and place a `<link rel="stylesheet"...` tag within its `<HEAD>` tags. If desired, you can identify the same style sheet in both locations. To include user-selectable styles, they must be generic classes.

6. Set the **Content Searchable** value. See Also: *Ensuring Your Content is Searchable* on page 942

- **Calendar Properties Template Tab**
  - **Inherit Parent Template Configuration**—Check this box to inherit the template from the parent content folder. Or, do not check this box and specify one or more templates below.
  - **Page Templates**—Specify one or more templates for Calendar events in this folder. This folder's content uses the specified template when appearing on your website.

- **Other Calendar Properties Tabs**
    - **Taxonomy Tab**—If you want this folder to inherit taxonomy configurations from the parent folder, check **Inherit Parent Taxonomy Configuration**. If you uncheck **Inherit Parent Taxonomy Configuration**, you can then select taxonomies that can be applied to content in this folder. If you want all content in this folder to be assigned at least one taxonomy category, check **Required at least one category selection**. See Also: *Inheriting Taxonomies from a Parent Folder* on page 791; *Using Taxonomies* on page 777.
    - **Flagging Tab**—Check this box if content in this folder inherits a flagging definition from its parent folder. If you do not check the box, use the drop-down list to apply a flagging definition to content in this folder. See Also: *Defining Flags for Content* on page 1239, *Assigning a Flagging Definition to a Folder* on page 1241
    - **Metadata Tab**— See *Working with Metadata* on page 369.
    - **Web Alerts Tab**—See *Assigning Web Alert Information to Folders and Content* on page 1581.
    - **Breadcrumb Tab**—See *Creating Sitemap Breadcrumbs* on page 820
7. Click **Add Calendar**.

Note that the system calendar icon is unique ( ).

After creating a calendar, you may add events.

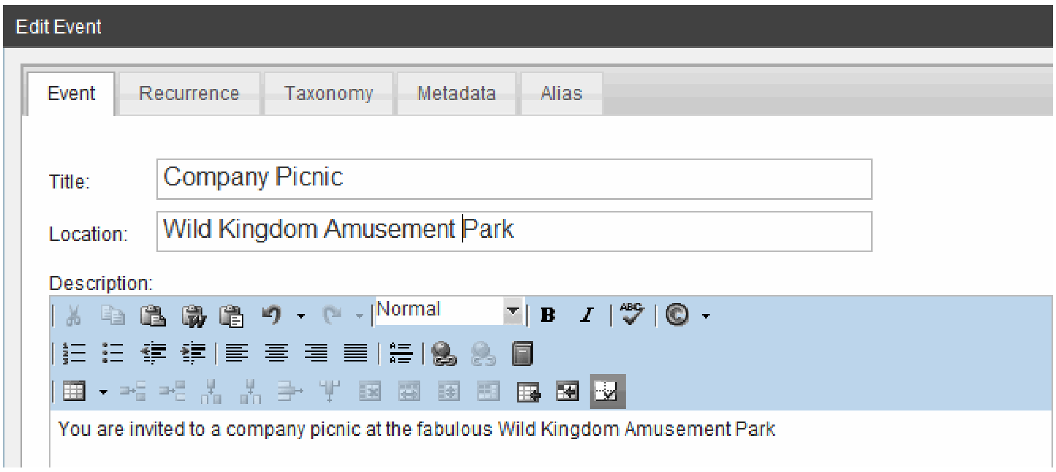
Adding System Calendar Events

PREREQUISITE

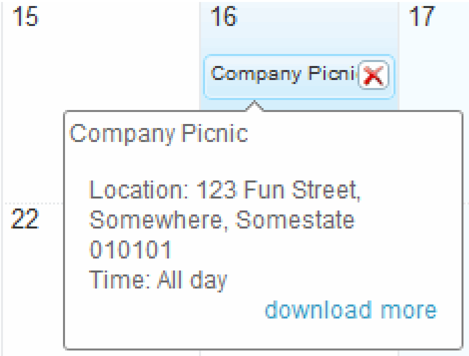
You logged into Ektron and have edit permission for the calendar. Calendars have the same permission and approval settings as folders. See Also: *Managing Folder Permissions* on page 257, *Setting Approval Chains* on page 262

To add or edit a system calendar event:

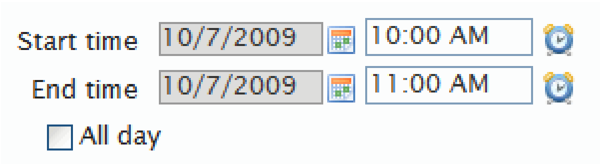
1. Navigate to your calendar from the Web page containing it or the **Workarea > Content** tab.
2. Click any day. (You can also click **New** > **Add Calendar Event**.) The Edit Event screen appears.



- Enter the event title into the **Title** text box. “Company Picnic” for example. The title appears on the calendar and in the pop-up information. To customize this pop-up, see *Customizing the Web Calendar Tooltip* on page 525.



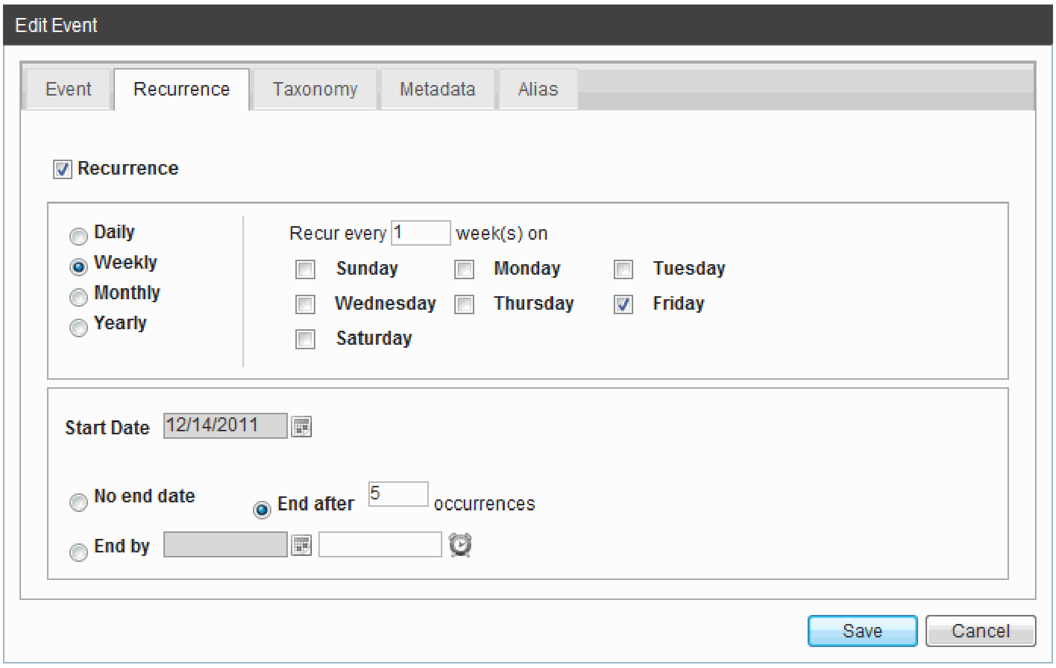
- Enter the **Location**.
- Enter the **Description**.
- Specify the **Start time** and the **All day** options at the bottom of the Edit Appointment page.



  - For start date, click **Calendar** ( ) and set the start date.
  - For start time, enter the time text or click **Clock** ( ).

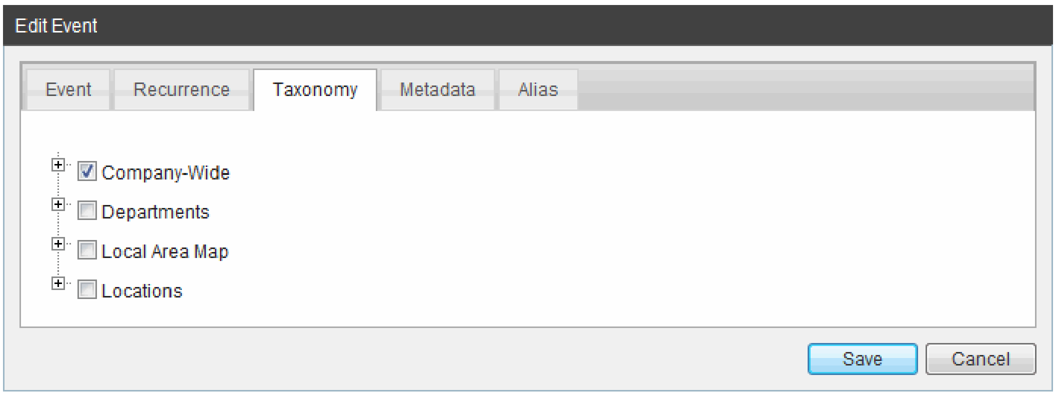
  Ektron stores event times as UTC (also known as Greenwich Mean Time—GMT). For members or visitors that login, events show in the member’s time zone. For visitors that do not log in, events show in the Web server’s time zone. For information about setting the user time zone, see *Time Zone Field* on page 1116.

3. If appropriate, set recurrences. Appointments can recur daily, weekly, monthly, or yearly. They can be spaced at various intervals and have a finite duration or recur indefinitely. For example, you can set a recurring event for each Friday for the next 5 weeks.



When editing a recurring event, you are prompted to edit either the single occurrence or the series.

4. Select a Taxonomy category. A typical calendar taxonomy screens events that a site visitor might wish to see. For example, a college sports website shows all sports, but a visitor only wants football games. To show only events related a specific category on your calendar page, use a Taxonomy. See Also: *Using Taxonomy with Web Calendars* on page 534.



5. If desired, set Metadata for the event. See Also: *Working with Metadata* on page 369.
6. If desired, set the event alias. See Also: *Creating User-Friendly URLs with Aliasing* on page 835
7. Click **Save**. The event appears on the calendar.

Exporting Appointments to Other Calendars Using iCal

You can export Web calendar appointments to any calendar that accepts an iCalendar *.ics file. This is helpful if you want to track appointments on your Web calendar and a mobile device calendar, for example.

NOTE: Ektron uses accepted standards for producing the iCalendar ics file. This does not mean that all calendar types use the recurring appointment data properly. Contact your calendar vendor if iCalendar support is needed.

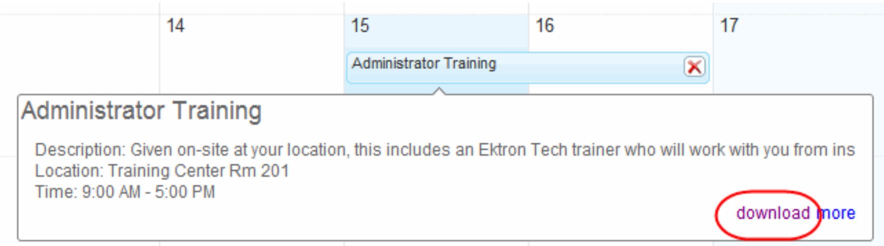
IMPORTANT: Changes to recurring appointments do not work correctly for iCal files used in Microsoft Office 2003.

PREREQUISITES

You are logged into the Ektron website and are a member of the Administrators group or assigned the Calendar-Admin role

To export a Web Calendar event to another calendar:

1. Hover over an event on the Web calendar.



2. Click **download**. The File Download screen appears.
3. Click **Save** and save to a folder on your computer.
4. After the file is downloaded, click **Open Folder**.
5. Double click the .ics file you saved. When you do, the appointment setting page for your default calendar opens. For example, this file name was event-997.ics.

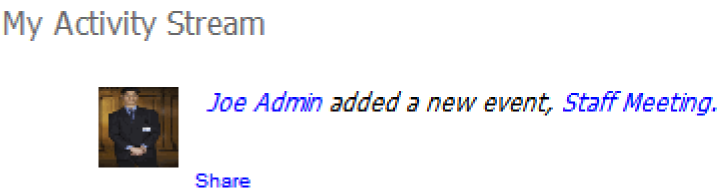
   NOTE: If you are adding the appointment to a calendar other than the default calendar on your PC, first open that calendar and import or add the *.ics file to it. For example,when using a Google Calendar, click **Add** then choose **import**. See your calendar's instructions for importing iCalendar appointments.

6. Save and close this appointment. It will now appear on your calendar.

Showing Calendar Events on Activity Streams

A new or updated Calendar event appears on a Community Activity Stream if the following notification settings are checked on a user's or Membership Group's Profile > **Activities** tab. For more information, see *Notification Message Recipients* on page 1196.

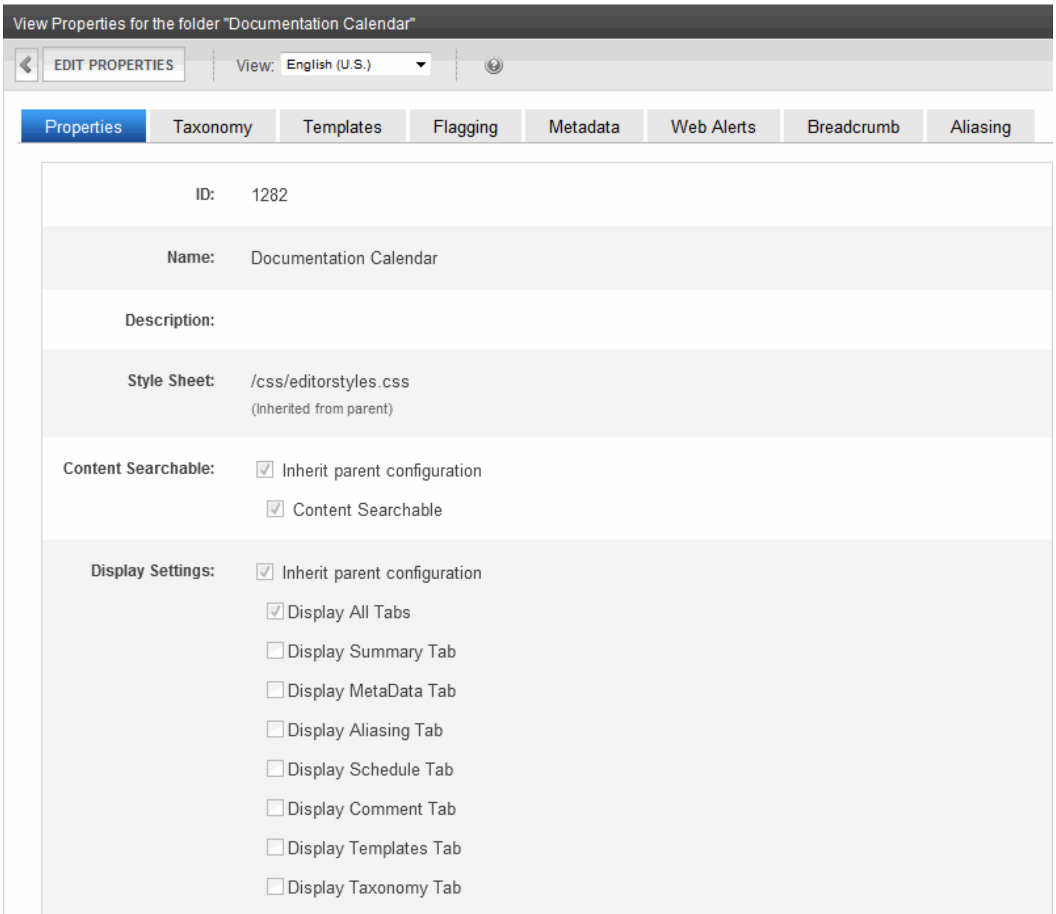
- Add Calendar Event
- Update Calendar Event
- Add Calendar Event
- Update Group Calendar Event



Viewing System Calendar Properties

The Calendar properties screen lets you set permissions as well as modify the calendar’s metadata, taxonomy, templates, flagging, Web Alerts and Breadcrumbs. To view a system calendar's properties:

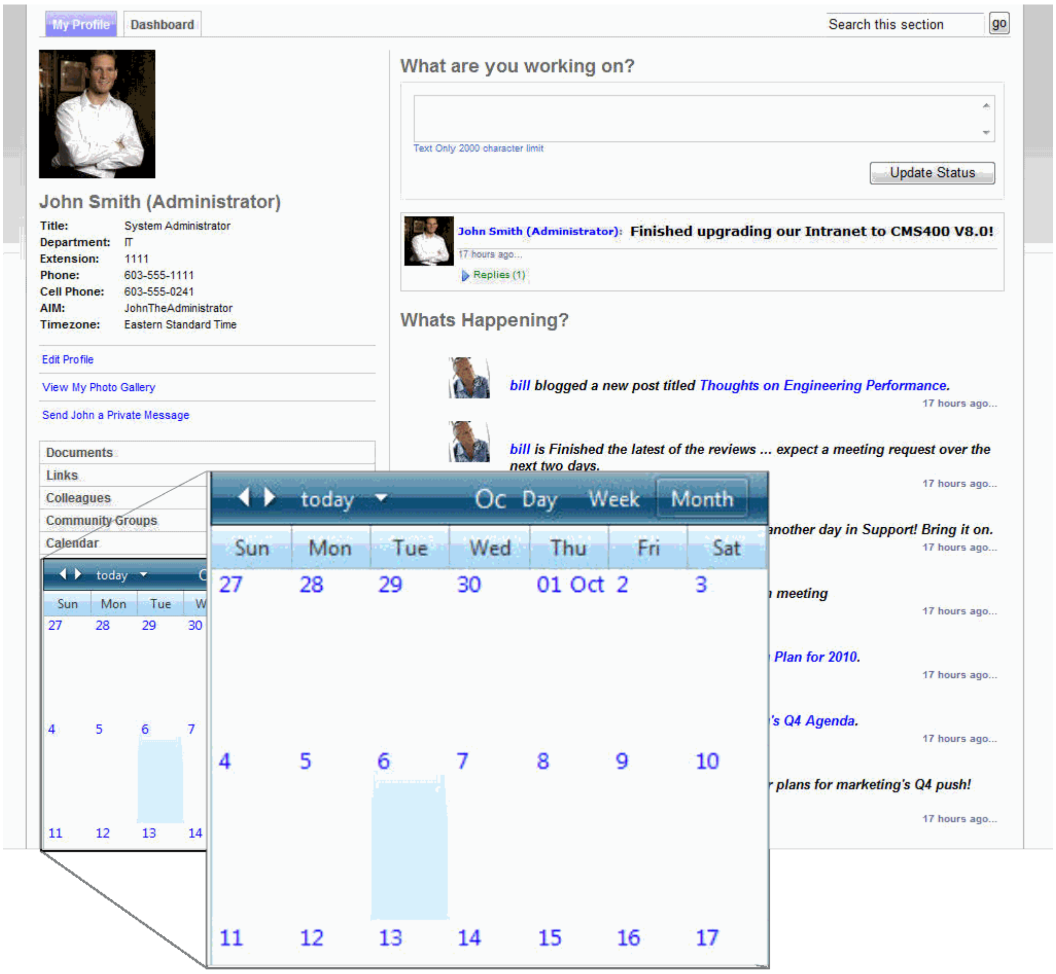
1. From the Workarea, choose **Content**.
2. Click the calendar you wish to view. The View Events screen appears.
3. Click **View > Properties**. The View Properties screen appears. (To edit the properties, click **Edit Properties**.)



To learn more about the properties, see *Adding a Calendar* on page 515

Using Community Web Calendars

Both community group and community user profile pages can display a Web Calendar. The following example shows a user profile page with a personal calendar.



The calendar on a personal community page obeys the same community rules as other features in the community. You can restrict the visibility of your events to only colleagues or make them public.

Creating a Calendar in My Profile

You can place a Web calendar on a user profile to track personal appointments. The following code places a WebCalendar server control on a User Profile template. You must set `sourceType` and `dynamicParameter` as shown.

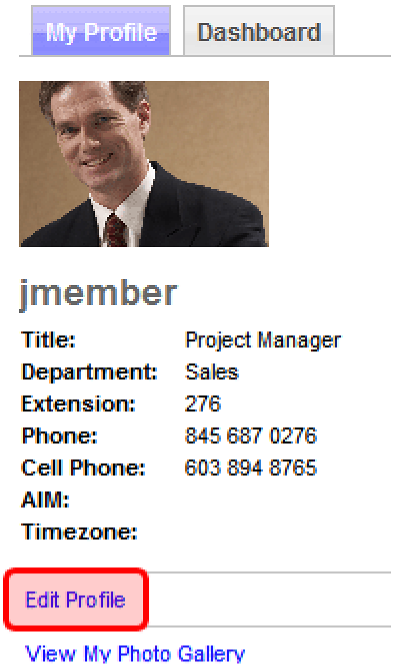
```
<CMS:WebCalendar ID="WebCalendar1" runat="server" >
       <DataSource>
          <CMS:CalendarDataSource sourceType="UserCalendar" dynamicParameter="id” >
       </DataSource>
</CMS:WebCalendar>
```

Creating the User Calendar in the Database

To use a personal calendar, you must add it to the database. Each user needs to do this when they decide to use a calendar on their profile.

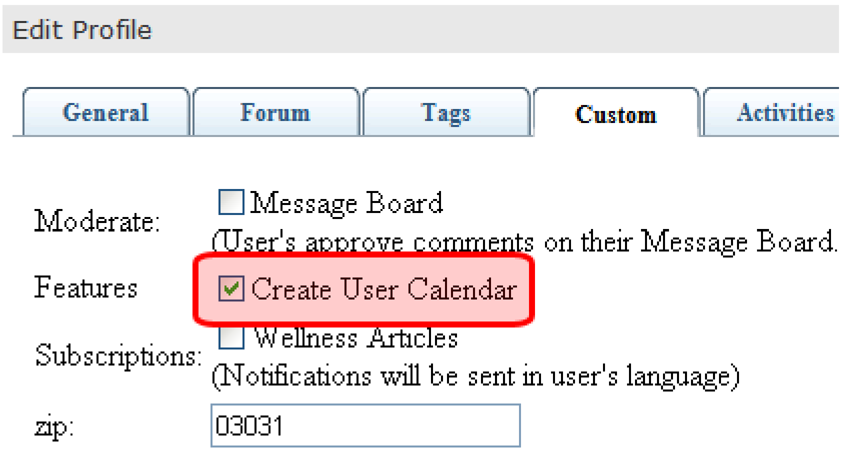
To add a user calendar to the database:

1. Log in to your website.
2. Navigate to your personal Web page or your profile.
3. Click **Edit Profile**. In this example, **Edit Profile** is on a personal profile page of the eIntranet Starter Site.



Alternatively, you can log into the Workarea then go to **Settings > Users > User Profile**.

4. When the Edit Profile window appears, click the **Custom** tab.
5. Check **Create User Calendar**to create a user calendar in the database.

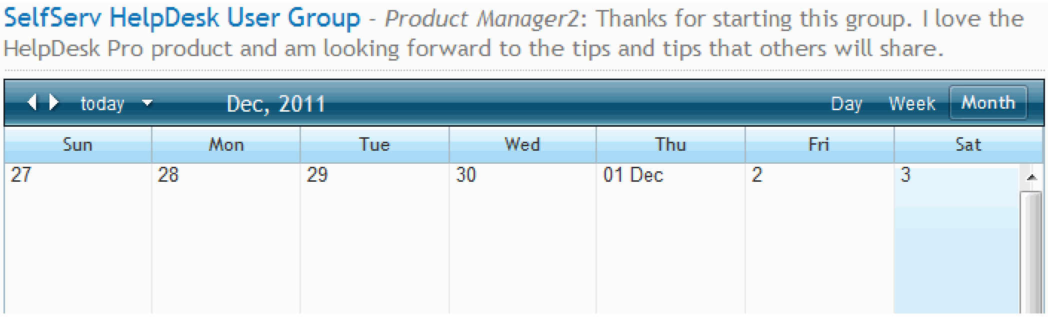


WARNING! After you save this profile, you cannot later uncheck this option.

6. Click **Save**. Your calendar appears on your profile page.

Creating a Calendar in a Group

You can add a Web Calendar to any Ektron community group. The following is a sample calendar on a group page.



The calendar on a community group page obeys the same community rules as other community features. You can restrict the visibility of group events to group members, or make the calendar public.

NOTE: An alternate way to use group calendars is using the WebCalendar widget on a group dashboard. See *Using the WebCalendar Widget* on page 527 for more information.

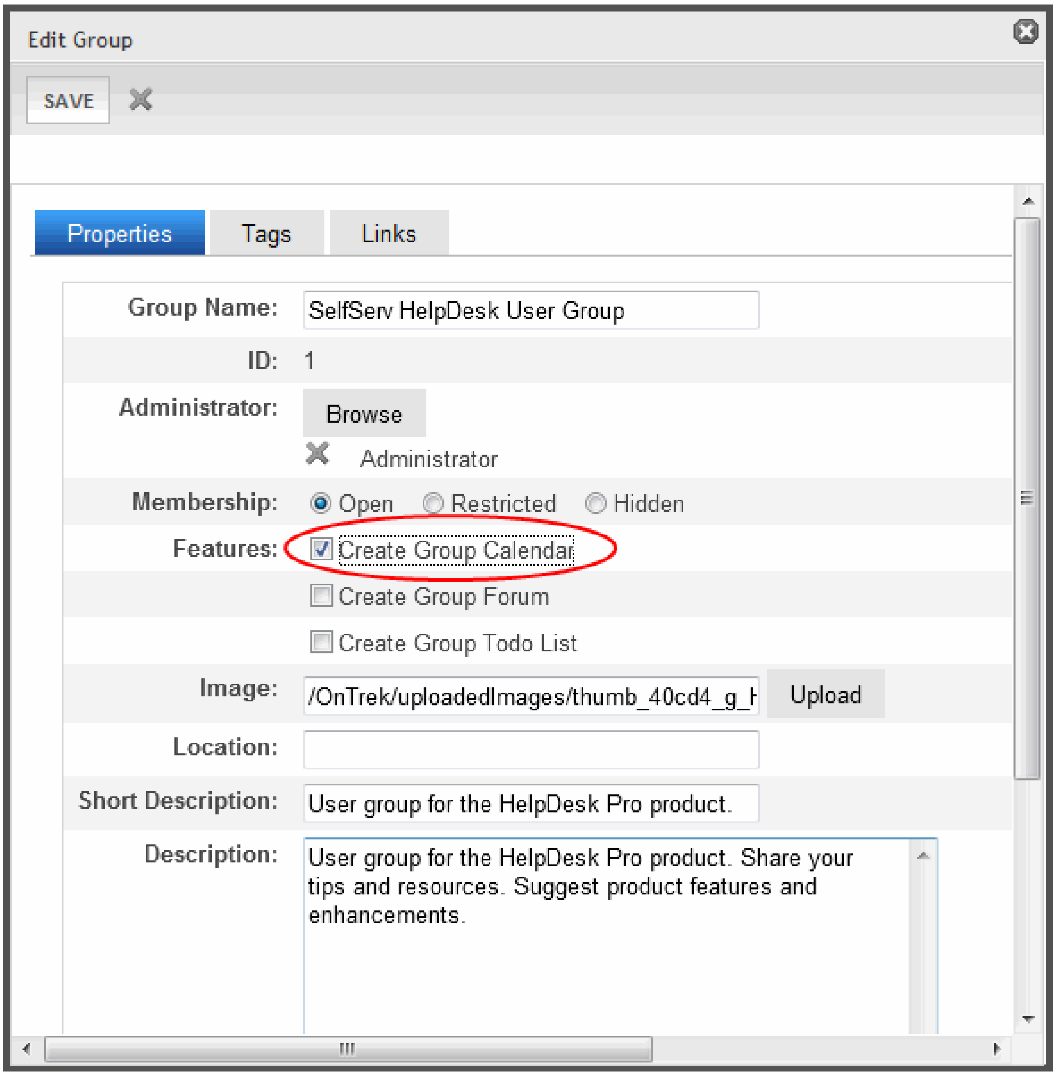
The following example provides the code for placing a WebCalendar server control on a Group Profile template. You must set `sourceType` and `dynamicParameter` as shown for `CalendarDataSource`.

```
<CMS:WebCalendar ID="WebCalendar1" runat="server">
  <DataSource>
  <CMS:CalendarDataSource sourceType="GroupCalendar" dynamicParameter="id"/>
  </DataSource>
</CMS:WebCalendar>
```

To use a group calendar, you must add it to the database. Each group needs to do this once when they decide to have a calendar for their group.

To add a group calendar to the database:

1. Log in to your website.
2. Navigate to your group Web page.
3. Choose **Manage > Edit Group**.
4. When the Edit Group window appears, check the **Create Group Calendar** checkbox to create a group calendar in the database.



WARNING! After you save this profile, you cannot later uncheck this option.

5. Click **Save**. A group calendar exists in the database and can appear on the group page.

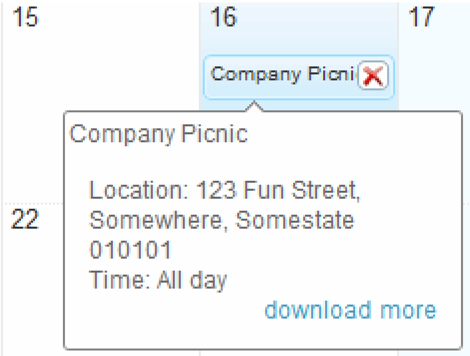
Customizing the Web Calendar

The Web Calendar can be customized in many ways. The following examples show some ways.

This section also contains the following topics.

Customizing the Web Calendar Tooltip

When you hover over a calendar event, a tooltip automatically shows its details.



You can change how this tooltip looks and behaves by modifying the `telerik:RadToolTip` properties. You can apply many changes to a tooltip, but the following example makes the tooltip appear without delay and use fade-in animation. The example below uses the EktronTech starter site.

First, add a calendar event and observe the default behavior. Then, follow these steps.

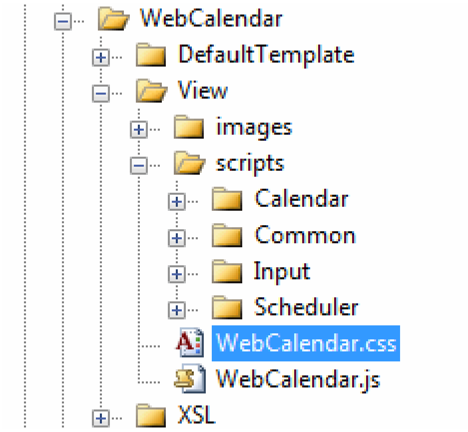
1. Open the EktronTech Website file folder in your editor.
2. Make a copy of the `Display.ascx` and `Display.ascx.cs` files from this folder `*siteroot*\workarea\WebCalendar\DefaultTemplate`
3. Paste them into a new folder in the website, such as `*siteroot*\CustomUserControls`.

   WARNING! You should copy these files and move them to a folder outside the `\Workarea` folder. Upgrades overwrite `\workarea` folder files.

4. Edit the new .ascx file you just created.
5. Set these property values on the `Telerik:RadToolTip` server control.
   - ShowDelay-0
   - Animation-Fade
6. Save your changes.
7. Edit your template.
8. Update the WebCalendar server control's `DisplayTemplatePath` property with the location of the revised display.ascx file. For example: `/CustomUserControls/display.ascx`. See Also: *WebCalendar* on page 1859 server control.
9. Save your changes.
10. Refresh the browser page containing the calendar.
11. Hover over the calendar event to see the new behavior.

Customizing the Web Calendar Style Sheet

The Web calendar style sheet is `WebCalendar.css`. It is located in the folder `*siteroot*\workarea\WebCalendar\View`.



Modify the `.RadScheduler` classes to change the Web calendar's style. Below are sample changes.

Color CSS Style Change

```
.RadScheduler .rsDateHeader {
   font-size: 12px;
   padding: 1px 4px 3px;
   text-decoration: none;
   color: green
}
```

Uppercase CSS Style Change

```
.RadScheduler .rsSpacerCell,
.RadScheduler .rsVerticalHeaderTable th,
.RadScheduler .rsHorizontalHeaderTable th {
   border-style: solid;
   text-transform: uppercase
}
```

Using the WebCalendar Widget

The WebCalendar widget can display a combination of system, user, and group calendars. You place a Web calendar on a Web page by using either a WebCalendar server control or a WebCalendar widget. A WebCalendar widget is an easy way to add a calendar to a PageBuilder page or Smart Desktop (See Also: *Personalizing the Smart Desktop* on page 278.)

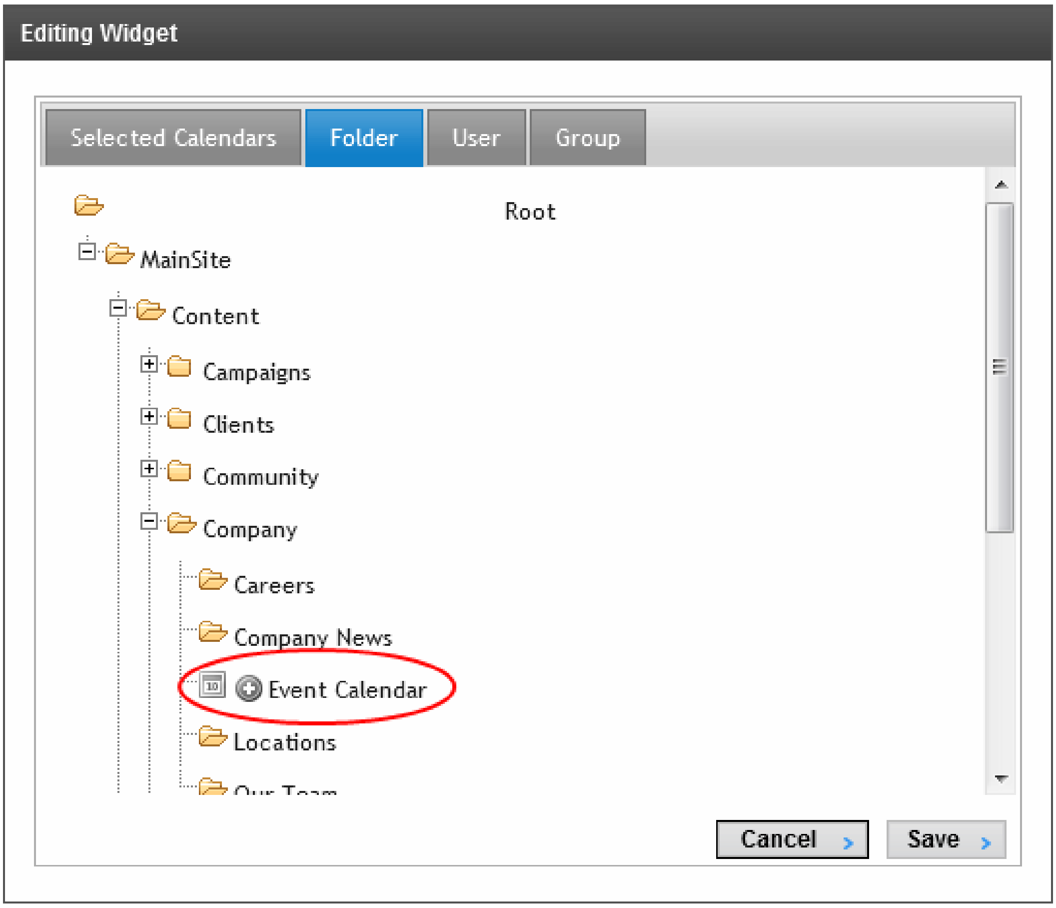
Adding a System Calendar to a Widget

A system calendar is one that is managed within Workarea. For more information, see *Adding a Calendar* on page 515.

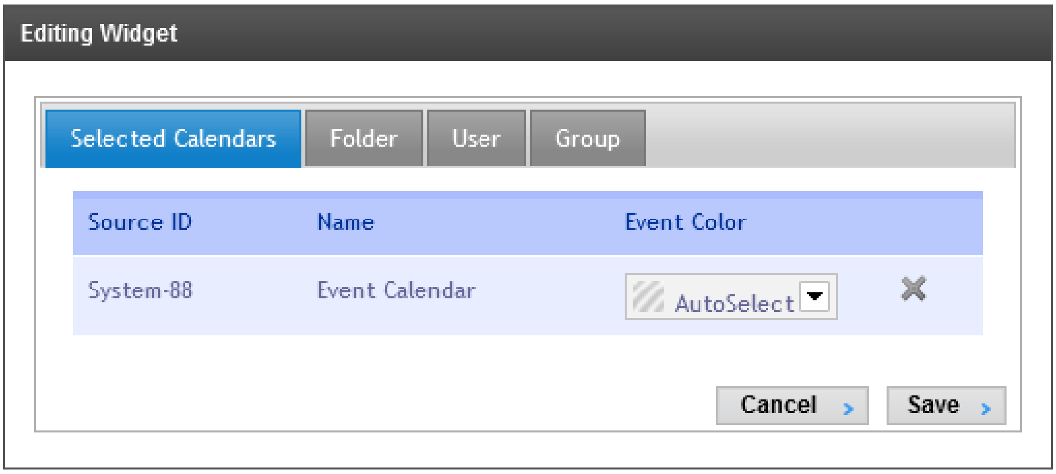
To add a system calendar to a WebCalendar widget:

1. Click **Edit** ( ) in the upper right corner of the WebCalendar widget.
2. Click the **Folder** tab.

3. Locate the calendar to add. Note its unique icon.

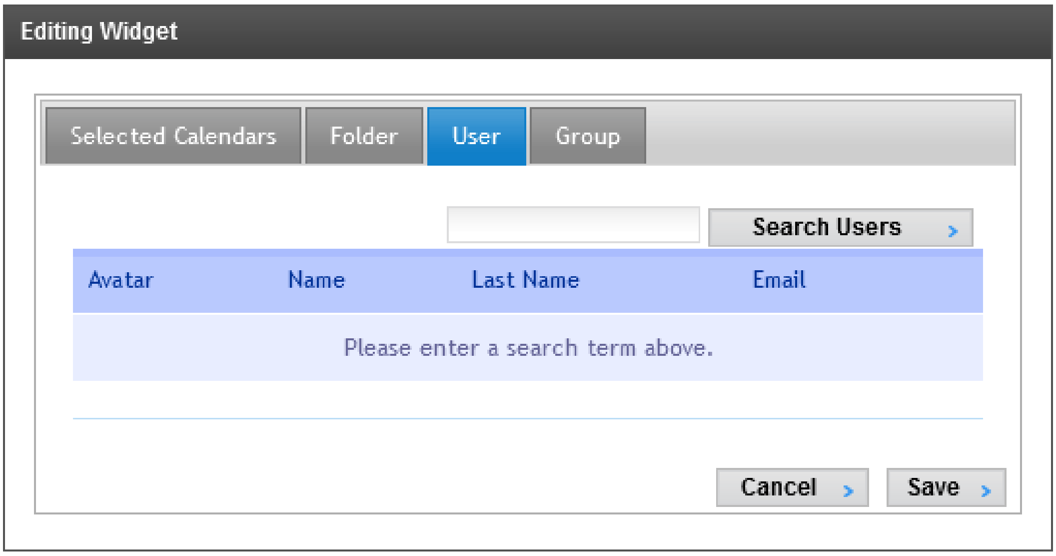


4. Click **Save**. The calendar is added to the **Selected Calendars** list.

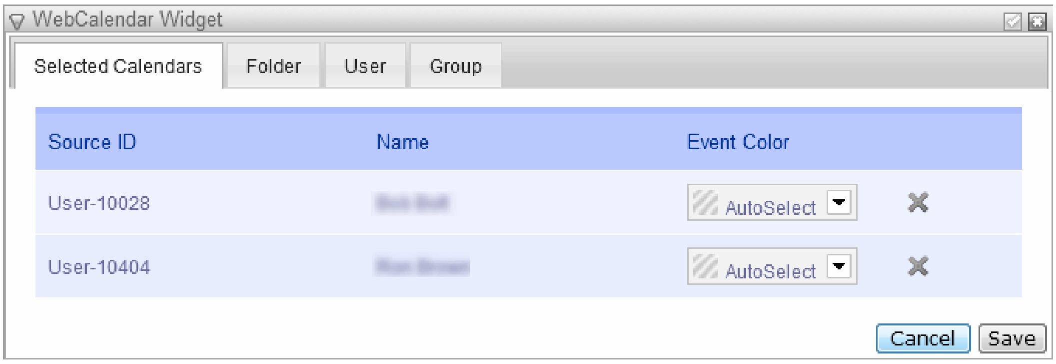


Adding a User Calendar to a Widget

1. Click **Edit** ( ) in the upper right corner of the WebCalendar widget.
2. Click the **User** tab.



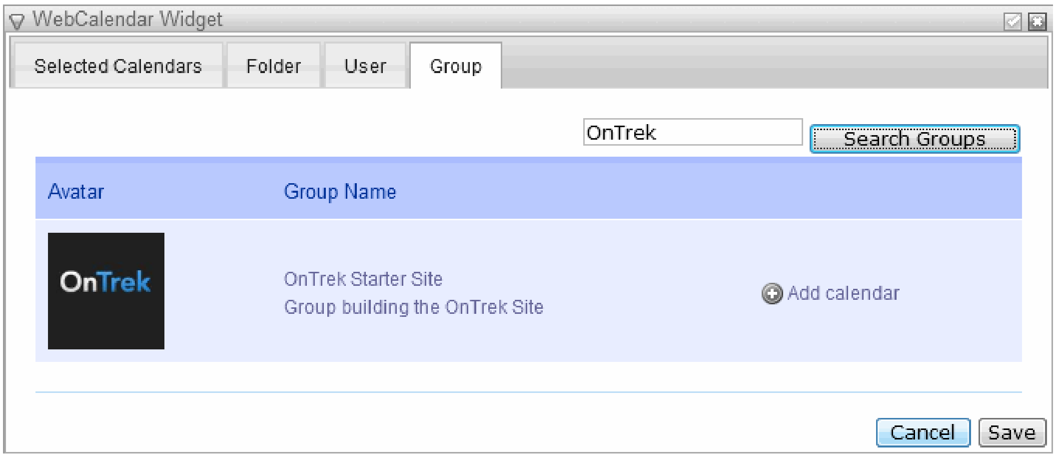
3. Specify a user that has a calendar set up and click **Search Users** to find a person's calendar (that is available to you).
4. Click **Add Calendar** ( ) to add the calendar to the Calendar widget list.



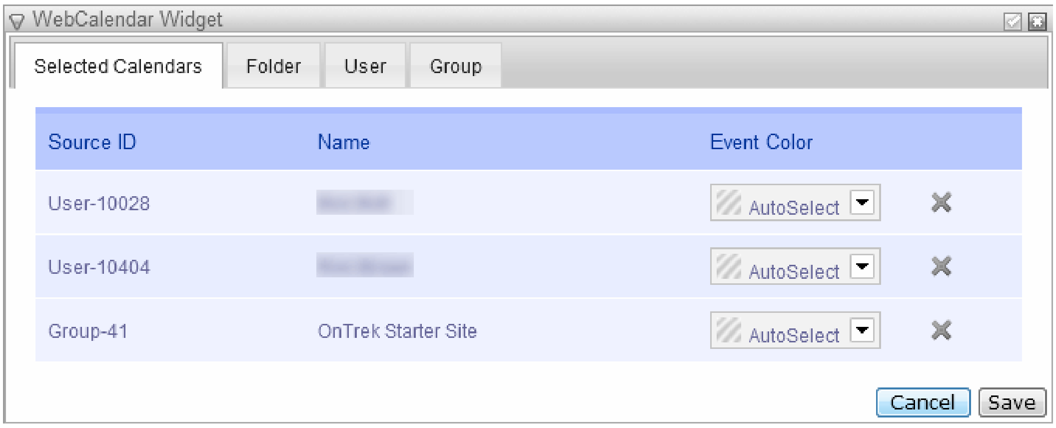
5. You can choose colors for events from each user's calendar to differentiate each use on your calendar. **AutoSelect** uses the next available color.
6. To remove any calendar, click **Remove** ( ).
7. Click **Save**.

Adding a Group Calendar to a Widget

1. Click **Edit** ( ) in the upper right corner of the WebCalendar widget.
2. Click the **Group** tab.
3. Search for other group calendars by entering a group name and clicking **Search Groups**.



4. Click **Add Calendar** ( ) next to a calendar you want to add. All chosen group calendars appear on the **Selected Calendars** tab.



5. You can choose colors for events from each user's calendar to differentiate each use on your calendar. **AutoSelect** uses the next available color.
6. To remove any calendar, click **Remove** ( ).
7. Click **Save**.

Combining Web Calendars (Mashups)

A Calendar Mashup combines events from different calendars into one calendar view. As an example, you could combine company meetings from one calendar with a special seminar series from another.

The ways to combine calendar events are described below.

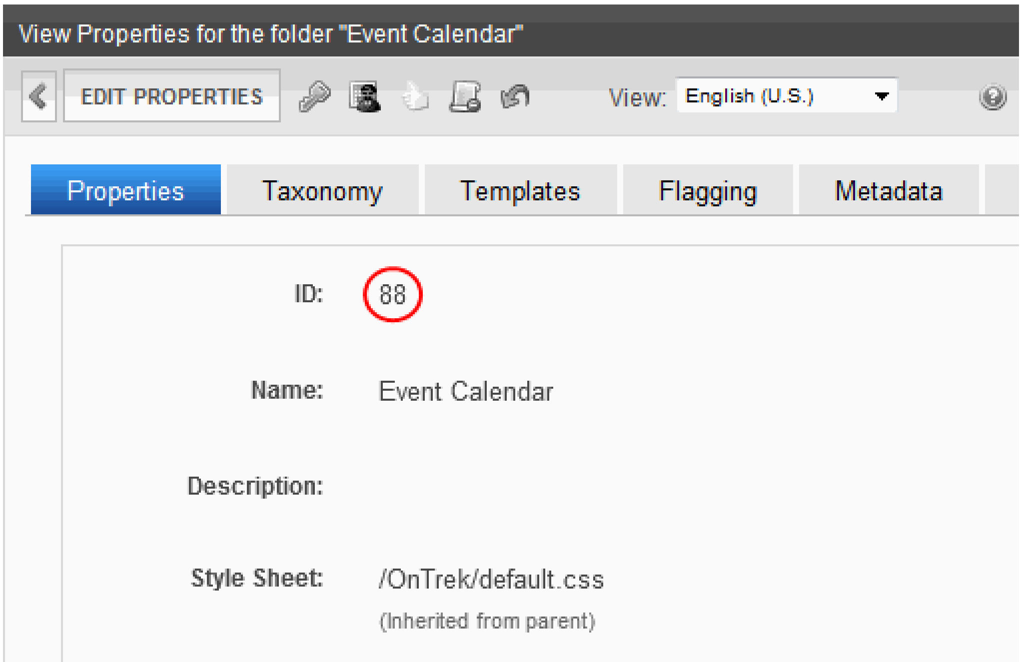
Combining Calendars Using the Dynamic Method

The dynamic method uses the URL query string parameter to specify a calendar. This method maintains one calendar template that can display many calendars on your site. The following example uses the EktronTech starter site. The exercise combines calendars using a URL whose query parameter is **cal2**:

```
http://<servername>/ektrontech/calendar.aspx?cal2=376
```

To combine 2 calendars:

1. Create 2 calendars in the workarea. See Also: *Adding a Calendar* on page 515
2. Determine each calendar's ID number by examining its properties. This example uses calendar folder IDs 88 and 376.

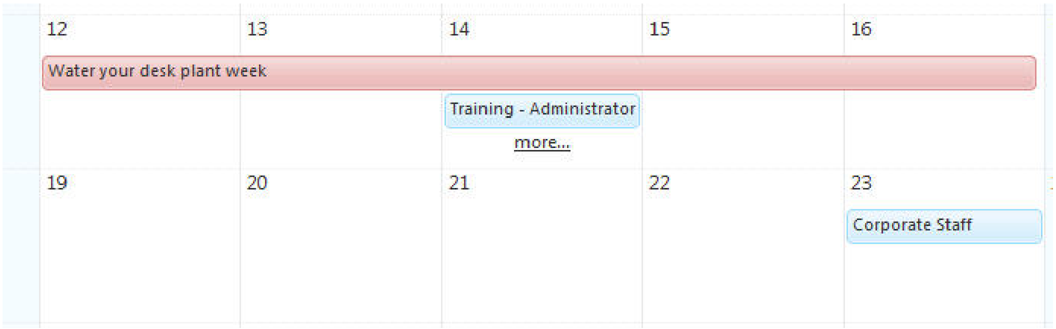


3. Edit the `calendar.aspx` template that contains the Web calendar. In this example, the template is located on the Web server in this folder: `d:\inetpub\wwwroot\EktronTech`.
4. Add 2 `CalendarDataSource` tags: one for a static calendar, the other for a dynamic calendar.
   - In the first (static) `CalendarDataSource` property, add `defaultId = "88"`.
   - In the second (dynamic) `CalendarDataSource` property, add `queryParam = "cal2"`. This lets you display any calendar referenced in the query string.
5. In both `CalendarDataSource` tags, set the `sourceType = "SystemCalendar"` property. The finished code looks like this.

```
<cms:WebCalendar ID="webcalendar" runat="server"
  DynamicParameter="calendar_id" DisplayType="All" SuppressWrapperTags="True">
<cms:WebCalendar ID="webcalendar" runat="server"
  DynamicParameter="calendar_id" DisplayType="All" SuppressWrapperTags="True">
  <DataSource>
    <cms:CalendarDataSource defaultId="88" sourceType="SystemCalendar"/>
    <cms:CalendarDataSource queryParam="cal2" sourceType="SystemCalendar"/>
  </DataSource>
</cms:WebCalendar>
```

6. Save `calendar.aspx`.
7. Enter the following URL to see the calendar:
   `http://<servername>/ektrontech/calendar.aspx?cal2=376`

   You see the combined calendar events. If there are too many events to show on a date, clock **more...** to see all events.



Combining Calendars Using the Static Method

The static method of combining calendars "hard codes" calendar id numbers instead of using a query string parameter. This method creates a calendar whose event source does not change dynamically.

1. Create 2 calendar folders in the workarea. See Also: *Adding a Calendar* on page 515
2. Determine the ID number for each calendar by examining the Calendar Folder properties.
3. Edit the `calendar.aspx` template.
4. In the `CalendarDataSource` properties, add defaultId values for each calendar as shown.

```
<cms:WebCalendar ID="webcalendar" runat="server"
 DynamicParameter="calendar_id" DisplayType="All"
 SuppressWrapperTags="True">
 <DataSource>
   <cms:CalendarDataSource defaultId="88" sourceType="SystemCalendar"/>
   <cms:CalendarDataSource defaultId="376" sourceType="SystemCalendar"/>
 </DataSource>
```

In this example, events for calendars 88 and 376 are combined on the `calendar.aspx` page.

Combining a Static Mashup and Dynamic Parameter

The following example displays a calendar according to a dynamic parameter in the query string. If the query string parameter is not used, the calendar shows a mashup of 3 calendars. The following example assumes you created 3 calendars with IDs 88, 374, and 376.

This is the code for the `events.aspx` template.

```
<cms:WebCalendar ID="webcalendar1" runat="server">
  <DataSource>
    <cms:CalendarDataSource sourceType="SystemCalendar" >
    </cms:CalendarDataSource>
  </DataSource>
</cms:WebCalendar>
```

This is the code-behind which tests for a query parameter. If none is found, display a static calendar mashup.

VB events.aspx.vb

```
'This code is located in the Page_Load event
Protected Sub Page_Load(ByVal sender As Object,
  ByVal e As System.EventArgs) Handles Me.Load
  'Create a CalendarDataSource instance and set the sourceType and queryParam
  Dim cds As New Ektron.Cms.Controls.CalendarDataSource()
  cds.queryParam = "calid"
  cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar
  'Add the DataSource object
  webcalendar1.DataSource.Add(cds)
  'If the queryString is used, show that calendar,
    otherwise show the following mashup
  If (Request.QueryString("calid") = String.Empty) Then
    'Create three CalendarDataSource instances and
    add the sourceType and defaultId for each.
    cds = New Ektron.Cms.Controls.CalendarDataSource()
    cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar
    webcalendar1.DataSource.Add(cds)
    cds = New Ektron.Cms.Controls.CalendarDataSource()
    cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar
    cds.defaultId = 88
    webcalendar1.DataSource.Add(cds)
    cds = New Ektron.Cms.Controls.CalendarDataSource()
    cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar
    cds.defaultId = 376
    webcalendar1.DataSource.Add(cds)
  End If
'Fill and return
webcalendar1.Fill()
End Sub
```

C# events.aspx.cs

```
//This code is located in the Page_Load event
protected void Page_Load(object sender, System.EventArgs e)
{
  //Create a CalendarDataSource instance and set the sourceType and queryParam
    Ektron.Cms.Controls.CalendarDataSource cds =
      new Ektron.Cms.Controls.CalendarDataSource();
    cds.queryParam = "calid";
    cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar;
  //Add the DataSource object
    webcalendar1.DataSource.Add(cds);
  //If the queryString is used, show that calendar,
  //otherwise show the following mashup
    if ((Request.QueryString("calid") == string.Empty)) {
      //Create three CalendarDataSource instances and add the
      //sourceType and defaultId for each.
      cds = new Ektron.Cms.Controls.CalendarDataSource();
      cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar;
      webcalendar1.DataSource.Add(cds);
      cds = new Ektron.Cms.Controls.CalendarDataSource();
      cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar;
      cds.defaultId = 88;
      webcalendar1.DataSource.Add(cds);
      cds = new Ektron.Cms.Controls.CalendarDataSource();
```

```
        cds.sourceType = Ektron.Cms.Controls.SourceType.SystemCalendar;
        cds.defaultId = 376;
        webcalendar1.DataSource.Add(cds);
    }
    //Fill and return
    webcalendar1.Fill();
}
```

To see a single calendar such as 376, use this URL:

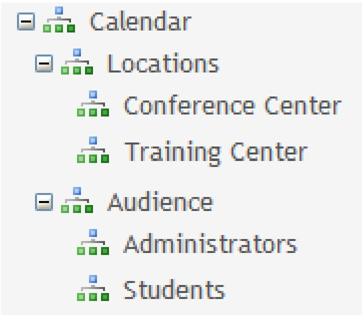
```
http://<server>/cms400developer/events.aspx?calid=376
```

To see all calendars together, do not use the query string parameter.

```
http://<server>/cms400developer/events.aspx
```

Using Taxonomy with Web Calendars

You can use taxonomy categories to filter calendar events. Calendar categories could include meeting rooms, audience, or whether the event should appear on a special public calendar. The following example organizes events based on locations and audience. See Also: *Planning a Taxonomy* on page 778



After you create a taxonomy, you can assign its categories to events.

Use a `CategoryID` value in the `CalendarDataSource` to filter events according to taxonomy categories. In the following example, the calendar shows events for the Training Center (category 123) or Administrators (category 124).

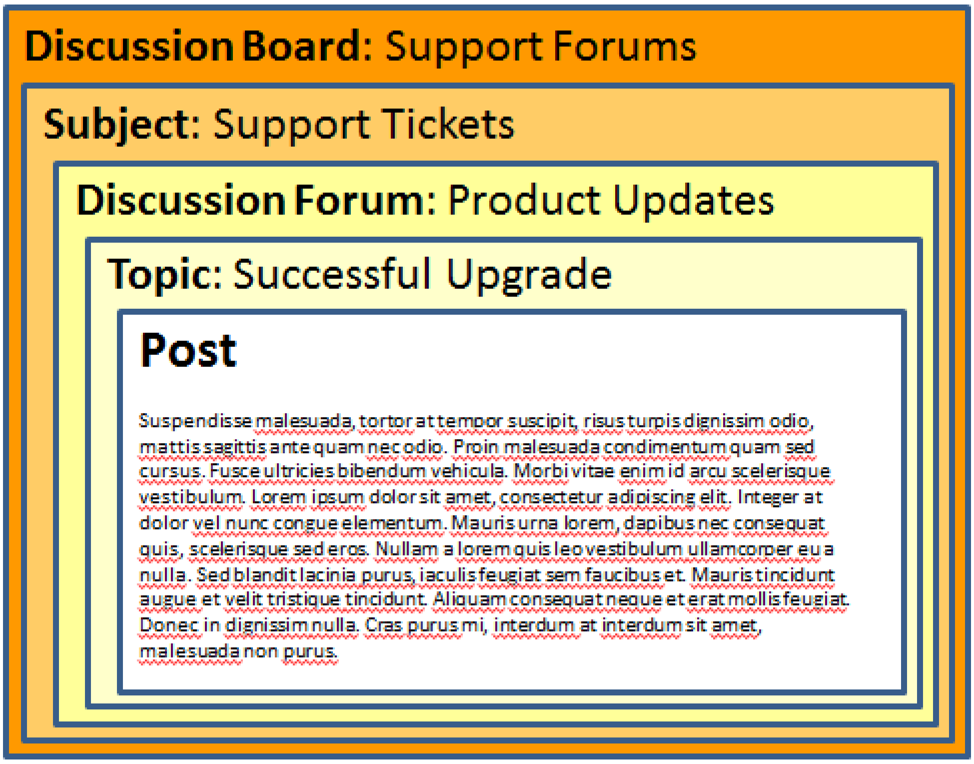
```
<cms:WebCalendarID="webcalendar"runat="server">
  <DataSource>
    <cms:CalendarDataSourcedefaultId="726"sourceType="SystemCalendar">
    <CMS:CategoryIDcategoryId="123"/>
    <CMS:CategoryIDcategoryId="124"/>
    </cms:CalendarDataSource>
  </DataSource>
</cms:WebCalendar>
```

By using an ID of a higher category in the taxonomy tree, you can show all events under it. For example, this taxonomy has 2 higher level branches with ID 100 and 200.

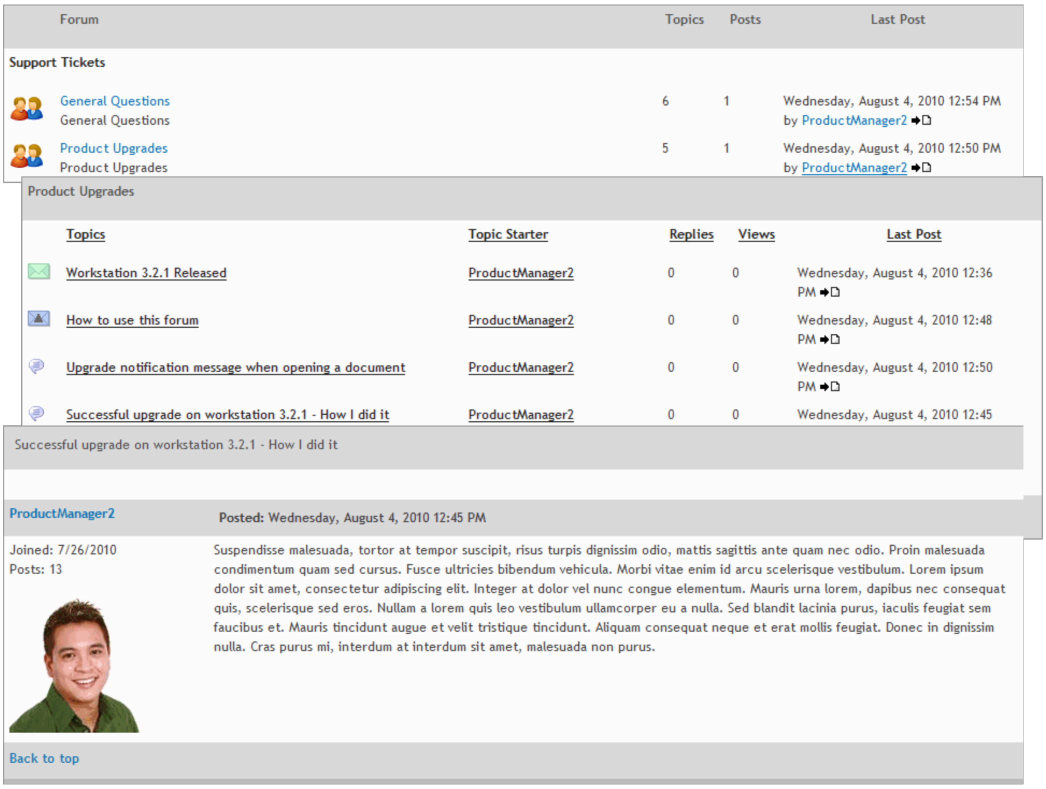
If you set the category ID to 100, you see any events associated with categories 100, 111 or 112.

Working with Discussion Boards

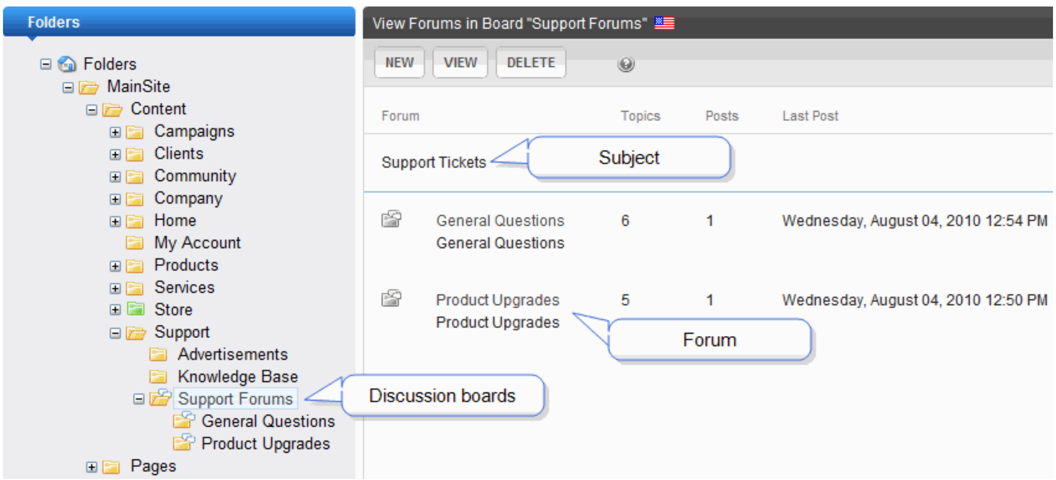
The discussion board feature provides topic discussions on your website. A site or membership user with Add Topic permission creates a topic and posts a starter question. Site visitors can then reply. Ektron supports an unlimited number of discussion boards. A discussion board consists of a hierarchy. The following example shows the hierarchy with sample data, to explain how each element is used.



On the website, if you click a discussion forum, you see its topics. If you click a topic, you see its posts.



In the Workarea, a discussion board appears as a top-level folder ( ) in the folder structure. Forums appears under them. If you click a discussion board, its subjects and forums appear in the right panel.



This section also contains the following topics.

Managing Discussion Boards

To implement a discussion board into your website, place a *Forum* on page 1740 server control on a Web page. Then, select a discussion board. *All* subjects and forums within that board appear on the Web page. You cannot selectively suppress subjects or forums. Keep this in mind when determining the contents of a discussion board.

To view a discussion board, select it from the Folders display. When viewing the board, you see all of its forums. You can click any forum to see its details.

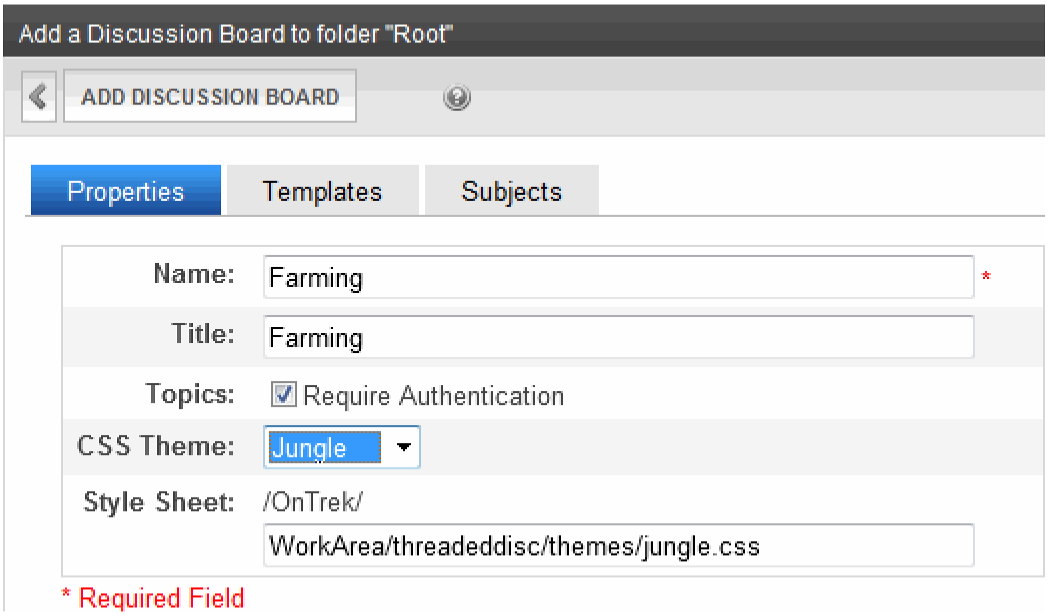
An administrator determines the following discussion board features.

- The subjects being discussed
- A starter post that initiates a discussion
- If users must sign in before posting to the forum
- If a post appears as soon as someone submits it, or must be approved first
  - If a post requires approval
    - you can edit or delete it before it appears
    - anyone with permission to the board can edit, delete, or reply to a post from the Workarea

This section also contains the following topics.

Creating a Discussion Board

1. From the Workarea's **Content** tab, navigate to the folder in which you want to place the discussion board.
2. Click **New > Discussion Board**. (You also can hover the cursor over the folder, right click the mouse, and select **Add Discussion Board**.) The **Add a Discussion Board to folder** screen appears.



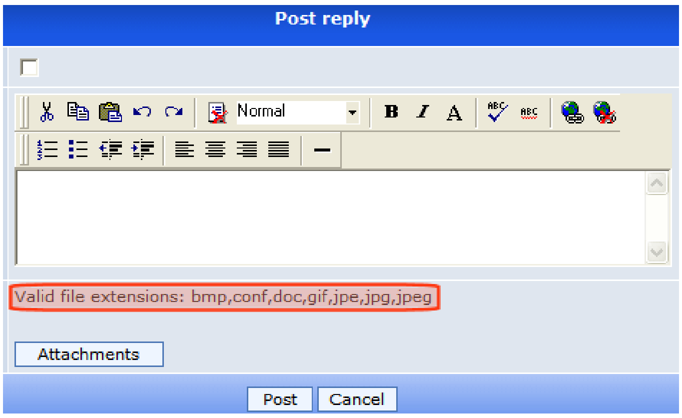
3. Complete the properties.

NOTE: Some items appear only when editing a discussion board's properties.

- **Name** (Enter, Edit)—Enter the name of the discussion board. This text describes the board within the Workarea and on your website.
- **Title** (Enter, Edit)—Enter the title of the board.
- **Accepted HTML** (Enter, Edit)—A comma-delimited list of HTML tags allowed in the eWebEdit400 editor. When left blank, all tags are available. Site visitors posting to the forum can apply these tags to content when their forum editor is **eWebEdit400** (set in the user profile). The default list is: `br, hr, b, i, u, a, div, ol, ul, li, blockquote, img, span, p, em, strong, font, pre, h1, h2, h3, h4, h5, h6, address, embed`

  NOTE: Add the **embed** tag if you want users to insert WMV files into their posts.

- **Accepted Extensions** (Edit only)—A comma-delimited list of file extensions that can be uploaded. You can enter the extension with or without the period (.). Use a comma to separate each extension.
  The list appears at the bottom of the editor screen, notifying the person entering a post which file types can be attached. The default list is: `bmp, conf, doc, gif, jpe, jpg, jpeg, png`



- **Max File Size** (Edit only)—The maximum size of a file, in bytes, that a user can upload. The default is 200000 bytes (.19 megabytes).
- **Topics: Require Authentication** (Enter, Edit)—

  Effect of this Field on the Website

  Check this box if a site visitor must sign in to post to the discussion board. If the user cannot access a login screen, the user cannot post. If this box is unchecked, site visitors can post without signing in.

  Effect of this Field within the Workarea

  If this field is checked, only users with Add Topic or Edit Topic permissions for the discussion board can create or reply to posts. See Also: *Modifying Permissions for a Discussion Board* on page 542

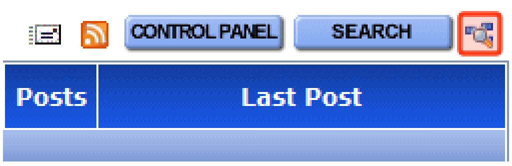
- **Lock** (Edit only)—Check this box if you want to prevent all posting to this discussion board. You can do this temporarily or permanently. If a Board is locked, only Administrator user group members can post to it, or edit or delete posts. Those users can post from the website or the Workarea. You can alternatively lock any forum underneath this Board via the forum properties screen.
- **CSS Theme** (Enter, Edit)—Choose a style sheet to determine the appearance of the discussion board on your website. Select any theme available in the CSS Theme drop-down. The default is `siteroot/Workarea/threadeddisc/themes/standard.css`. Alternatively, enter a path below the site root folder to your custom CSS file in the path box. See Also: *Working with Discussion Boards* on page 536

  NOTE: If you edit a CSS file, you should save it under a new name. This prevents your changes from being overwritten during an upgrade.

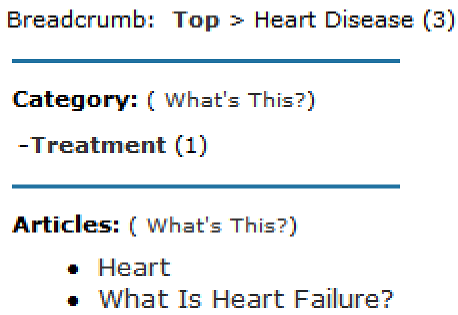
- **Page Template**(Enter, Edit)—Lets you specify a template for the forum. If you do not specify a template, the search results do not link properly to the forum. See Also: *Working with Templates* on page 382. To preview what the forum looks like within the selected template, click **preview** ( ) to the right.
- **Taxonomy: Required category selection** (Edit only)—If you want all topics in this discussion board to be assigned a taxonomy category, check **Required category selection**. If you do, a signed-in user is prompted to select a taxonomy category when creating a topic. This checkbox has no effect when creating new topics within the Workarea. See Also: *Using Taxonomies* on page 777
  - **Taxonomy**: *All taxonomies appear*—Select a taxonomy whose categories will be assigned to forum topics. The Taxonomies are applied on the **Taxonomy** tab. The discussion board's taxonomy represents another way to organize the forum's posts. See Also: *Using Taxonomies* on page 777

    Effect of Assigning Taxonomy Categories to a Topic

    When a discussion board server control is placed on a Web page, its display includes a small taxonomy icon (circled below).



When a site visitor clicks this icon, taxonomy categories are displayed. When the user selects a category, the user sees its subcategories followed by all forum posts assigned to that category. Below is an example of how a discussion board's posts might be organized by taxonomy category.



- **Subjects Tab**(Enter, Edit)—Enter as many subjects as you wish. Each subject contains one or more discussion forums. You *must* create at least one subject for each discussion board.

NOTE: You can also add a subject by selecting a discussion board then selecting **New > Subjects**.

- **Subject Sort Order—**Subjects are the highest level of the hierarchy that appears on your website. In the sample forum below, Latest Discoveries and Patient Care are Subjects.

Subjects are sorted alphabetically unless you use the **Sort Order** field. The **Sort Order** field accepts a number and uses it to sort a discussion board's subjects. The lowest numbers appear near the top of the page.

To access the **Sort Order** field:

1. Save the discussion board.
2. Click the discussion board in the Workarea.
3. Click **View > Properties**.
4. Click the **Subjects** tab.
5. Modify the **Sort Order** field as needed.

- **Terms & Conditions Tab**(Edit only)—Add the Terms & Conditions for using the discussion board. By entering text in this text box and saving, you activate the Terms and Conditions feature. See Also: *Defining Terms and Conditions* on page 545

Editing a Discussion Board

1. Click the Workarea’s **Content** tab.
2. From the folder structure in the left frame, navigate to the Discussion Board.
3. Click **View > Properties**.
4. Click **Edit Properties**.
5. Update the screen as needed.
6. Click **Save Board Properties**.

Deleting a Discussion Board

When you delete a discussion board, its subjects, forums, and posts are also deleted. When deleted, they cannot be retrieved.

1. Click the Workarea’s **Content** tab.
2. From the folder structure in the left frame, click the discussion board.
3. Click **Delete > This folder**. A confirmation message appears.
4. Click **OK**.

Modifying Permissions for a Discussion Board

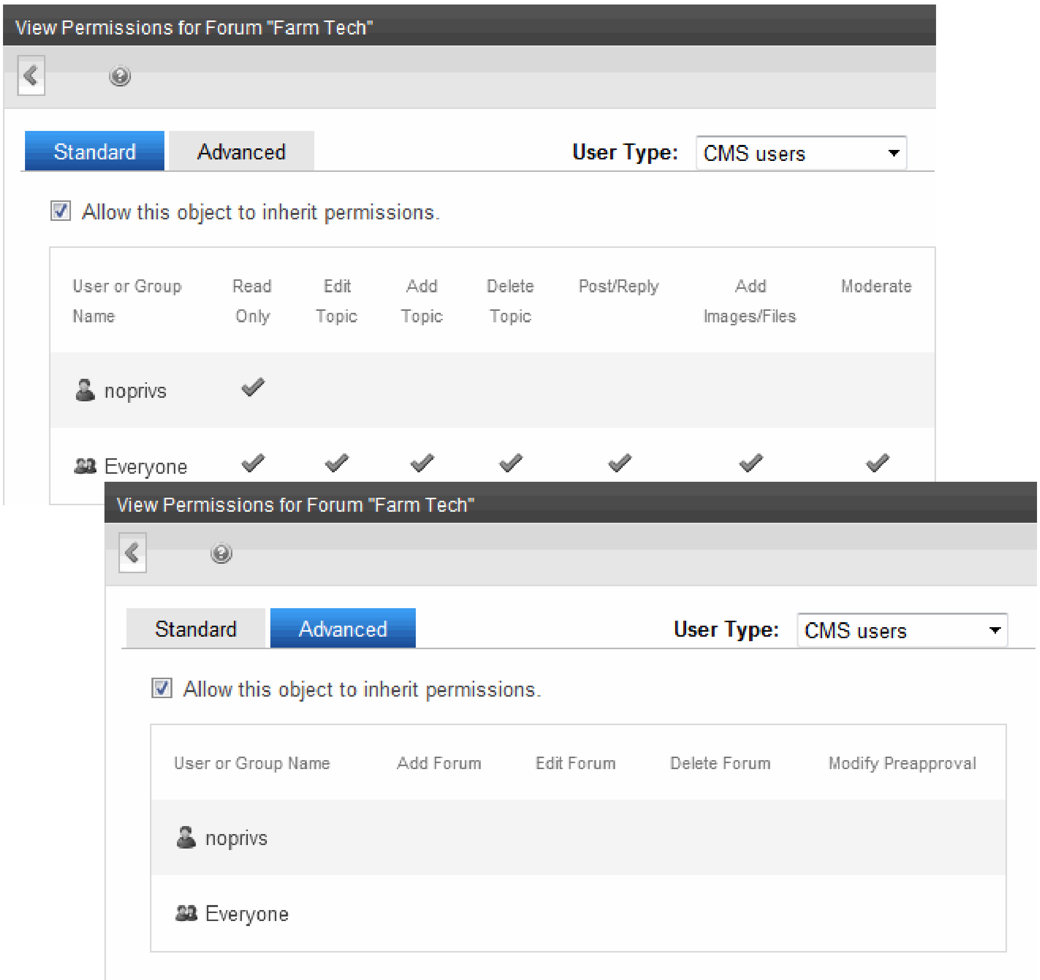
Discussion boards have a permission table that lets you determine the functions a user can perform. (See *Managing Folder Permissions* on page 257.) Because discussion boards have different functions than folders, the permission table is slightly different from regular folders.

In addition, each Forum has its own permission settings. By default, a forum inherits permissions from its parent discussion board, but you can break inheritance and customize permissions for a forum.

To access a discussion board’s permission table, navigate to and click the board so it appears in the Workarea. Then, click **View > Permissions** ().

NOTE: Only Administrators group members can access the discussion board Permission Table.

The following example shows a discussion board permission table for regular users. Membership users have fewer permissions.



When you create a discussion board, it gets it initial permissions from the parent folder but it then is disconnected from the parent folder's permission table. Subsequent changes to the parent folder's permissions have no effect on discussion board permissions.

The permission table has the following initial values from the parent folder (Parent Folder Permission—Discussion Board Permission):

- Read only—Read only
- Edit—Edit Topic
- Add—Add Topic
- Delete—Delete Topic
- Add Folders—Add Forum
- Edit Folders—Edit Forum
- Delete Folders—Delete Forum

> **NOTE:** Because there are no corresponding permissions for the discussion board's **Moderate** and **Post/reply** permissions, their initial value is blank.

For example, if user JSmith has permission to perform all functions for a folder, and a discussion board is created in that folder, JSmith initially receives the default permissions for the discussion board. You can modify these permissions.

The following table lists all permissions that you can grant to regular users. Only some permissions can be granted to membership users.

Permission	Allows user to	Can be assigned to membership users
Read only	View forums and posts; cannot submit a post	Yes
Edit Topic	Edit a topic's title (*Editing a Topic Title* on page 558)	No
Add Topic	Add new topics (*Adding a Topic to a Forum* on page 556)	Yes
Delete Topic	Delete a topic (*Deleting a Topic* on page 559)	No
Post/Reply	Post a new topic or reply to an existing one, either from the Workarea or the site. (*Adding a Topic to a Forum* on page 556 and *Replying to a Post* on page 560)	Yes
Moderate	Approve and delete posts and topics. Also, receive notifications when a post is reported using the report post feature; only applicable if the forum's properties field **Moderate Comments** is checked. (*Moderating from the Control Panel* on page 561) **NOTE:** Everyone who has Moderate permission will receive notifications when a post is reported. See Also: *Reporting a Post* on page 568	Yes
Add Forum	Create a new forum (*Creating a Forum* on page 548)	No
Edit Forum	Edit a forum (*Editing a Forum* on page 549)	No
Delete Forum	Delete a forum (*Deleting a Forum* on page 550)	No

Modifying Discussion Board Permissions for Membership Users

By default, membership users are assigned the following permissions:

- Read only
- Add Topic
- Post Reply

They cannot be granted Edit or Delete topic nor advanced permissions (Add, Edit or Delete forum). However, if a membership user creates a new topic, the user can delete it.

1. Navigate to and click the discussion board so it appears in the Workarea.
2. Click **View > Permissions**.
3. Click the **User Type** drop-down field and choose **Membership Users**.
4. The View Permissions for Board screen appears.
5. Add new member users and groups, remove them, or change their permissions.

Granting Discussion Board Permissions

1. Navigate to and click the discussion board so it appears in the Workarea.
2. Click **View > Permissions**.
3. Click **Add**. All users and groups who are not currently assigned permissions appear.
4. Click any user or group. The Add Permission for Folder screen appears with the selected user or group.
5. Assign appropriate standard and advanced permissions then click **Save**.

Removing Discussion Board Permissions

1. Navigate to and click the discussion board so it appears in the Workarea.
2. Click **View > Permissions**.
3. Click **Delete** ().
4. Select a user or group that you want to remove from the Permission table. A confirmation message.
5. Click **OK**. The user is removed.

After you remove a user, discussion boards do not appear in that user's Workarea.

Editing Discussion Board Permissions

1. Navigate to and click the discussion board so it appears in the Workarea.
2. Click **View > Permissions**.
3. Click the user or group whose permissions you want to edit. The Edit Permissions screen appears.
4. Change the settings as appropriate.
5. Click **Save**.

Changing Page Size for Discussion Boards

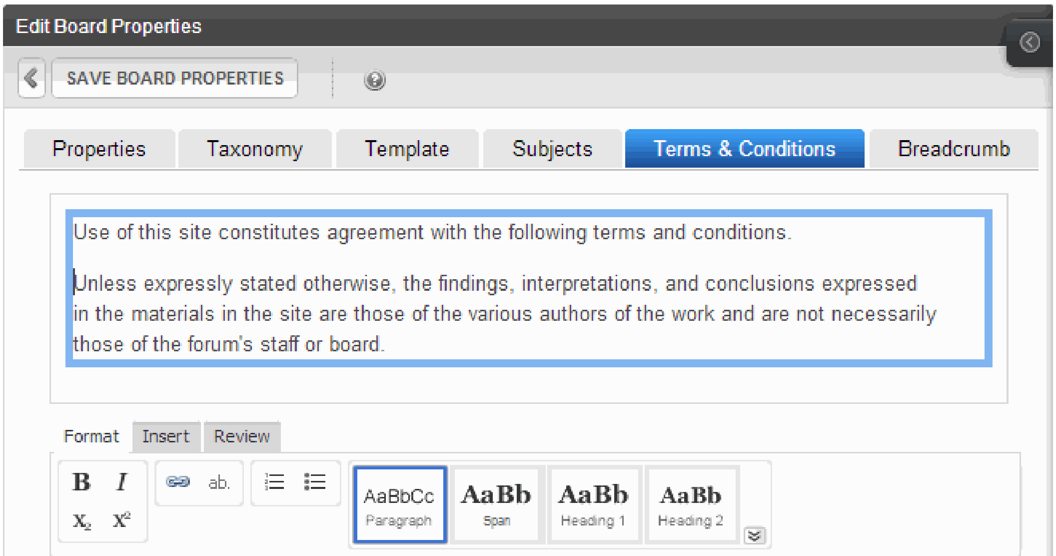
You can change the number of topics or posts shown on a page by changing the `ek_PageSize` value in the `web.config` file.

Defining Terms and Conditions

A discussion board's Terms & Conditions convey your expectations to its users. If you add Terms & Conditions, anyone posting to the board sees the following screen the first time a post or reply is sent to a forum. Users can only post after agreeing to its Terms & Conditions.

To add terms and conditions text to a discussion board:

1. Workarea **Content** tab **>** navigate to the discussion board to which you want to add terms and conditions.
2. Click **View>Properties**.
3. Click **Edit Properties**.
4. Click the **Terms & Conditions** tab.
5. Add the terms and conditions text.
6. Click **Save Board Properties**.



Working with Subjects

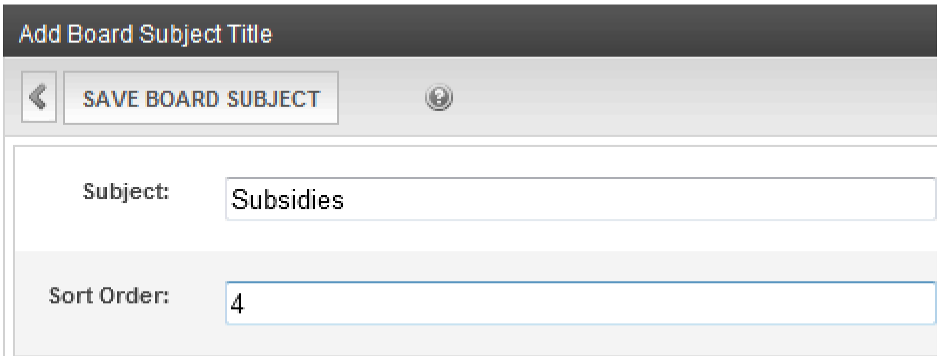
This sections show you how to create and edit subjects in a Discussion board. See Also: *Subjects Tab(Enter, Edit)—Enter as many subjects as you wish. Each subject contains one or more discussion forums. You must create at least one subject for each discussion board.You can also add a subject by selecting a discussion board then selecting New > Subjects.* on page 541

This section also contains the following topics.

Creating a New Subject

1. Workarea **Content** tab **>** navigate to the discussion board to which you want to add a subject.
2. Click **New > Subject**.

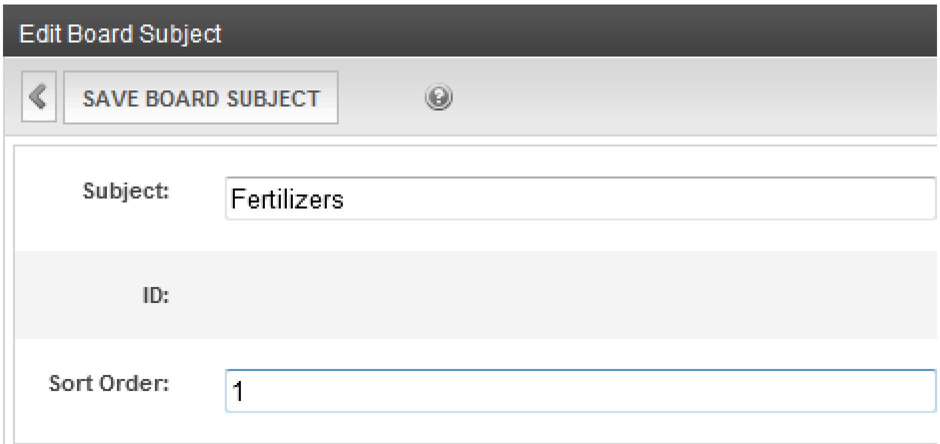
3. Enter a subject name and sort order.



4. Click **Save Board Subject**.

Editing Subject Name and Sort Order

1. Workarea **Content** tab **>** navigate to the discussion board that contains the subjects.
2. Click **View > Properties**.
3. Click the **Subjects** tab.
4. Click the subject that you want to edit. The current subject name and sort order appear on a new screen. Edit as needed.



5. Click **Save Board Subject**.

Working with Forums

A forum is a particular thread within a discussion board. For each forum, you define:

- name and Description
- whether its posts must be approved before appearing on your website
- if it's accepting new posts
- its sort order, which determines the sequence on the Web page within its subject
- its subject

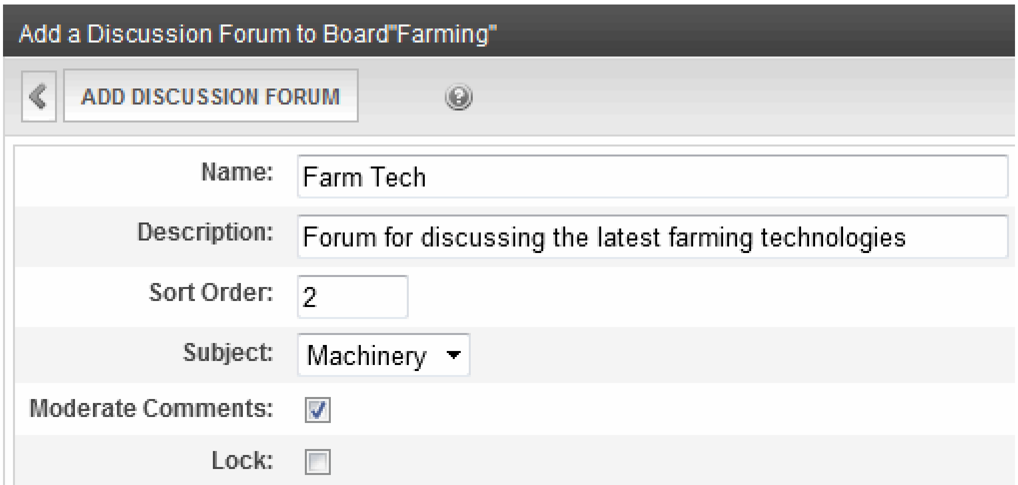
This section also contains the following topics.

Creating a Forum

PREREQUISITE

At least one subject.

1. Workarea **Content** tab **>** navigate to the discussion board to which you want to create a forum.
2. Select a discussion board.
3. Click **New > Discussion Forum**. The **Add a Discussion Forum to Board** screen appears.



4. Complete the fields.
   - **Name**—Enter the name of the discussion forum. The name identifies the forum in the left side of the Workarea, next to a forum icon ( ). This icon distinguishes it from content and blog folders. It also appears on the website.

- **Description**—Enter a more detailed description of the forum. The description appears on the website, as illustrated above.
- **Moderate Comments**—Checking this box causes comments to require approval before appearing on the website and a post to be reported to all moderators of the forum. See Also: *Reporting a Post* on page 568 and *Setting Up Post Reporting* on page 568. Only users who are granted **Moderate** permission can approve comments, thereby allowing them to be published on the site.

  The Smart Desktop has a **Forum Topics and Posts** category. This tells you how many posts currently require your approval before they appear on the site.
- **Lock Forum**—Check this box to prevent all posting to this forum. You can do this temporarily or permanently. If a forum is locked, only members of the Administrators user group can post to it, or edit or delete posts. Those users can post from the website or the Workarea.

  A discussion board can also be locked. If a board is locked, a message on this screen indicates that. In that case, no posting is allowed to this forum regardless of this setting.
- **Sort Order**—Enter a number if you want to arrange the sequence of forums within the subject. If you do not, forums appear in alphabetical order within a subject.
- **Subject**—Enter the subject within which this forum will appear on the website.

5. Click **Add Discussion Forum**.

Editing a Forum

1. Click the Workarea's **Content** tab.
2. From the folder structure in the left frame, click the discussion board that contains the forum.
3. Click the forum.
4. Click **View Properties** ().
5. Click **Edit Forum Properties**.
6. Update the screen as needed. See Also: *Name—Enter the name of the discussion forum. The name identifies the forum in the left side of the Workarea, next to a forum icon ().*

This icon distinguishes it from content and blog folders. It also appears on the website. on the previous page

7. Click **Save**.

Deleting a Forum

You can delete any forum. When you do, its topics and posts are also deleted. Once deleted, they cannot be retrieved.

1. Workarea **Content** tab **>** navigate to the discussion board that contains the forum.
2. Click the forum.
3. Click **Delete Forum** ( ). A message asks you to confirm.
4. Click **OK**.

Modifying Forum Permissions

You can use the discussion board permission features with any forum. See Also: *Modifying Permissions for a Discussion Board* on page 542

1. Open **CMS Workarea > Content**.
2. Click the forum.
3. Click **View Permissions** ( ). A permission table appears.

   When you first view a forum's permission table, you see a check box that lets you maintain inheritance or break it. A forum initially inherits (that is, copies all permissions from) its parent discussion board's permission settings.
4. If you *break* inheritance by unchecking the **Allow this object to inherit permissions** box, the forum permission screens change from view-only to edit. At this point, you can modify the permissions.

   To later *restore* inheritance, check the box. When you do, the parent discussion board's permissions overwrite any forum-specific changes. The forum then reverts to a read-only state. While inheritance is enabled, you must make permission changes at the discussion board level.

Blocking an IP Address from a Forum

If you are not using authentication for the forums and want to block a site visitor from posting to the forum, use the Restricted IP feature.

NOTE: In addition to using Restricted IPs for a specific forum, you can access the Restricted IP feature from the **Workarea > Settings > Configuration > Discussion Board > Restricted IPs**. If you have more than one forum, this lets you select the Discussion Boards to which the Restricted IPs are applied.

Adding an IP Address to the Restricted List

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Click **New > Restricted IP**.
4. Enter the IP Address to be blocked in the Block IP field.
5. Click **Save**. A list of restricted IP addresses appear.

Editing a Restricted IP Address

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Click **View > Restricted IPs**. A list of restricted IP addresses appears.
4. Click the IP address to be edited.
5. Click **Edit**.
6. Edit the IP address in the **Block IP** text box.
7. Click **Save**.

Deleting a Restricted IP Address

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Click **View > Restricted IPs**. A list of Restricted IP addresses appears.
4. Click the IP address to be deleted.
5. Click **Delete** (). A dialog asks if you are sure you want to delete the restricted IP address.
6. Click **OK** to continue. A list of the remaining restricted IP addresses appear.

Ranking Forum Users

The User Ranking feature lets you recognize active forum contributors. You can create a ranking system that moves a contributor to the next level after submitting a specified number of posts. This is known as a *ladder system*, which lets forum contributors build credibility. For example:

- New User—Up to 9 posts
- Intermediate User—10-19
- Expert User—20 and up

To each rank, you can assign an image that appears below the user’s name on any post. The rank also appears on a user’s forum profile.

You can also create ranks that are independent of the ladder system. Such ranks have no relationship to a contributor's number of posts. For example, after a forum user acquires Ektron Developer Certification, the user is assigned the Ektron Developer rank.

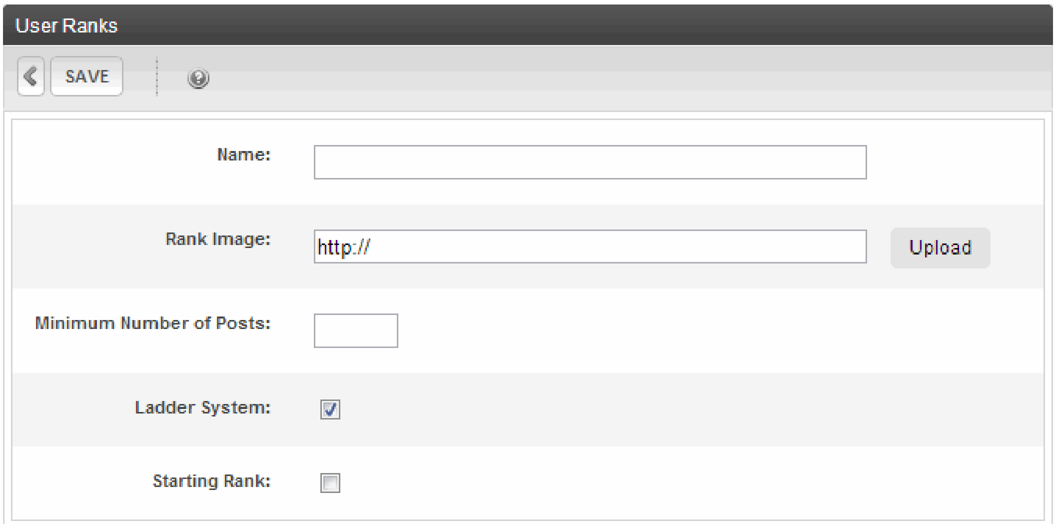
You can move contributors from a non-ladder rank to the ladder system and vice versa. Whether or not a contributor is in a ladder system, Ektron keeps a tally of posts. So, if the user is moved into a ladder system at any time, he is assigned the correct rank.

Adding a User Rank

To add a user rank:

NOTE: You can also access the User Ranks screen from **Workarea > Settings > Configuration > Discussion Board > User Ranks**. If you have more than one forum, this screen lets you pick the discussion board to which a rank is assigned.

1. In the Workarea, click the **Content** tab.
2. Select a discussion board.
3. Click **New > User Rank**. The User Ranks screen appears.



- **Name**—The name of the rank. For example, New User, Expert User, Developer, or Associate.

- **Rank Image**—Click **Upload** to select an image to upload. When uploaded, the path to the image appears in the text box.
  Images are optional. If you assign an image, it appears below the user's name on any post.
- **Minimum Number of Posts**—Enter the number of posts it takes to reach this rank. If the **Starting Rank** box is checked, the number is 1 and cannot be changed.
- **Ladder System**—Check this box if this rank is part of a *ladder system*. That is, a rank based on the number of posts a user has submitted to this discussion forum. If you uncheck **Ladder System**, **Starting Rank** and **Number of Posts** become inactive, since they manage the ladder system.
- **Starting Rank**—If you are using a ladder system, use this box to designate this as the Starting Rank. A user is assigned to this rank after submitting the first post. A discussion forum can only have one Starting Rank. Also, if this is the Starting Rank, you cannot enter a number of posts.

4. Click **Save**.

Deleting a User Rank

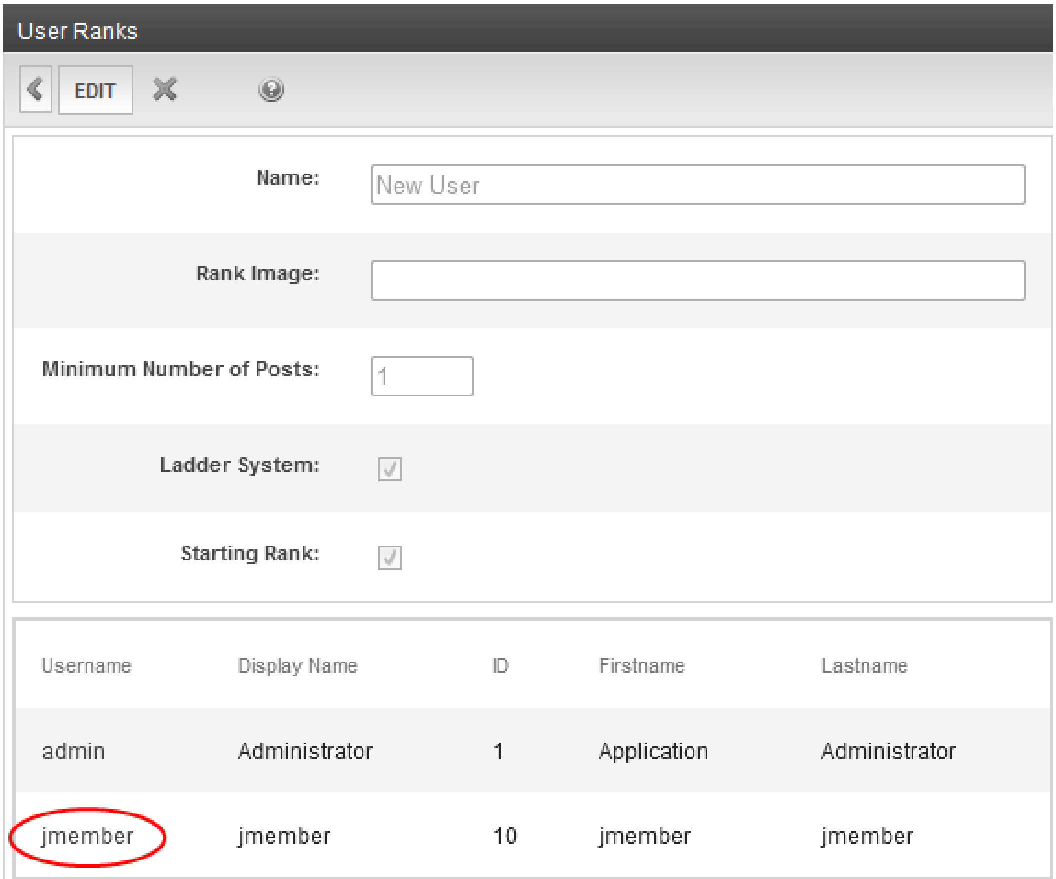
1. In the Workarea, click the **Content** tab.
2. Select a discussion board.
3. Click **View** > **User Ranks**.
4. Select the rank you want to delete.
5. Click **Delete** ( ).
6. Click **OK** to the confirmation message.

Changing a User's Rank

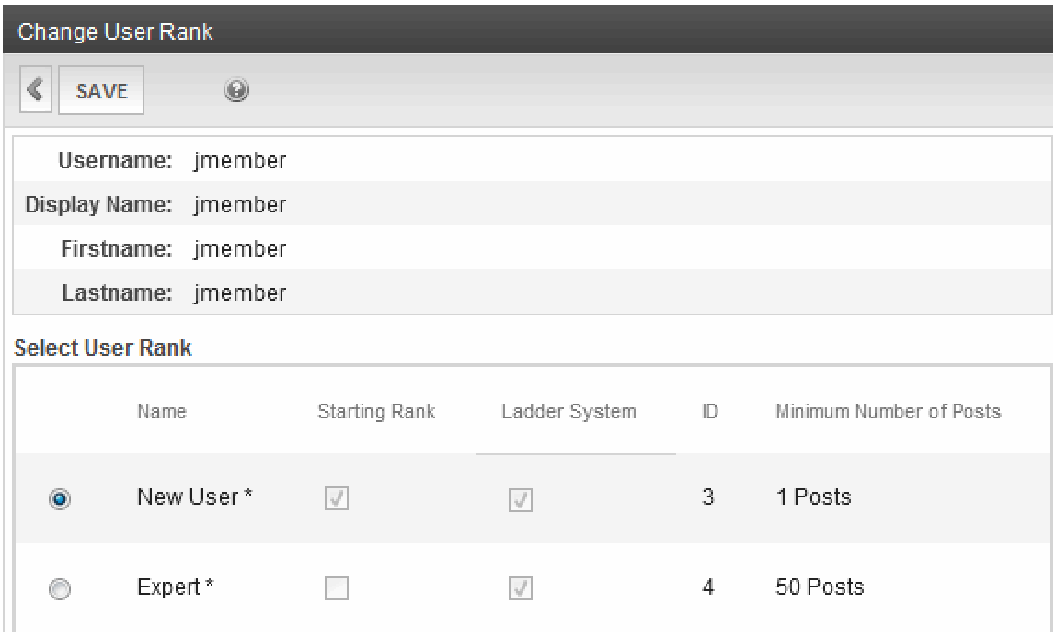
A user's rank appears below the user name on any post the user has made. You can only move a user into and out of a ladder system. You cannot change the person's rank—that is determined by the number of posts.

To change a user's current rank, you must know what it is. To change a user's rank:

1. In the Workarea, go to **Content** and navigate to the forum to which the user has posted.
2. Click **View > User Ranks**.
3. Select the rank that you want to move the user out of. The User Ranks screen appears. The lower half shows all users assigned that rank.



4. Click the user that you want to move out of the rank. The screen displays all ranks. The current one is selected.



5. Click next to the desired rank.
6. Click **Save**.

Sending Notifications of Forum Activity

The discussion board's Email Notification feature generates email for registered users when certain forum activities occur. For example, you register to be notified when a new forum post is created. When that event occurs, registered users receive an email with a link to the new post. After the messages are set up, you don't need to do anything—everything happens in the background.

Creating the Email Message

You can create an email message to be sent when these discussion board events occur.

- a new post is added
- a new topic is added
- someone reports a post See Also: *Setting Up Post Reporting* on page 568

A simple editor lets you apply some XHTML formatting the message. To create a message:

1. **Workarea > Settings > Configuration > Discussion Boards > Messages**.
2. Click **Add**.
3. Enter a title that describes the message.
4. At the **Type** field, select either **NewForumTopic**, **ReportForumPost**, or **ForumPost**.
5. Select whether to make the email message a Default message.
6. Enter the message **subject**.
7. In the editor, enter the message text. See *Including Variables in the Default Message* below to display information about the about the new post or topic in the message.
8. Click **Save**.

Including Variables in the Default Message

Message text can include variables that retrieve information about the new post or topic. The variables are surrounded by at signs (@). For example:

```
@appPosterDisplayName@ has created a thread you have subscribed to.
```

In the email, this text might read:

```
Alan Administrator has created a thread you have subscribed to.
```

Use the following variables in discussion board email notifications.

- **@appTopicTitle@**—The title of the topic.
- **@appTopicId@**—The integer ID of the topic.
- **@appRecipientDisplayName@**—The display name of the email recipient.
- **@appRecipientId@**—The email recipient's integer ID.
- **@appRecipientFirstName@**—The first name of the email recipient.
- **@appRecipientLastName@**—The last name of the email recipient.
- **@appRecipientEmail@**—The email address of the email recipient.
- **@appHostUrl@**—The host site's URL.
- **@appForumUrl@**—The forum's URL.
- **@appPostMessage@**—The text of the message posted to the discussion board.

- **@appPosterId@**—The integer ID of the person who posted.
- **@appPosterDisplayName@**—The display name of the person who posted.
- **@appPosterProfileUrl@**—The profile URL for the person who posted.
- **@appPostUrl@**—The URL of the post on the website.

Working with Topics

A topic is a specific issue to be discussed in a forum. For example, in a medical research forum, a topic might be *New Cancer Treatments*. Before creating a topic, you must create a forum into which to place it. To view a topic from the Workarea:

1. **Workarea > Settings > Configuration > Discussion Boards >** select a discussion board.
2. Select a forum from the folder structure.
3. The forum’s topics appear in the right frame. Click the one that you want to view.

If an option is *underlined*, you may perform it; if not, you cannot. For example, if a post’s status is approved, approve is not underlined because it is already approved.

This section also contains the following topics.

Adding a Topic to a Forum

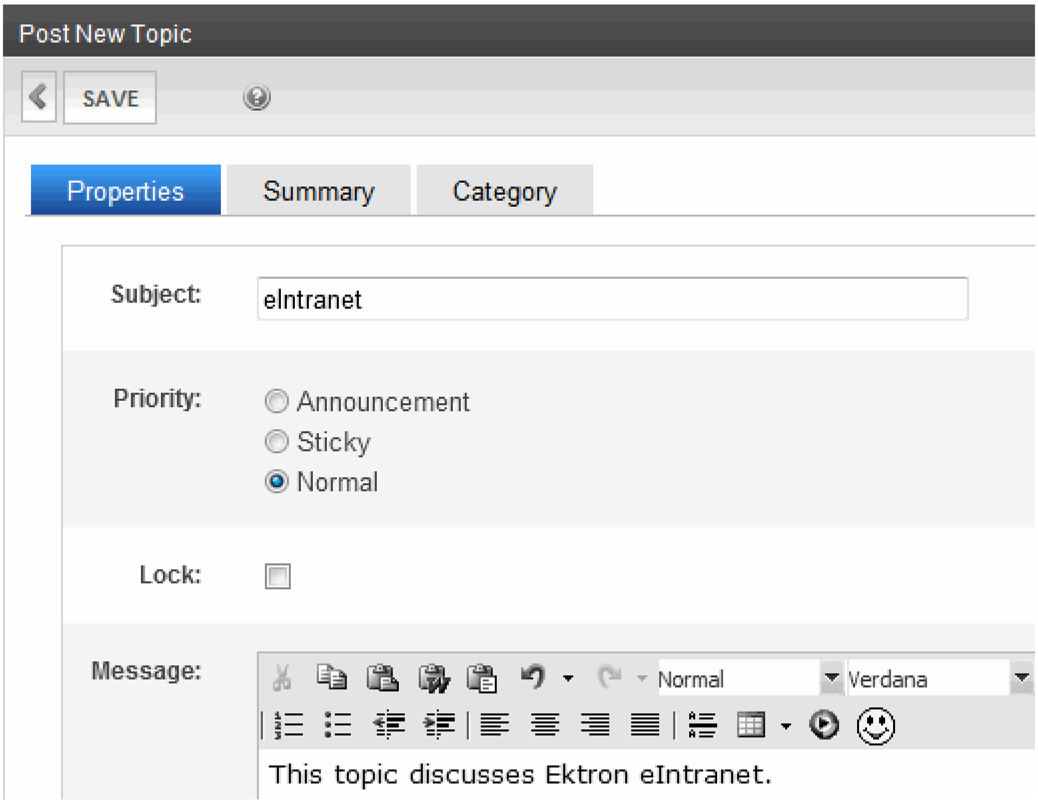
When you create a new topic, its first post is created from the topic message. If you add a topic but are not a forum moderator, you only see the topic in the Workarea after it is approved.

NOTE: You also can create new topics from the OnTrek user interface (Support > Support Forums).

To create a topic:

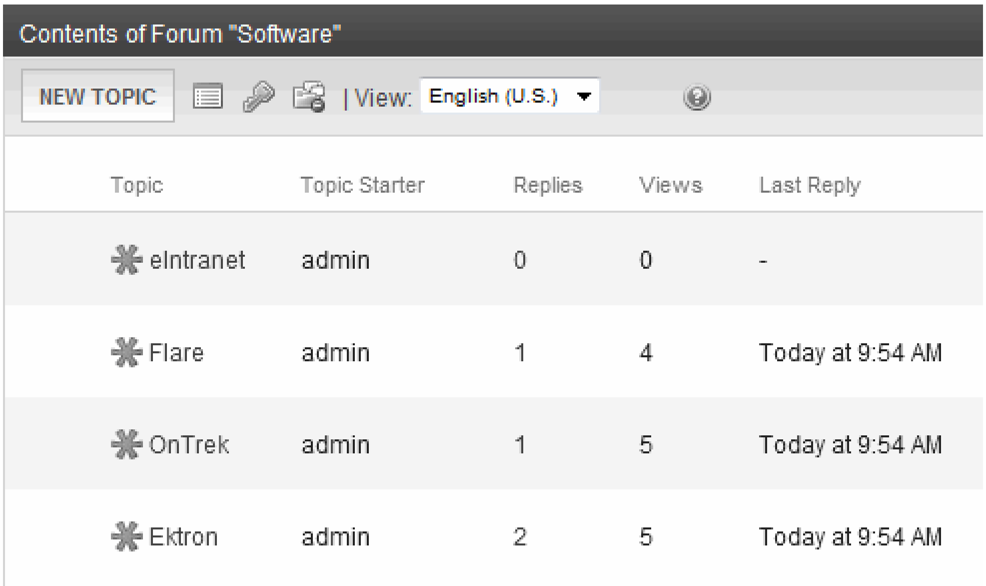
1. **Workarea > Settings > Configuration > Discussion Boards >** select a discussion board.
2. Select a forum.

3. Click **New Topic**. The Post New Topic screen appears.



- **Subject**—Enter a short description of the topic. The topic subject appears on the forum page.
- **Priority**—Set the topic's priority, which determines where the topic appears in the topic list on the site. The default setting is Normal.
  - **Announcement**—topic always appears at the top of the list. If a list has more than one announcement, they are sorted by date with most recent on the top. The Announcement icon ( ) indicates its priority to the left of the title.
  - **Sticky**—topic appears near the top of the list, just below the announcements. If a list has more than one sticky topic, they are sorted by date with most recent on the top. The Sticky icon ( ) indicates its priority to the left of the title.
  - **Normal**—Topics with this priority follow Announcements and Sticky topics. The Normal icon ( ) next to the topic indicates its priority.
- **Lock**—Check this box if you want to prevent posting of replies to this topic. You can do this temporarily or permanently. If a topic is locked, only Administrator user group members can post to it, or edit or delete posts. Those users can post from the website or the Workarea.
- **Message**—Enter the topic text. This text appears on a new Web page after a website visitor clicks a topic’s subject line.

4. Click **Save**. The new topic appears in the list.



Editing a Topic Title

The only part of a topic you can edit is its title.

1. In the Workarea, click the **Content** tab.
2. Select a discussion board, then select a forum from the folder structure. The forum's topics appear in the right frame.
3. Click the one that you want to edit.
4. Click **View Properties** (). The Edit Topic screen appears.
5. Modify the title as needed.
6. Click **Save**.

Approving a Topic in the Workarea

A topic needs approval if is created by a user without moderate permissions for the forum. An unapproved topic is surrounded by a yellow border in the Workarea, and must be approved before it appears on the website.

To approve a topic:

1. In the Workarea, click the **Content** tab.
2. Select a discussion board, then select a forum from the folder structure.
3. The forum's topics appear in the right frame. Click the one that you want to approve. The View Topic screen appears.

4. Click **approve**.The topic is approved.

Setting a Topic Priority

In a forum, topics are sorted by priority. You can set a topic's priority when you create it. A forum moderator can change a topic's priority. To set a topic property:

1. In the Workarea, click the **Content** tab.
2. Select a discussion board, then a forum from the folder structure.
3. Click on a topic.
4. Click **View Properties** ( ).
5. Click **Click here to Edit the Properties of this Topic**. The Edit topic screen appears.
6. Choose one of the Priority options.
   - **Announcement—**topic always appears at the top of the list. If a list has more than one announcement, they are sorted by date with most recent on the top. The Announcement icon ( ) indicates its priority to the left of the title.
   - **Sticky—**topic appears near the top of the list, just below the announcements. If a list has more than one sticky topic, they are sorted by date with most recent on the top. The Sticky icon ( ) indicates its priority to the left of the title.
   - **Normal—**Topics with this priority follow Announcements and Sticky topics. The Normal icon ( ) next to the topic indicates its priority.
7. Click **Save**.

Locking a Topic

Locking a topic prevents users from posting a reply to it. For example, you might create an announcement, but don't want people to reply to it. Or, you might decide that a topic has had enough discussion and want to stop further replies. If a topic is locked, only Administrator user group members can post to it, or edit or delete posts from the website or the Workarea. To lock a topic:

1. In the Workarea, click the **Content** tab.
2. Select a discussion board, then a forum from the folder structure.
3. Click a topic.
4. Click **View Properties** ( ).
5. Click **Click here to Edit the Properties of this Topic**. The Edit topic screen appears.
6. Check the **Lock** check box. (To unlock a topic, remove the check mark.)
7. Click **Save**.

Deleting a Topic

When you delete a topic, its posts are deleted, too. When deleted, they cannot be retrieved.

1. In the Workarea, click the **Content** tab.
2. Select a discussion board, then select a forum from the folder structure. The forum's topics appear in the right frame.
3. Click the one that you want to delete. The View Topic screen appears.

4. Click **Delete**. A confirmation message appears.
5. Click **OK** if you are sure you want to delete it.

Working with Posts

When a new topic is created, the first post is created from the topic's message. Posts to a topic are replies to the first post. You can search posts by clicking **Search**.

This section also contains the following topics.

Replying to a Post

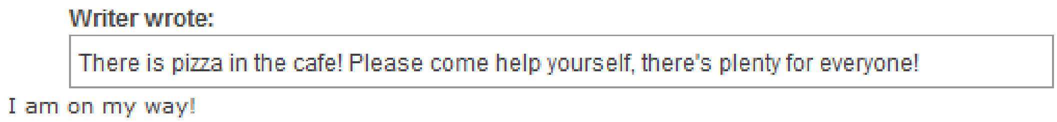
- From the website:
  1. Go to the Web page that hosts the discussion board.
  2. Click the forum of interest.
  3. Click **Add Reply**.
  4. Enter the text of your post.
  5. Click **Post**. If a topic is moderated, a message appears stating that your reply is pending moderator approval.
- From the Workarea:
  1. In the Workarea, click the **Content** tab.
  2. Navigate to a discussion board, then a forum. The forum’s topics appear in the right frame.
  3. Click the topic with the post to which you want to reply. The next screen, View Topic, displays all posts to the selected topic.
  4. Find the post to which you want to reply by reading its text.
  5. Click **Reply**.

6. In the **Message** field, enter the text of your post.
7. Click **Save**.

Quoting a Post

Quoting a post means that your reply begins with the original post. You can then add comments and even edit the quoted post. For example, you can include only the portion on which you are commenting. To quote a post:

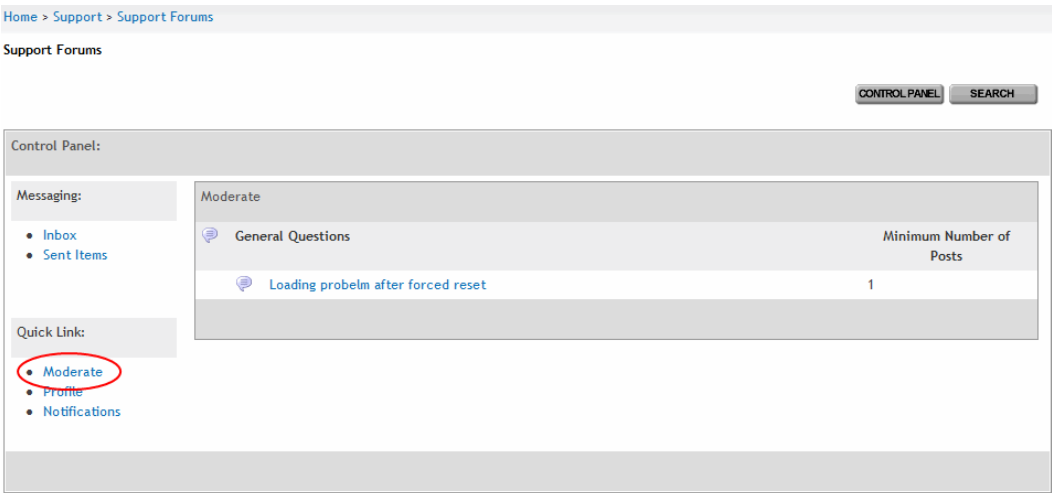
1. Go to the Web page that hosts the discussion board.
2. Click the forum of interest.
3. Click a topic.
4. Find the post you want to quote.
5. Click **Quote**.
6. The editor appears with the quoted text at the top. You may edit the quoted post to focus on the portion on which you are commenting.
7. Add your comments below the quote.
8. Click **Post**. The reply is added.



Moderating from the Control Panel

Users with forum moderate permissions can do so from the Control Panel by clicking the **Moderate** link.

1. Log in to the site and navigate to the forum.
2. Click **Control Panel**.
3. Click the **Moderate** link. The forum's control panel appears with a list of items requiring approval.



4. Click the item you want to approve. From this screen, you can edit, approve, or delete a post.

Approving a Post

PREREQUISITE

Only users who are assigned the **Moderate** permission may approve a post.

When defining a forum, you can check the **Moderate Comments** field. If you do, forum posts must be approved before they appear on the website. There are 2 ways to approve a post in the Workarea.

- From the website:
  1. Log into the site and navigate to the forum.
  2. Click **Control Panel**. The Control Panel appears.
  3. Click the **Moderate** link.
  4. Click the topic. The topic appears.
  5. Click **Approve**. A message notifies you that the post was approved.
- From the Workarea's discussion board:
  1. In the Workarea, click the **Content** tab.
  2. Select a discussion board, then a forum.
  3. The forum’s topics appear in the right frame. Click the one that has the post that you want to reply to. (Unapproved posts have an Approval Needed icon in the left column ( ).
  4. The next screen, View Topic, displays all posts to the selected topic.
  5. Find the post you want to reply to. Unapproved posts have a yellow border.
  6. Click **approve** under the post icon.

Editing a Post

You can edit the text of a post but you cannot edit its title.

- From the website
  1. Go to the Web page that hosts the discussion board.
  2. Click the forum of interest.
  3. Find the topic you want to edit.
  4. Click **Edit**.
- From the workarea
  1. In the Workarea, click the **Content** tab.
  2. Select a discussion board, then a forum from the folder structure.
  3. The forum’s topics appear in the right frame. Click the one that has the post that you want to edit. The View Topic screen displays all posts to the selected topic.
  4. Find the post that you want to edit and click **edit** under the post icon. The Edit Reply screen appears.
  5. Update the text as needed.
  6. Click **Save**.

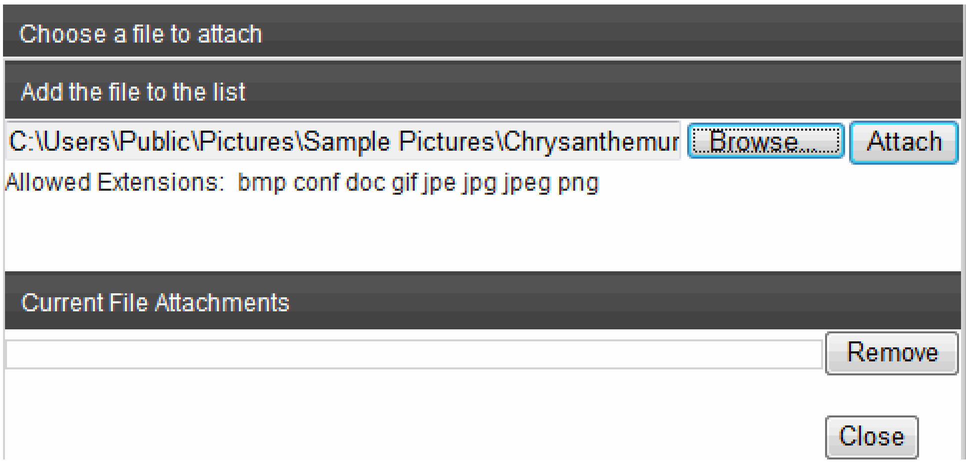
Deleting a Post

- From the website
  1. Go to the Web page that hosts the discussion board.
  2. Click the forum of interest.
  3. Find the topic you want to delete.
  4. Click **Delete**.
- From the Workarea
  1. In the Workarea, click the **Content** tab.
  2. Select a discussion board, then a forum from the folder structure. The forum's topics appear in the right frame.
  3. Click the one that has the post you want to delete. The View Topic screen displays all posts to the selected topic.
  4. Find the post that you want to delete and click **delete** under the post icon.

Attaching Images and Files to a Post

You can add an attachment to a post. The **Attached Files** field lists allowed file types. The list of file extensions and maximum file upload size are defined for the discussion board.

1. Create a new post or reply to an existing post.
2. Click **Attachments**. The Attachments window appears.



3. Click **Browse...** to navigate to the file that you want to attach.
4. Click **Open**.
5. Click **Attach** to attach the file to the post. The file appears in the list of Current File Attachments.
6. After you add all attachments, click **Close**.

To remove a file from the list of attachments:

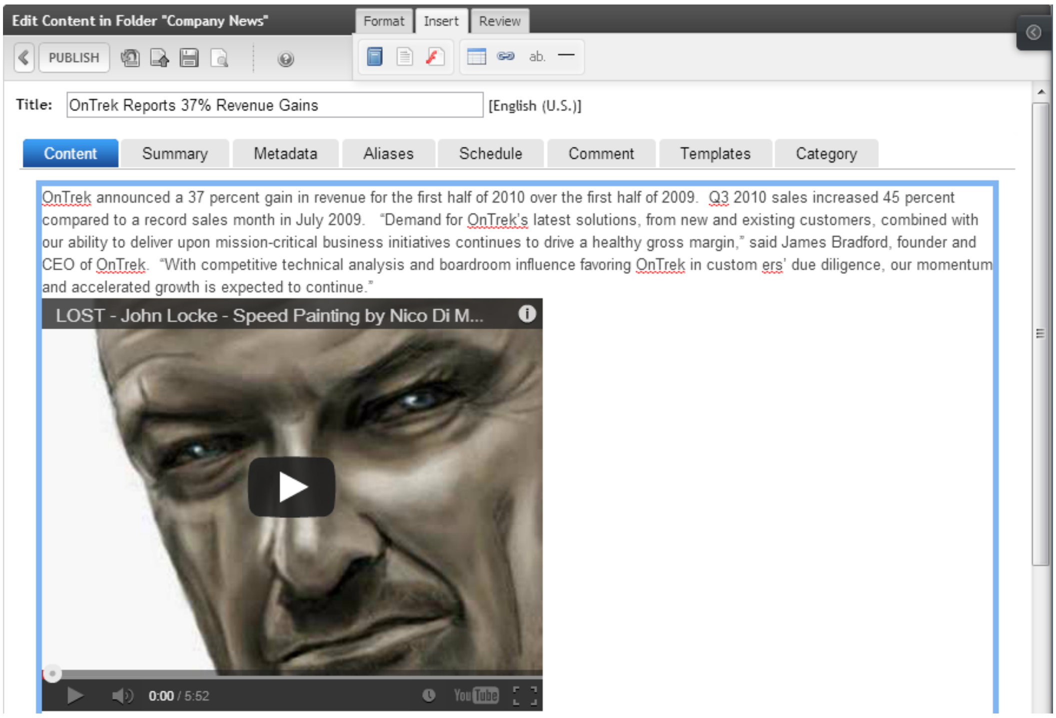
1. Click **Attachments** below the editor.
2. Highlight the attached item.
3. Click **Remove**.
4. Click **Close**.

Adding Video to a Post

1. Click **Insert Embedded Video** ( ) in a forum post. The Insert Embeded Media screen appears.
2. Add your embedded HTML code. For example:

```
<object width="425" height="350">
  <param name="movie"
    value="http://www.youtube.com/v/8K_NQe57C-k"></param>
  <param name="wmode"
    value="transparent"></param>
  <embed src="http://www.youtube.com/v/8K_NQe57C-k"
    type="application/x-shockwave-flash"
    wmode="transparent" width="425" height="350"></embed>
</object>
```

3. Click **Insert**. The video is embedded in the content.



Moving a Topic and Its Posts to Another Forum

To move a topic and its associated posts in one forum to another, the forum to which you want to move the topic and posts must exist.

1. Access a page on your website that has a login button.
2. Sign in as a member of the Administrators group or as a Moderator of the board.
3. Navigate to a page with discussion board and select a forum.
4. Navigate to a topic page.
5. Click the **Move to...** drop-down list.
6. Select the topic to which you want to move.
7. Confirm that you want to move all posts.

Replacing Words in a Post

You can configure Ektron to replace unwanted words in a post, such as obscene or indecent words that should not appear on your site. You also can fix commonly misspelled words. For example, *the* can replace *teh*.

The Replace Words feature works with exact matches but does not append words. For example, if you replace *car* with *auto*, the sentence *I bought the car from the cartel* becomes *I bought the auto from the cartel*. Note that cartel did not change to autotel even though the word car appears in cartel.

Using Regular Expressions

If you want the Replace Words feature to modify words that contain a word you to replace, use Regular Expressions. A Regular Expression, often referred to as regex, is a pattern of metacharacters placed around a word that describes a string. Used for string manipulation, regex lets you detail a succinct description of a group of words without having to detail each word in the group.

- **.**—Matches any character, similar to a wildcard. For example, .ar matches any 3-letter word ending in *ar*, such as car, bar, tar or far.
- **|**—An *or* operator. For example, steak|stake would find steak or stake.
- **[ ]**—Matches one character between the brackets. For example, [rst] matches *r*, *s* or *t*. [d-g] matches *d*, *e*, *f*, or *g*. Another example, [bc]ar matches *bar* and *car*. If you need to match a dash (-), use it a the beginning or end of the group. For example, [xyz-] or [-xyz].
- **[^]**—Matches one character not in the group. For example, [^rst] matches any character other than *r*, *s* or *t*. Another example, [^bc]ar does not match *bar* or *car*, but does match *tar* and *far*.
- **^**—Matches the beginning of any line. For example, ^[bc]ar matches *bar* or *car*, but only at the beginning of a line.
- **$**—Matches the end of any line. For example, ^[bc]ar matches *bar* or *car*, but only when it appears at the end of a line.
- **( )**—Marks a sub expression. For example, alt(a|e)r finds *altar* or *alter*.
- *****—When an expression is followed by *, it matches zero or more versions of the expression. For example, [rst]* finds *(blank)*, *r*, *s*, *t*, *rs*, *sr*, *rt*, *tr*, *st*, *ts*, *rst*, *rts*, *srt*, *str*, *trs* and *tsr*.
- **+**—When an expression is followed by +, it matches one or more versions of the expression. This differs from * because it does not match *(blank)*. It must match at least one character. For example, r+ matches *r*, *rr*, *rrr* and so on.
- **{**x,y**}**—Must match at least *x* times and not more than *y* times. For example, s{2,4} matches *ss*, *sss* and *sss*. You can also use {*x*} to specify an exact match. For example, s{3} matches *sss*. You can use {*x*,} to specify that the match is at least *x* amount of times. For example, s{4} matches *ssss*, *sssss*, *ssssss* and so on.
- **?**—Must match the preceding character zero or one times. For example, Boa?rder matches *boarder* and *border*.

Viewing Replacement Words

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Choose **View > Replace Words**. A list of word to be replaced appears.

Adding a Replacement Word

NOTE: In addition to using Replace Words for a specific forum, you can access the Replace Word feature from the **Workarea > Settings > Configuration > Discussion Board > Replace Words**. If you have more than one forum, this allows you select to which discussion boards the Replace Words feature is applied.

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Click **New > Replace Word**. The Replace Words screen appears.
4. Click **Add**.
5. Add the word to be replaced in the **Old Word** textbox.
6. Add the replace word in the **New Word** textbox.
7. Select the language for the Replace Word.
8. Click **Save**.

Editing a Replacement Word

1. In the Workarea, click the **Content** tab
2. Select a forum from the folder structure.
3. Click **View > Replace Words**.
4. Click either the Old Word or the New Word to edit.
5. Click **Edit**.
6. Change the Old Word, New Word or Language.
7. Click **Save**.

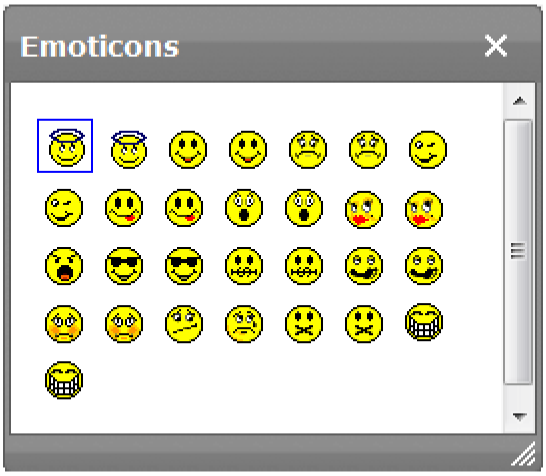
Deleting a Replacement Word

1. In the Workarea, click the **Content** tab.
2. Select a forum from the folder structure.
3. Click **View > Replace Words**.
4. Click either the Old Word or the New Word to delete.
5. Click **Delete**. A dialog box asks if you are sure you want to delete.
6. Click **OK**.

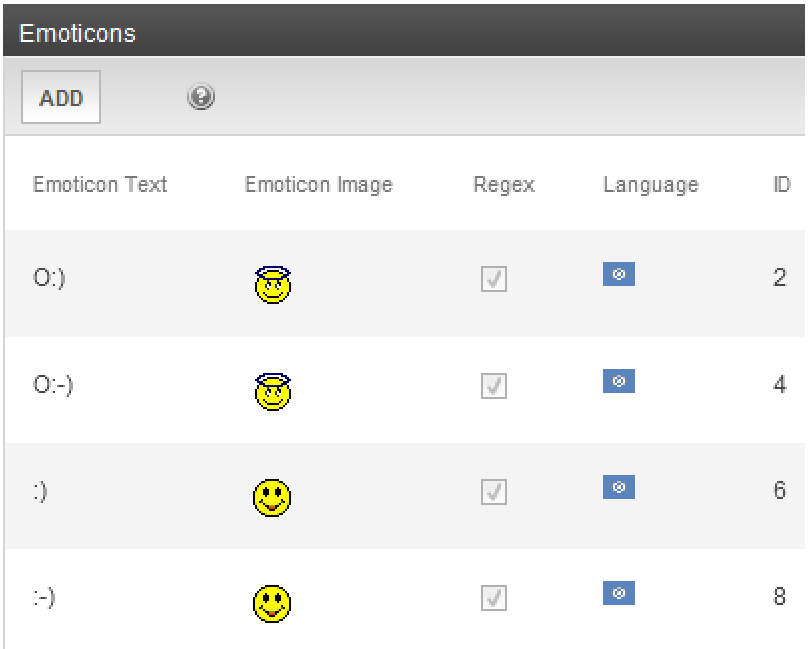
Adding Emoticons to a Post

IMPORTANT: This topic applies to the eWebEdit400 editor only.

An emoticon is an icon used to express emotion in a forum post. In the post editor, click the emoticon ( ) symbol.



You can also enter a few characters that resemble the image. For example, to insert , enter `O:\)`. While working in a post, the user only sees the text. But when the post is saved, Ektron converts the text to the corresponding emoticon. In all subsequent work with the post, users see only the emoticon. You can add new emoticons at **Settings > Configuration > Discussion Boards > Emoticons**.



Emoticon Text	Emoticon Image	Regex	Language	ID
O:)				2
O:-)				4
:)				6
:-)				8

You also can place emoticon images in the following folder: `webroot\Workarea\threadeddisc\emoticons`. Administrators reference these files when editing or creating new emoticons.

Creating or Editing an Emoticon

1. Within the Workarea, go to **Settings > Configuration > Discussion Boards > Emoticons**.
2. Click the emoticon text or image that you want to edit.
3. Click **Add** or **Edit**.
    - **Emoticon Text**—Enter or update the characters a forum participant enters to insert this emoticon.

- **Emoticon Image**—Enter the name of the image file that appears after a user enters the above **Emoticon text** and saves the post. Administrators place emoticon images in the `siteroot\Workarea\threadeddisc\emoticons` folder.
- **Regex**—See *Using Regular Expressions* on page 565
- **Language**—Select the emoticon's language from the drop-down list. If a forum is language-specific, only emoticons assigned to that language or all languages are available.

Deleting an Emoticon

1. Within the Workarea, go to **Settings > Configuration > Discussion Boards > Emoticons**.
2. Click the emoticon that you want to delete.
3. Click **Delete**.
4. Reply to the confirmation message.

Reporting a Post

You can allow site visitors to report inappropriate posts, such as spam or offensive posts. When a site visitor clicks the **Report Post** button, an email notification is sent to all forum moderators. Any moderator can review the post and decide to edit, delete, or leave it alone.

To edit the report post message, go to the Workarea and choose **Settings > Configuration > Discussion Boards > Messages** and select **ReportForumPost**.

Setting Up Post Reporting

When you set up forum post reporting, you add a **Report Post** button to the bottom of each post to let site visitors report posts. Clicking **Report Post** sends an email to moderators, who can view the post and decide whether to edit, delete or leave the post.

NOTE: Your Ektron Web server must be set up to send emails. See *Installing Ektron* on page 9.

1. From the Workarea, choose **Content**.
2. In the left panel, select a discussion board from the folder structure.
3. Select a forum.
4. Click **Properties** ( ).
5. Click **EditForum Properties**.
6. Check the **Moderate Comments** box.
7. Click **Save**.

Using Discussion Boards on Your Website

This section explains how to work with a discussion board on your site.

This section also contains the following topics.

Using the Control Panel

The Control Panel lets logged in users view your profile, read, reply to, and delete private messages. It also lets users with moderate permissions moderate the forum. The **Control Panel** button is located at the forum level.

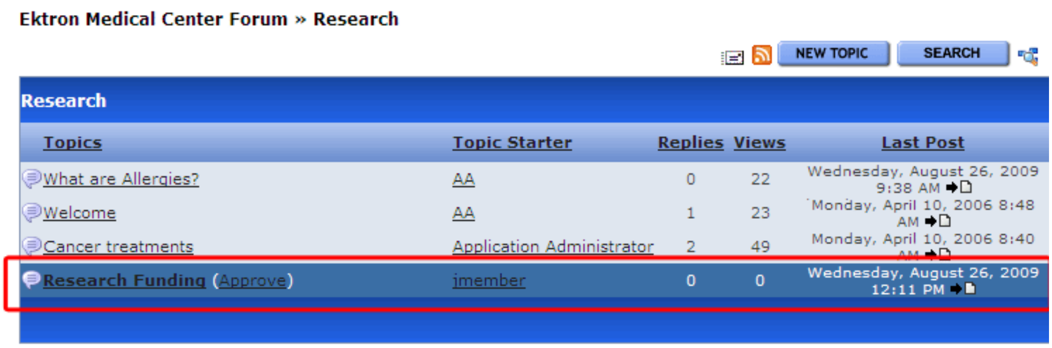
The Inbox view appears by default. From it, you can...

- read a message by clicking on it. A read message's icon changes from unread ( ) to read ( ).
- view information about the message sender by clicking the name.
- delete the message by clicking the corresponding check box then the **Delete** button.
- switch to a different view.
- check your subscriptions.
- reply to a message by clicking **Reply** ( ).

IMPORTANT: When replying to a private message, you add your response to the existing message. Only one message is created.

Approving a Topic on Your Website

A topic needs to be approved when a user who does not have moderate permission for the forum adds a topic. When you view topics on the site, those that need approval have a different background color.

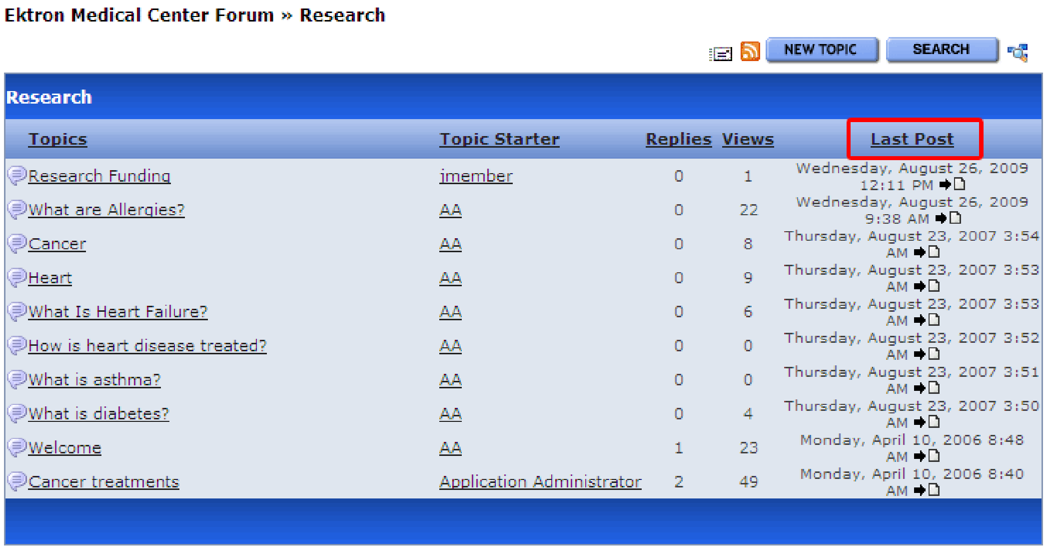


From this screen, you can click **Approve** next to the topic’s title. You could also click the topic’s title to view it and click **Approve** on that screen.

Sorting Topics

1. Go to the Web page that hosts the discussion board.
2. Click the forum of interest.
3. Click any column title to sort by alpha or numerical order.

   On the first click, items are sorted first by numeric (1-10) values, then by alpha values (A to Z). Click a column title a second time to sort the items in reverse. When first viewed, the list is sorted by **Last Post** date and time.



Topics	Topic Starter	Replies	Views	Last Post
Research Funding	jmember	0	1	Wednesday, August 26, 2009 12:11 PM
What are Allergies?	AA	0	22	Wednesday, August 26, 2009 9:38 AM
Cancer	AA	0	8	Thursday, August 23, 2007 3:54 AM
Heart	AA	0	9	Thursday, August 23, 2007 3:53 AM
What Is Heart Failure?	AA	0	6	Thursday, August 23, 2007 3:53 AM
How is heart disease treated?	AA	0	0	Thursday, August 23, 2007 3:52 AM
What is asthma?	AA	0	0	Thursday, August 23, 2007 3:51 AM
What is diabetes?	AA	0	4	Thursday, August 23, 2007 3:50 AM
Welcome	AA	1	23	Monday, April 10, 2006 8:48 AM
Cancer treatments	Application Administrator	2	49	Monday, April 10, 2006 8:40 AM

Deleting a Topic

PREREQUISITE

Topics can be deleted from a forum by the users who created them or by users with the Moderate permission. This includes Membership users.

WARNING! When you delete a topic, its replies and posts are also deleted.

1. Go to the Web page that hosts the discussion board and click the forum of interest.
2. Click the topic you wish to delete.
3. Click **Delete Topic**. A dialog asks you to confirm.
4. Click **OK**.

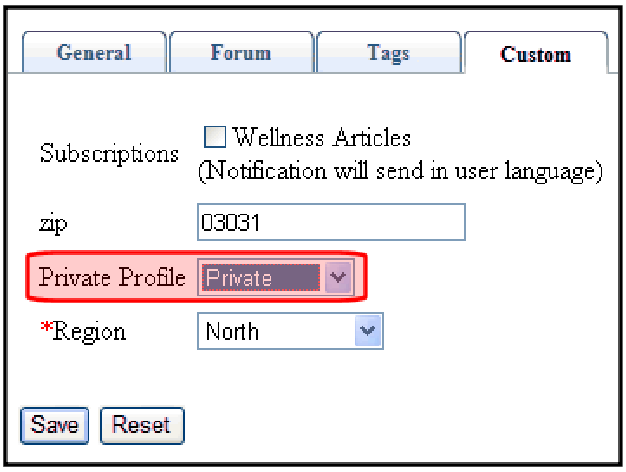
Suppressing User Information from the Forum Profile Display

Anyone browsing a discussion forum can view contributor information by clicking the user name. However, if the forum server control's `HideUserProfile` property is `true`, non-administrator users cannot see the profile, even if the **Private Profile** setting is set to Public. Administrators can see the profile, regardless of how the `HideUserProfile` property is set. The profile contains the following user information.

- **First Name**
- **Last Name**
- **Email**—email address
- **Joined**—date the user joined

- **Last Visit**—date the user last visited the site
- **Number of Posts**—the number of posts a user has contributed
- **Post History**—a list of posts the user has contributed

Users can determine if their profile is viewable via the **Private Profile** drop-down box on the Membership Registration screen and the Edit Profile screen. The Membership Registration screen appears wherever your developer inserts the Membership Server Control. If **Private Profile** is set to **Private**, profile information is suppressed. If it is set to **Colleagues**, only a user's colleagues can see the person's profile. When set to public, everyone can see a user's profile information.



NOTE: If the forum server control's `HideUserProfile` property is set to `true`, non-administrator forum visitors cannot see a user profile, even if the **Private Profile** field is set to **Public**.

If you want to suppress the display of user names as an administrator:

1. If the user is a *regular user*, go to **Settings > Users** and select the user whose information you want to suppress.

   If the user is a *membership user*, go to **Settings > Community Management > Memberships > Users** and select the user whose information you want to suppress.
2. In the User Properties area of the screen, check the **Private Profile** checkbox.

   NOTE: If the forum server control's `HideUserProfile` property is set to `true`, non-administrator forum visitors cannot see the profile, even if the **Private Profile** check box is unchecked.

Outputting a Forum as an RSS Feed

You can output a forum as an RSS feed by clicking the RSS feed button ( ). Each level of the forum has an RSS feed button. This lets you output a specific topic as an RSS feed.

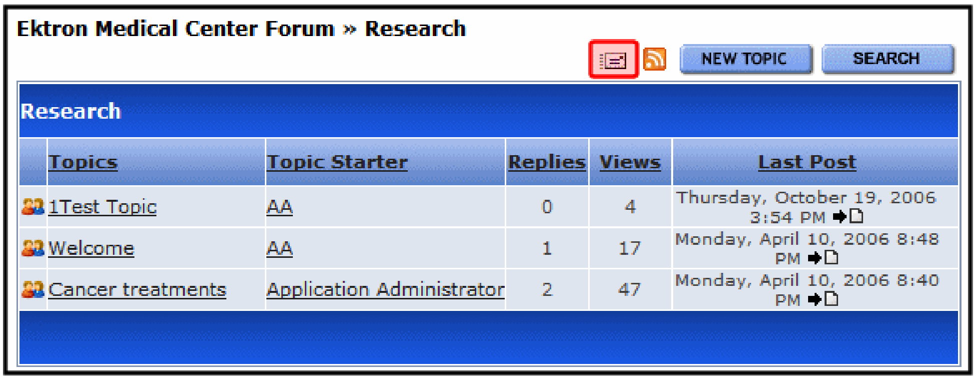
```
<?xml version="1.0" encoding="UTF-8" ?>
- <rss version="2.0">
<!-- Generated by Ektron -->
- <channel>
  <title>Ektron Medical Center Forum</title>
  <link>http://test/webform.aspx</link>
  <description>Ektron Medical</description>
  - <item>
<title>Research</title>
```

```
<link>http://test/webform.aspx?g=topics&f=108</link>
  - <description>
<![CDATA[ Latest medical research ]]>
</description>
<pubdate>Mon, 7 Feb 2012 09:56:00 GMT</pubdate>
  </item>

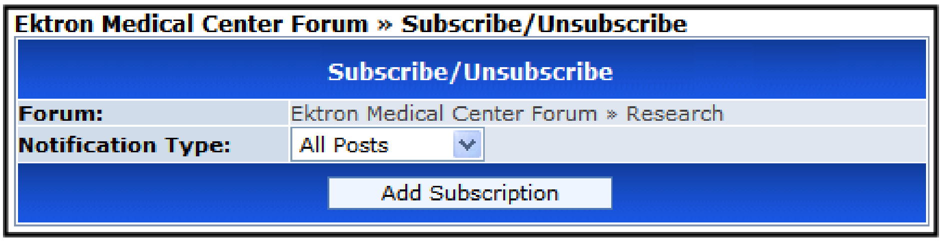
</channel>
</rss>
```

Subscribing to a Discussion Board

1. After logging into a discussion board, you can subscribe to a forum post and replies by clicking the Subscribe button (). The button appears at each discussion board level, so that a user can subscribe to forums and topics of interest.



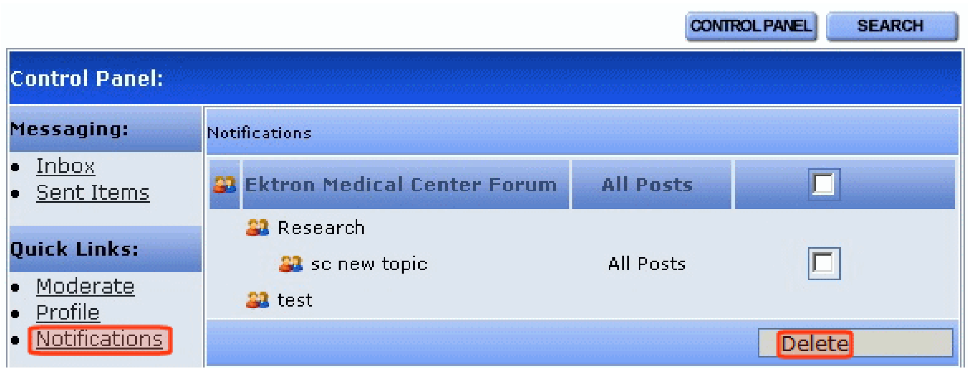
After clicking the button, the following screen appears.



2. Select a notification type, listed below.
   - **All Posts**—notifies you when any post or reply is added
   - **Replies to Me—**notifies you when someone replies to your post
3. Click **Add Subscription**.

Reviewing Subscriptions

To review forum subscriptions, go to the Control Panel and click **Notifications** in the lower left corner. A screen indicates each discussion board level to which you have subscribed.



Deleting a Subscription

To delete a subscription, check the corresponding box and click **Delete**.

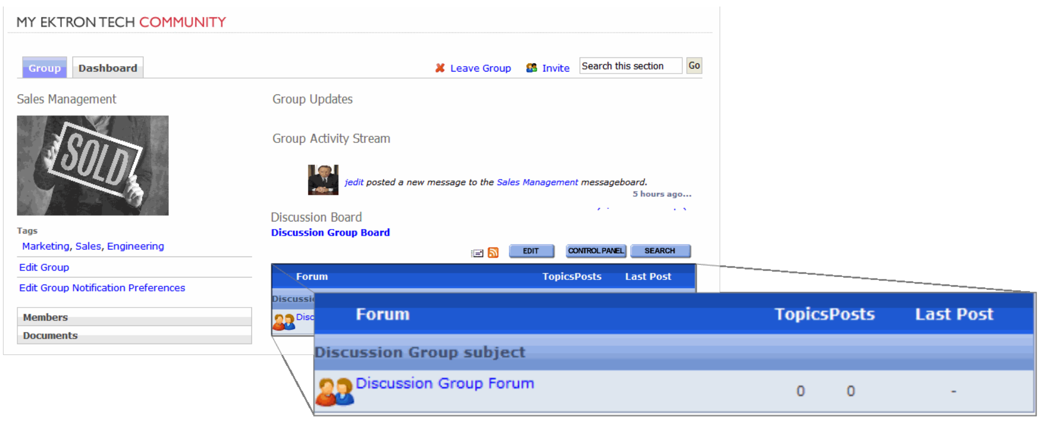
Sending a Private Message to a Forum Member

Logged-in users can send a private message to the person who created a post or reply. Only the sender and receiver can view private messages. This requires both users to be either an Ektron user or a Membership user.

1. Navigate to a post and click the user's name.
2. When the User Profile appears, click **Message**. The Message screen appears.
3. The **To:** field is filled automatically. You cannot add additional members.
4. Enter a subject.
5. Enter a message.
6. Click **Post**.

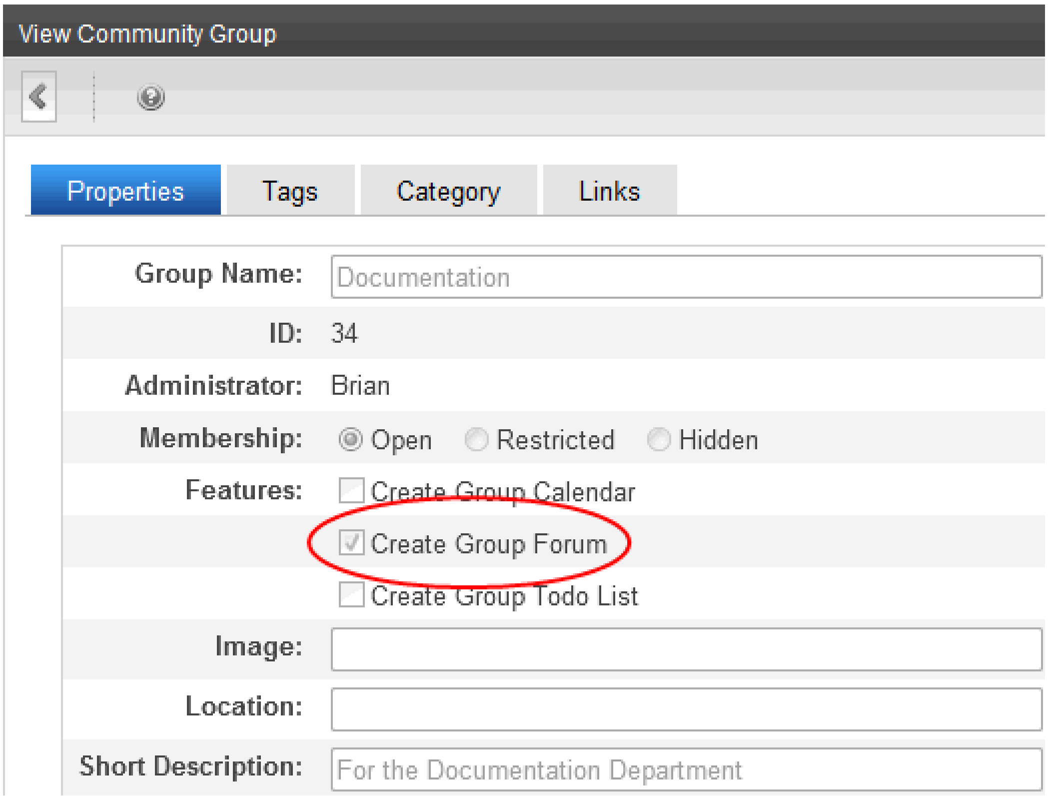
Using Discussion Boards in Community Groups

A Community Group can have its own discussion board. This provides a forum for community-based discussions that are limited to forum members. All discussion board features are available to a forum in a community group. The image below shows a discussion forum on a community group page.



To use a group discussion board, first add the group discussion forum to the database. Each group needs to do this one time when they decide to host a discussion forum for their group. To add a group discussion forum database:

1. Log in to your website.
2. Navigate to your group Web page.
3. Click **Edit Group**. The Edit Group Link appears.
4. Check the **Create Group Forum** box to create a group forum in the database. After the group forum database is created, you cannot uncheck this option.

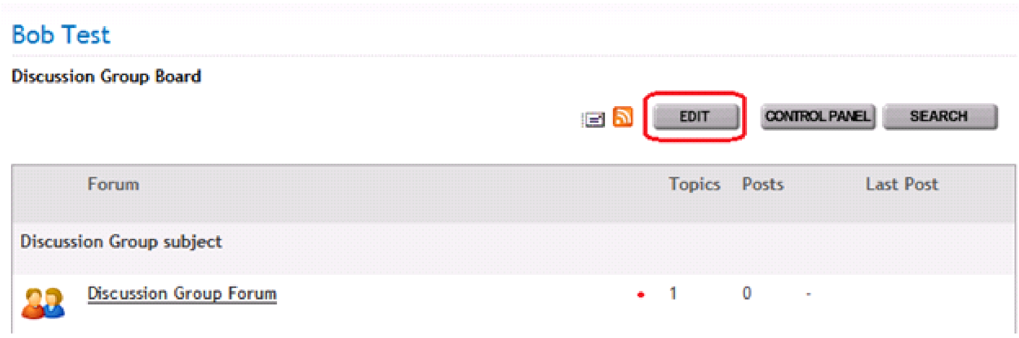


5. Click **Save**.

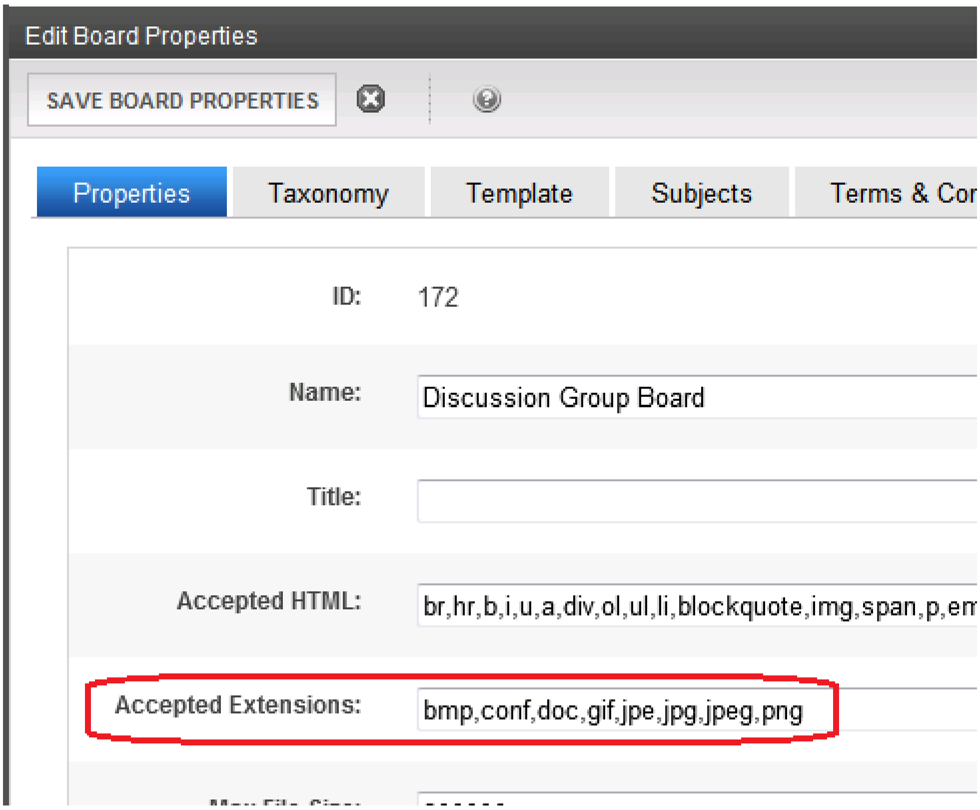
Determining which File Types may be Uploaded to a Community Group

To view and update the file types that may be uploaded to a Community Group:

1. Navigate to the group page as the group administrator.
2. Click Edit.



3. Edit the **Accepted Extensions:** field.



Discussion Board Server Controls

Ektron provides 3 server controls for use with discussion boards.

- *Forum* on page 1740—place a discussion board on a Web page
- *ActiveTopics* on page 1637—display the most active or most recent topics and posts
- *PostHistory* on page 1813—display a user's list of posts

After creating at least one hierarchy of discussion board elements, place a Forum server control on a Web page. If you want to require site visitors to authenticate, the Web page that hosts the forum should also contain:

- a Membership server control (or a link to page that has one). This lets site visitors/membership users register for discussion boards.
- a Login server control that lets the site visitor/membership user log in

NOTE: You should add text below the Login server control to remind the site visitor to enter the person's email address at the **User** field. For example, “At the **User** field, enter your email address.”

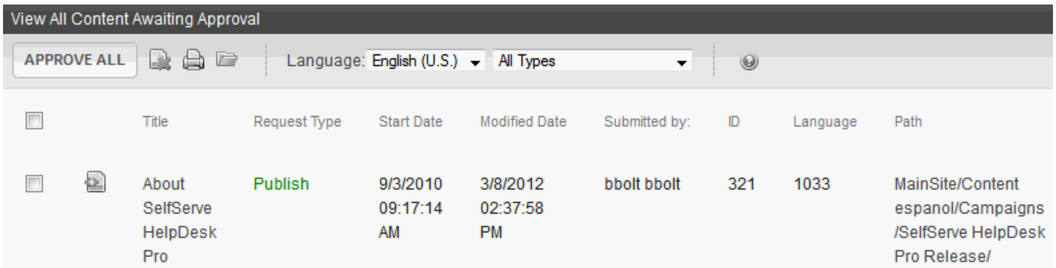
Working with Content Reports

The Workarea's **Reports > Contents** folder contains reports to help you manage the workflow of Ektron content. In most cases, you choose a report that corresponds to a content status, then view content in that status. If appropriate, you can perform tasks on the content. For example, you can check in checked-out content.

This chapter explains how to access the Workarea's reports folder, set criteria that determine the information on the reports, and actions you can perform on them.

Approvals

Each content item awaiting your approval appears on this report. Thus, you can quickly find all such content without searching through every folder.



- **Title**—Title of content.
- **Request Type**—Request made for the content. Either **Publish** or **Delete**.
- **Start Date**—Start date, if any, assigned to the content. Determines when approved content will go live on website.
- **Date Modified**—Date the content was most recently changed.
- **Submitted By**—User who submitted content for approval.
- **ID**—Content ID number.
- **Language**—Content language.
- **Path**—Path to folder where content resides.

From the approvals report, you can approve or decline content that was submitted to you.

1. Go to the **Workarea > Reports > Contents** screen.
2. Click the content you want to approve or decline. The View Content Awaiting Approval page appears.
3. Perform an action.
   - **Publish**—Accept changes to content and publish it to site.

     If there is a subsequent approver in the content's approval chain, a **Submit** button appears instead. If you click **Publish** but the content has an incomplete task assigned to another user, the content cannot be published. Instead, an error message appears.
   - **Decline**—Reject changes and keep current content on website.
     You are prompted to enter a comment for the decline. The author who made the change is notified by email.

The content inserted by the last editor remains in the file. If you do not want it to remain, choose **Edit**.

- **Edit**—Check out content and change it if desired.
- **View Published/Staged**—Toggle between published and submitted versions of content. This can help you compare differences.
- **Back**—Go back to previous screen.

The selected content is either submitted to the next publisher, published immediately, or deleted, depending on the content's approval chain.

Checked In Content Report

Displays all the content currently in a checked-in status.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **Date Modified**—Date and time content was last edited.
- **Path**—Folder location of content in Ektron website.

Checked Out Content Report

Displays all content currently in a checked out status.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **Date Modified**—Date and time content was last edited.
- **Path**—Folder location of content in Ektron website.

After selecting content, check it in using the **Checkin** button.

New Content Report

Displays content in a *new* state, that is, it was created and saved but never published.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **Date Modified**—Date and time content was last edited.
- **Path**—Folder location of content in Ektron website.

Submitted Content Report

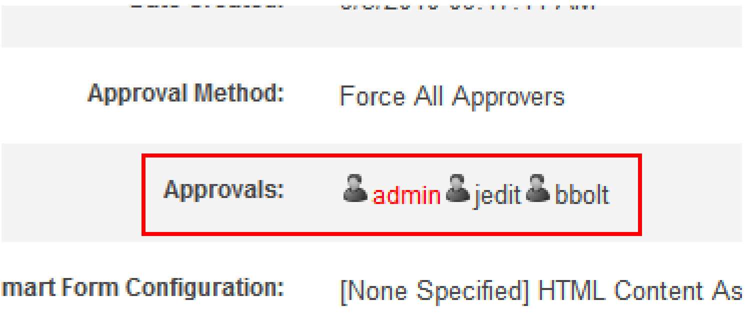
Displays all content in a submitted state. The report contains the following information.

- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.

- **Date Modified**—Date and time content was last edited.
- **Path**—Folder location of content in Ektron website.

While viewing the Submitted Content report, you can view the content's position is its approval chain. Then, ask those individuals to complete their approval.

1. From the Submitted Content Report, click the content's title. The View Content page appears.
2. Click the **Properties** tab. The **Approvals** line indicates (in red text) the content's position in the approval chain.



Content Pending Start Date Report

Displays all content that was approved, but whose start dates haven't occurred. Each content item on the report contains the following information.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **Start Date**—Date and time content will go live on website.
- **Path**—Folder location of content in Ektron website.

You may edit content on the Pending Start Date Content report by clicking the content you want to view and using the toolbar at the top of the page, perform any action available.

See Also: *Scheduling Content* on page 296

Refresh Reminder

Displays all content whose end date has passed and whose archive option is set to **Refresh Report**. This content is still visible on the website. Its appearance on this report indicates that it is due for review.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **Date Modified**—Date and time the content was last updated.
- **Path**—Folder location of content in Ektron website.

If you review content and decide it should no longer appear on your site, follow these steps to remove it. The content will be visible if you browse to it through the Workarea, but won't appear to site visitors.

1. From the Refresh Reminder Report, click the content.
2. From the View Content screen, click **Edit** ( ).
3. Click the **Schedule** tab.
4. Under **Action on End Date:**, click **Archive and remove from site (expire)**.

See Also: *Scheduling Content* on page 296

Expired Content Report

Displays all content whose end date has passed. Such content is no longer visible on the website.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **End Date**—Date and time the content expired.
- **Path**—Folder location of content in Ektron website.

You may edit any content on the Expired Content report by clicking the content you want to view and using the toolbar at the top of the page to perform any action available.

See Also: *Scheduling Content* on page 296

Content to Expire

Lists all content whose end date will occur between today and a number of days that you specify. For example, if today is January 1 and you select 10 days, the report lists all content whose end date is January 1 through January 10.

After viewing the report, you can click any content and proceed to the View Content screen for it. From there, you can edit information about it, including its end date if desired.

- **Title**—Title of content.
- **ID**—ID number assigned to content by Ektron.
- **Last Editor**—Last user to edit the content.
- **End Date**—Date and time the content expired.
- **Path**—Folder location of content in Ektron website.

To select the report’s date range, you have 2 options:

- Enter a number in the **Days** field. Then click **View Reports** ().
- Select a number from the drop-down list below the **Days** field

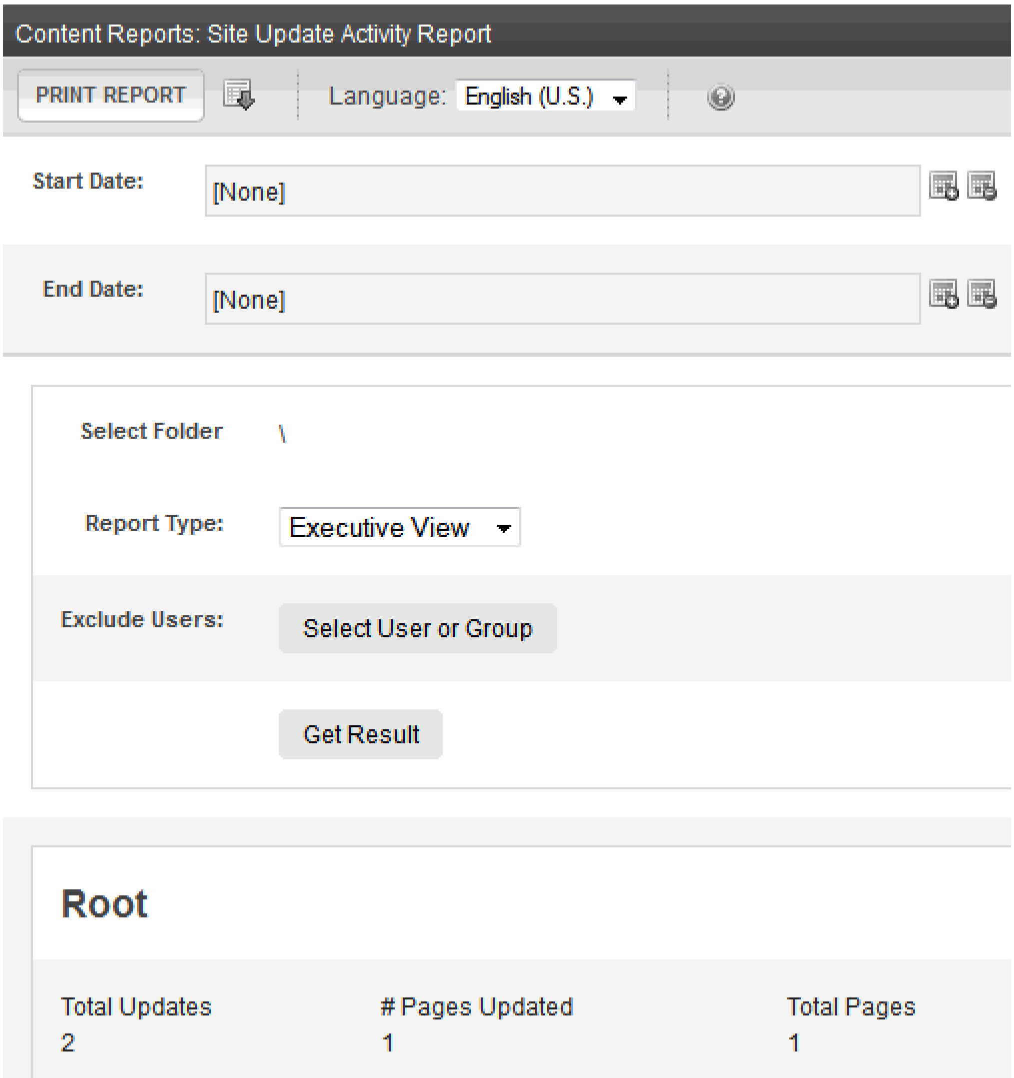
After selecting a number of days, click **view** () to see all content that will expire within that time frame.

See Also: *Scheduling Content* on page 296

Site Update Activity Content Report

Provides a snapshot of the freshness of your website content. Specifically, it lists how many content items were published within a folder and date range you select, organized by folder.

For example:



To choose which content items appear on the report:

1. Choose a **Start Date** by clicking the calendar icon. You also can choose an **End Date** using the same procedure. (Today is the default end date.)
2. At the **Select** field, choose a folder. The Root folder is the default selection. (Only folders for which you have read-only or greater permission appear.) To change that selection, click the folder name. To select all folders on the screen, click the **Select All** checkbox. Otherwise, select folders by clicking the corresponding checkbox. There is also an option to **Include Sub-folders** of the selected folders.
3. Choose the **Report type**, which determines the information you will see on the report. Options are explained below.
   - Executive View
     - name of each page that was published
     - how many times it was published
     - date it was last published

  - users who published page
  - total numbers are *not* provided
- Detail View Example

Root

Total Updates	# Pages Updated	Total Pages
1	1	1

Page Name	Updates	Last Updated	User Name
Sample Content Block	1	2009-08-26	John Edit

- Combined View—combination of Executive and Detail views

4. To exclude users or user groups from the report, use the **Exclude Users** field. For example, you want to see all updates other than those you have completed. When you click **Exclude Users**, an alphabetical list of users appears, followed by user groups.
5. Click **Get Result**.

Asynchronous Log File Reporting

When the Message Queuing and Asynchronous Process are set up and running, you can access a report of any problems with the Asynchronous Processor. You can also email it to any Ektron user.

PREREQUISITE

Define the path to your website's asynchronous processor service on the **Settings > Configuration > Setup** screen's **Asynchronous Processor Location** field.

To access the Asynchronous Process log:

1. From the Workarea, click **Reports**.
2. Click **Contents > Asynchronous Log File Report**.
3. Any problems appear on the screen.

```
Log File
Date: Tuesday, November 01, 2005 4:16:31 PM
Exception Message: Access to Message Queuing system is denied.
Stack Trace: at System.Messaging.MQCacheableInfo.get_ReadHandle()
at System.Messaging.MessageQueue.StaleSafeReceiveMessage(UInt32 time
at System.Messaging.MessageQueue.ReceiveCurrent(TimeSpan timeout, Int3
at System.Messaging.MessageQueue.Receive()
at Ektron.Services.EktronAsyncProcessor.a.a()


Date: Tuesday, November 01, 2005 4:16:33 PM
Exception Message: Access to Message Queuing system is denied.
Stack Trace: at System.Messaging.MQCacheableInfo.get_ReadHandle()
at System.Messaging.MessageQueue.StaleSafeReceiveMessage(UInt32 time
at System.Messaging.MessageQueue.ReceiveCurrent(TimeSpan timeout, Int3
at System.Messaging.MessageQueue.Receive()
at Ektron.Services.EktronAsyncProcessor.a.a()
```

Search Phrase Report

Displays terms entered into a Search field within a selected date range. Use the report to discover the kind of information site visitors are searching for.

Narrow down the search results by selecting any combination of these criteria.

- language—the language of the *search page* (either Workarea or website search). The user performing the search can choose a language before searching. If the user does not choose a language, the search uses the default one. This report can show results from all languages or one that you select.
- a *minimum number of occurrences* of the word or phrase to return. For example, you only want words or phrases entered into the **Search Text** field at least 10 times during the last month.
- date range

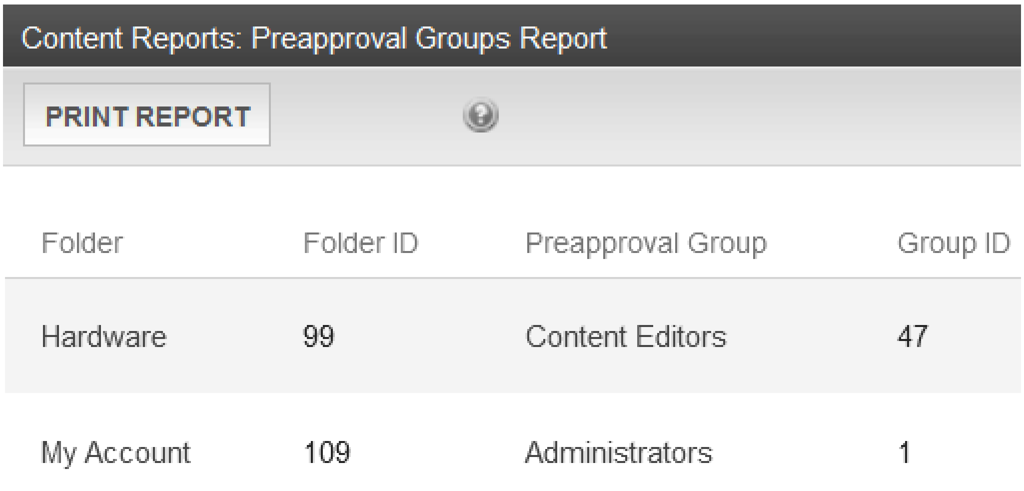
The report shows the number of occurrences of each term. Terms are arranged in this order.

- words or phrases with the most occurrences appear first
- if several terms have the same number of occurrences, they are arranged alphabetically

Also, terms entered into the website or Workarea search are surrounded by parentheses (). Terms entered into the Advanced Workarea search have no parentheses. The Microsoft search engine uses this syntax to find content.

Preapproval Groups

Lists all preapproval groups assigned to folders within Ektron. To access it, go to **Workarea > Reports > Contents > Preapproval Groups**. See Also: *Setting Up an Automatic Task for Pre-approving Content* on page 1043


Content Reports: Preapproval Groups Report

PRINT REPORT

Folder	Folder ID	Preapproval Group	Group ID
Hardware	99	Content Editors	47
My Account	109	Administrators	1

Bad Link Report

Lists invalid links to external URLs within your content. (An invalid link returns an error code to your browser.) The report lists the following information about each item that contains a bad link.

- title
- error description
- Source, that is, item type followed by information about the item
    - if the error is in a content block, you see **Content** followed by its id number and language locale id
    - if the error is in a Smart Form, you see **Smart Form** followed by its ID number
    - if the error is in a menu, you see **Menu Item (11,0,1033)**. The parameters are: menu ID, menu item ID, and language ID.
    - if URL Aliasing is on, you see **ASPX Template** followed by the template name
- the anchor (<a>) tag to which the bad link is assigned
- URL that cannot be resolved (labeled **Invalid Link**)

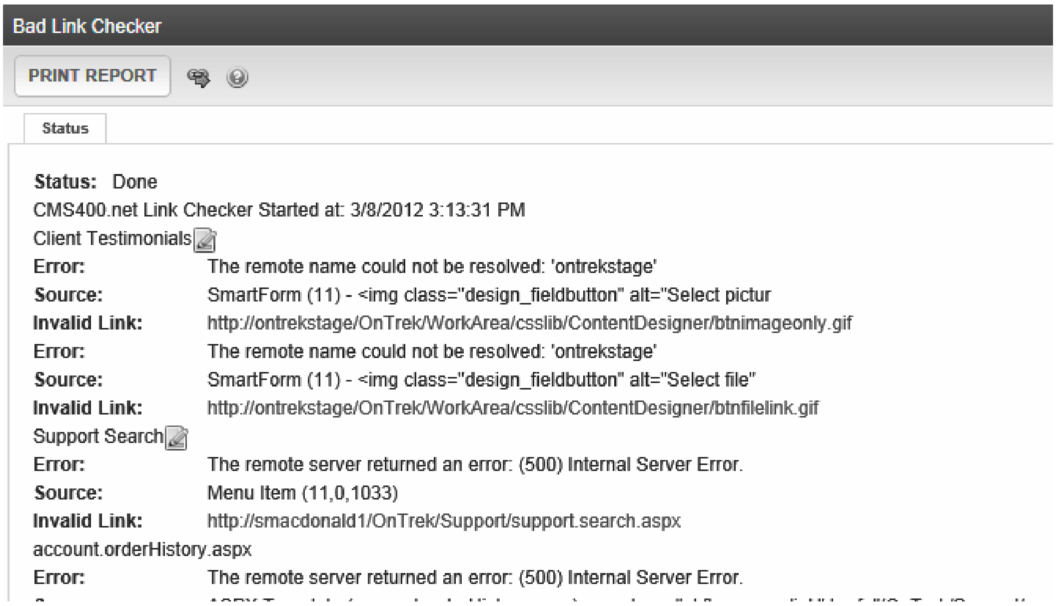
NOTE: The report does not check quicklinks embedded in the content.

The report scans the following types of content.

- published HTML content
- published XML content
- HTML forms
- XML Smart Forms
- menus
- active system templates

When the scan is complete, the report lists any item that includes an invalid URL. From the list, you can click a button to access the item, then update or remove the bad link.

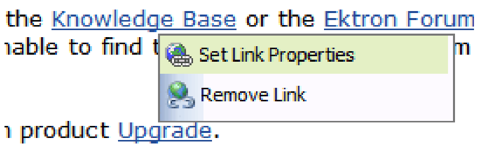
To run the Bad Links Report, go to **Reports > Contents > Bad link report**. You immediately see its status, either Done or Running.

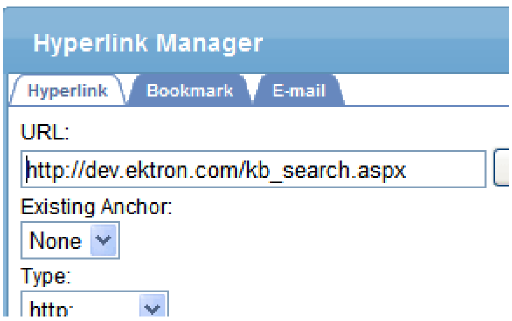


- To begin, click **Check Links** ( ). As the report progresses, existing data is replaced by new data.
- While the report scans content, you can work in other areas of Ektron and even sign off. These actions have no effect on the collection of data.
- After content is scanned, the report's status changes to **Done**. If desired, print the report by clicking **Print**.
- To launch the broken link in a browser, move the cursor over it and click when the cursor turns into a hand.

Fixing a Bad Link

1. Click **Edit** ( ).
2. Select the indicated text.
3. Right-click and select **Set Link Properties** to access the hyperlink dialog.
4. Update or remove the bad link.
5. Save your changes.





Excluding Pages from the Bad Link Report Process

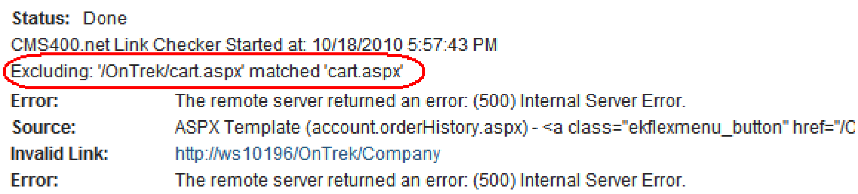
You can exclude links or pages from the Bad Link Report process because it is unnecessary or undesirable to test them. For example, you want to exclude pages with

- links that log out of the site or Workarea
- links that go to Pay-per-Click
- links that start another process or register an event
- links to new content you have not published

To exclude pages from this process:

1. Edit the file `[siteroot] > Workarea > ekbadlinkrpt.excludes`.
2. Enter a string to exclude—one per line. Any URL that contains this string is excluded. Examples:
   - *gif* would exclude all links ending with *.gif*
   - */commerce/cart* excludes links to */commerce/cart.aspx* and /commerce/mycart.aspx.
3. Save the file.

The following shows an excluded URL on the Bad Link Checker status page.



Content Flags

Display a list of flags assigned to content. See Also: *Defining Flags for Content* on page 1239

Content Reviews

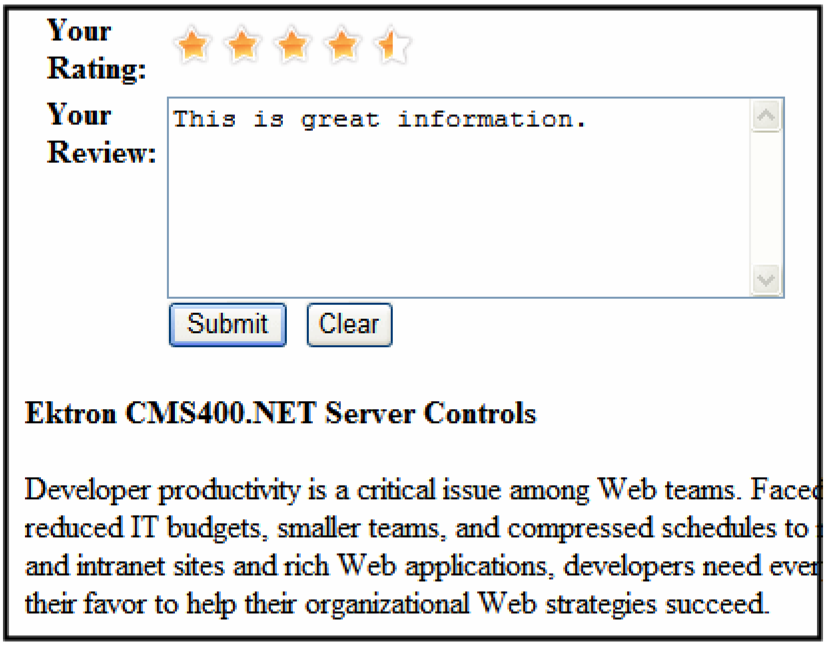
Has pending reviews. See *User-Ranking of Content* on the facing page for more information. See Also: *Viewing Pending Reviews* on page 589

User-Ranking of Content

The Content Review feature lets you:

- place a star-based scale on any page of your website
- let users apply full or half-star rating increments and a comment
- add reviews, depending on how the feature is used
- moderate the review comments
- display reviews and comments next to content for others to see
- run reports to find the highest-rated content; tweak poorly-rated or reviewed content to achieve optimal ratings
- control which reviews get posted through a moderation feature

The ContentReview server control enables Ektron users, membership users, and site visitors to rate and review content on a Web page, and lets you display the reviews on your site. See Also: *ContentReview* on page 1712

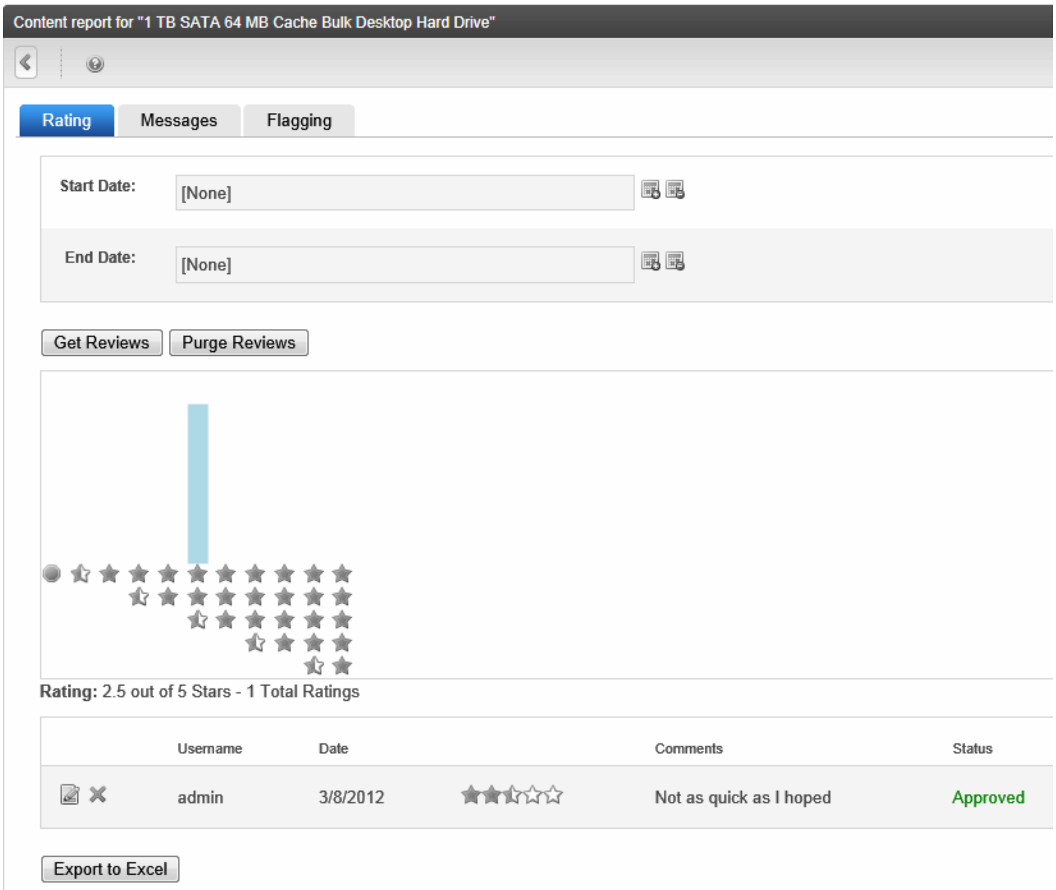


Ektron restricts users to one review per page. If a regular or membership user logs in before rating a piece of content, Ektron remembers the user ID. For any other site visitor, Ektron places a cookie on the person's computer. So, when a page with a ContentReview server control is visited, Ektron checks the user ID and cookie. If neither exists, it displays a rating scale. If the user already rated the page, the user can edit the review but not enter a new one.

NOTE: If you are not logged in as an Ektron or membership user, the browser must have cookies enabled to submit a content review.

Viewing a History of Reviews

1. Go to **Workarea > Content >** the folder that contains the content.
2. Click the content item.
3. Click **View Content Reports** ( ). (For an eCommerce catalog entry, select **Reports > Content Statistics**.) The **Rating** tab is selected by default. If desired, enter a range of start and end dates.



4. Click **Get Reviews**.
5. If Microsoft Excel is installed on your computer, you can export the ratings detail to Excel for further data manipulation. To do so, click **Export to Excel** at the bottom of the Content Report.

Moderating Reviews

Ektron lets you *moderate* reviews. This means that a review must be approved by an Ektron user who has Edit permission for the content before it appears on your site. You enable or disable this capability via each ContentReview server control's `Moderate` property. The options for authorized users to moderate reviews are as follows.

- **Workarea > Smart Desktop > Content Reviews**
- **Workarea > Reports > Contents > Content Reviews**
- **Content Rating** screen associated with a content item

Upon viewing a pending review, an authorized user has 3 choices.

- approve it—your website displays the review
- decline it—it is stored with the content's review history but is not visible on your site

- edit it—update then approve it; your website displays the edited version

If a ContentReview server control is moderated, the following occurs.

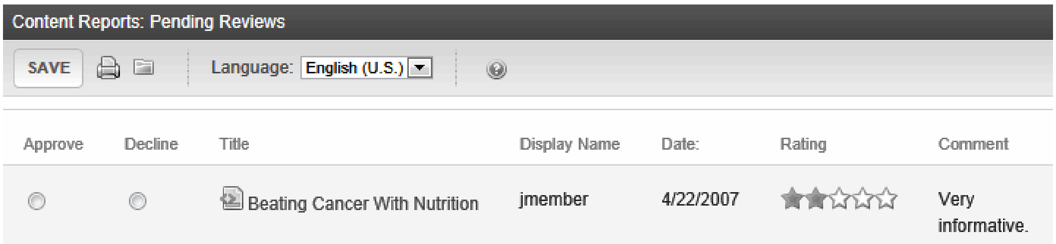
- a site visitor sees a submitted review only after it is approved.
- an Ektron user can view the status of his or her review by logging into the Workarea and clicking **Reports > Contents > Content Reviews**.

If a review was rejected or has been pending for too long, the user can submit another.

Viewing Pending Reviews

1. From the Smart Desktop, click the Content Review widget.

   You can approve or decline reviews from the Content Review widget. But if you click **View All>** and proceed to the Pending Reviews screen, you have additional options.
2. Click **View All>**. The Pending Reviews screen appears. You can also access the Pending Reviews screen from the **Workarea > Reports > Contents > Content Reviews**.
3. From there, you can
   - Approve or decline a review—click the appropriate radio button



   - Edit a review's rating, review, or status—click its title and an edit screen appears. Change as needed.
   - Print pending reviews—click **Print** ().
   - Email—click **Email** () to email this report to Ektron users. Next, select recipients, then click **Email** ().
   - Filter reviews by folder— Click **Folder** () and navigate to the folder that contains pending reviews. Then, click **Save**.
   - Filter reviews by language—from the Language drop-down, select the language of the pending reviews.

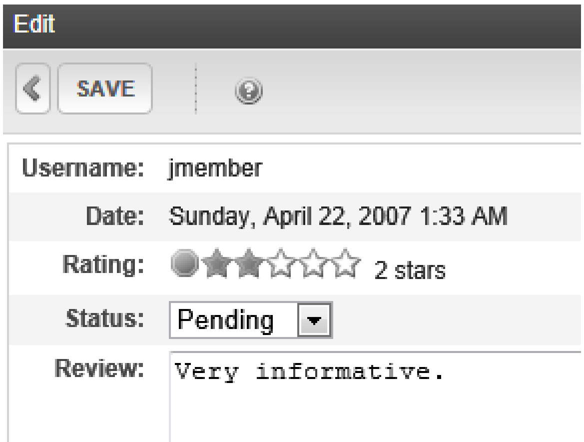
   NOTE: To delete a review, use the Content Review Screen. See Also: *Moderating Reviews from the Content Review Screen* below
4. After you approve or decline reviews, click **Save**. Approved reviews appear on the site.

   NOTE: A site visitor can change his or her review at any time, even if its status is pending or rejected; then, the information is updated in the Workarea, and the review's status changes to pending.

Moderating Reviews from the Content Review Screen

1. In the Workarea, navigate to the content item.
2. Click **View Content Reports** ().

3. Click the **Rating** tab.
4. Click **Get Reviews**. A list of reviews appear for the content.
5. Click the date of content to be moderated. The View Content Review screen appears.



- To change information on this screen, click **Edit**. From the Edit screen, you can change the rating, review and status. When finished, click **Save**.
- To delete the review, click **Back** ( ) then **Delete** ( ).

Purging Review Data

1. Within the Workarea, navigate to the content.
2. Click **View Content Reports** ( ).
3. Select the date range of the data you want to purge using **Start Date** and **End Date**.
4. Click **Purge Reviews**.
5. Click **OK** to the confirmation message.

Using the Map Server Control

The Map server control displays a map that flags locations of interest. Each location is an Ektron content item to which map information was added. For example, if your site hosts a school district, each location could represent one school. For information about Map server control properties, see *Map* on page 1765.

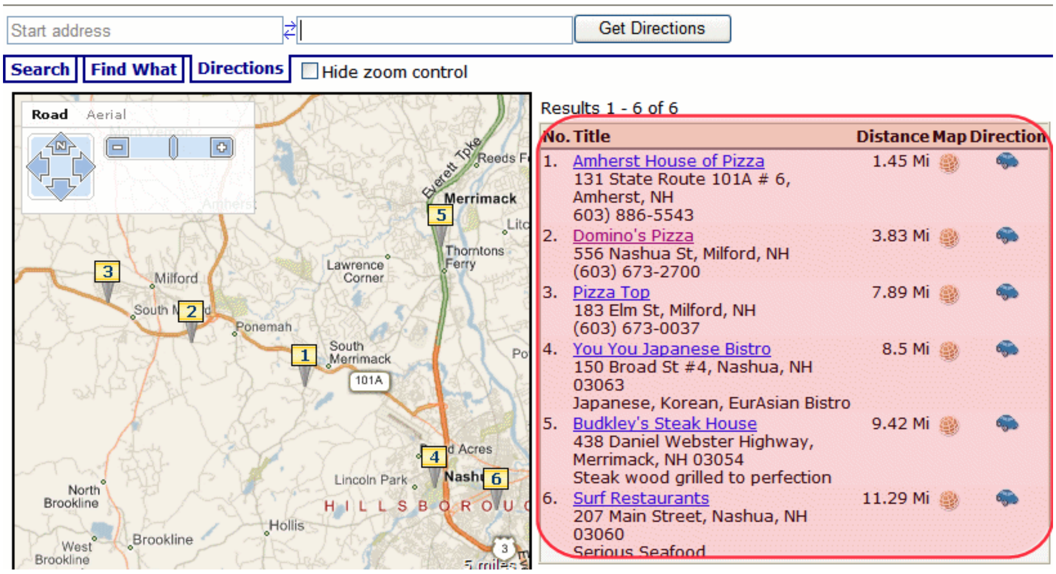
You can zoom the map in and out, get directions to a location, and narrow the list of locations using a text search. For example, if your map initially flags all schools in a geographic area, you can redraw the map to show only schools with a gym.

If you want the map to show events, you can apply dates to Ektron content, which allows searching by date or location.

IMPORTANT: As a map's boundaries change, only locations within boundaries appear. Likewise, if a date is assigned to content, only content within the selected date range appears.

If a map has at least one flagged location, a box can appear to its right with information about each location, which are sorted by distance to starting location. From this box, you can:

- view content to which the location is assigned
- find the distance to a location
- center the map on a location
- get directions to a location



- **No.**—Map item number. The lowest numbered item is closest to the map's center.
- **Title**—The content that corresponds to the numbered map location. Click the title to access that content on your website. The text below the title is the Metadata **Map Address** field, followed by the Metadata **Description** field (see illustration below).
- **Distance**—Distance from the map's center to this content location.
- **Map**—Click icon to recenter map on this content's location.
- **Directions**—Click icon to select the **Directions** tab and paste this content location's address into the end location box. You could then enter a starting location to get directions to this location.

When you hover the cursor over a numbered map location, a text "bubble" appears.

Bubble information:

- **Title**—Content that corresponds to the numbered map location. Click the title to proceed to that content on your website.
- **Summary**—Value of the content's **Summary** tab.

- **Metadata description**—Value of the content's **Metadata Description** field.
- **Get Directions**—Click **To Here** or **From Here** to select the **Directions** tab and paste this location's address into the To or From location box. Then, supply the missing location to get directions between locations.

Using Maps on the Sample Site

You can view maps on Ektron's sample site. To do so, open the home page (http://*your server address*/*siteroot*/default.aspx). Then, choose **Contact Information > Map VE** or **Contact Information > Map Google**. If you want to work with these maps in VisualStudio.NET, the Bing Maps for Enterprise map is on the map.aspx page. The Google map is on `mapgoogle.aspx`.

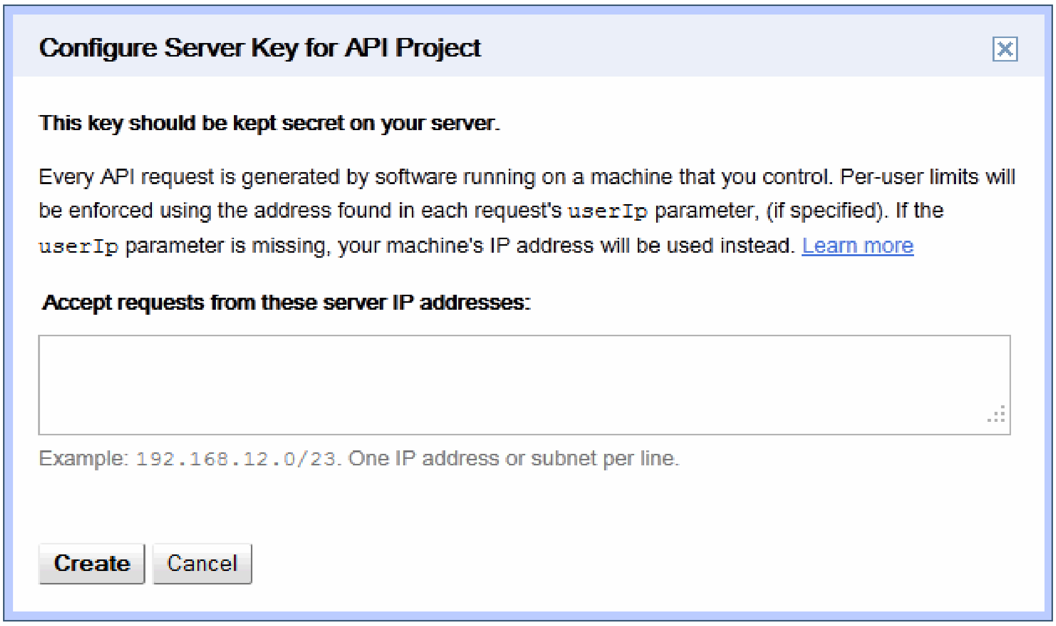
Ektron provides a Google map key that you can use for testing on localhost. But, if you want to use Google map with your production server, you must install a license key.

Obtaining a License to Use Google Maps

Before your production server can use Google's map feature, follow these steps to obtain and install a license key. For Google Map's terms and conditions, see [Google Maps/Google Earth APIs Terms of Service].

1. Go to [Google APIs].
2. Log into (or create) your Google account.
3. Click **Services** from the left navigation panel.
4. Enable **Google Maps API v2**.
5. Click **API Access** from the left navigation panel.

6. Click **Create new Server key...**



7. Enter 1 or more server IP addresses and click **Create**. A key is created for server apps and browser apps (such as AIzaSyBcN7RJzxr4f-iOOfdMwUq9op-5xrtOh3M).
8. Without closing that page, open the *site root*/web.config file.
9. Go to the line that begins <add key="GoogleMap".
10. Within that line, replace the following localhostkey with the key you just created.

```
key="AQWESyCAtPrvLE6I2RTS7xK1-3btrrTO0eO6543"/>
```

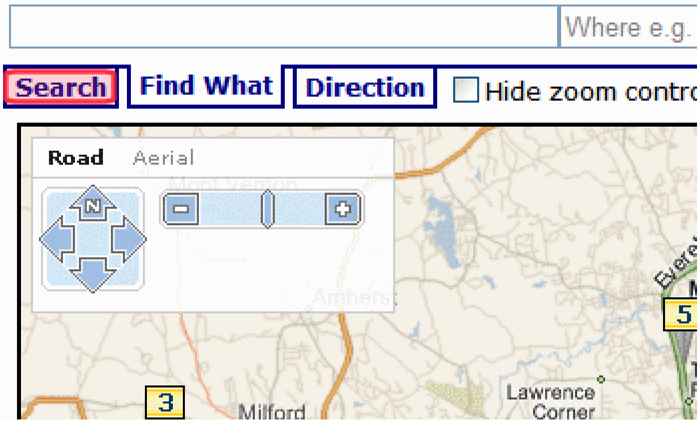
Controlling the Map Experience

NOTE: Within Visual Studio, you cannot see the map in design mode. But, you can right click the mouse and select **View in Browser** to see the effect of changing properties in a browser.

For information about customizing the display using the Ektron Markup Language, see *map.ekml* on page 1909.

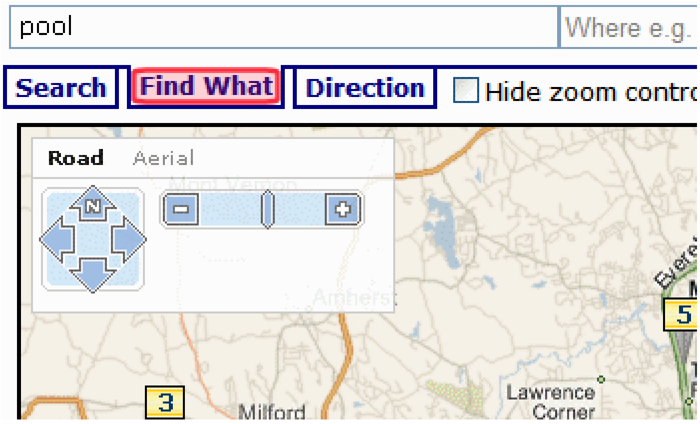
Recentering the Map

The **Search** tab lets you recenter the map on a location. You can enter a combination of street address, city, state and zip code and click **Search**. Only content within that geographic area which satisfies other search criteria appears.



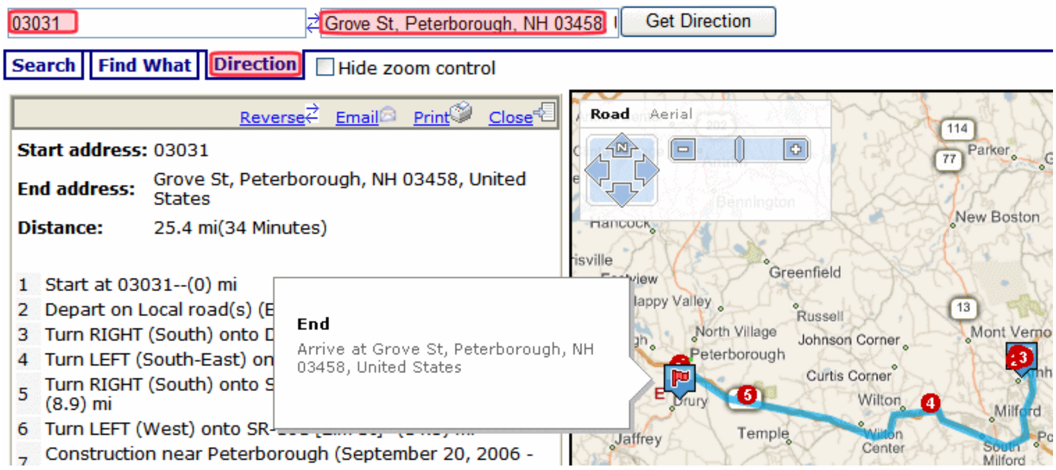
Finding Locations with a Search Term

You can use the **Find What** tab to find only locations that include a search term. For example, if a map flags hotels, you can click the **Find What** tab then insert **pool** in the text box above to view only hotels with a pool. The **Find What** tab uses the same logic used in the Web Search to find content on your site.



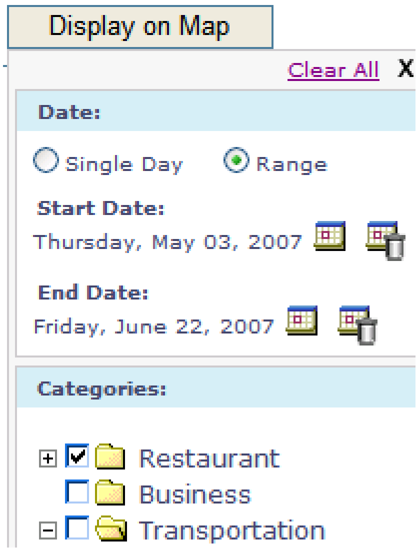
Getting Directions

Use the **Directions** tab to get directions between 2 locations. Enter a combination of street address, city, state, and zip code into both text boxes above the tabs and click **Get Directions**. The screen displays text directions on the left, and a map of the directions on the right.

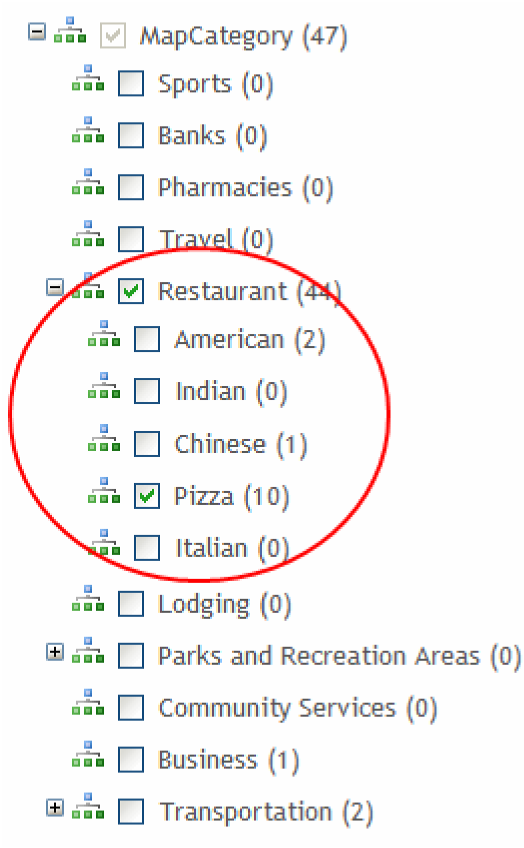


Restricting Locations to Taxonomy Categories

If you use Ektron's taxonomy feature to classify mapped content, you can click **Display on Map** to restrict the map's locations to content in your categories. The popup window also prompts you to select one or a range of dates, and only retrieves content to which one of the selected dates is assigned.



For example, the category **Restaurant** has 5 subcategories in Ektron's sample site.



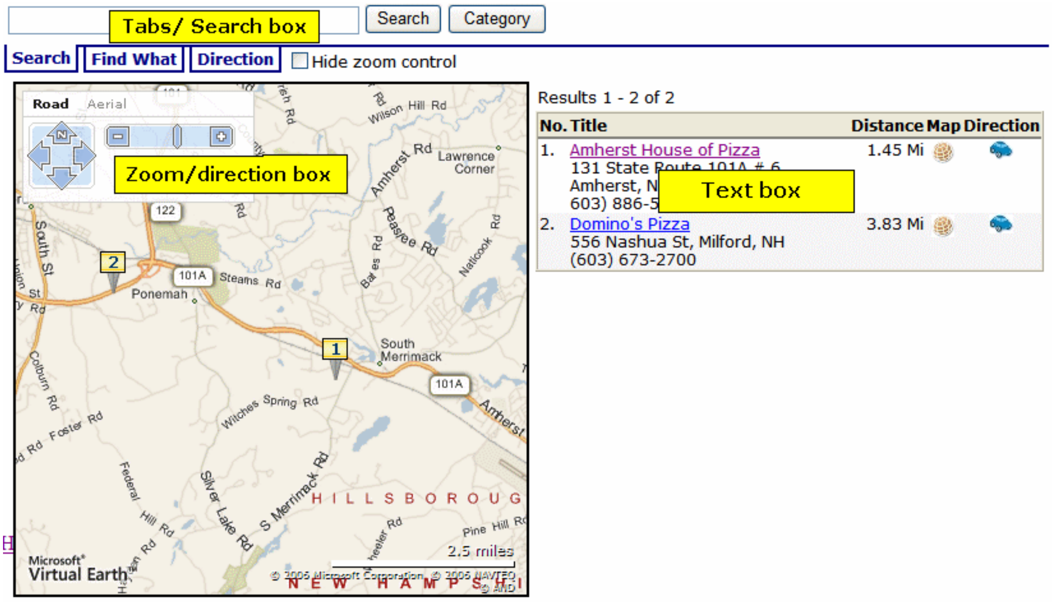
When you use the map, you can click **Display on Map**, see your content's categories, and select those of interest. The map updates to show content in selected categories only. To learn about assigning taxonomy categories to content, see *Using Taxonomies* on page 777.

NOTE: While an OR logical relationship among selected categories is the most intuitive and common, you can set up AND or NOT relationships among categories.

Displaying/Suppressing Map Elements

You can use Map properties to display or suppress the following map elements.

- Tabs/Search box—GeoControl
- Text box—DisplayTextResult
- Zoom/direction—ZoomControl; for Bing Maps for Enterprise maps, this property also controls the Map type selection.
- Map type (road, satellite, combination)—TypeControl; affects only Google maps.



Setting a Map's Initial Boundaries

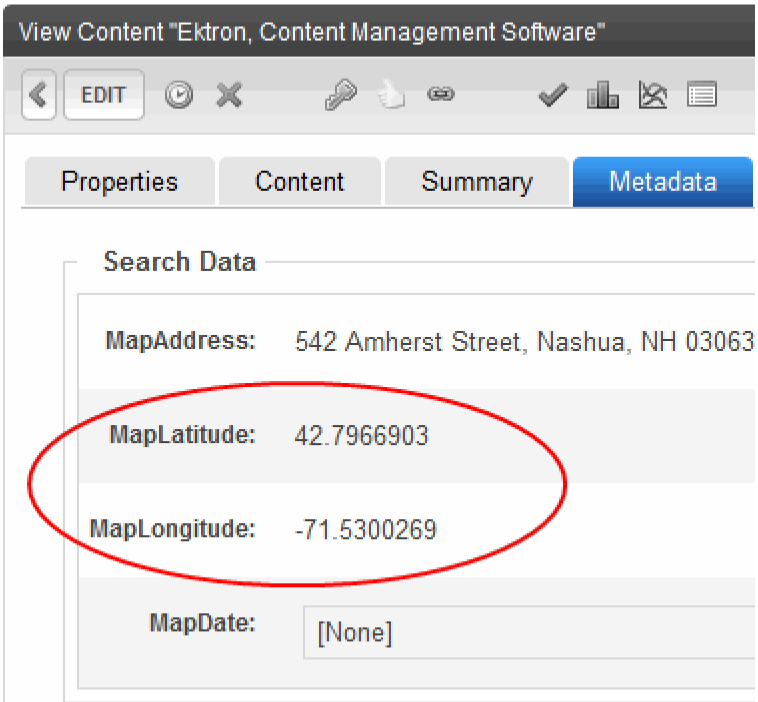
Because the map only displays content whose address lies within the map's boundaries, focus the initial display on your businesses/locations. Map properties let you specify a beginning address (or longitude/latitude) and a starting zoom level. All content with address data within that area is flagged on the map.

If your locations are too spread out to appear on a single map, create several regional maps. Each map server control must appear on a separate Web form.

IMPORTANT: You cannot place more than one map server control on a Web form.

Setting Content Found on a Map

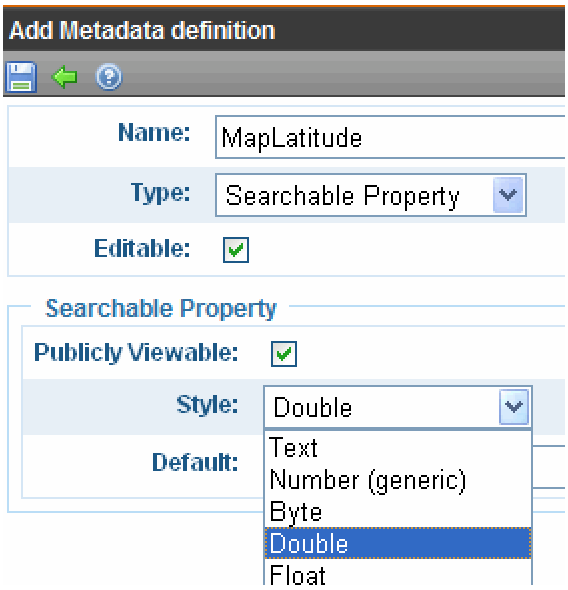
Whether you use Google or Bing Maps for Enterprise maps, content must have latitude and longitude values to appear on a map.



Google maps take a content item's address and return its latitude and longitude. You don't need to use Google's automatic retrieval of latitude and longitude. Instead, you can enter the values manually. To do so, open the content item, go to its metadata, and enter the latitude and longitude values under **Search Data**.

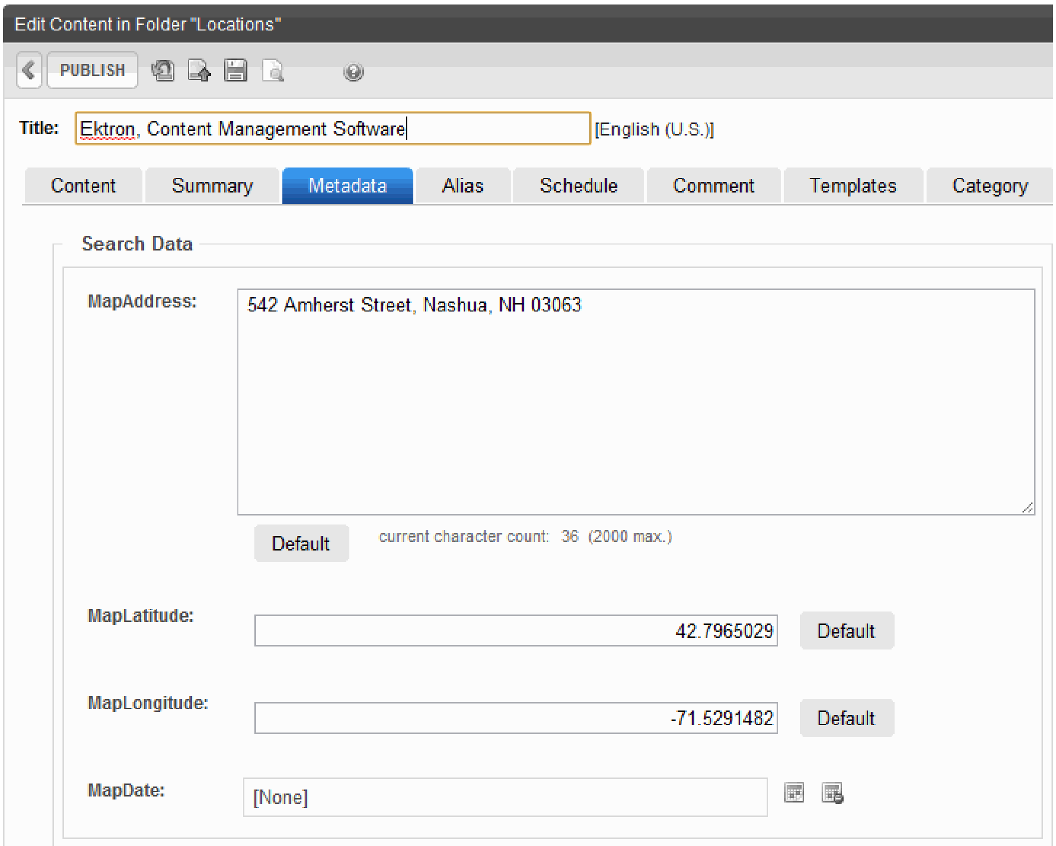
To automatically obtain latitude and longitude information for a content item:

IMPORTANT: The following procedure assumes you are using Ektron's sample site. If you are using the Min site, you must create searchable metadata definitions for **Map Address**, **Map Latitude** and **Map Longitude**. When defining **Map Latitude** and **Map Longitude**, set their **Style** to **Double**. If you are using dates with metadata, set **MapDate**'s style to **Date**.



1. Obtain a Google maps license key. See *Obtaining a License to Use Google Maps* on page 592

2. Create the content if necessary. On the content's **Metadata** tab, under **Search Data**, enter a **MapAddress** (that is, any combination of street, city, state, and zip code).



If you enter only a zip code, the latitude and longitude are set to that post office.

3. Publish the content.

   This action creates the Web Service call to Google maps, which retrieves the latitude and longitude for each address. If Google maps cannot find a latitude and longitude (usually due to insufficient or conflicting information), it writes failure information to your server. You can view this under **Windows Event Viewer > EktronLog**. Any event's properties explain why the retrieval of latitude and longitude failed.

Restricting Content for a Particular Map

You may want a map to show a subset of all content with a latitude and longitude. For example, your business includes restaurants and bakeries, and you want a map to show only bakeries.

To accomplish this, place content for restaurants in one folder, and bakeries in another. Then, in the map server control that shows bakeries only, at the `FolderID` property, identify the bakeries folder.

If you want another map to show both restaurants and bakeries, create the restaurant and bakery folders under a parent folder. Then, in that map server control's `FolderID` property, identify the parent folder, and set the `Recursive` property to **true**.

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14

Analyzing Content

Ektron has 2 types of analytics.

- **Business Analytics—**uses Ektron server controls to track activity, store the information in the database, and report on that information.
- **Web Traffic Analytics—**uses an outside service provider, such as Google Analytics to monitor all aspects of Web traffic to your site and report on that information. See *Analyzing Content* on the previous page.

Business Analytics

The Business Analytics feature lets you track statistics about visits to your website. You can use it to determine the following kinds of information:

- how often your content was viewed
- how many site visitors viewed for first time, and how many returned
- the most popular referral pages (that is, the Web page from which visitors clicked to arrive on your site)

Several options for selecting a date range let you compare activity across different weeks, months, and years.

By default, the Business Analytics feature is disabled in the `web.config` file. To enable it, set the value of the `ek_enableClassicAnalytics` property to true. If you set this property to `true` and later change it to `false`, statistical data remains within Ektron, but no additional data is collected.

```
<add key="ek_enableClassicAnalytics" value="true" />
```

Specifying the Frequency of Writing to the Database

After you set up the Business Analytics feature, your database is subject to a continuous barrage of write activity, generated by visits to your site. To optimize your database's performance, you can hold visit activity in application server memory until a predetermined amount of data is collected. When collected, it is moved in one packet to the database. So, the database is "hit" much less frequently.

Specify the amount of data saved in memory prior to being written to the database using these `web.config` file elements.

- `recordsBeforeWrite`—the number of unique template visits
- `timeBeforeWrite`—the number of seconds since the last time a database write occurred

When either element reaches the value set in `web.config`, all records stored in memory are written to the database. That event resets both elements to zero (0).

Captured Statistics

For every template view, the following statistical information is captured.

- **url—**the visited page
- **content_id**—the ID of the visited content. Captured by the Analytics server control. *Tracking Clicks by File Type* on page 631
- **visitor_id**—a unique GUID that identifies a visitor
- **hit_date**—date and time when a page view occurred

- **referring_url**—the URL a user was viewing before jumping to the visited page
- **visit_type**—zero (0) indicates new visitor, 1 indicates returning visitor, 2 indicates all other views. After a user logs on, the first page hit tracks the visit as zero (0) (if the user is new) or 1 (if the user previously visited the page). From then on, 2 is logged for that user.

In addition to writing Business Analytics data to the database, you can write it to the IIS log. To do this, enable the `appendToIISLog` element in the `web.config` file. Note that if you set `appendToIISLog` to `true`, some Business Analytics data is only written to the IIS log and does not appear in the Workarea.

Tracking New and Returning Site Visitors

The Business Analytics feature provides information about visits made by *new* versus *returning* visitors. To capture this data, the feature asks this question whenever a page is visited: is the user logged in as either a membership or regular user?

- If yes, capture the user ID with the statistical data
- If no, place a cookie on the visitor's computer

The next time the user visits that page, the feature checks the visit history for the user ID, or for a cookie. If either is found, the visit is considered a return.

The same user visit may be considered new on one view but not on another. For example, someone visits on January 30 (Monday) then again February 2 (Thursday). On the monthly statistics, that visitor is new, but on the weekly statistics, the February 2 hit would be a return visit (his second this week).

Now consider a second visitor, who browses to your site on the first and 20th of the month. These visits appear on weekly statistics as 2 new visits, but on the monthly statistics, only the first visit would show up on that month's tally of new visitors. The second visit would add to the return visitor statistics.

Reporting Business Analytics

The Business Analytics feature's reports let you drill down from the entire site to individual templates to individual content items.

PREREQUISITE

In your site's `web.config` file, the `ek_enableClassicAnalytics` setting is set to `true`.

NOTE: The Most Popular and Trends widgets also report on Business Analytics data. See *Most Popular Widget* on page 607 and *Trends Widget* on page 610.

To access Business Analytics Reports:

Either

1. Browse to a content item for which Business Analytics data is being captured.
2. Right click the mouse.
3. Choose **View Template Activity** to see Business Analytics data for the current content item (to learn more about data captured for one content item, see *Content View* on page 605).
4. Choose**View Site Analytics** to view Business Analytics data for the entire site.

or

- From the **Ektron** Workarea, choose **Reports > Business Analytics** to view analytic data for the entire website. The following reports are available.
  - *Analyzing Site Statistics* below
  - *Content View* on the facing page
  - *Templates* on page 606
  - *Referrers View* on page 606

Analyzing Site Statistics

The following table shows analytic statistics available for each level of the site.

Type of Statistical Information	Site-wide	Template-Level	Content-Level
Views of Any Template	✓	✓	✓
Visitors: New and Return	✓	✓	✓
Pie Chart of New vs. Return Visitor	✓	✓	✓
Pie Chart of Views/Visitors Ratio	✓	✓	✓
Bar Graph of Views/Visitors Ratio	✓	✓	✓
Visited Pages	✓		
Visited Content Blocks	✓	✓	
URLs from which Site Visitors Accessed Ektron	✓		

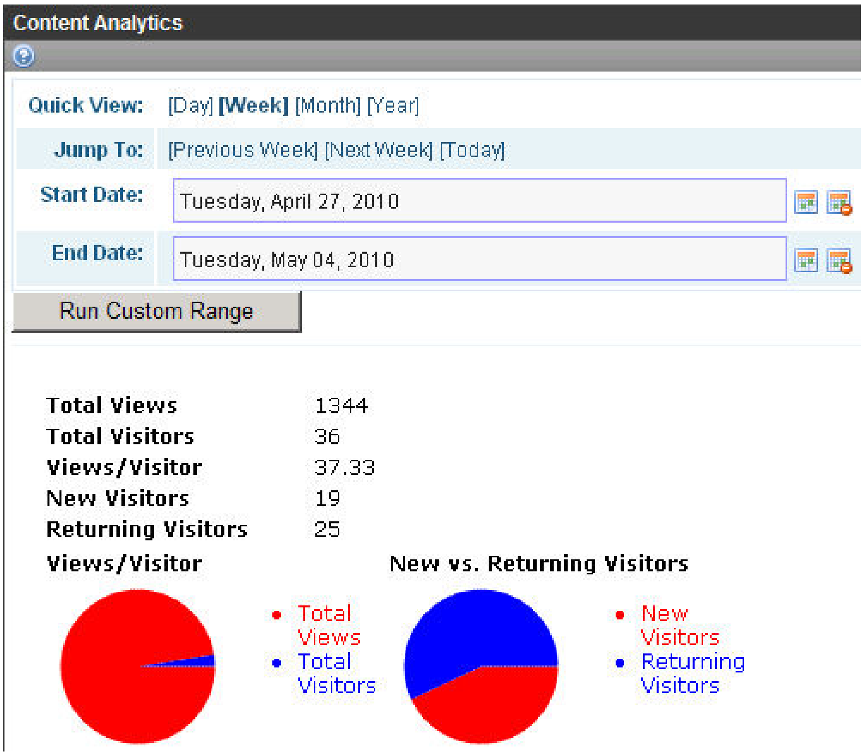
Site Statistics View

The Site Statistics view offers an overview of tracked activity within the selected date range. You see actual data for the

- number of views
- number of visitors
- ratio of visitors per view
- number of new and returning visitors
- ratio of new to return visitors

  See Also: *Tracking New and Returning Site Visitors* on the previous page.

Below this are pie charts of the ratio of views to visitors and new vs. return visitors.



Content View

The Content View shows the most frequently-accessed content on your website.

Click any content item to view:

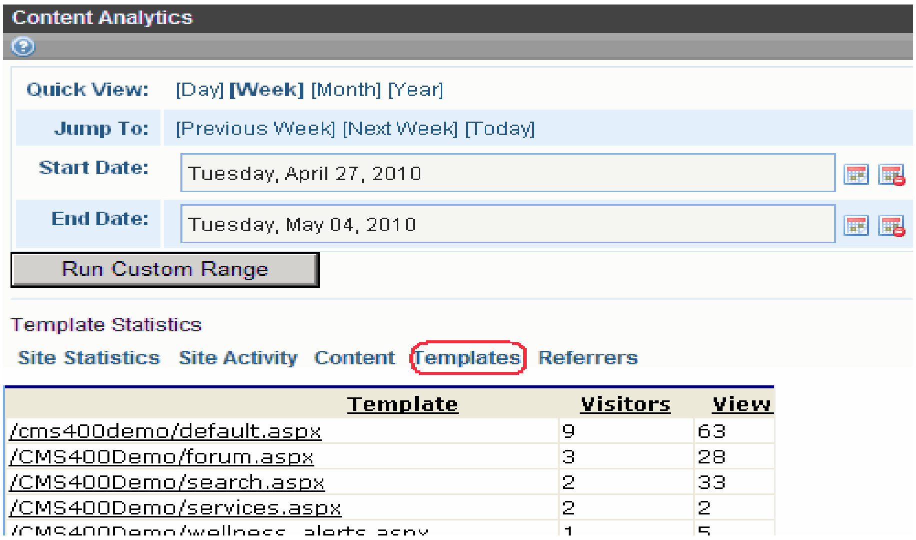
- **Content Statistics—**statistics for that content item only (See Also: *Analyzing Site Statistics* on the previous page)
- **Content Activity—**relative activity for that content item only (See Also: *Content View* above)
- **Audit Content—**all users who viewed the selected content; to the right of each user are the date and time when content was viewed

NOTE: Only users who viewed content after logging in appear on the list. Site visitors who do not log in affect statistics but are not tracked on this report.

Templates

The Templates View shows all viewed templates on your website, with the most frequently-accessed ones on top.

By default, the templates at the top have the highest number of unique visitors. You can change the sort by clicking any column header. For example, to sort templates by the number of views, click **Views**.

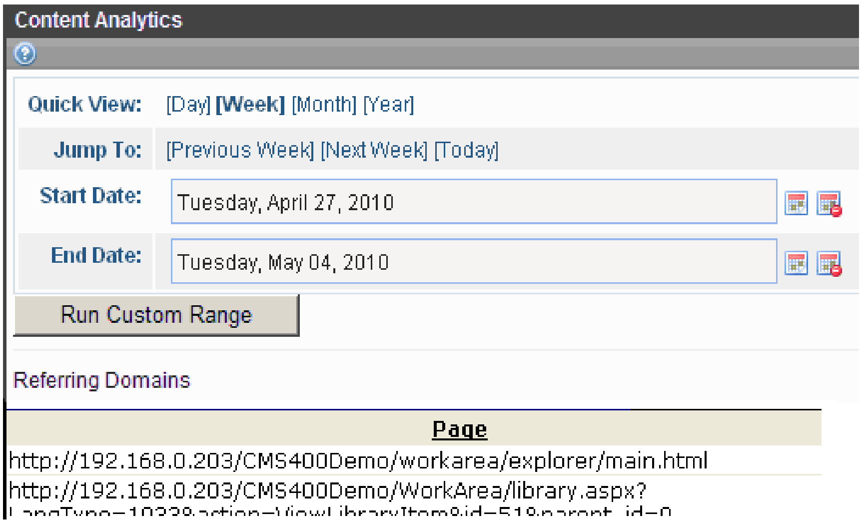


You can click any template to view

- **Template Statistics—**statistics for that template only
- **Template Activity—**relative activity for that template only
- **Content in Template**—if a content item was specified for the template in the Content Analytic server control, this view show statistics for the template. You can click the template to view Template Level activity.

Referrers View

The Referrers View shows domains from which your site was most frequently accessed.



Changing the Date Range of the Statistical Data

When you first view statistical data, the default date range is today (one day).

If you view statistics for different date ranges, when you return to the screen, the last selected date range is the default selection. You can change it if needed.

Using Quick View Options

Use Quick View options to view analytics for any of these time periods.

- one day
- one week
- one month
- one year

When you click **Quick View [week], [month]** or **[year]**, the current end date is used as the last day of the range. Here are some examples.

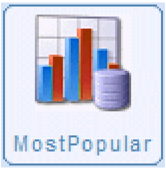
- Week—If end date is today, begin date is one week earlier than today
- Month—If end date is today, begin date is one month earlier than today
- Year—If end date is today, begin date is one year earlier than today

Using Jump To Options

Use **Jump To** options to view statistics for a time period before and after the current date range. The time period is determined by the Quick View increment. For example, if the Quick View option is **Day**, you can jump to the previous day, the following day, or today.

Regardless of the Quick View increment, you can always view statistics for today.

Most Popular Widget



The Most Popular widget reports on these categories of content on your website. By default, every Most Popular widget tab shows up to 5 results.

- Most Viewed
- Most Emailed
- Most Commented
- Highest Rated

You can place the Most Popular widget onto any PageBuilder page. See Also: *Creating Web Pages with PageBuilder* on page 659

NOTE: You cannot place more than one Most Popular widget on a PageBuilder page. Also, you can hide up to 3 tabs if you do not want all of them seen.

The Most Popular widget references *content events*, which are Ektron events that are tracked when used with various server controls. Here are 2 examples of a content event:

- for the Most Viewed tab, the content was viewed and tracked by the Analytics Tracker server control. See Also: *Analytics Tracker* on page 1642
- for the Most Emailed tab, the content was emailed from the Social Bar server control

The Most Popular widget displays content items that meet these criteria.

- the content is tracked by a server control
- content events occurred within the date range set in the Most Popular widget properties. The default value is 7 days, but you can change it if desired. See Also: *Reporting Business Analytics* on page 603
- the content is assigned to a selected folder or taxonomy. By default, the widget has no folder or taxonomy restrictions. But the properties screen lets you restrict results by folder or taxonomy.
- the content is among the highest rated content items for that tab.

  For example, if the **Most Viewed** tab shows the top 5 content items (the default setting), content that has not been viewed as frequently as the top 5 does not appear. Consider the following example.

Content ID	Number of Times Content has been Viewed within Date Range
30	87
259	82
316	78

Content ID	Number of Times Content has been Viewed within Date Range
12	78
658	67
243	62

In this case, content ID 243 does not appear on the Most Popular widget because it is sixth in the frequency of viewing rank.

Each time a content item is used with one of the following server controls, its count for that day is incremented by 1.

- *Analytics Tracker* on page 1642—Most Viewed tab—A site visitor browses to a page that is tracked by the Analytics Tracker server control. The control lets you determine which content is counted when the page is viewed.
- *SocialBar* on page 1845—Most Emailed tab—A community group member browses to a page that hosts the Social Bar server control, and emails a content item to a friend. (The SocialBar server control must be associated with content.)
- *MessageBoard* on page 1786—Most Commented tab—A Community Group member browses a page that hosts the Message Board server control and comments on a content item on that board. (The MessageBoard server control must be associated with content.)
- *ContentReview* on page 1712—Highest Rated tab—A site visitor browses to page that hosts the Content Review server control, and uses the control to rate a content item.

Next to each content item is a count. The count indicates the number of times a content event occurred for that content item within the specified time frame. See Also: *Reporting Business Analytics* on page 603

Note that the date range may affect the count. For example, if a content item was viewed once a day for the past 10 days but the date range is set to 7 days, the count is **7**. To change this maximum:

1. Open `siteroot/widgets/mostpopular.ascx.cs`.
2. Find the following line `private int _PageSize = 5;`.

3. Change the number at the end of the line to the maximum number of results to display.

NOTE: This setting affects *all* tabs and instances of the Most Popular widget.

A logged in user can change the properties that determine what appears on the **Most Viewed** tab. To do so, click **Edit** ( ).

- **Tab text**—The text that appears on this tab. In the above example, the left tab's text is the default **Most Viewed**.
- **Visible**—Determines if the tab you are editing appears on the widget. At least one tab must appear. Checked is the default.
- **Number of days to report**—The number of days for which to display the data. The default is 7.
  - The current day is not counted, since it is incomplete. So if you enter **1**, you see information for all of yesterday and today.
  - The date calculation is based on the clock on the website's server.

  NOTE: You can change this to any number you wish. However, the widget can only show data for days for which data is stored in your database.

- **Report**—Determines the information appears when a tab is clicked.
  - Tab 1—Most Viewed
  - Tab 2—Most Emailed
  - Tab 3—Most Commented
  - Tab 4—Highest Rated
- **Filter By**—You can restrict the content appears on this widget by selecting a folder (default) or a taxonomy.

While selecting a folder/taxonomy category, you have the option to *include* all folders/categories under the selected one. If you later want to remove this restriction, click **Delete** ( ).

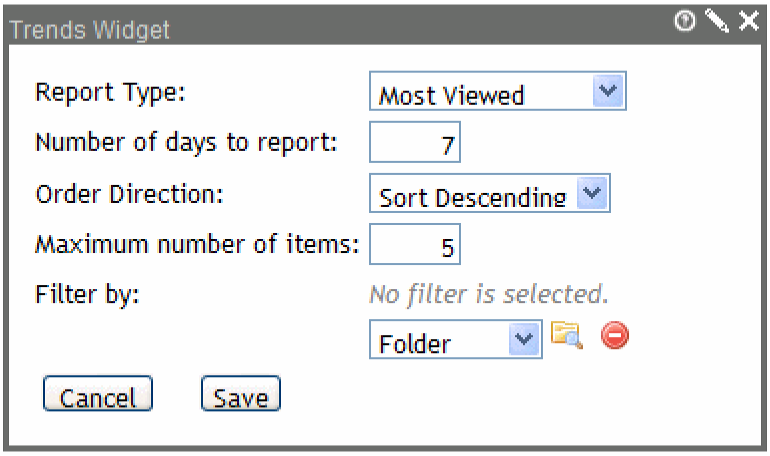
Trends Widget

By default, the Trends widget shows the Most Viewed content on your website. You can edit the widget's properties so that it displays any of the following categories of content instead.

- Most Emailed
- Most Commented
- Highest Rated

The Trends widget is a subset of the *Templates* on page 606, so you should be familiar with that section before reading this. It explains topics such as how Ektron determines which content appears for each category. You can place the Trends widget onto any PageBuilder page. See Also: *Developing Wireframe Templates* on page 676

A logged in user can change properties that determine the appearance of the Trends widget. To do so, click **Edit** ( ). The Trends widget screen appears.



- **Report Type**—Report types are:
  - Most Viewed (default)
  - Most Emailed
  - Most Commented
  - Highest Rated
- **Number of days to report**—The number of days for which to display the data. The default is 7.
  - The current day is not counted, since it is incomplete. So if you enter **1**, you see information for all of yesterday and today.
  - The date calculation is based on the clock on the website's server.

NOTE: You can change to any number you wish. However, the widget only shows data for days for which data is stored in your database.

- **Order Direction**—The direction in which search results are sorted. The default is **Descending**.
  - **Ascending**—Alphabetical results from A to Z; numeric values low to high; dates from oldest to most recent
  - **Descending**—Alphabetical results from Z to A; numeric values high to low; dates from most recent to oldest
- **Maximum Number of Items**—Enter the maximum number of content items that may appear on the Trends widget. The default is 5. The Ektron database maintains a count (number of hits) for each content item, for each date. When you select a number of days, the Trends widget displays the content with the most hits during that date range, up to the number you set in this field.
- **Filter By**—You can filter which content appears on this widget by selecting a folder or a taxonomy.

While selecting a folder/taxonomy category, you have the option to *include* all folders/categories under the selected one. If you later want to remove this restriction, click **Delete** ( )

Business Analytics API

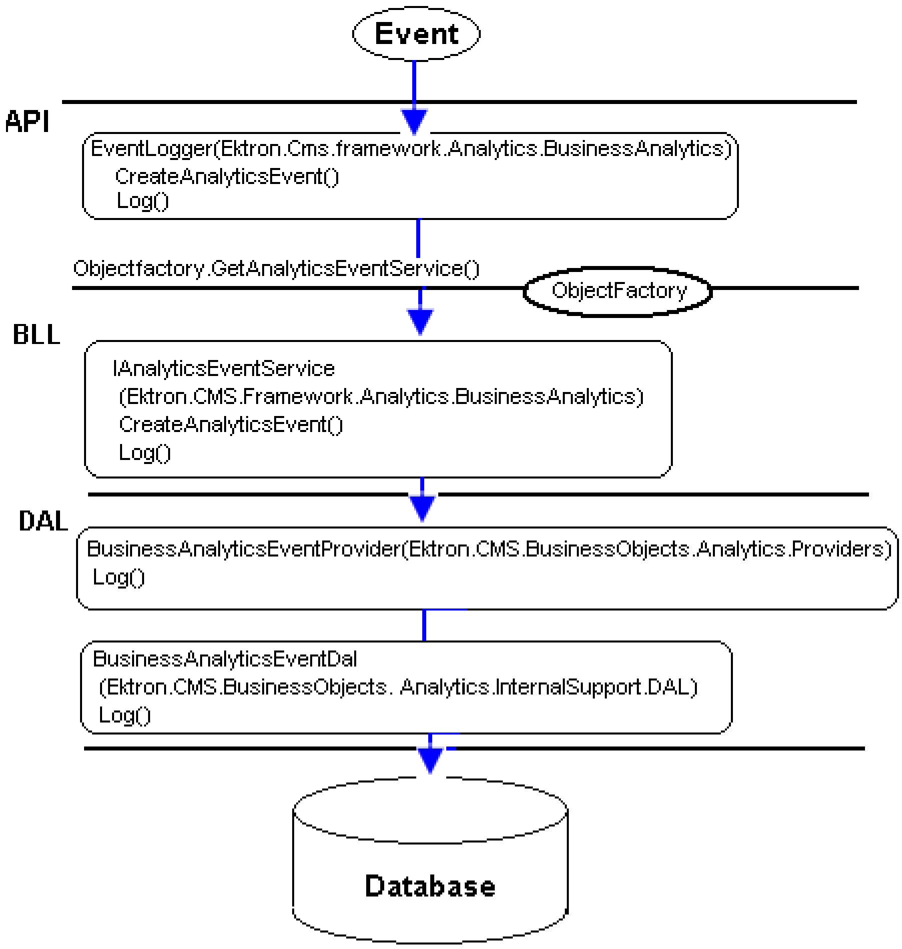
The Business Analytics API's namespace is `Ektron.Cms.Framework.Analytics.BusinessAnalytics` and consists of several static methods arranged into 2 groups:

- those that save events to the database
- those that retrieve the event data from the database for use in reports

NOTE: The demonstration code in this section uses C# syntax.

Saving Event Data

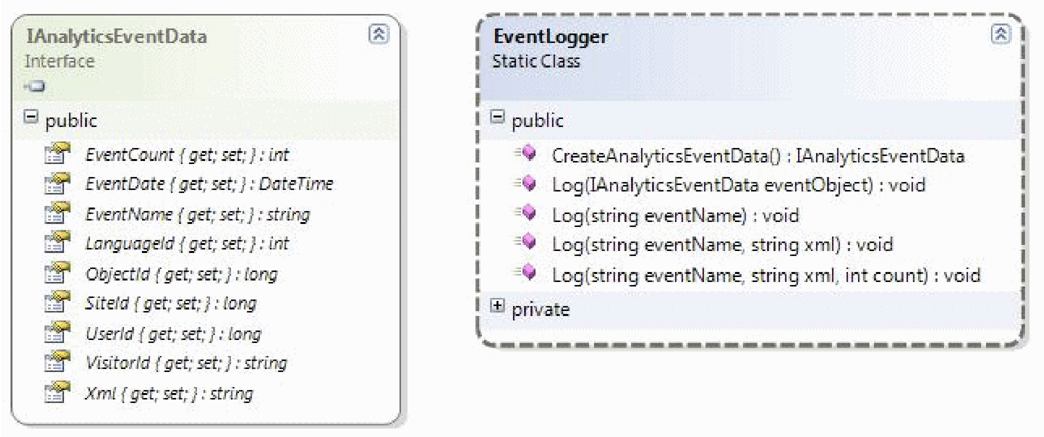
The following illustration depicts *saving* event data to the database.



To save events, use the static class `EventLogger`, which exposes the following methods.

- `IAnalyticsEventData CreateAnalyticsEventData()`
- `void Log(IAnalyticsEventData eventObject)`
- `void Log(string eventName)`
- `void Log(string eventName, string xml)`
- `void Log(string eventName, string xml, int count)`

The `EventLogger` class is illustrated below.



As long as an event (`myEvent`) has been registered in the system, you can store an event like this:

```
using Ektron.Cms.Framework.Analytics.BusinessAnalytics;
…
EventLogger.Log("myEvent");
```

This code saves the event data with default values. As shown, the `Log` method has several overloaded versions. Each provides a different amount of control over the information saved to the database. The following list shows the `Log` method's parameters.

- **eventName** (String)—A name that uniquely identifies the event. This name must be registered and enabled in the database for it to be recorded.
- **XML** (String)—This parameter is purely for customization. By default, its value is null. The API stack passes the string to the database, where the appropriate stored procedure can use it. For example, it can store additional values that are not part of the current event-object
- **count** (Integer)—Allows increments other than the default value of one. For example, you may want a specific event to increment the event counter by 5.

In addition to the parameters listed above, you can set other values by referencing the event object that carries the information to the database. A call to `CreateAnalyticsEventData` returns this object, and can be used as follows:

```
IAnalyticsEventData eventObject = CreateAnalyticsEventData();
```

Through the interface `IAnalyticsEventData`, the object provides the following additional parameters, which allow more control over what information is saved with the event.

- **ObjectId** (Long)—For a content related event, ObjectId should be set to a Content ID.
- **LanguageId** (Integer)—The content object's Language ID. If that is not available, the current request's Language ID.

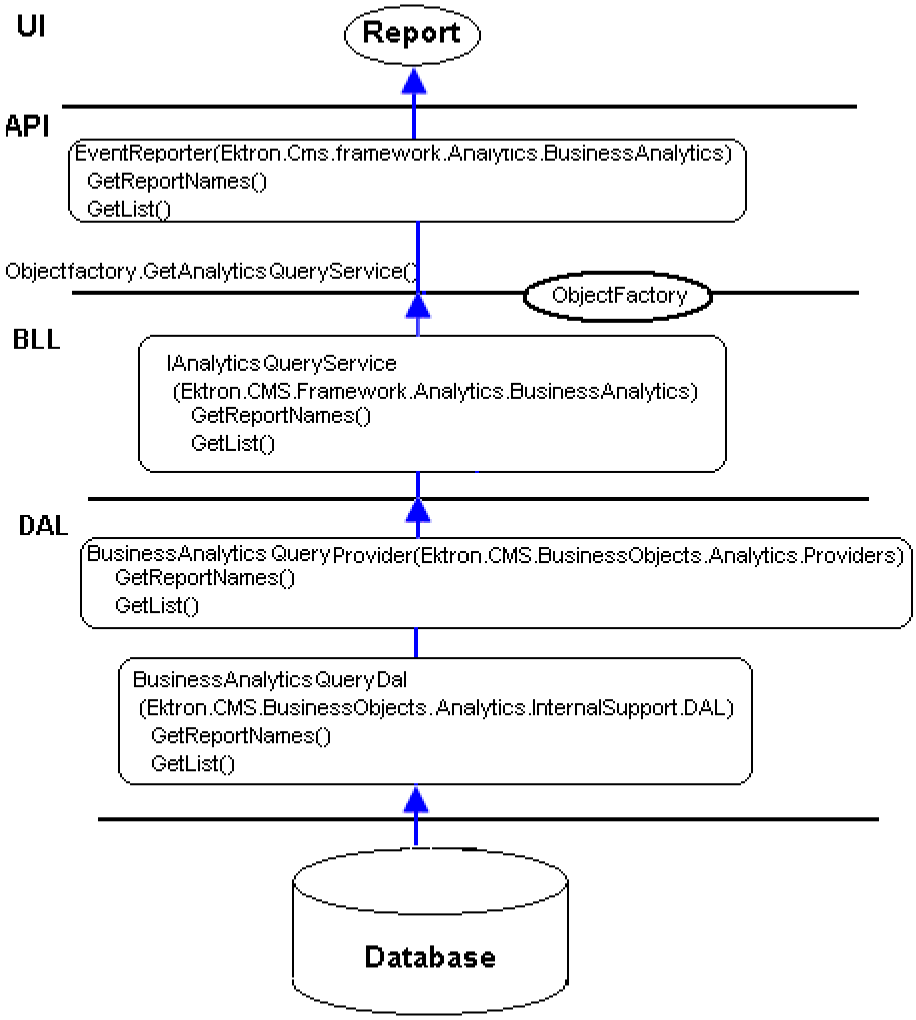
- **SiteId** (Long)—The current request's Site ID

> **NOTE:** A value of **-1** means this value has not been set, and will be updated appropriately at a lower level.

- **UserId** (Long)—The current request's User ID (if logged in)
- **VisitorId** (String)—The current request's Visitor ID (if not logged in)
- **EventDate** (DateTime)—Defaults to current date and time

Retrieving Event Data

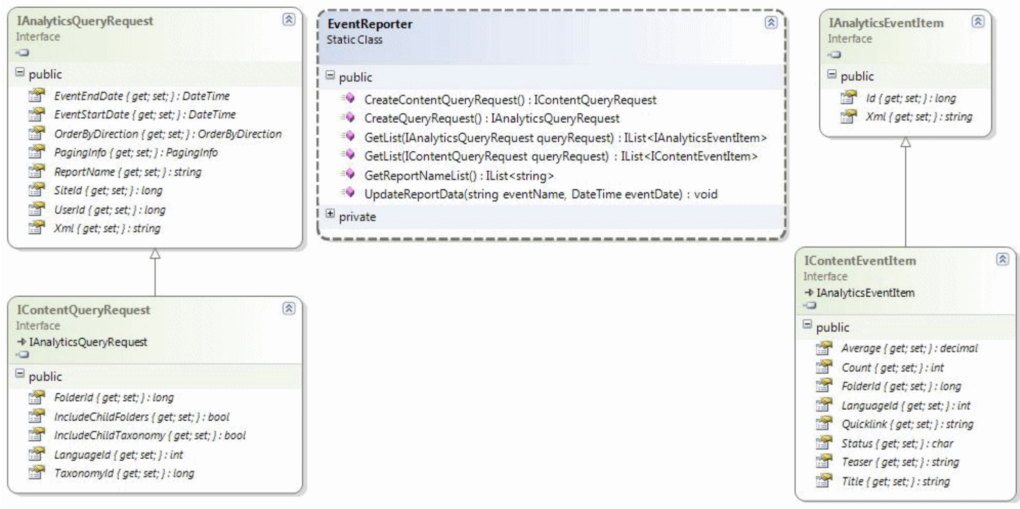
This illustration depicts *retrieving* that data into reports.



Use the static class `EventReporter` to retrieve events stored in the database. This class exposes the following methods.

- `IList<string> GetReportNameList()`
- `IAnalyticsQueryRequest CreateQueryRequest()`
- `IContentQueryRequest CreateContentQueryRequest()`
- `IList<IAnalyticsEventItem> GetList(IAnalyticsQueryRequest queryRequest)`
- `IList<IContentEventItem> GetList(IContentQueryRequest queryRequest)`
- `void UpdateReportData(String eventName, DateTime eventDate)`

The `EventReporter` classes are illustrated as follows.



GetReportNameList Method

Use the `GetReportNameList` method to obtain a list of recognized (e.g., registered) report names. You can extend this list by adding custom event types and their corresponding stored procedure handlers.

For example, to obtain a list of the allowed report names, use the following code.

```
using Ektron.Cms.Framework.Analytics.BusinessAnalytics;
...
IList<String> names = EventReporter.GetReportNameList();
```

CreateQueryRequest Method

Use the `CreateQueryRequest` method to specify an event data report of the base-level type. The method returns an object that implements the interface `IAnalyticsQueryRequest`, which has the following parameters.

- **ReportName** (String)—Uniquely specifies the report, which is registered and corresponds to one or more stored procedures which, when run, generate the requested data.
- **SiteId** (Long)—The Site ID of the data being returned.
- **UserId** (Long)—The User ID of the data being returned.
- **EventStartDate** (DateTime)—If desired, use to determine the earliest date for which report data is returned. By default, data from the earliest date is returned.
- **EventEndDate** (DateTime)—If desired, use to determine the latest date for which report data is returned. By default, data through the most recent date is returned.
- **PagingInfo** (Ektron.Cms.PageingInfo)—Page size and number let you display a small portion of the report at a time. By setting page size and number, the report data is reduced, and performance will improve. Conversely, performance degrades as page size (RecordsPerPage) increases, especially if the amount of stored data is large. This type has the following fields:
  - CurrentPage
  - EndRow
  - RecordsPerPage
  - StartRow

- TotalPages
- TotalRecords

- **OrderByDirection** (EkEnumeration.OrderByDirection)—Descending or Ascending
- **XML** (String)—This parameter is purely for customization. By default, its value is null. While saving event data, the API stack passes the string to the database, where the appropriate stored procedure can use it. For example, it can store additional values that are not part of the current event-object. Within the `CreateQueryRequest` method, this parameter can returns that string.

CreateContentQueryRequest Method

Use the `CreateContentQueryRequest` method to specify a report of event data that is related to content. It returns an object that implements the interface IContentQueryRequest which, in addition to those provided by interface `IAnalyticsQueryRequest` (see *CreateQueryRequest Method* on the previous page) has the following parameters.

NOTE: You can use either the `FolderID` or the `TaxonomyID` parameter but not both. Also, you can only use the `IncludeChild` parameter related to the selected parent parameter.

- **LanguageId** (ID)—The Language ID of the content that the report returns.
- **FolderId** (Long)—The folder of the content being returned. All content in the folder is returned. It defaults to that of the current HTTP request.
- **IncludeChildFolders** (Boolean)—Determines whether the report includes children of the folder specified in the `FolderID` parameter.
- **TaxonomyId** (Long)—The taxonomy category of the content being returned. All content to which the category is applied the folder is returned. It defaults to that of the current HTTP request.
- **IncludeChildTaxonomy** (Boolean)—Determines whether the report includes children of the folder specified in the `FolderID` parameter.

GetList Method

There are 2 versions of the GetList method.

One version takes an `IAnalyticsQueryRequest` object, and returns a list of objects that implement `IAnalyticsEventItem`. That version has the following parameters.

- **ID** (Long)—The object Id s supplied when the related events were saved.
- **XML** (String)—This parameter is purely for customization. By default, its value is null.

  While saving event data, the API stack passes the string to the database, where the appropriate stored procedure can use it. It can store additional values that are not part of the current event-object.

The other version of the `GetList` method takes an `IContentQueryRequest` object and returns a list of objects that implement the interface `IContentEventItem`. That provides the following parameters in addition to those of `IAnalyticsEventItem` (shown above).

- **LanguageId** (Integer)—The Language ID of the content that the report returns.
- **Quicklink** (String)—The object's URL.
- **Title** (String)—Determines whether the report includes children of the folder specified in the `FolderID` parameter.

- **Teaser** (String)—The content summary. See Also: *Writing a Summary for Content* on page 292
- **Status** (String)—The content's status. See Also: *Content Statuses* on page 307
- **FolderID** (Long)—The FolderID of the content being reported.
- **Count** (Integer)—The count of the object being reported. For example, if you are retrieving the most frequently emailed content item, the count is the number of times it was emailed. The count and average values may be used individually or together, depending on the report. For example, the rating report returns both the average (rating) and the count (the number of ratings), while the commented report uses only the count.
- **Average** (Decimal)—The a numerical value divided by the count. For example, when Ektron calculates average content rating, it divides the total number of rating points (on a scale of 1 thru 10) by the number of votes.

UpdateReportData Method

This method tells the database that an event's details should update that event's aggregated data. This method is only required if the database does not automatically do this, such as when the corresponding bit is disabled for that an type in the database. Disabling the corresponding bit generally improves performance, especially if the event logging rate is high. But, if you disable the corresponding bit, you must call this update method if you want the report to show current data.

The `UpdateReportData` method takes the following parameters.

- **eventName** (String)—The event whose data will be updated.
- **eventDate** (DateTime)—The date of the event's occurrence. For example, if you pass `1/1/2009`, one row in the aggregate table is updated. If the row does not exist, it gets created. If you do not pass an event date, this method updates the aggregate table with summary info for that event *for all dates*. For example, if today is February 1, the system has been in use since the beginning of the year, and you pass NULL for the date, 32 table rows are updated (31 days in January plus 2/1).

Disabling the Saving or Reading of Events

You can disable the saving or reading of all events or of individual events.

It is useful to disable events when you want to minimize database traffic. To disable all events:

1. Open *siteroot*/`web.config`.
2. Set the following parameters to false.

```
<!-- Enable saving business-analytics events to the database
  (at API level) -->
  <add key="ek_enableBusinessAnalyticsEventStorage" value="false"/>
<!-- Enable querying the database for business-analytics events
  (at API level) -->
  <add key="ek_enableBusinessAnalyticsEventReports" value="false"/>
```

NOTE: These settings are set to enabled (true) by default.

You can also enable or disable individual events in the database itself, but this does require a call to travel through the full stack.

Using a Custom Provider

Below the service level are providers that read and write event data. The default providers simply pass calls through to the standard Ektron database-access-level code, which reads and writes from the database. But you can modify this behavior to almost any conceivable alternative. For example, you can

- save the data to an alternate database on an alternate machine
- call a Web service to handle the reads and writes
- filter the data and/or requests
- process information on its way to or from the database

The SDK contains sample providers, as well as full source code for the Ektron-supplied providers. You can use this material as a basis for writing custom providers, which is the preferred technique for customizing the behavior of the Business Analytics API stack and subsystem.

The default providers for saving and reading event data (respectively) are `EktronEventProvider.cs` and `EktronQueryProvider.cs`. Example custom-provider source code has the following names for saving and reading event data (respectively): `DemoEventProvider.cs` and `DemoQueryProvider.cs`. For the default providers, the *siteroot/*`web.config` file must contain the following, inside `<configuration><configSections>`.

```
<section name="businessAnalyticsQueryProvider"
  type="Ektron.Cms.Analytics.Providers
    .BusinessAnalyticsQueryProviderConfiguration,
  Ektron.Cms.BusinessObjects"
  allowDefinition="MachineToApplication"
  restartOnExternalChanges="true"/>
<section name="businessAnalyticsEventProvider"
  type="Ektron.Cms.Analytics.Providers
    .BusinessAnalyticsEventProviderConfiguration,
  Ektron.Cms.BusinessObjects"
  allowDefinition="MachineToApplication"
  restartOnExternalChanges="true"/>
```

Additionally, the following must exist inside the `<configuration>` tags.

```
<businessAnalyticsQueryProvider
  defaultProvider="EktronBusinessAnalyticsQueryProvider">
  <providers>
    <add name="EktronBusinessAnalyticsQueryProvider"
      type="Ektron.Cms.Analytics.Providers.EktronQueryProvider,
      Ektron.Cms.BusinessObjects"/>
  </providers>
</businessAnalyticsQueryProvider>
<businessAnalyticsEventProvider
  defaultProvider="EktronBusinessAnalyticsEventProvider">
  <providers>
    <add name="EktronBusinessAnalyticsEventProvider"
      type="Ektron.Cms.Analytics.Providers.EktronEventProvider,
      Ektron.Cms.BusinessObjects"/>
  </providers>
</businessAnalyticsEventProvider
```

To override the default Ektron provider with the a custom provider:

1. Create a new solution with a project named CustomProviders.
2. Add the following references to your project.
   - Ektron.Cms.BusinessObjects.dll
   - Ektron.Cms.Common.dll
   - Ektron.Cms.ObjectFactory.dll
3. Add files `DemoEventProvider.cs` and `DemoQueryProvider.cs` (from the Ektron SDK).
4. Build.
5. Copy the `CustomProviders.dll` file to your Ektron site's bin file.
6. Update `web.config` by modifying the `<configuration>` section. Specifically, add demo providers to the Business Analytics providers as shown below.

```
<businessAnalyticsQueryProvider
  defaultProvider="DemoQueryProvider">
  <providers>
    <add name="EktronBusinessAnalyticsQueryProvider"
      type="Ektron.Cms.Analytics.Providers.EktronQueryProvider,
      Ektron.Cms.BusinessObjects"/>
    <add name="DemoQueryProvider"
      type="Ektron.Cms.Analytics.Providers.DemoQueryProvider,
      CustomProviders"/>
   </providers>
</businessAnalyticsQueryProvider>
<businessAnalyticsEventProvider
  defaultProvider="DemoEventProvider">
  <providers>
    <add name="EktronBusinessAnalyticsEventProvider"
      type="Ektron.Cms.Analytics.Providers.EktronEventProvider,
      Ektron.Cms.BusinessObjects"/>
    <add name="DemoEventProvider"
      type="Ektron.Cms.Analytics.Providers.DemoEventProvider,
      CustomProviders"/>
  </providers>
</businessAnalyticsEventProvider>
```

Web Traffic Analytics

By analyzing the user traffic coming to and interacting with your site, you can better understand key elements of your Web presence. Traditional Web analytics packages help you understand where your traffic is coming from, when the traffic is occurring (including high and low points) and what pages users are interacting with. But this information is often isolated from the Web content and is, therefore, lacking the context needed to take advantage of it.

To view Web traffic analytics, you must have an Ektron Professional or Enterprise License, and only the following users can view the Web Analytics data.

- Members of the Administrators Group
- Users assigned to the Analytics Viewer role. See Also: *Defining Roles* on page 1120

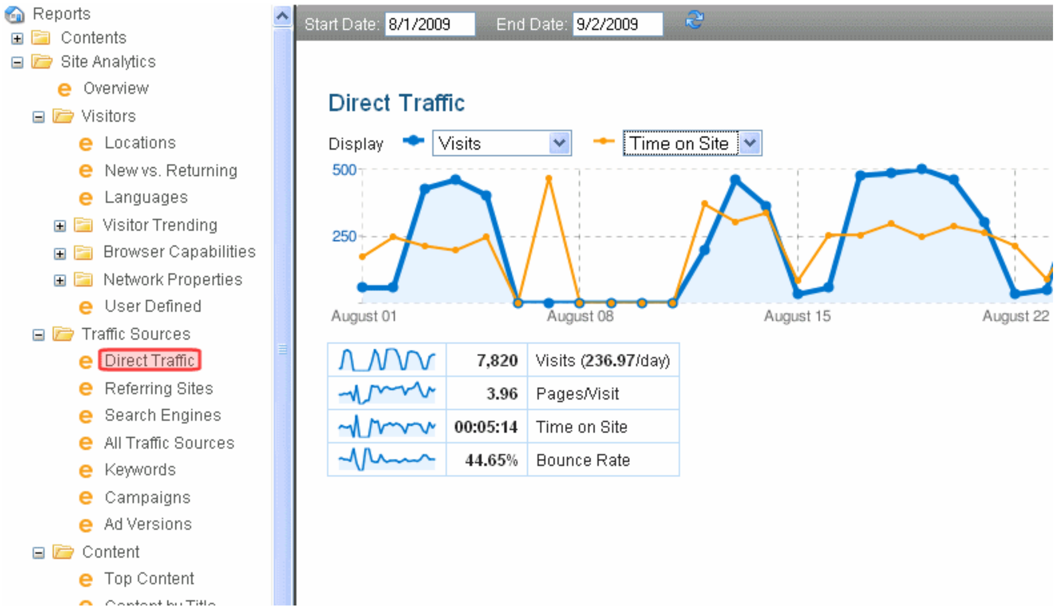
Ektron has a fully-developed, Web traffic analytics provider model. By hooking into best-of-breed analytics software, like Google Analytics, your website’s information is integrated into Ektron's Workarea and so is at your fingertips as you use it to optimize the site experience.

Using Web Traffic Analytics Data with Ektron

Ektron's Workarea provides customized reporting, reflecting exactly the information you care about. The data can analyzed in many ways, such as:

- number of visits per day
- browser usage
- visitor location
- visitor language
- top content
- referring sites

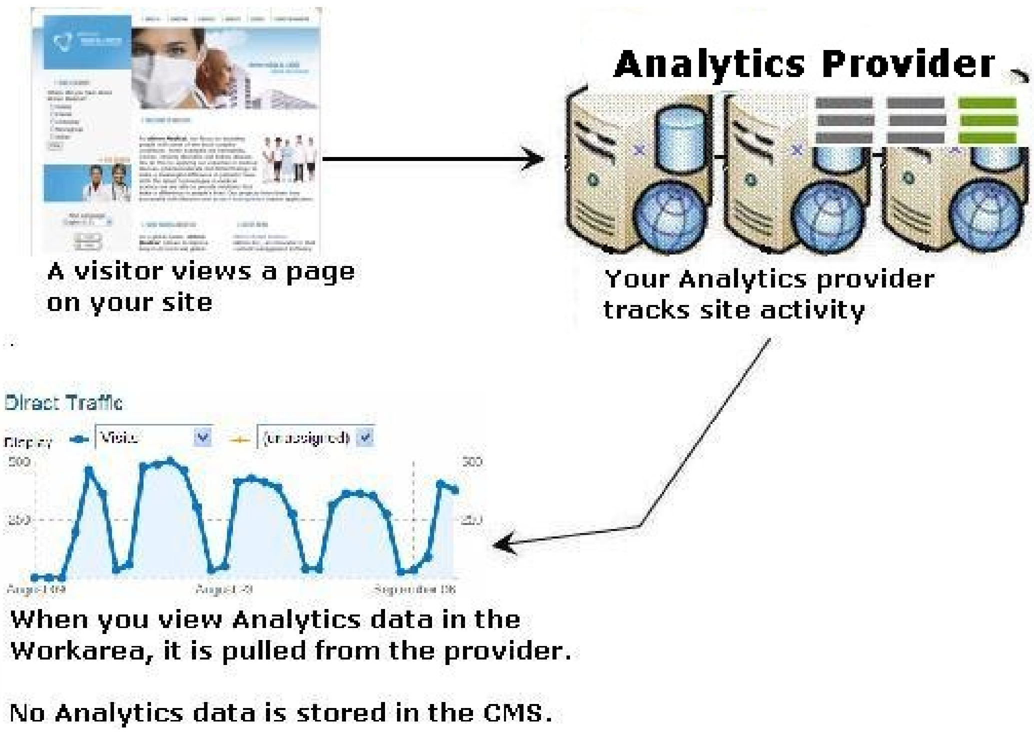
Web Traffic Analytics data is available for your entire site and individual pages. A sample Web Analytics display is below.



The Web Analytics widget can be placed on your dashboard, so that you have instant access. Also, the software is integrated into the content history. This makes your traffic analytics more relevant: you can see what modifications were made, when, and how they impacted traffic to that page. You can react immediately, restoring content that performed better or changing the current content to better reflect your goals.

This full integration makes your analysis more efficient; there is no reconfiguration of the analytics tool and no learning curve. Customer reporting, segmentation, and legacy data are easier to access, and Ektron becomes the central hub for all of your website's information, bringing it together so that it is no longer siloed. Having all information in one place puts it in context, making it easier to draw the conclusions you need to optimize your Web presence.

When you set up Web Traffic Analytics, the Analytics Provider monitors every site visit. In the Workarea, you can view this data from many perspectives.



WARNING! No data is stored in Ektron -- Ektron retrieves it upon demand from your Web Analytics provider.

Viewing Analytics Data

The analytics feature provides 3 basic types of data:

- Page data—*Page-Level Analytics Data* below
- Site data—*Site-Level Analytics Data* on page 625
- Site report descriptions—*Site Report Descriptions* on page 626

Page-Level Analytics Data

After you enable analytics tracking, your provider retains data on every visited page (that is, a unique URL) such as `http://developer.ektron.com/articles.aspx` or `http://developer.ektron.com/template.aspx?id=6572`. Data is tracked when the quicklink is used, as well as any alias assigned to the content. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

You can view any page's analytics data from the following locations.

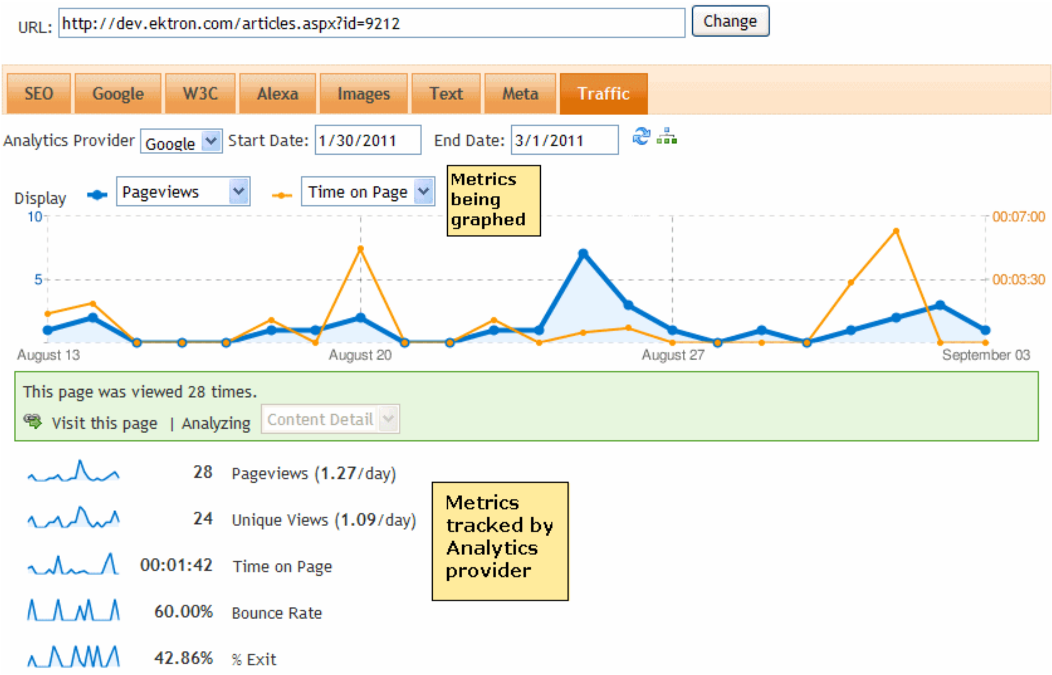
- *Viewing Page-Level Analytics from the Site* below
- *Viewing Page-Level Analytics from a PageBuilder Page* on the facing page
- *Viewing Page-Level Analytics from the Workarea* on page 624

Viewing Page-Level Analytics from the Site

Any authorized user can view analytics for a page on your website by following these steps.

1. Log in to the website.
2. Navigate to the page whose analytics data you wish to view.

3. Hover the cursor over the Website Content menu.
4. Choose **View Page Activity**. The SEO page's **Traffic** tab appears.



The Traffic tab of the SEO control graphs the analytics data of any 2 search criteria. Below the graph is data for the 5 visit criteria tracked by the analytics provider.

- **Pageviews**—number of pageviews for this page over the selected date range
- **Unique pageviews**—number of unique visitors to this page over the selected date range
- **Average time on page**—how long a visitor spent on the page. It is calculated by subtracting the initial view time for this page from the initial view time of the subsequent page. So, this metric does not apply to exit pages.
- **Bounce rate**—the percentage of single-page visits (that is, visits in which the visitor exited your site from the entrance page)
- **% Exit—**the percentage of site exits that occurred from this page

Note that you can change the date range, analytics provider, and either search criterion (**Pageviews** and **Time on Page** in the example above). To learn about using the Segments button (), see .

You can also replace the **URL** with a different one, and view the page being analyzed (by clicking **Visit this page** in the green bar).

Viewing Page-Level Analytics from a PageBuilder Page

Any authorized user can view analytics for a PageBuilder page by following these steps.

NOTE: You cannot drag and drop the Analytics widget onto a PageBuilder page.

1. Open the PageBuilder menu. See Also: *Creating Web Pages with PageBuilder* on page 659
2. From the menu, choose **View > Analytics**. The SEO page's **Traffic** tab appears.

Viewing Page-Level Analytics from the Workarea

The Workarea provides 2 page-level views of analytics data.

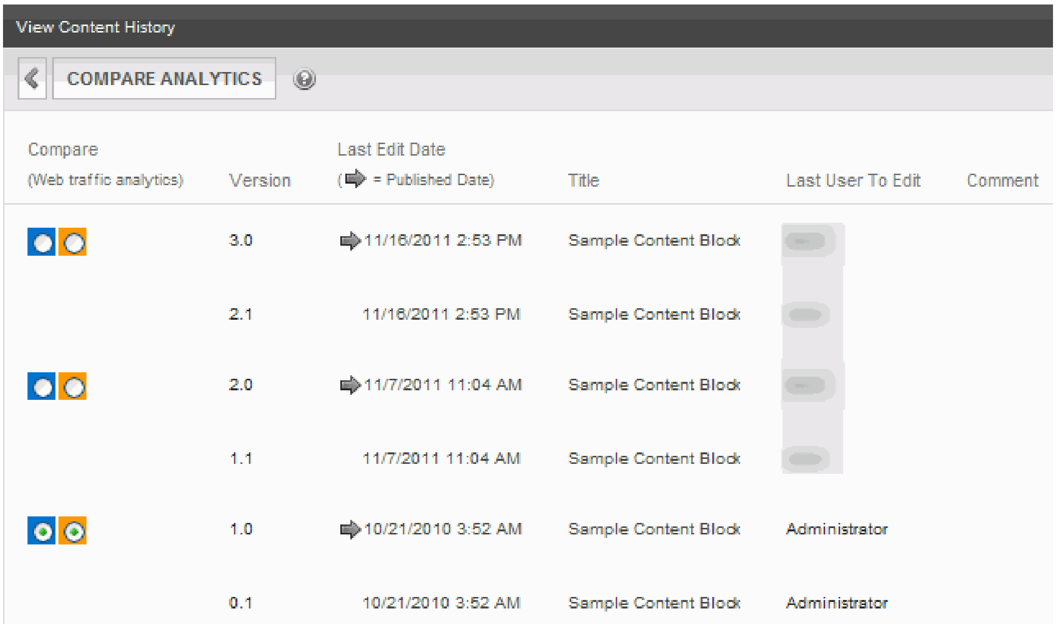
- The View Content History screen—compares analytics data for any 2 published versions
- The Analytics toolbar button—displays the SEO page's **Traffic** tab.

To view a content item's analytics data from the Workarea:

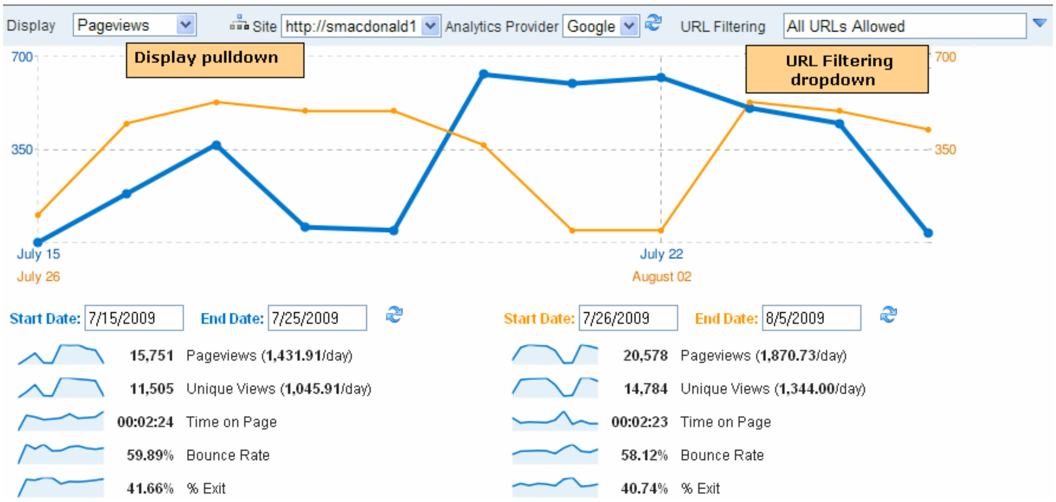
1. Navigate to the folder containing the content whose analytics data you want to view.
2. Click the content item.
3. To compare analytics data between any 2 published versions, click **History**( ).
   See Also: *Comparing Versions of Content* on page 301

   To view analytics for the currently published version, click **Analytics** ( ). When you do, you see the Traffic tab of the SEO page.

On the View Content History screen, blue and orange radio buttons appear next to each *published* version of content, as shown below.



To compare analytics data, click the appropriately-colored radio button next to each version, then click **Compare** ( ). The Compare screen for the 2 versions appears.



You can change the date range for each content version. You can also:

- Use the Display pull-down to graph any visit data.
- Click the **URL Filtering** tab to select the URLs being displayed. See Also: *URL Filtering* below
- Select a different site
- Select a different analytics provider
- Use the Segments button ( ).

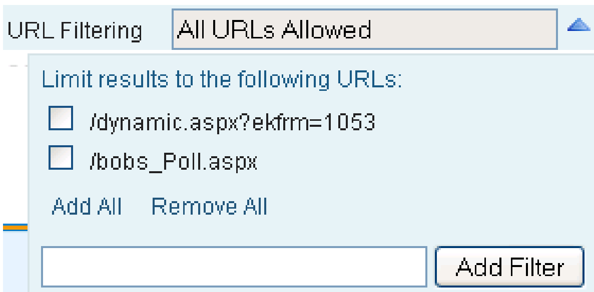
URL Filtering

Any content item can be viewed via several URLs, such as

- its *quicklink*. See Also: *Adding a Quicklink or Form to Content* on page 346
- manual alias
- automatic alias See Also: *Creating User-Friendly URLs with Aliasing* on page 835

NOTE: While Regex-based aliases affect Analytics data, they do not appear on the URL Filtering tab.

The **URL Filtering** tab of the Compare Analytics screen lets you analyze the data by each of these identifiers. So, for example, you can drill down to view only the data collected when site visitors accessed a page by typing its manual alias into the browser.

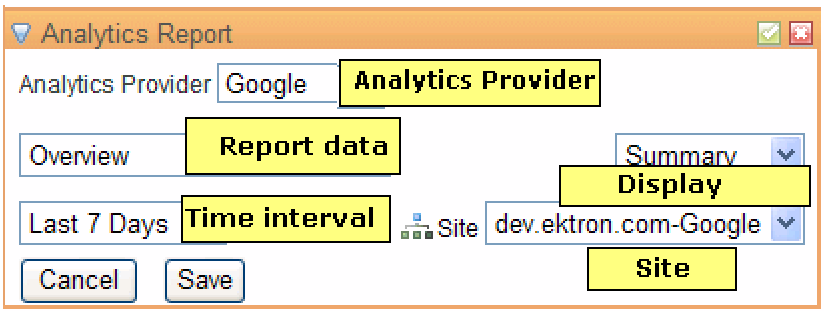


Site-Level Analytics Data

You can view analytical data for any site via the Analytics Report widget and several reports. See Also: *Widget Reference* on page 714

You can drag and drop the Analytics Report widget onto the Smart Desktop. When you do, you initially see the Direct Traffic report for the past 7 days.

You can click **Edit** ( ) to change the display using any of the options shown below.



There are 3 time interval choices:

- last 7 days (the default)
- last 30 days
- last 90 days

Site Report Descriptions

You can customize the Analytics reports in the Workarea in the following ways.

- Change the text that describes a report or folder
- Remove reports or entire folders

To complete either task:

PREREQUISITE

Permission to edit files on your Ektron Web server

1. Open the following file:
   `C:\inetpub\wwwroot\CMS400Developer\Workarea\controls\NavigationTrees\WebtrendsReportSubtree.ascx`
2. To change a report's or folder's text, find the text and replace it.

   To delete a report or an entire folder, find it and comment it out.

Google Web Analytics

Google Web Traffic Analytics is an enterprise-class solution that gives you rich insights into your website traffic and marketing effectiveness. Powerful, flexible and easy-to-use features let you see and analyze your traffic data in an entirely new way. Google Web Analytics prepare you to write better-targeted ads, strengthen your marketing initiatives, and create higher converting websites. Its main features are:

- **Advertising ROI**—Measure the success of your display, search, new media, and offline advertising efforts.

- **Cross Channel and Multimedia Tracking**—Compare your site usage metrics with industry averages and track Flash, video, and social networking sites and applications.
- **Visualizing Data**—Uncover trends, patterns, and key comparisons with funnel visualization, motion charts, mapping, and more.
- **Customized Reporting**—Create reports, dashboards, and segments that make the most sense for your business.
- **Sharing and Communicating**—Administration controls and email reports let you share data across your organization.
- **Google Integration and Reliability**—Google Web Analytics complements a suite of related products, all running on the same world-renowned infrastructure that powers Google.

For more information, see the Google Analytics home page.

Deciding Which Google Analytics Version to Use

Ektron supports Google Analytics versions 2.4 and 3.0. To compare versions, see Migration Guide: Moving from v2.3 APIs to v2.4 & v3.0 > **Differences between v2.4 and v3.0**.

You may use both versions. If you enable both, the Ektron Workarea displays a drop-down for choosing a provider. Data is the same for both providers if you use the same Google analytics profiles.

IMPORTANT: If you will use Google's Core Reporting API v3.0, Ektron supports the ClientLogin authentication method. OAUTH 2.0 is not supported at this time.

Setting up Google Analytics

This section explains how to set up Google analytics. After you complete these steps, Google begins tracking your entire website. Alternatively, you can track individual site pages (see *Tracking a Single Page* on page 630), or clicks by file type (see *Tracking Clicks by File Type* on page 631).

WARNING! Enabling the tracking code may cause a significant increase in CPU usage.

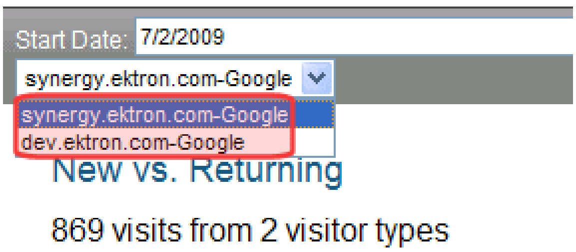
1. Create a Gmail account (http://mail.google.com).
2. Sign up for Google Web Analytics (www.google.com/analytics/). When you set up a Google Web Analytics profile for your site, you are assigned a profile ID and a User Account. You need those to complete Step 8.
3. Open this Google Analytics help page: Migration Guide: Moving from v2.3 APIs to v2.4 & v3.0.
4. Under "Create a Project in the Google APIs Console," follow steps 1 through 4. On the API Access screen, under **Simple API Access**, click the **Create new Browser key** button. Copy the new browser key. You will use this for your API key in Step 8.
5. On the server that hosts Ektron, go to `C:\Program Files\Ektron\CMS400vxx\Utilities\EncryptEmailPassword.exe`.
6. Use that utility to encrypt the Gmail username and password that you obtained in Step 1. Enter your full user name, including `@gmail.com`.
7. Open your site's `*siteroot*/web.config` file and find the `AnalyticsDataProvider` tag. If you enable versions 2.4 and 3.0, edit the GoogleV3.0 and GoogleV2.4 tags.

```
<AnalyticsDataProvider defaultProvider="Google">
  <providers>
    <add name="GoogleV3.0"
      type="Ektron.Cms.Analytics.Providers.GoogleAnalyticsProviderv3,
      Ektron.Cms.BusinessObjects"
   EmailAddress=""
   KeyFilePassword=""
   KeyFilePath="/Key/privateKey/xxxxxxxxx.p12"
   Username="" Password="" ProfileId=""
      SiteURL="" UserAccount=""
      Endpoint="https://www.googleapis.com/analytics/v3/data/"
      ApiKey="" CacheInterval="0"
GoogleAnalyticsTrackingCodePath="Analytics\template\googletrackingcode.ascx"
      Version="3.0" />
    <add name="GoogleV2.4"
      type="Ektron.Cms.Analytics.Providers.GoogleAnalyticsProvider,
      Ektron.Cms.BusinessObjects" Username="" Password="" ProfileId=""
      SiteURL="" UserAccount=""
      Endpoint="https://www.googleapis.com/analytics/v2.4/"
      ApiKey="" CacheInterval="0"
GoogleAnalyticsTrackingCodePath="Analytics\template\googletrackingcode.ascx"
      Version="2.4" />

  </providers>
</AnalyticsDataProvider>
```

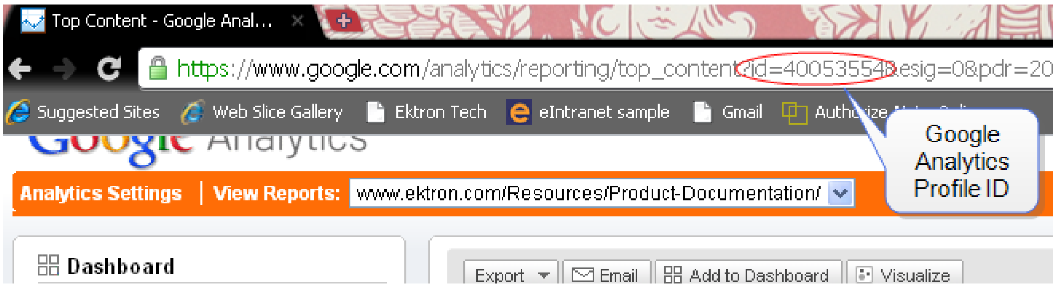
NOTE: If your `web.config` has several analytics providers and you want to turn off analytic tracking for one of them, delete the value of the `GoogleAnalyticsTrackingCodePath` property.

8. Complete each tag’s properties.
   - **name**—The free text name of the site being tracked and the Google version. You should use the site name followed by the provider name and version. For example, www.ektron.com-GoogleV3.0. When users view site-level displays of Web Analytics data within the Workarea, you choose the site from a drop-down. If you change the name, you must also change the value of the <AnalyticsDataProvider defaultProvider element to match the name.



   - **Username**—The Gmail username you encrypted.
   - **Password**—The Gmail password you encrypted.
   - **ProfileID**—The Google Analytics Profile ID you obtained in Step 2. Another way to find your Profile ID is to go to Google Analytics and click **Analytics Settings**. Next **Edit** a website profile. The Profile ID shows under the Profile Settings Title.

NOTE: Tip! On the Google Analytics settings page, in the address bar, the `&id=` value is your `ProfileId`.



- **SiteURL**—Your site root name. For example, you could set up one `<providers>` tag for the `developer.ektron.com` site, and another for the `synergy.ektron.com` site. The SiteURL needs to match the development site URL when you test in your development environment. For example, if the site path is `http://MyDevMachine/default.aspx`, the **SiteURL** is `MyDevMachine`. If there is no match, the Google beacon is not inserted onto your page.
- **UserAccount**—The Google Analytics SiteURL you obtained.

NOTE: Tip! When you visit your Google Analytics Settings page at google.com, the `UA-xxxxxx-x` string next to your site domain is the UserAccount assigned by Google.

NOTE: To track multiple providers or sites, copy the contents of the `<providers>` tag, paste it below the existing tag and above `</AnalyticsDataProvider>`, and modify the elements listed.

- **API key**—Insert the API key that you created in Step 4.

9. Within the `web.config`'s `<analyticsSettings>` tags is a `suppressBeacon` element that lets you track or suppress the tracking of users on your website. Many site administrators do not want to track user behavior in Traffic Analytics reports, as it corrupts the data. (This setting does not apply to Business Analytics.) See Also: *Analyzing Content* on page 601. The following are the settings for this element.
   - **None**—Track all users, including authenticated membership and Ektron users.
   - **Members**—Track unauthenticated and logged-in Ektron users only. Do not track membership users.
   - **Authors**—Track unauthenticated and logged-in membership users only. Do not track Ektron users.
   - **All**—Track unauthenticated users only. Do not track membership and Ektron users.
10. Within the `web.config`'s `<appSettings>` tags is an `ek_AutoInsertBeaconScript` element that either tracks or suppresses tracking activity on your website. Change its `value` to `true`.
11. Save `web.config`.

IMPORTANT: No special server control is needed to track Web Analytics. After you enable Web Analytics in the `web.config` file, the following JavaScript is automatically added to each PageBuilder page and any site page that contains an Ektron server control.

```
<%@ Control Language="C#"
  AutoEventWireup="true"
  CodeFile="googletrackingcode.ascx.cs"
  Inherits="Analytics_Template_GoogleTrackingCode"
```

```
  EnableTheming="false" EnableViewState="false" %>
<!-- Start Google Code -->
<script type="text/javascript">
  var _gaq = _gaq || [];
  _gaq.push(['_setAccount','<asp:literal id="GoogleUserAccount"
runat="server"/>']);
  _gaq.push(['_trackPageview']);
  <asp:literal runat="server" id="variables"/>
    (function()
      { var ga = document.createElement('script');
      ga.type = 'text/javascript';
      ga.async = true;
      ga.src = ('https:' == document.location.protocol ? 'https://ssl' :
         'http://www') + '.google-analytics.com/ga.js';
      s.parentNode.insertBefore(ga, s);
        var s = document.getElementsByTagName('script')[0];
      }
    )();
/* Start Track Event binding Code */
//
// extracted from
// http://runtingsproper.blogspot.com/
//   2009/12/how-to-automatically-track-events-with.html
//
// un-comment the below if you would like google analytics to track your pdf
  // download links on the website.
//$(document).ready(function () {
// TrackEventsForClicks();
//});
//
//function TrackEventsForClicks()
//{
// TrackEventByFileExtension(".pdf");
//
// add your file extension here
//}
//
//function TrackEventByFileExtension(FileExtension)
// {
// $("a[href$='" + FileExtension + "']").click(function()
//{
// var fileURL = $(this).attr("href");
// _gaq.push(['_trackPageview', fileURL]);
// });
//}
/* End Track Event Binding Code */
</script> <!-- End Google Code -->
```

Tracking a Single Page

As an alternative to tracking your entire site, you can track individual .aspx pages. To do that, follow these steps on every page you wish to track.

PREREQUISITE

You completed all steps in *Setting up Google Analytics* on page 627

1. Open the *siteroot*/web.config file.
2. Find the ek_AutoInsertBeaconScript tag.
3. Set its value to false.
4. Save web.config.

NOTE: The previous steps disable the tracking code on your website.

5. Open Visual Studio.
6. Open the .aspx page to which you want to apply the tracking code.
7. In the Solution Explorer tree, navigate to Workarea/Analytics/template/googletrackingcode.ascx.
8. Drag and drop that user control onto the page.
9. Assign EktronAnalyticsTrackingCode as the ID of the control.

Tracking Clicks by File Type

To track the number of times that files on your site (for example, PDFs) are accessed, follow these steps.

PREREQUISITE

You completed all steps in *Setting up Google Analytics* on page 627

1. Open the *siteroot*/web.config file.
2. Find the ek_AutoInsertBeaconScript tag.
3. Set its value to true.
4. Save web.config.
5. Open Visual Studio.
6. Open the .aspx page to which you want to apply the tracking code.
7. In the Solution Explorer tree, navigate to Workarea/Analytics/template/googletrackingcode.ascx.
8. Uncomment the code shown below.

```
/* Start Track Event binding Code */
//
// extracted from
// http://runtingsproper.blogspot.com
//   /2009/12/how-to-automatically-track-events-with.html
//
// un-comment the below if you would like google analytics to track your pdf
//   download links on the website.
//$(document).ready(function () {
// TrackEventsForClicks();
//});
//
//function TrackEventsForClicks()
//{
// add your file extension here
// TrackEventByFileExtension(".pdf");
//
//}
//
```

```
//function TrackEventByFileExtension(FileExtension)
//{
// $("a[href$='" + FileExtension + "']").click(function() {
// var fileURL = $(this).attr("href");
// _gaq.push(['_trackPageview', fileURL]);
// });
//}
/* End Track Event Binding Code */
```

The JavaScript tracks the opening of PDF files on your website. To add file types, copy `TrackEventByFileExtension(".pdf");`, paste it below, and update the file type. See example below.

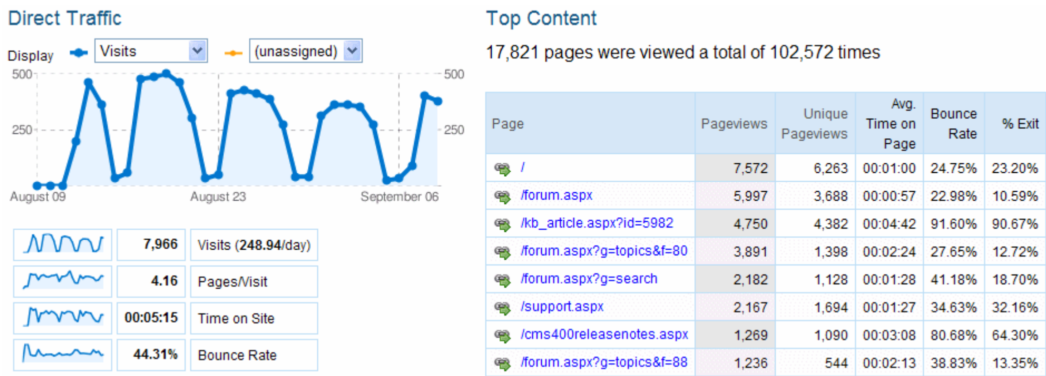
```
xfunction TrackEventsForClicks()
  {
    TrackEventByFileExtension(".pdf");
    TrackEventByFileExtension(".png");
```

Google Site Reports

You can access site-level Google Analytics reports from within the Workarea by selecting **Reports > Traffic Analytics > Google**.

NOTE: The following text was adapted from Google Analytics Help Center. Check that site for additional details on the reports.

Google sites reports show direct traffic on left side, top content on the right.



Page	Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
/	7,572	6,263	00:01:00	24.75%	23.20%
/forum.aspx	5,997	3,688	00:00:57	22.98%	10.59%
/kb_article.aspx?id=5982	4,750	4,382	00:04:42	91.60%	90.67%
/forum.aspx?g=topics&f=80	3,891	1,398	00:02:24	27.65%	12.72%
/forum.aspx?g=search	2,182	1,128	00:01:28	41.18%	18.70%
/support.aspx	2,167	1,694	00:01:27	34.63%	32.16%
/cms400releasenotes.aspx	1,269	1,090	00:03:08	80.68%	64.30%
/forum.aspx?g=topics&f=88	1,236	544	00:02:13	38.83%	13.35%

Search reports show terms used by site visitors to find content on your site. Note that this data is not retrieved from Google Analytics. Instead, it is retrieved from Ektron's site search.

The following sections describe Google's site-level reports.

Visitors

This report shows the number of new and returning visitors who came to your site and how extensively they interacted with your content. This traffic overview lets you view aspects of visit quality (i.e. average pageviews, time on site, bounce rate) and visit characteristics (i.e. first time visitors, returning visits).

Locations

32,639 visits came from 151 countries/territories

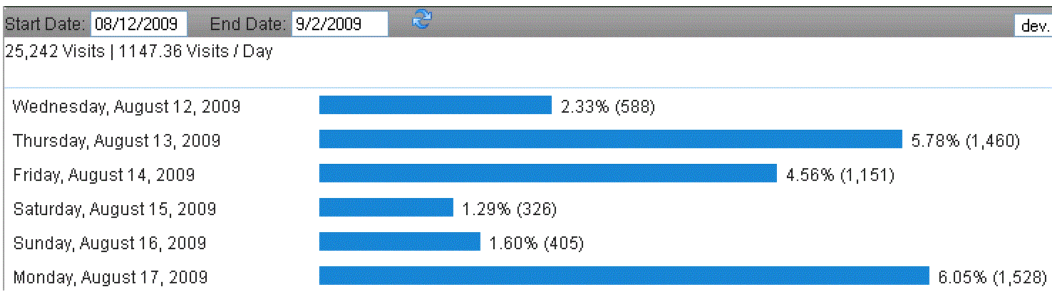
Country/Territory	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
United States	18,786	3.86	00:04:51	44.34%	50.45%
India	2,505	2.22	00:02:53	69.38%	68.78%
United Kingdom	1,960	2.88	00:03:30	59.29%	60.20%
Canada	1,810	3.43	00:04:07	54.59%	54.36%
Australia	568	2.29	00:02:12	73.59%	68.66%
Germany	347	1.35	00:00:52	91.93%	84.15%
Netherlands	329	1.72	00:01:41	83.59%	80.55%

- **Locations**—Countries of your site visitors.
- **New vs. Returning**—The number of visitors to your site who are new or returning.

  A high number of new visitors suggests that you are successful at driving traffic to your site, while a high number of return visitors suggests that the site content is engaging enough to keep visitors coming back. You can see how frequently visitors return and how many times they return in 'Recency' report and the 'Loyalty report', both under 'New vs. Returning' in the Visitors section.
- **Languages**—Uses the language provided by the HTTP Request for the browser to determine site visitors' language. Values are given in 2- or 4-character language code (for example, en-br for British English).

  This report captures the preferred language that visitors have configured on their computers. Understanding who your visitors are is crucial to developing the right content and optimizing your marketing spend. Many times, geo-location is not enough. Many countries have diverse populations speaking different languages which present important market targeting opportunities.
- **User defined**—If you modified the tracking code to provide a user-defined segment, this field identifies that segment by the string you provide when setting up a user-defined segment.

Visitor Trending



- **Visits**—The number of visits your site receives is the most basic measure of how effectively you promote your site. Starting and stopping ads, changing your keyword buys, viral marketing events, and search rank influence the number of visits your site receives.
- **Absolute Unique Visitors**—The number of unduplicated (counted only once) visitors to your website over the specified time period. A Unique Visitor is determined using cookies.

- **Pageviews**—The total number of pages viewed on your site. It is a general measure of how much your site is used. It is more useful as a basic indicator of the traffic load on your site and server than as a marketing measure.
- **Average Pageviews**—Average pageviews is one way of measuring visit quality. A high Average Pageviews number suggests that visitors interact extensively with your site. A high Average Pageviews results from:
  - Appropriately targeted traffic (that is, visitors who are interested in what your site offers)
  - High quality content presented effectively

  Conversely, a low average pageviews indicates that traffic coming to the site has not been appropriately targeted to what the site offers or that the site does not deliver what the visitor expected.
- **Time on Site**—One way of measuring visit quality. If visitors spend a long time visiting your site, they may be interacting with it extensively. However, Time on site can be misleading because visitors often leave browser windows open when they are not actually viewing or using your site.
- **Bounce Rate**—The percentage of single-page visits (that is, visits in which the person left your site from the entrance page).

  Bounce rate is a measure of visit quality, and a high bounce rate generally indicates that site entrance (landing) pages are not relevant to your visitors. You can minimize Bounce Rates by tailoring landing pages to each keyword and ad that you run. Landing pages should provide the information and services that were promised in the ad copy.

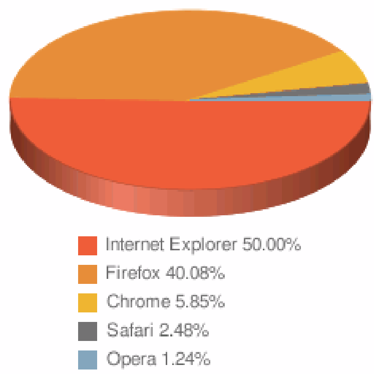
Browser Capabilities

Optimizing your site for the appropriate technical capabilities helps make your site more engaging and usable and can result in higher conversion rates and more sales.

Browsers

34,589 visits used 20 browsers

Browser	Visits	%	Contribution to total
Internet Explorer	17,294	50.00%	
Firefox	13,864	40.08%	
Chrome	2,024	5.85%	
Safari	858	2.48%	
Opera	429	1.24%	
Mozilla	68	0.20%	
Opera Mini	14	0.04%	
SeaMonkey	9	0.03%	
Mozilla Compatible Agent	7	0.02%	
Konqueror	5	0.01%	
Yandex	4	0.01%	
Galeon	2	0.01%	
Netscape	2	0.01%	



- **Browsers**—The browsers that your visitors use.
- **Operating Systems**—The operating systems that your visitors use.

- **Browsers and OS**—The browser/operating system combinations that your visitors use.
- **Screen Colors**—The number of screen colors your visitors use.
- **Screen Resolutions**—The screen resolutions that your visitors use.
- **Flash Versions**—The versions of Flash that your visitors have installed.
- **JavaSupport**—Whether Java is supported on your visitors' platforms.

Network Properties

Network Location

25,242 visits came from 5,323 network locations

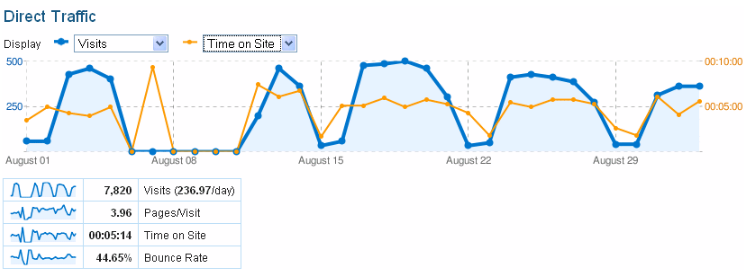
Network Location	Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
sprint	1,741	4.82	00:06:20	14.65%	39.86%
road runner holdco llc	755	3.03	00:02:59	56.69%	56.29%
comcast cable communications inc.	456	2.35	00:02:45	75.66%	67.54%
ektron inc.	434	1.81	00:01:43	6.22%	75.12%
verizon internet services inc.	392	2.93	00:02:38	68.11%	62.24%
internet service provider	338	2.83	00:03:43	69.23%	73.37%
cox communications inc.	224	5.10	00:08:45	41.96%	46.43%

- **Network Location**—The internet service providers that your visitors use. This report lets you track the internet service provider (ISP) domains to which the user resolves.

  The domain is determined by the internet service that owns the user's internet protocol (IP) identifier.
- **Hostnames**—Hosts from which people are visiting your site. Hostnames sometimes provide insight into organizations that are interested in what you offer.
- **Connection Speeds**—Connection speeds that your visitors are using. Optimizing your site so that it loads quickly for most visitors can result in higher conversion rates and more sales.

Traffic Sources

This section provides an overview of the different kinds of sources that send traffic to your site. The graph shows traffic trends; the pie-chart and tables show what is driving the trends.



- **Direct Traffic**—Visits from people who clicked a bookmark to come to your site or who typed your site URL directly into their browser. Direct traffic can include visitors recruited via offline (i.e. print, television) campaigns.
- **Referring Sites**—Externals sites from which visitors linked to your site.
- **SearchEngines**—Visitors who clicked to your site from a search engine result page.

- **All TrafficSources**—Visitors referred from search engines, sites, and tagged links. The graph shows the overall trends while the table shows the specific sources (i.e. search engines, sites, and tagged links) driving the trends.
- **Keywords**—Compares traffic from search keywords to overall traffic to your site.
- **Campaigns**—How people referred from your configured campaigns compare to the "average" visitor to your site.

  The graph shows overall trends, while the table lists each configured campaign. Because all traffic in this report results from campaigns that you explicitly control, you can use this information to add or delete campaigns, or to determine the effectiveness of tests that you have set up using custom tags.
- **Ad Versions**—Compares your AdWords ads (and configured campaigns in which you use the "content" tag) against each other.

  This report shows you which ad copy (in AdWords ads or in configured campaigns) is most effective. Ads with high clickthrough rates show that the copy is effective at getting the user to click, while high bounce rates, for example, indicate a need for landing pages that are consistent with what the ad promises.

Content

This report provides an overview of pageview volume and lists the pages (Top Content) that were most responsible for driving pageviews. You can also reach some useful reports that reveal how users interact with your site and statistics related to how they found your site in the first place.

NOTE: Content reports include a link icon ( ) and a hyperlink. If you click the link icon, you go to the page. If you click the hyperlink, you see a more detailed Analytics report about that page.

Top Content

16,091 pages were viewed a total of 88,948 times

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Bounce Rate	% Exit
/	7,300	6,031	00:01:10	26.98%	25.41%
/forum.aspx	4,729	2,887	00:00:59	22.65%	10.51%
/kb_article.aspx?id=5982	4,341	3,993	00:04:32	91.61%	90.65%
/forum.aspx?g=topics&f=80	3,137	1,107	00:02:31	29.51%	12.88%
/support.aspx	2,117	1,645	00:01:28	37.67%	34.10%
/forum.aspx?g=search	1,729	911	00:01:31	43.86%	19.26%

- **Top Content**—The most commonly viewed pages on your site, and how they are used.

  The table lists all pages which were viewed on your site. A high bounce rate indicates a landing page that should be redesigned or tailored to the specific ad which links to it. A high 'Time on Page' may indicate content that is particularly interesting to visitors. The significance of exits varies according to each page. For example, it may be common for visitors to exit your site from a receipt or "thank you" page because they have completed a conversion activity. In contrast, a high number of exits from a non-goal page (from a funnel page, for example) may indicate that the page is confusing or that it generates user errors.
- **Content by Title**—The most commonly viewed groups of pages on your site (grouped by title), and how they are used. This report provides the same information in the "Top Content" report, but aggregated by title tag value.

- **Top Landing Pages**—Data on how effectively your landing pages entice visitors to click further into your site. You can lower bounce rates by tailoring landing pages to their associated ads and referral links and placing a clear call-to-action on each landing page.
- **Top Exit Pages**—Pages from which people exit your site.

  The significance of an exit rate varies according to each page. For example, it may be common for visitors to exit your site from a receipt or "thank you" page because they have completed a conversion activity. In contrast, a large number of exits from a non-goal page (from a funnel page, for example) may indicate that the page is confusing or that it generates user errors

Viewing Google Segments

Google Analytics has an *Advance Segments* tool that lets you "slice and dice" your Analytics data with great precision. Advanced segments let you choose what types of visits you want to be considered when generating the data for a report." (source: About Advanced Segments)

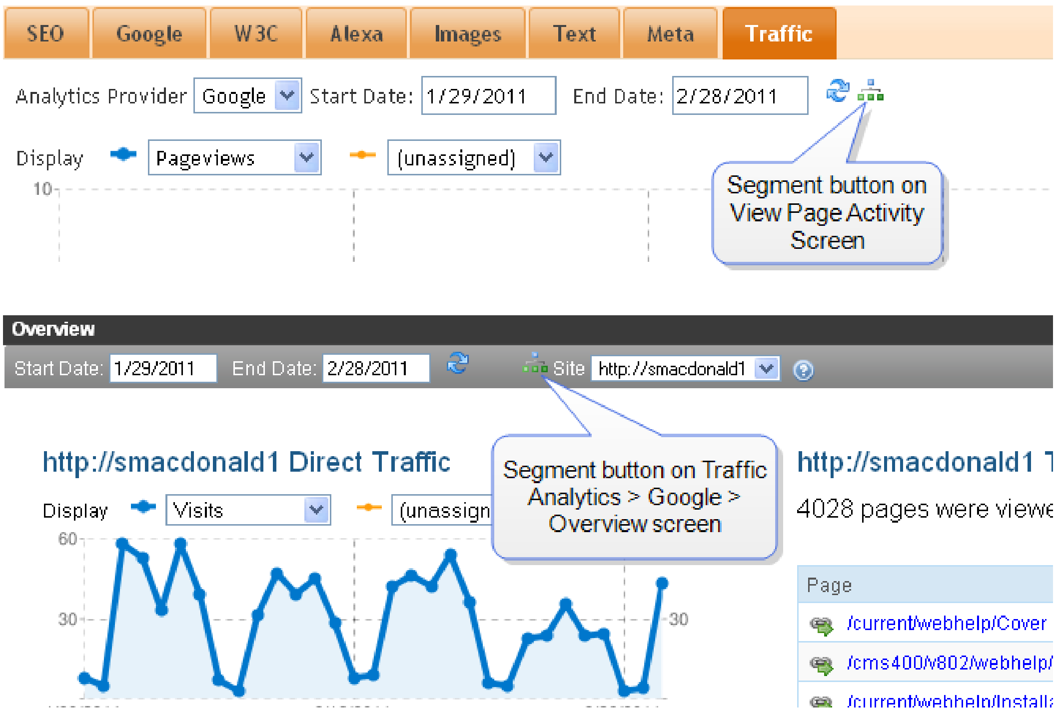
Google segments allow marketers using analytics reports to drill down to specific classes, or segments, of site visitors, such as

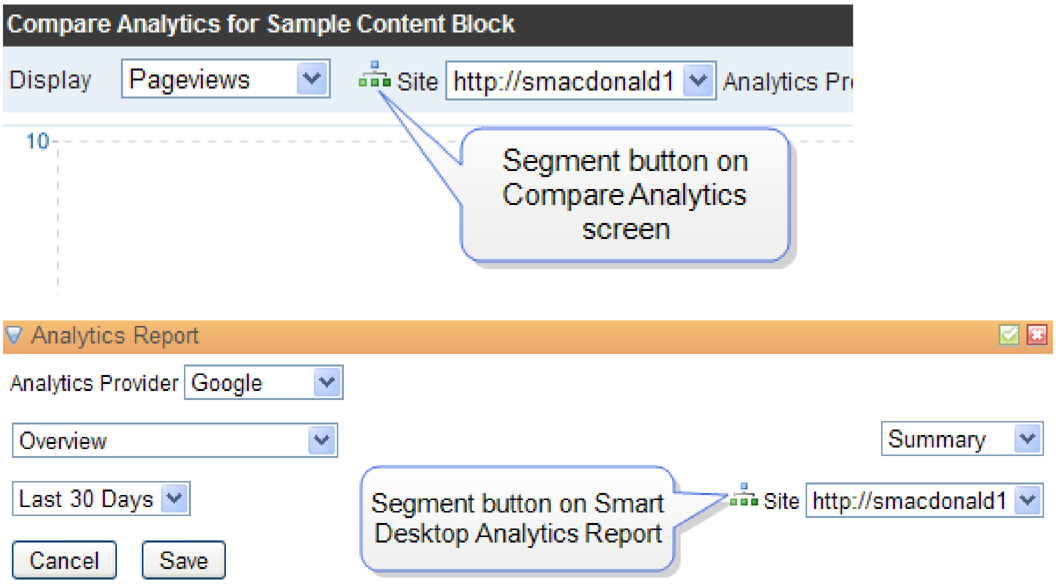
- Users
- Sessions and visitors
- Members and authors

This section explains how to select and view segments within Ektron.

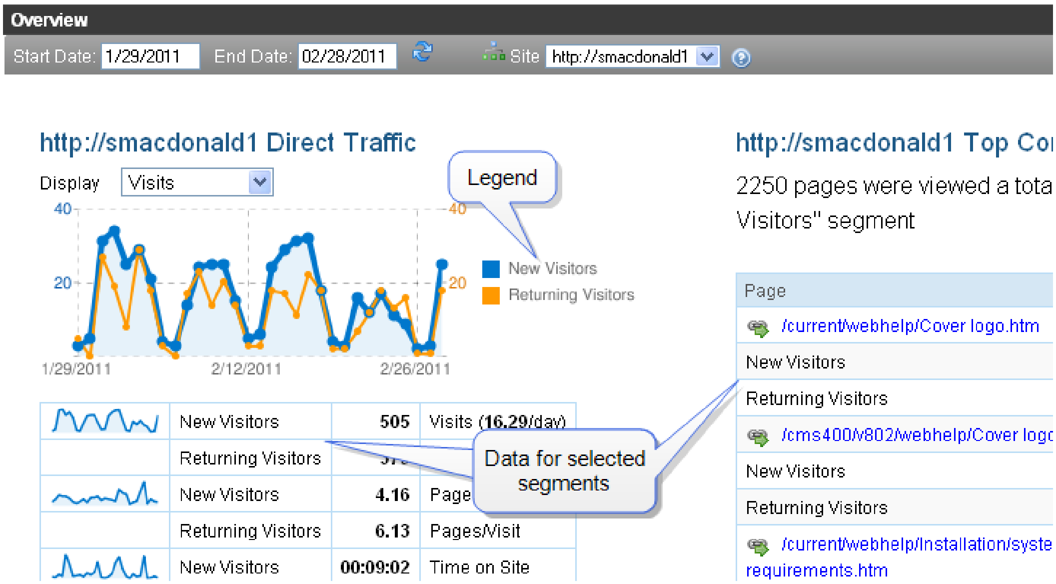
NOTE: While you can view custom segments within Ektron, you must create them within Google Analytics.

1. Browse to a view of Analytics data. See Also:
2. Click **Segment** ( ).





3. The Segments screen appears. Select up to 4 segments to display.
4. The screen refreshes and graphs each segment in a different color. In the following example, new visitors are graphed in blue and returning visitors are orange. Also, the screen breaks down data by each segment.



Webtrends Analytics

Marketers today face a new set of challenges. With the explosion of new digital channels such as social and mobile, it is even harder to understand customer behaviors and optimize how to communicate with them. Both Webtrends Analytics On Demand and On Premises deliver the industry’s most accurate picture of how customers interact with your brand in the digital space.

Real-time data, intelligent alerts, and the ability to easily share information within your organization means you empower your team to make smart and timely decisions based on solid data. You'll find new opportunities, ensure conversions are on track and respond to needs faster than ever before.

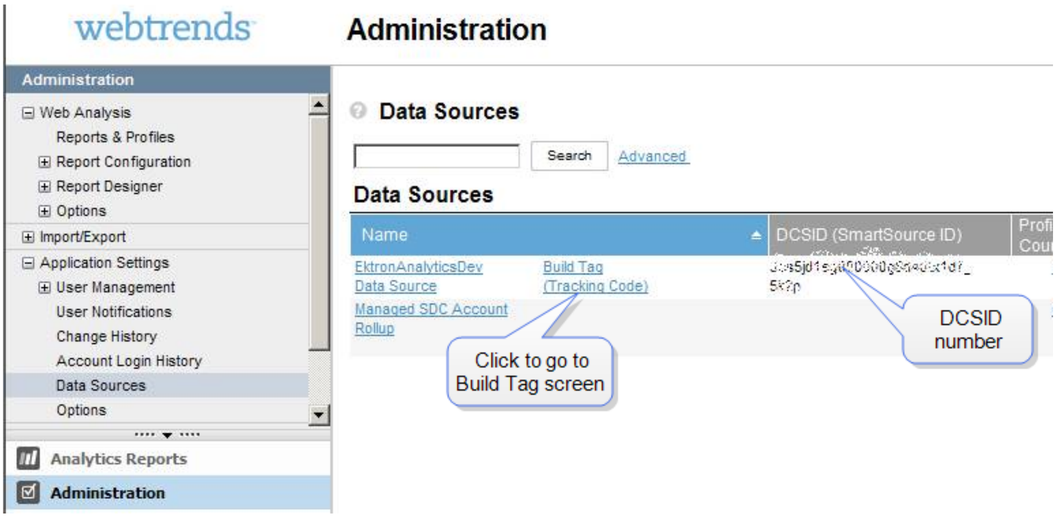
Setting up Webtrends analytics

PREREQUISITE

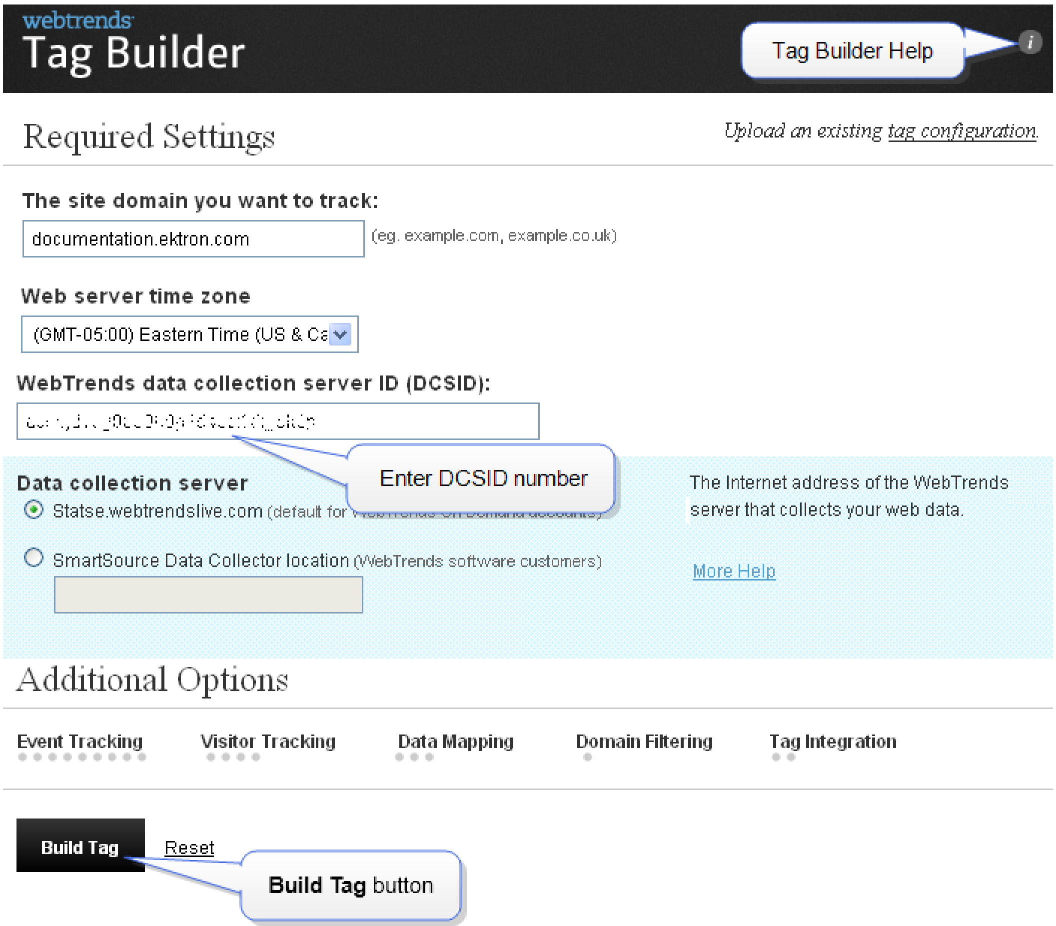
Webtrends On Demand

To set up Webtrends Analytics to work with Ektron:

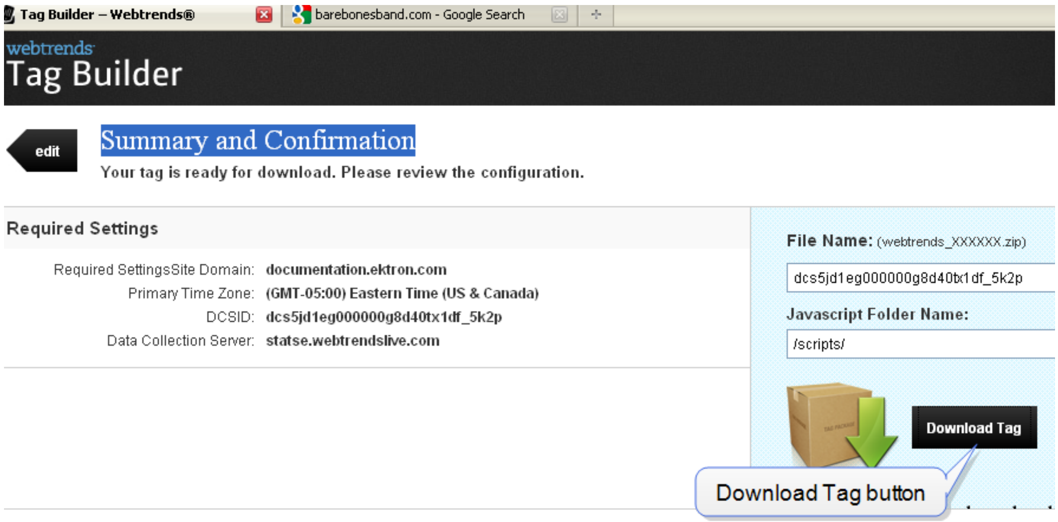
1. Create a Webtrends Account and create a tracking script.
   a. Set up a Webtrends account: Webtrends Developer Network.
   b. Webtrends sends you an account name, username, and password.
   c. Log into Webtrends using this URL: Webtrends Developer Network Login.
   d. Use your Webtrends account name, username, and password.
   e. From that page, follow this menu path: **Administration> Application Settings > Data Sources**.
   f. Click **New**. A Data Source Wizard screen appears.
      - Enter a name for the data you will retrieve.
      - Select your server's time zone.
      - Click **Next**.
      - A summary of the information you entered appears along with a **Webtrends data collection server ID (DCSID)** value.
      - Click **Save**. The Data Sources screen reappears with your new data source.
   g. Copy your Data Source ID number (**DCSID**), indicated in the following figure. You will use this number in the next step.



2. Build the Tracking Files. In this step, you tell Webtrends the type of data you want to track. Webtrends then generates files that track that data.
   a. Open Webtrends' Tag Builder page: Webtrends Tag Builder
   b. From the Data Sources screen, you can click **Build Tag (Tracking Code)**.
   c. Complete this page, which prompts you to identify which data Webtrends should track.
   d. Into the page's **Webtrends data collection server ID (DCSID)**field, paste the number you copied in Step 1g above. For help completing the Tag Builder page, click the information button in the top right corner.



e. Click the **Build Tag** button. Webtrends generates files you will use to track usage statistics. The **Summary and Confirmation** screen appears.
f. Click the **Download tag** button.



g. Save the .zip file to your computer.

3. Copy Webtrends Tracking Files to Ektron. You must have permission to edit files on theEktron Web server. In this step, you

- replace the `Webtrends.html` file in your Workarea folder with the one you downloaded.
- replace the `<div>` tag in your Workarea's Webtrends.ascx file with the one in the downloaded file of the same name

a. Extract the .zip file you downloaded.

b. Open the folder that contains the extracted files.

c. Copy `Webtrends.js`.

d. Paste it into the *site root*`\Workarea\Analytics\template` folder. This action replaces a file of the same name.

e. In the folder that contains the extracted files, open `Webtrends.html`.

f. Copy the `<div>` tag highlighted below.

```
<!-- START OF SmartSource Data Collector TAG -->
<!-- Copyright (c) 1996-2011 WebTrends Inc.  All rights reserved. -->
<!-- Version: 9.3.0 -->
<!-- Tag Builder Version: 3.1  -->
<!-- Created: 2/14/2011 8:30:43 PM -->
<script src="/scripts/webtrends.js" type="text/javascript"></script>
<!-- ----------------------------------------------------------------------------------
-->
<!-- Warning: The two script blocks below must remain inline. Moving them to an external
-->
<!-- JavaScript include file can cause serious problems with cross-domain tracking.
-->
<!-- ----------------------------------------------------------------------------------
-->
<script type="text/javascript">
//<![CDATA[
var _tag=new WebTrends();
_tag.dcsGetId();
//]]>
</script>
<script type="text/javascript">
//<![CDATA[
_tag.dcsCustom=function(){
// Add custom parameters here.
//_tag.DCSext.param_name=param_value;
}
_tag.dcsCollect();
//]]>
</script>
<noscript>
<div><img alt="DCSIMG" id="DCSIMG" width="1" height="1"
src="http://statse.webtrendslive.com/dcs5jd1eg000000g8d40tx1df_5k2p/njs.gif?dcsuri=/nojav
ascript&amp;WT.js=No&amp;WT.tv=9.3.0&amp;WT.dcssip=www.documentation.ektron.com"/></div>
</noscript>
<!-- END OF SmartSource Data Collector TAG -->
```

g. In the *site root*`\Workarea\Analytics\template` folder, open Webtrends.ascx.

h. Replace the `<div>` tag with the one you copied.

4. Update Ektron's `web.config` file. You must have permission to edit files on your Ektron Web server.

   a. Obtain a value for your `web.config` file's `ProfileFileName` property by going to https://ws.Webtrends.com/v2/ReportService/profiles/?format=xml. (Authentication required.)

   - In the **User name** field, enter your **account name\username** that you obtained.
   - In the **Password** field, enter your password. A screen displays your Webtrends profile as follows.

```
<?xml version="1.0" encoding="utf-8" ?> –
<list> –
```

```
  <ProfileDefinition>
    <string name="ID">ABCD1234</string>
    <string name="name">MyAnalyticsAccountName</string>
    <decimal name="AccountID">234567</decimal>
    <decimal name="TimeZoneID">-500</decimal>
  </ProfileDefinition>
</list>
```

You will use the `string name` value (highlighted in red), `ProfileFileName` property.

b. Open your *siteroot*/web.config file
c. Find the tag beginning with `<add name="Webtrends"`.
d. Replace the `Webtrends` tag's properties.
   - **Name**—The name displayed on the report. If you have several accounts, you can use names like these.
     - Webtrends—developer.ektron.com
     - Webtrends—document.ektron.com

     However, the value of this field for one analytics provider must match the value of the `<AnalyticsDataProvider defaultProvider>` tag.
   - **Type**—Do not change.
   - **Username, Password**—
     1. Go to `C:\Program Files\Ektron\CMS400vxx\Utilities\EncryptEmailPassword.exe`.
     2. Encrypt the Webtrends username and password you obtained.
     3. Enter the encrypted values into these properties.
   - **ProfileFileName**—Enter the string name value you obtained.
   - **SiteURL**—Enter the URL visitors use to access your site. For example, www.example.com.
   - **UserAccount**—Enter the account name you obtained.
   - **Endpoint**—The default value is `https://ws.Webtrends.com/v2/ReportService/`. You only need to update this value if you are not using the default Data Collection Server on the Tag Builder page.
   - **Cache Interval**—Use to cache the Analytics provider's data. Enter a number in seconds. The maximum 86400. Caching improves the performance of the traffic report page.
   - **AnalyticsTrackingCodePath**—Do not change.

Displaying Webtrends Site Reports

You can access Webtrends analytics reports within the Workarea by selecting **Reports > Traffic Analytics > Webtrends**.

Refer to the following WebTrends manual for information about specific reports: Webtrends Administration User Guide > Chapter 32 : Webtrends Analytics Report Library

Display Options

Webtrends reports provide the following display options.

Data table

Search Engines: Keywords

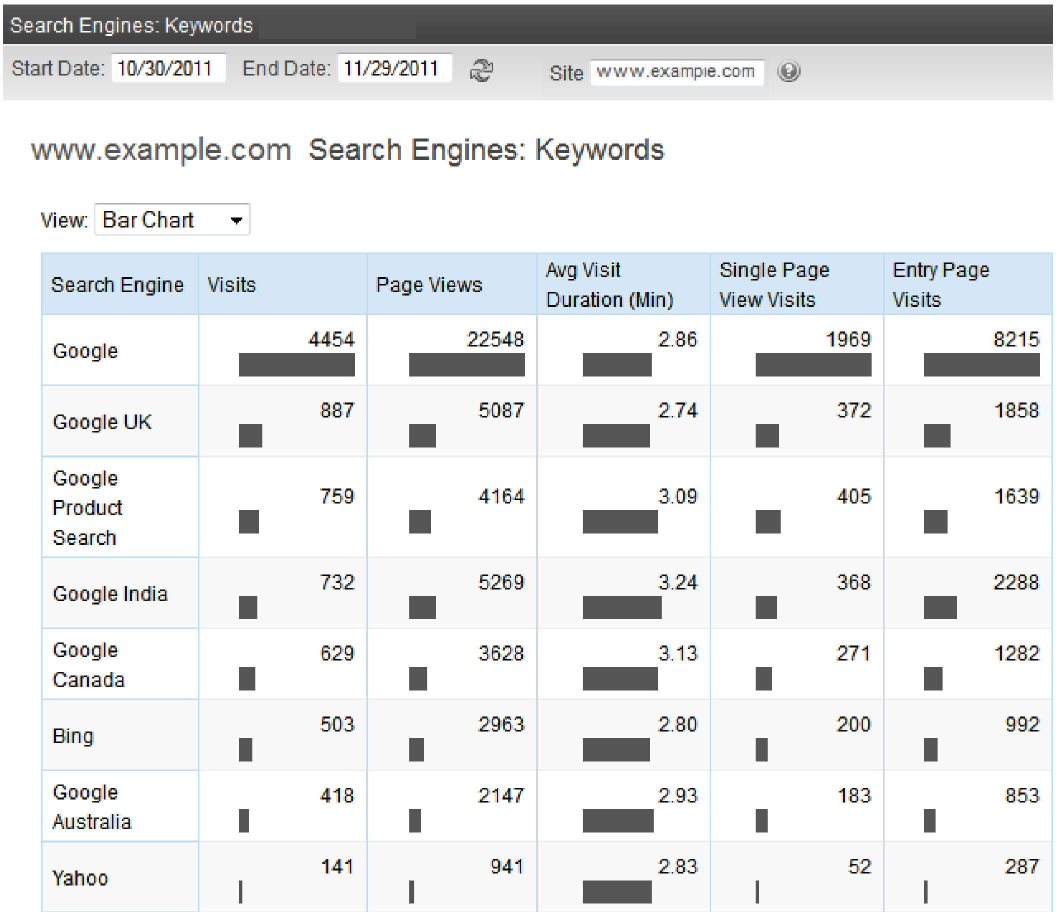
Start Date: 10/30/2011 End Date: 11/29/2011 Site www.example.com

www.example.com Search Engines: Keywords

View: Data Table

Search Engine	Visits	Page Views	Avg Visit Duration (Min)	Single Page View Visits	Entry Page Visits
Google	4454	22548	2.86	1969	8215
Google UK	887	5087	2.74	372	1858
Google Product Search	759	4164	3.09	405	1639
Google India	732	5269	3.24	368	2288
Google Canada	629	3628	3.13	271	1282
Bing	503	2963	2.80	200	992
Google Australia	418	2147	2.93	183	853
Yahoo	141	941	2.83	52	287
Google Germany	109	475	1.61	70	226
Google Netherlands	107	560	2.60	50	234

Bar chart


Search Engines: Keywords

Start Date: 10/30/2011 End Date: 11/29/2011 Site www.example.com

www.example.com Search Engines: Keywords

View: Bar Chart

Search Engine	Visits	Page Views	Avg Visit Duration (Min)	Single Page View Visits	Entry Page Visits
Google	4454	22548	2.86	1969	8215
Google UK	887	5087	2.74	372	1858
Google Product Search	759	4164	3.09	405	1639
Google India	732	5269	3.24	368	2288
Google Canada	629	3628	3.13	271	1282
Bing	503	2963	2.80	200	992
Google Australia	418	2147	2.93	183	853
Yahoo	141	941	2.83	52	287

Heat map

Search Engines: Keywords

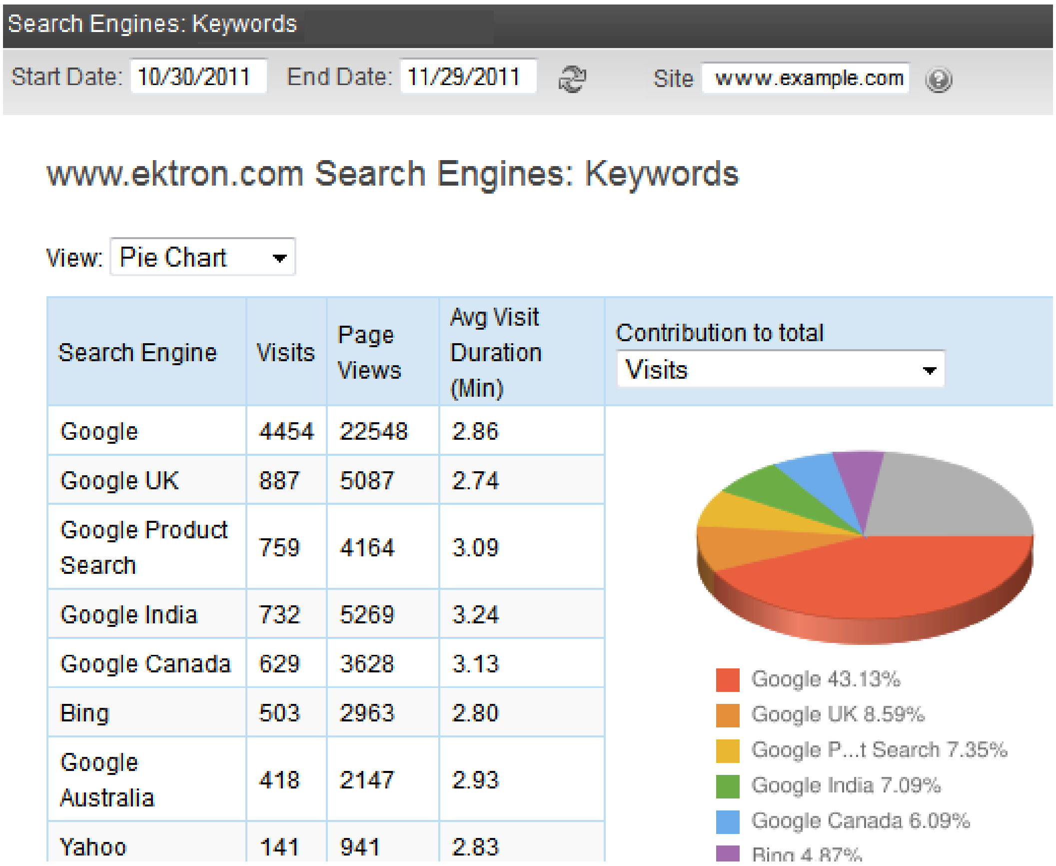
Start Date: 10/30/2011 End Date: 11/29/2011 Site www.example.com

www.ektron.com Search Engines: Keywords

View: Heat Map

Search Engine	Visits	Page Views	Avg Visit Duration (Min)	Single Page View Visits	Entry Page Visits
Google	4454	22548	2.86	1969	8215
Google UK	887	5087	2.74	372	1858
Google Product Search	759	4164	3.09	405	1639
Google India	732	5269	3.24	368	2288
Google Canada	629	3628	3.13	271	1282
Bing	503	2963	2.80	200	992
Google Australia	418	2147	2.93	183	853
Yahoo	141	941	2.83	52	287
Google Germany	109	475	1.61	70	226
Google Netherlands	107	560	2.60	50	234
Google France	90	382	1.21	50	159

Pie chart



Search Engine	Visits	Page Views	Avg Visit Duration (Min)
Google	4454	22548	2.86
Google UK	887	5087	2.74
Google Product Search	759	4164	3.09
Google India	732	5269	3.24
Google Canada	629	3628	3.13
Bing	503	2963	2.80
Google Australia	418	2147	2.93
Yahoo	141	941	2.83

From the pie chart, you can change the display to see percentages of the following factors.

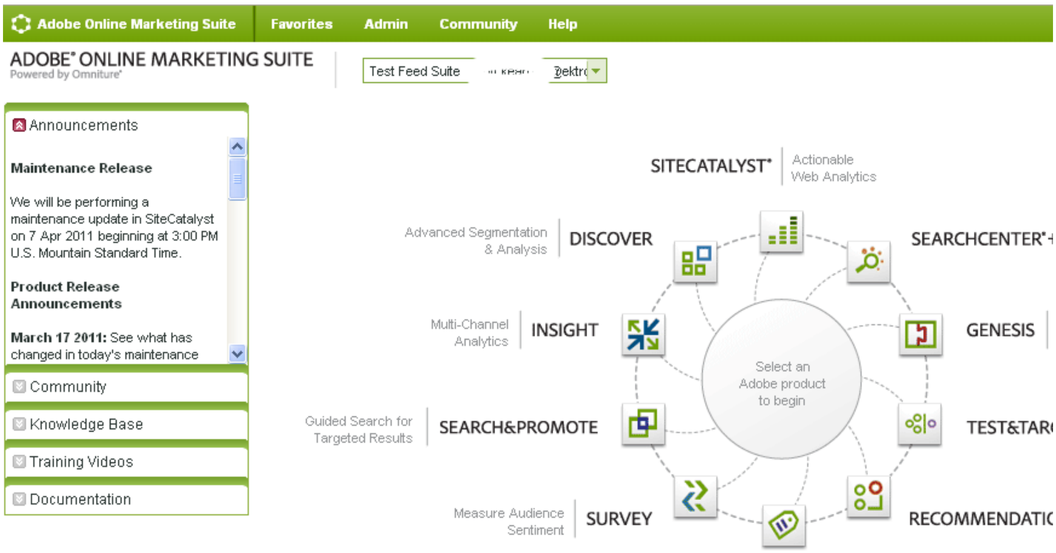
- Visits
- Page views
- Average visit duration (minutes)
- Single page view visits
- Entry page visits

SiteCatalyst Analytics

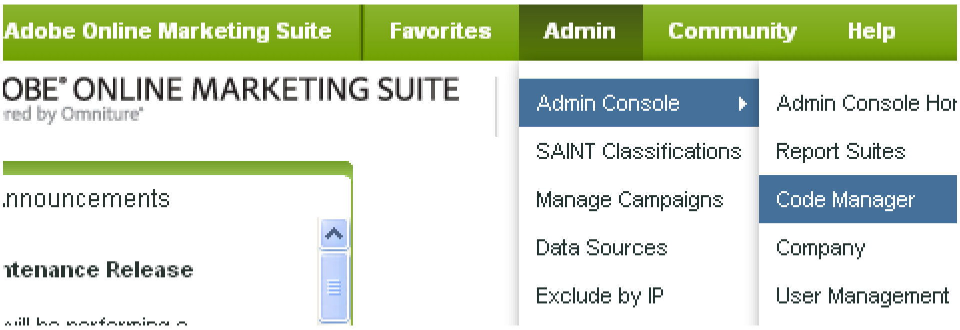
Adobe's SiteCatalyst® (formerly known as Omniture) provides marketers with actionable, real-time intelligence about online strategies and marketing initiatives. SiteCatalysthelps marketers quickly identify the most profitable paths through their website, determine where visitors are navigating away from their site, and identify critical success metrics for online marketing campaigns. (source: Adobe SiteCatalyst)

To set up and monitor Web traffic analytics using SiteCatalyst.

1. Log onto site and generate tracking code.
    a. Contact Adobe and set up an account to use SiteCatalyst.
    b. Use the information Adobe provides (URL, username, password, and so on) to log in to Adobe Online Marketing Suite.

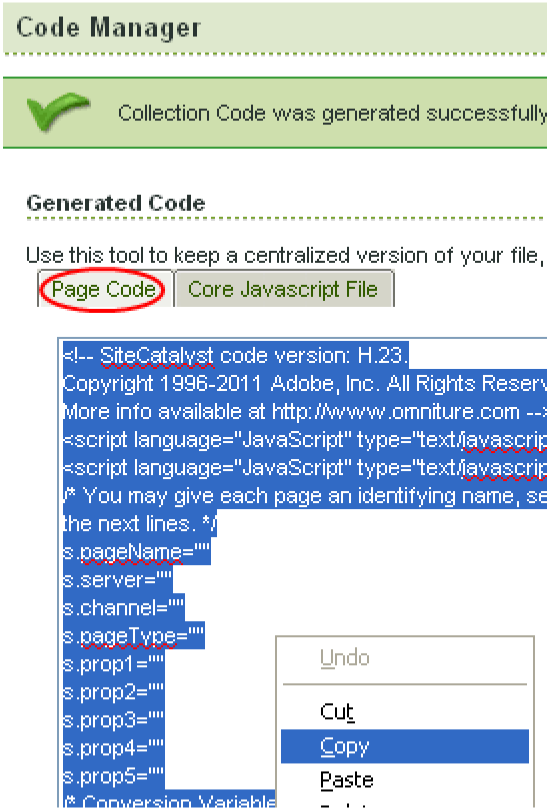


c. Click **Admin > Admin Console > Code Manager**.



d. In the **Select the type of code to generate** drop-down, choose **Javascript**.
e. In the **Select a Report Suite that collects data for your website** drop-down, choose a report suite you selected when setting up your SiteCatalyst account.
f. In the **Match the Character-Encoding of your website** drop-down, choose UTF-8.
g. In the **Choose your Currency for Tracking Conversion** drop-down, choose your currency.
h. In the **How many periods are in your domain name?** drop-down, enter the appropriate number. The screen shows an example.
i. If your site uses SSL, check the box next to **Use https:// instead of http://?**. See Also: *Installing Ektron* on page 9
j. Click **Generate Code**.

2. Copy the tracking code to `sitecatalyst.ascx`.
   a. The Code Manager screen displays code to track analytics on your Ektron site. Copy the code under the **Page Code** tab.



b. Open the following file: *site root*`\Workarea\Analytics\template\sitecatalyst.ascx`.

c. Delete all text *below* the following line.

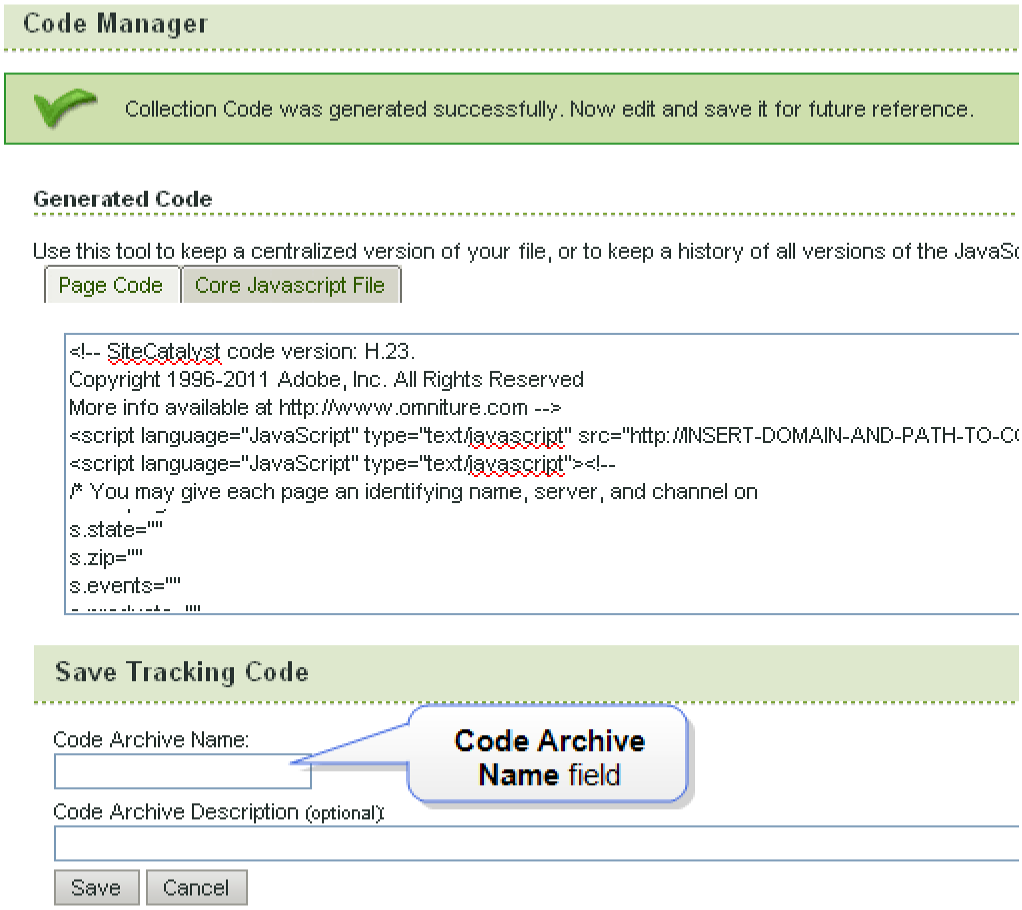
```
<%@ Control Language="C#"
  AutoEventWireup="true"
  CodeFile="sitecatalyst.ascx.cs"
  Inherits="Analytics_Template_SiteCatalyst"
  EnableTheming="false" EnableViewState="false" %>
```

d. Paste the code you copied in Step 1 into `sitecatalyst.ascx`, below the line shown above.

e. Save `sitecatalyst.ascx`.

3. Copy the `s_code.js` file to Workarea folder.

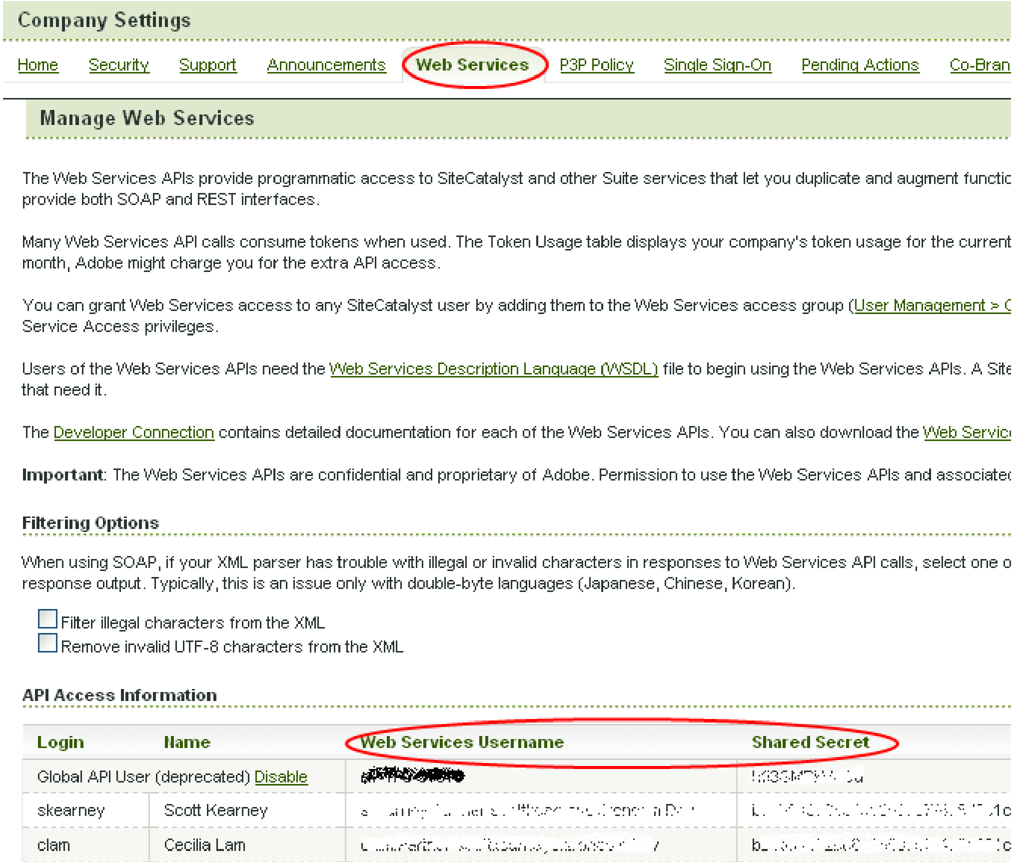
   a. Use the Code Manager screen's **Code Archive Name** field to assign a name to the files you created in the previous step.



b. Use the **Code Archive Description** field to assign a more detailed description to the files you created in *Analyzing Content* on page 601.
c. Click **Save**. Code Manager compresses the Page Code and Core Javsascript files into a .zip file, and displays them under **Saved Code**.
d. Click **Download** next to the saved .zip file. You are prompted to download the .zip file to your computer.
e. Click **OK**.
f. Open the downloaded .zip file.
g. Extract the `s_code.js` file to *site root*`\workarea\analytics\template`. You may be prompted to confirm that you are overwriting a file of that name already in the folder.

4. Update Ektron's `web.config` file.

NOTE: Your SiteCatalystWeb Services Username and Shared Secret. To obtain, log in to Adobe Online Marketing Suite and click **Admin > Admin Console > Company > Company Home > Web Services**.



a. Open your *siteroot*/`web.config` file.

b. Find the tag beginning with `<add name="SiteCatalyst"`.

c. Replace the SiteCatalyst tag's properties.

- **Name**—Do not change.
- **Type**—Do not change.
- **Username, Secret**—
  1. Go to `C:\Program Files\Ektron\CMS400vxx\Utilities\EncryptEmailPassword.exe`.
  2. Encrypt the SiteCatalyst Web Services Username and Shared Secret you obtained.
  3. Enter the encrypted values into these properties.
- **CompanyName**—Enter the company name obtained from Adobe when your account was created.
- **ReportSuiteID**—Enter the ReportSuiteID obtained from Adobe when your account was created.
- **SiteURL**—Enter the site URL. For example, `www.example.com`.
- **Endpoint**—Enter your account's endpoint. You obtain one when you set up your SiteCatalyst account. An endpoint looks like this: `https://api-sbx1.omniture.com/admin/1.2/rest/`.

- **CacheInterval**—You can use this field to cache the Analytics provider's data. Enter a number in seconds. The maximum 86400 (24 hours). Caching improves the performance of the traffic report page.
- **AnalyticsTrackingCodePath**—Do not change.

SiteCatalyst Reports

You can access site-level SiteCatalyst reports from within the Workarea by selecting **Reports > Traffic Analytics > SiteCatalyst**.

NOTE: The descriptions were adapted from SiteCatalyst Analytics Help Center (Adobe Marketing Cloud Sandbox Sign In). Check that site for additional details on the reports.

- *Analyzing Site Statistics* on page 604
- *Site Content* below
- *Mobile* on the next page
- *Paths* on the next page
- *Traffic Sources* on page 635
- *Products* on page 653
- *Visitor Retention* on page 654
- *Visitor Profile* on page 654

Site Metrics

Page views

Displays the number of times your website pages were viewed for the selected time period (hour, day, week, month, quarter or year). This report lets you track page views for each individual page on your site, as well as an aggregate of page views for your website as a whole.

Visits

Displays the number of visits made to your website during the selected time period.

Daily unique visitors

Shows the number of unique visitors to your site for a selected daily time frame. A unique visitor is counted the first time he/she visits your site within the selected time frame. If a visitor returns again to your site, they are not counted as a unique user again until the selected time frame has passed.

Time spent per visit

Reveals the length of time visitors spend viewing your site as a whole during each visit. It also has an Average Time Spent on Site statistic that shows the average time that was spent viewing your site, taken across all visitors.

Site Content

Pages

Ranks pages on your site based on those that receive the most traffic.

Site Sections

Shows the areas of your site that were visited most by your site customers. Site Sections could include (but are not limited to) groups of products, similar to Categories. Data for the Conversion Site Sections report is imported from the Site Section report in the Traffic group, which receives its information from the channel variable in the SiteCatalyst tracking code. You can use this report to identify the greatest impact on site statistics from items in varying site sections.

Servers

SiteCatalyst lets you group pages together that are being hosted by a particular server. For example, if you have a website that is hosted on two different servers, you may want to see if one server is serving more impressions than the other server. This report lists all of the servers of your website that are being tracked by SiteCatalyst and tells you which servers are being accessed the most.

Exit links

Shows links that your visitors click to leave your site and go to another site. Exit links are those links that take your visitor to another site. Most common examples of exit links are links to partners, affiliates, and so on.

Custom links

Shows links your site visitors prefer, helping you better understand the navigation patterns within your site.

File downloads

Displays files that have been downloaded from your website. These files can be any type of document you wish to track, including user manuals, presentations, audio, or video files. This report requires that link tracking code to be installed on the site you are tracking.

Pages not found

Lists the number of times a Page Not Found (404- error) page appears to your site visitors and lists the URLs of the pages that were not found.

Mobile

Mobile

Several criteria about mobile devices visitors use to access your site, such as device type, screen size, audio support, and so on.

Paths

Reloads

Shows the number of times individual pages were reloaded by page visitors.

Page depth

Identifies the depth at which each page within your site is visited. Depth for a page is measured by counting the number of pages viewed before that page. So, if your "About Us" page is the third page visited by a given visitor, its depth for that visit is 3. You can use this report to identify which pages compel your visitors to travel the deepest into your site and to optimize content and navigation to make key content more accessible.

Time spent on page

Displays the length of time that visitors browse individual pages in your site. The time spent is divided into 10 categories: less than 15 seconds, 15-30 seconds, 30-60 seconds, 1-3 minutes, 3-5 minutes, 5-10 minutes, 10-15 minutes, 15-20 minutes, 20-30 minutes and greater than 30 minutes.

Entry pages

Shows, by percentage and total visits, which pages on your site are the first ones seen by new visitors.

Original entry pages

Shows the first page viewed of the first-ever visit to your site. Each user is counted only once unless they delete their cookies or are not being tracked with cookie

Traffic Sources

Search keywords—All, Paid

Displays a breakdown of each search keyword that has been used to find your site. You can sort this list by page views or search keywords by clicking the column title above the listing. Click on the blue magnifying glass next to each search keyword to see the actual search results screens where your site was listed.

Search engines—All, Paid, Natural

Helps you learn which search engines people are using to find your Web page. The graph shows you the percentage breakdown of the search engines that have been used to find your site.

All Search Page Ranking

Shows the results pages on which your site links were located in the user's searches that were performed. For example, a user who came to your site from a search engine may have seen you on the third of one hundred pages of results. This can help you quickly see and optimize search engine efforts. Data for this report may be viewed for all but the 'Hourly' time period.

Referring domains

Shows the domains that referred the customers that most impacted your site's Success Metrics. Referrers fall into 2 main categories: Domains and URLs. Domains refer to the domain name, and appear as the base domain without the query string or subdirectories attached. URLs include the base domain name, as well as any query strings or subdirectories.

Original Referring Domain

Shows the original referrers that produced the customers on your site. Customers can visit your site multiple times, and have a different referrer for each visit. This report shows how they were referred the first time they arrived at your site. This can help you see if they continued to use the same referrer and view patterns in how customers are referred to your site. You can view the number of visitors generated by an original referrer or discover how much revenue each original referrer was responsible for producing.

Products

Helps you identify how individual products and groups of products (categories) contribute to your various conversion metrics, such as revenue or checkouts.

Visitor Retention

Return frequency

Shows the number of visitors who returned to your site within one of the following categories (representing the time lapse between visits): less than 1 day, 1-3 days, 3-7 days, 8-14 days, 14 days to 1 month and longer than 1 month.

Visit number

Provides another method for gauging visitor loyalty by displaying the visit number for each visitor that comes to your site.

Visitor Profile

Geosegmentation

- **Countries**—Shows countries from which visitors access your site. In addition to the standard "Ranked" and "Trended" views available on most reports, there is also a "Map" view that color-codes the countries according to their relative contribution to your total traffic-the more intense the color the greater the number of daily unique visitors from that country that are visiting your site
- **Regions**—Shows regions from which visitors access your site. To the right of each region shown, the country of the region is also shown in parentheses. Clicking the magnifying glass icon to the left of the region will open the line item in the SiteCatalyst Cities Report. With this report, you can see how a selected region performed compared to another on your web site.
- **State**—The U.S. states from which visitors access your site.
- **Zip/postal code**—Shows the zip and postal codes that produced the customers that had the greatest effect on purchase success metrics.
- **Cities**—Shows U.S. cities from which visitors access your site.
- **U.S. DMA** (Designated Market Area)—Shows the marketing areas within the United States from which visitors access your site. By clicking the link next to State in the Report Status header, you may restrict the report to marketing areas within a particular state. This data is provided via a partnership between Omniture and Nielsen Media Research, Inc. By clicking the Visitors Per Capita link next to Display in the Report Status header, you can adjust the data by the relative population of each marketing area. Enabling this option shows both the number of daily unique site visitors per 10,000 people living in the market area as well as the percent above or below the national average value. You can also generate a Correlation report by clicking the Correlation icon next to one of the market areas and selecting the item with which you want to correlate the data.
- **Visitor Home Page**—Another method of gauging visitor loyalty and assessing the perceived value your visitors place on your website's content. The report shows how often your visitors mark a page on your website as their 'Home Page' in their browser.
- **Language**—Displays your visitors' preferred languages. The Languages Report captures the default browser language and displays those most used by visitors to your site.
- **Time zone**—Displays the time zones your visitors are located in when they view your site. This report superimposes a bar graph (indicating the number of visitors) on a map of the world so you can quickly see what part of the world your visitors are from.

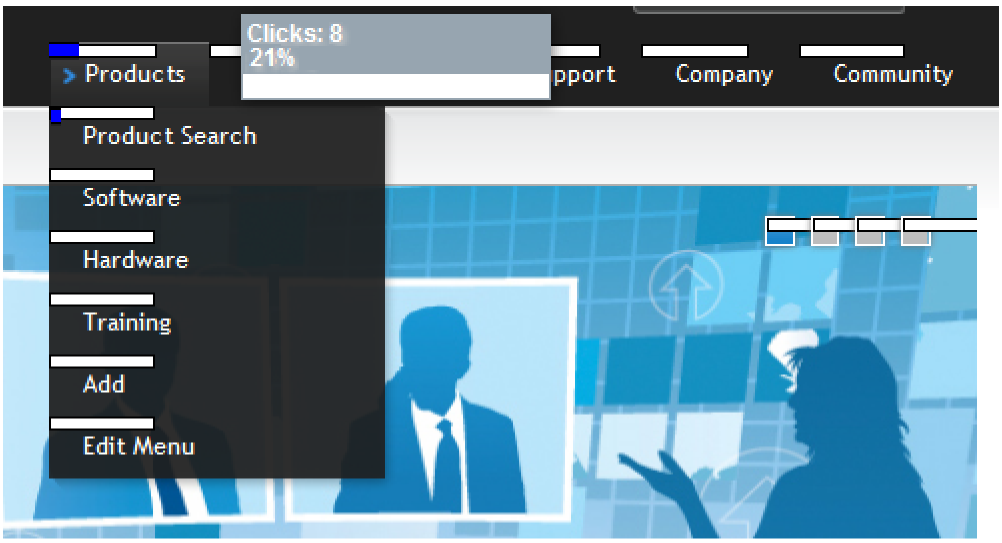
- **Domains**—Lists the organizations and ISPs your visitors use to browse your site. This report differs from the Full Domains report in that the Full Domains report registers the full ISP domain, whereas this report lists the secondary domain.
- **Top Level Domains**—Identifies world regions that visitors come from, based on their originating domain extension, and shows how many visitors come from these countries. Domains ending in Commercial (.com), Network (.net), Education (.edu), Government (.gov) and Organization (.org) are usually based in the United States, and are listed separately from the rest of the domains.

Technology

- **Browsers**—Identifies the types and versions of browsers that are used by your visitors.
- **Browser Type**—Classifies the browsers visiting your site into their major families
- **Browser Width, Browser Height**—Shows the most common widths or heights of the browsers (in pixels) your visitors use to view your site.
- **Operating Systems**—Shows which operating systems are being used by your site visitors
- **Monitor Color Depth**—Shows your visitors' most popular color-depth settings as configured on their computer. Color-depth refers to the number of colors that can be displayed on the screen.
- **Monitor Resolutions**—Shows screen resolutions that visitors to your website most commonly use, as configured on their computers.
- **Java, JavaScript** —The JavaScript Version report displays the versions of JavaScript your visitors' browsers use while viewing your site.
- **Cookies**—Shows the percentage of visitors that prefer to use cookies while browsing.
- **Connection Type**—Displays the percentage of your site's visitors that utilize high-speed Internet connections versus slower dial-up connections.

Setting Up Site Overlay

Site Overlay provides an easy-to-use visual map of popular links on a Web page, based on the frequency of clicks. When Site Overlay is enabled, each link on a page is represented by a horizontal bar graph. When you hover over the graph, you see its statistics. The following image shows menu links and the overlay bar graphs.

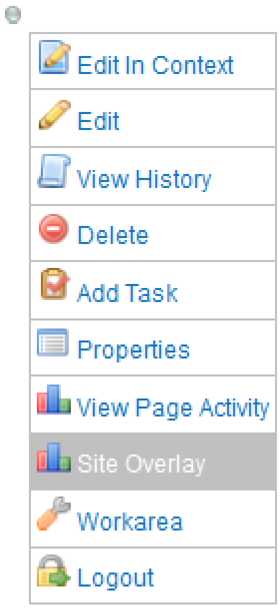


Prerequisites

- Site Overlay requires Google Analytics as your Web Traffic provider.
- Set the `web.config` key `ek_AutoInsertBeaconScript` to true.
  `<add key="ek_AutoInsertBeaconScript" value="true" />`

To enable Site Overlay, access the Content Menu by hovering over the access point ( ) and selecting **Site Overlay**.

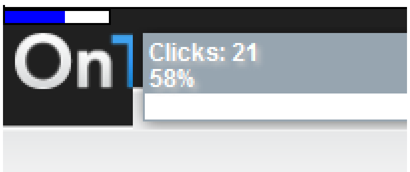
NOTE: You must be assigned the *Analytics Viewer* role or a member of the *Administrators group*.



- When Site Overlay is enabled, a toolbar appears at the top of the page and lets you change the date range of the Site Overlay data.

- Change the date range to view statistics for a different period. Default is one month before today. To refresh the page, click Refresh ( ).
- Click **Remove Overlay** to disable Site Overlay.

On every place that a visitor can click on your Web page, a bar graph indicates the percentage of clicks on this element. When you hover over a bar graph, you see a click count and a percentage comparing these clicks to all clicks on the page.



Troubleshooting Site Overlay

You may encounter these issues.

- **Error message**—*"Username and/or password not set. Please update the AnalyticsDataProvider section on your* `web.config`*. Parameter name: Username,* *Password."*

- The Google Analytics provider must be configured in `web.config`. See
- Clicks are not showing on the Overlay.
  - Be sure enough time has elapsed since the clicks occurred and the Google Analytics provider has recognized them. (24 hours)
  - Check that the key for `ek_AutoInsertBeaconScript` is `true`.

Remarks about the data

- Data providers typically record clicks based on the `link href` parameter. If a link with identical hrefs exists in more than one location on a page, the data provider reports each one clicked the same, equal to the total of all clicks for that href on that page. This means that if link A is clicked 10 times and link B is never clicked, but they have the same href parameters, both show 10 clicks.
- Some providers are case-sensitive in certain cases; Google data has been shown to report data separately when a letter-case of the page's URL changes. Therefore, clicks for “Test.aspx” might not show up for “test.aspx”.

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15

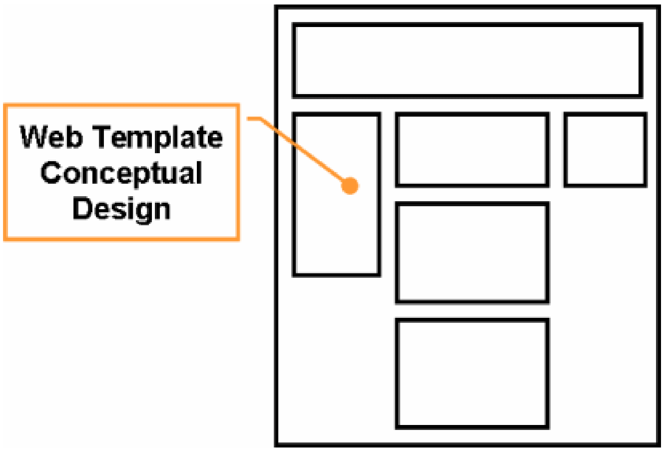
Creating Web Pages with PageBuilder

PageBuilder lets you easily create new pages on your website. The page template that you choose is initially created by a developer, but you provide final content, design, and placement of functionality on the Web page.

The PageBuilder work flow has the following stages:

1. Define the "look and feel" for your website.

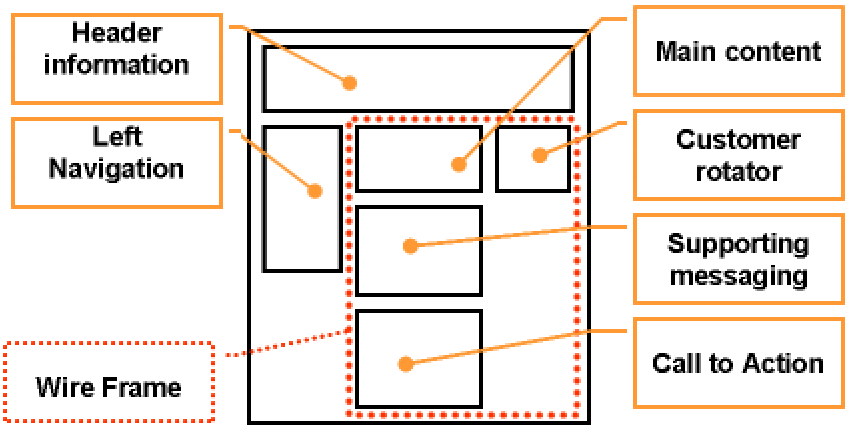
   Stakeholders may include the CIO, the marketing team, Ektron administrators, Web designers, and developers. When a consensus is reached, the marketing team defines the page layout and presents it to the whole team for review and approval.



2. Create the wireframe templates.

   A developer creates a wireframe template, which is the basic architecture for a Web page. The developer adds dropzone user controls where non-technical users into which content authors place functional widgets and manage the content, design, and messaging.

   Developers manage the level of control non-technical users have. For example, a developer can configure limits for the width of dropzones. The developer should understand the requirements and use, modify, or build widgets based on the requirements. PageBuilder lets IT develop the back-end of a system and address the technical nuances that today’s websites generate.

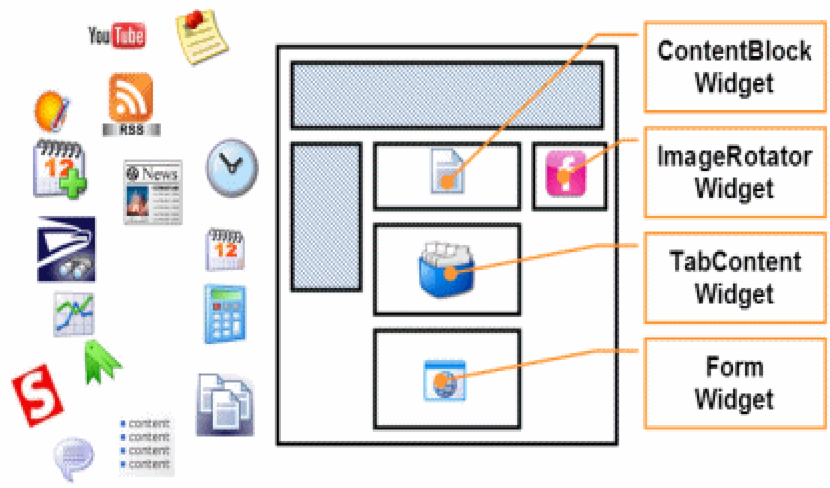


3. Create permissions for content authors.

   After a wireframe is created, an administrator assigns the wireframe to a folder, creates a page, and chooses the widgets that user can place on the page.

4. Build and maintain Web pages.

   When wireframe templates are available, you choose the page template you want to use and create new pages, drag-and-drop widgets, edit properties, and so on. You create and maintain content.



PageBuilder pages have the same business-level controls as content blocks. Like other Ektron content, PageBuilder pages maintain permissions, approval chains, enable SEO (through metadata), taxonomy, Aliasing, and allow users to view histories and restore past versions.

Approvers can preview PageBuilder pages before they go live, and pages can be cloned and then modified to maintain consistency across campaigns or to support A/B split testing.

Additional PageBuilder Video Resources

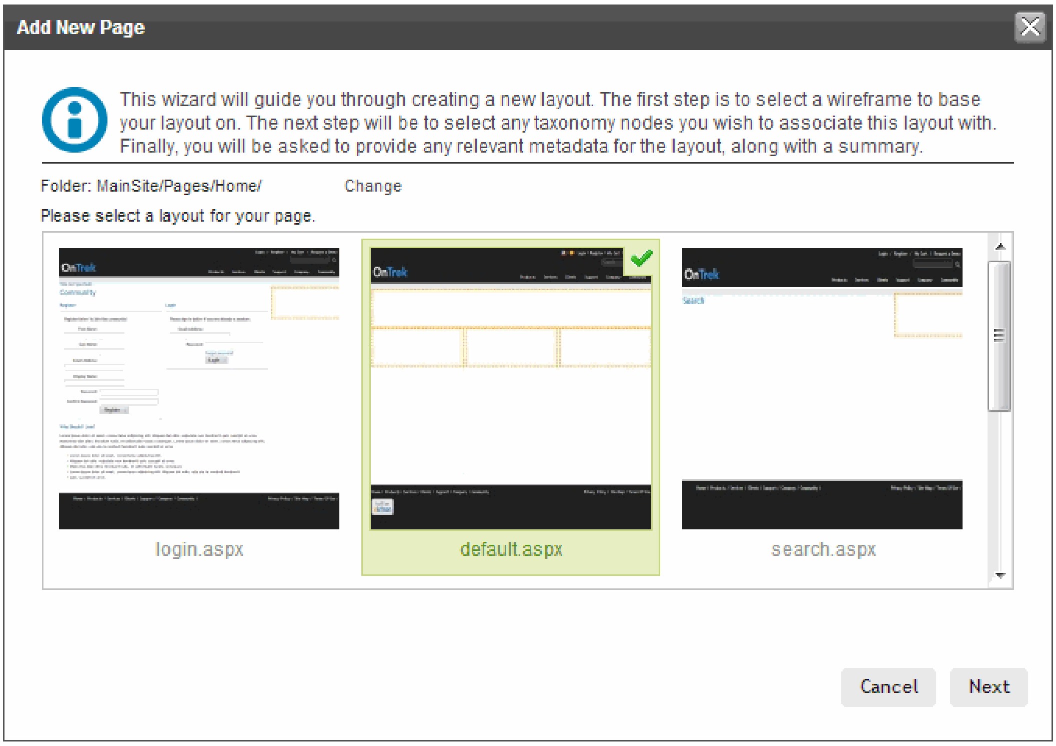
- PageBuilder for Marketers
- PageBuilder for Developers

Creating New PageBuilder Pages

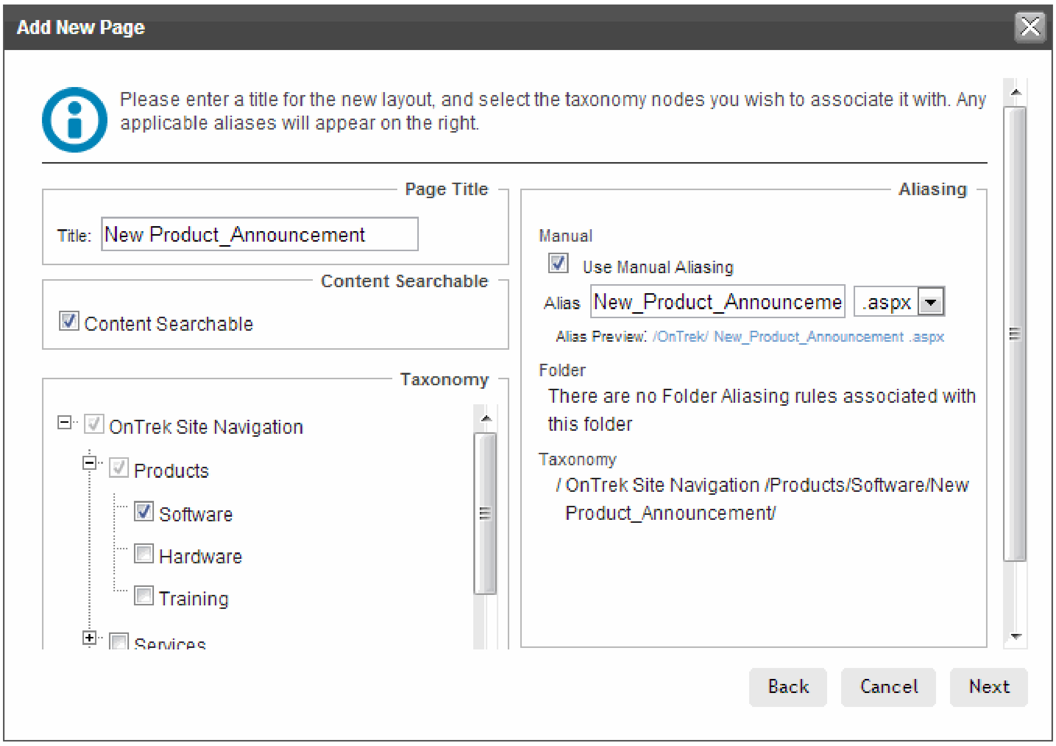
You can create a new PageBuilder page from the PageBuilder menu on your website, or from the Workarea. You must have permissions as a content author to log in and make changes to your website. See *Defining Roles* on page 1120

Creating a New PageBuilder Page from Your website

1. Log into your website.
2. Open the PageBuilder menu and choose **File > New Page**. The Add New Page wizard appears.



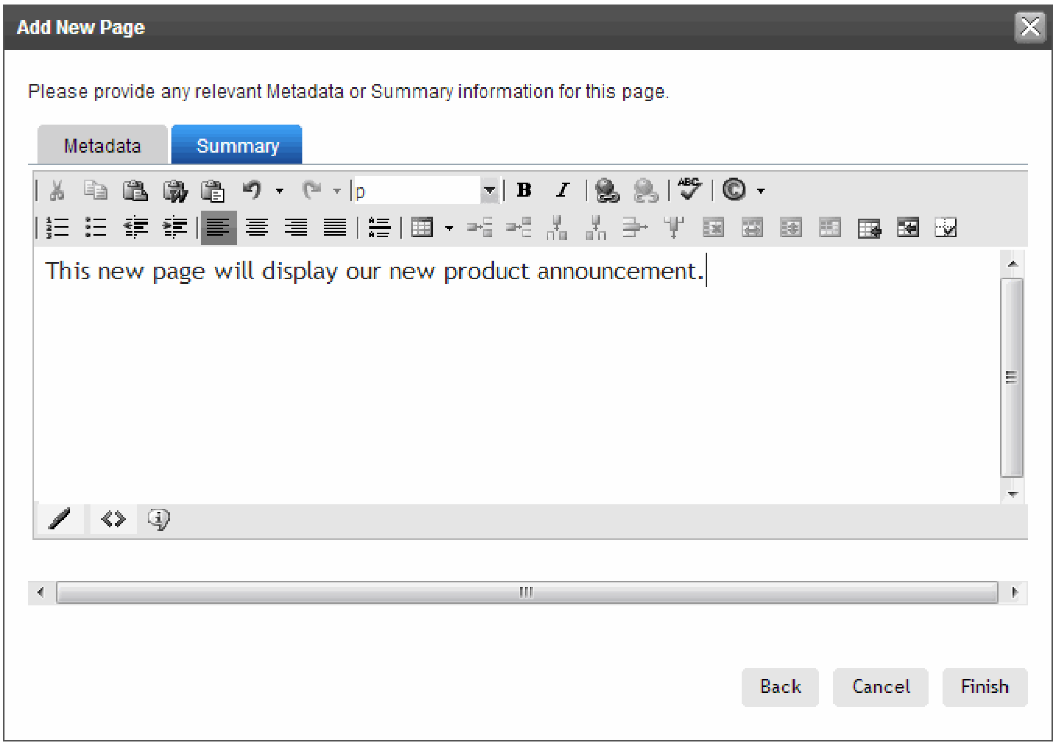
3. Click on your choice of template. It is highlighted and shows a check mark on it.
4. Click **Next**. The wizard shows fields to define your new page.



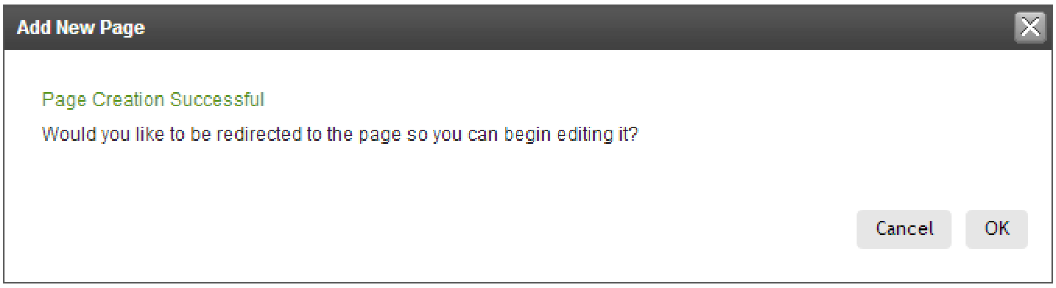
5. Enter a title in the **Title** field, enable **Content Searchable**, and choose a taxonomy. By default, the Manual Alias matches the **Page Title**.

IMPORTANT: You should use automatic aliasing in most cases because you cannot standardize an aliasing pattern with manual aliasing. Automatic aliasing standardizes alias naming. See *Creating Automatic URL Alias Rules* on page 849 for information about automatic aliasing.

6. Click **Next**. The wizard shows Metadata and Summary information that you can enter. See Also: *Writing a Summary for Content* on page 292; *Working with Metadata* on page 369



7. Click **Finish**. A confirmation dialog box appears.



8. Click **OK** to start editing the page.

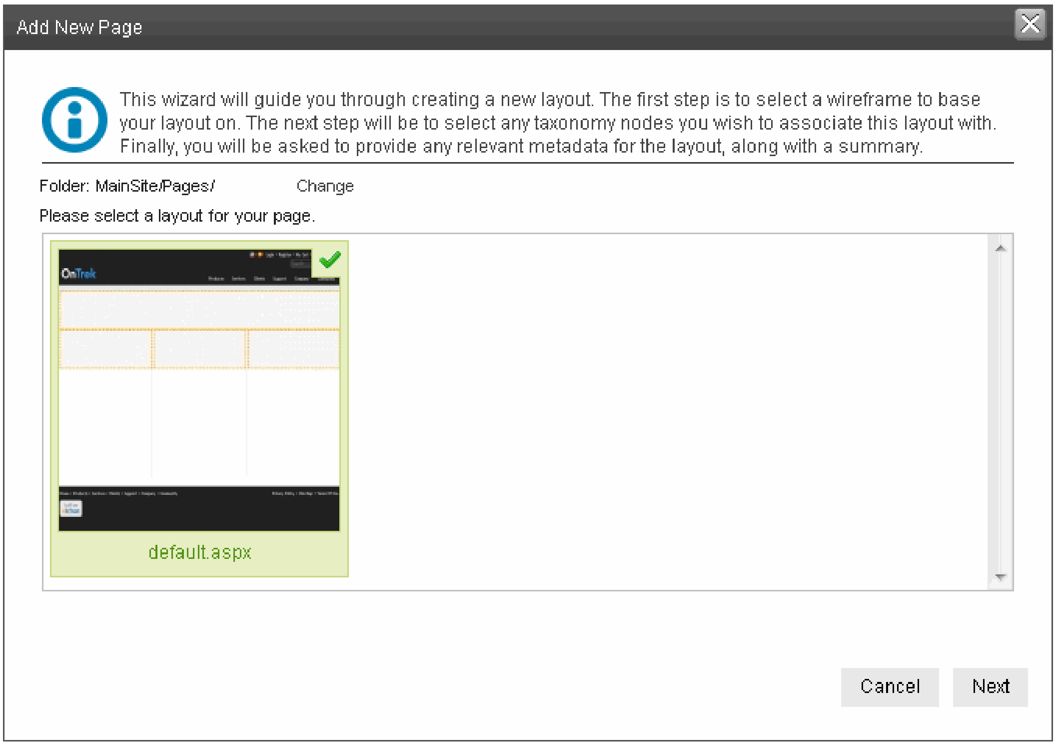
Creating a New PageBuilder Page In the Workarea

PREREQUISITE

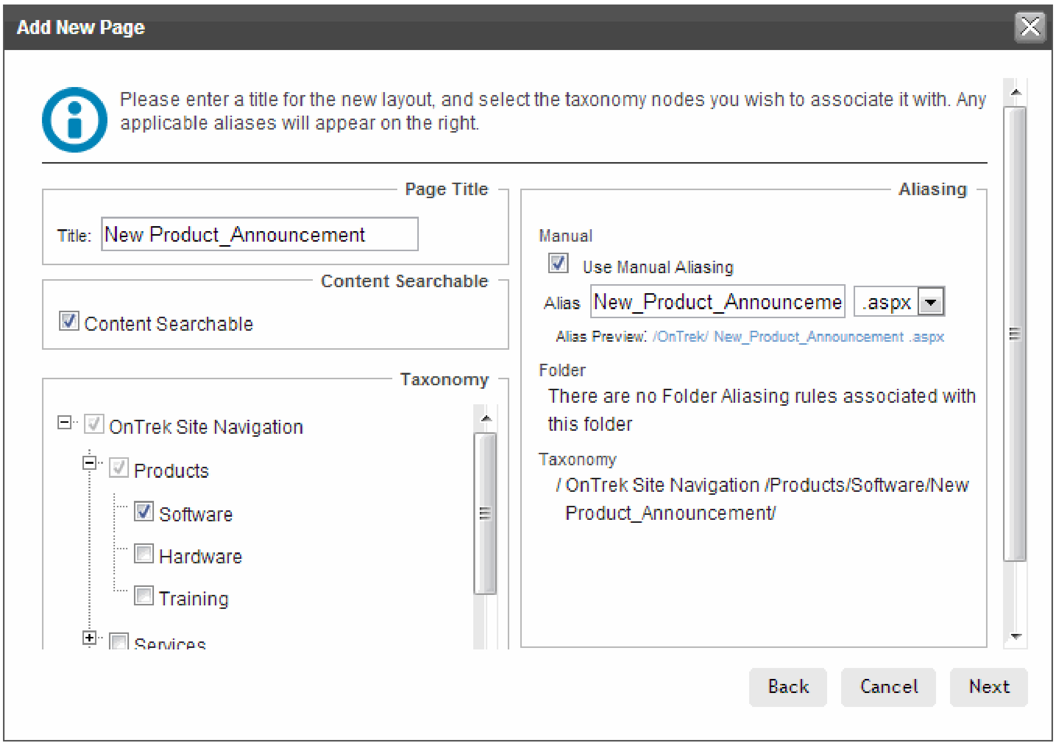
You must have wireframes already created in a folder. See *Assigning the PageBuilder Wireframe to a Folder* on page 686.

1. Click on the Pages folder (or one of its subfolders) where you want to add the new page.
2. Choose **New > Page Layout**.
3. The Add New Page screen appears. (Because only one template is assigned to the folder,

it appears as the default.)

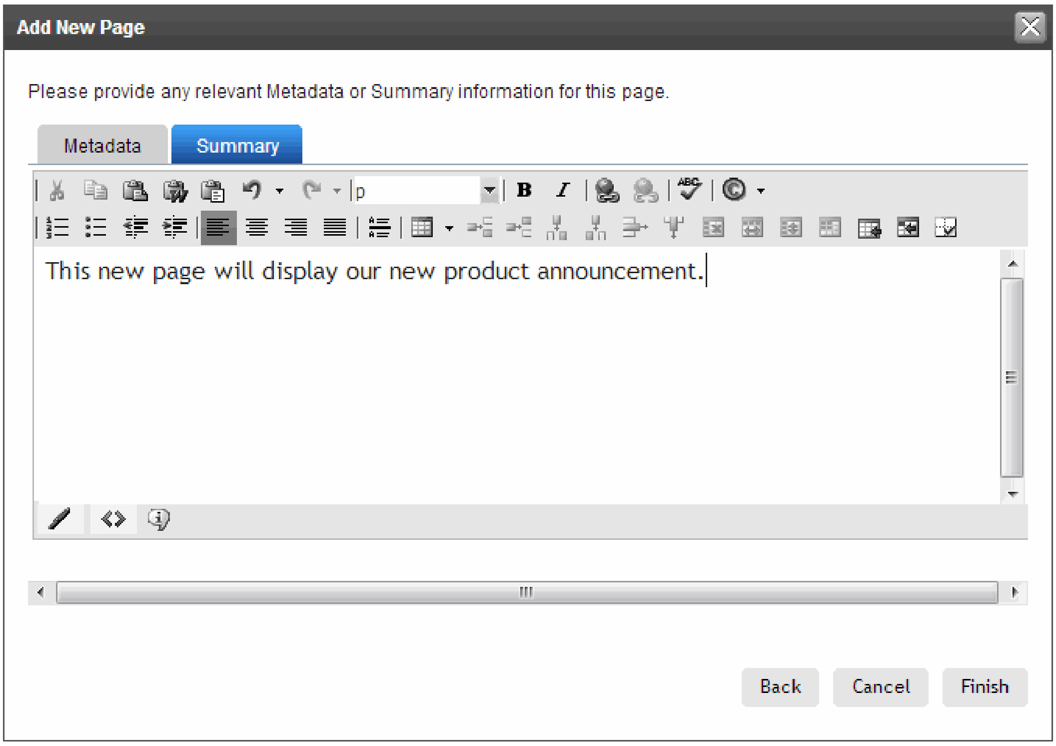


4. Click **Next.** A new screen appears, which lets you assign a title, Taxonomy, and aliasing information to the page.

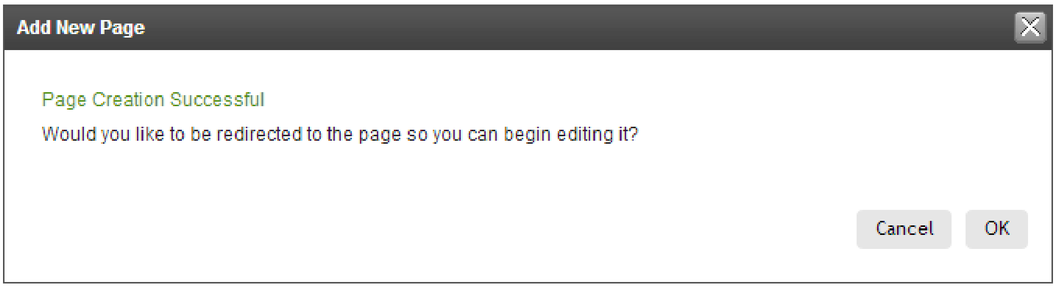


5. Enter a title in the **Page Title** field
6. By default, the Manual Alias matches the **Page Title**.

7. Click **Next**. The following screen appears, which lets you assign metadata and a summary to the page. See Also: *Writing a Summary for Content* on page 292; *Working with Metadata* on page 369



8. Click **Finish**. A confirmation dialog box appears. Click **OK** to start editing the page.



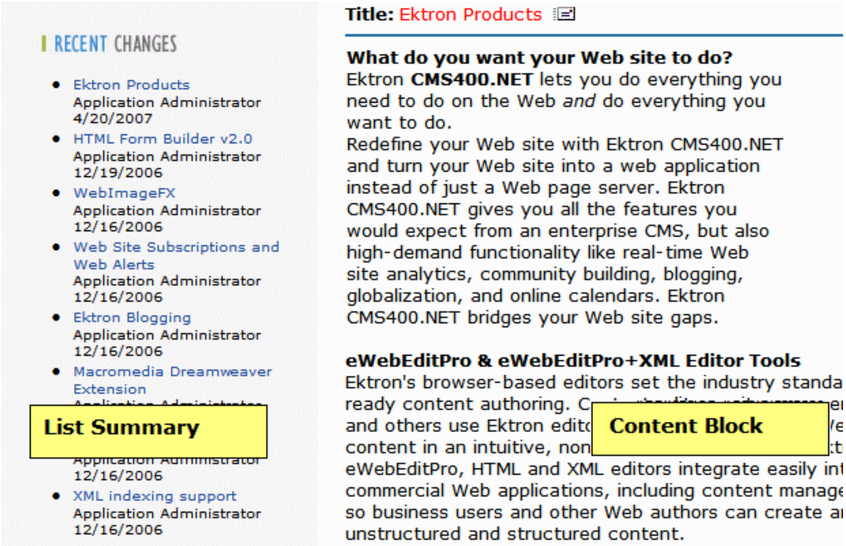
Editing Content on a PageBuilder Page

After the page is created, a new page opens where you can design the page and other actions, such as check in, view properties, and drop widgets onto the page. To keep the menu open, click the pin icon ( ).

NOTE: For information about how to create a widget, see *Creating the "Hello World" Widget* on page 716.

The following image shows a page with a 2-column layout.

- The left column, 35% wide, displays a list of content in the Marketing folder. website visitors use the list to access Marketing collateral.
- The right column, 65% wide, displays one content block.

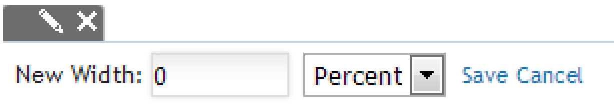


Step 1: Add New Column and Set Column Widths

NOTE: If your developer sets dropzone column widths programmatically (as explained in *Setting a Dropzone's Column Width Programmatically* on page 691), you cannot add a column as described here. Many developers disable this option because it gives end users liberty to resize columns when you may want to standardize your layout. If your developer has disabled this option, go to Step 2.

Add a second column to the right of the top one. Then, set the width of both columns.

1. Click **Add Column** ( ). A new column appears to the right of the existing one.
2. Set the left column width to 35%. To do this:
   a. Click **Resize** ( ).
   b. Enter **35** into the **New Width** field.
   c. Change the measurement to **Percent**.
   d. Click **Save**.



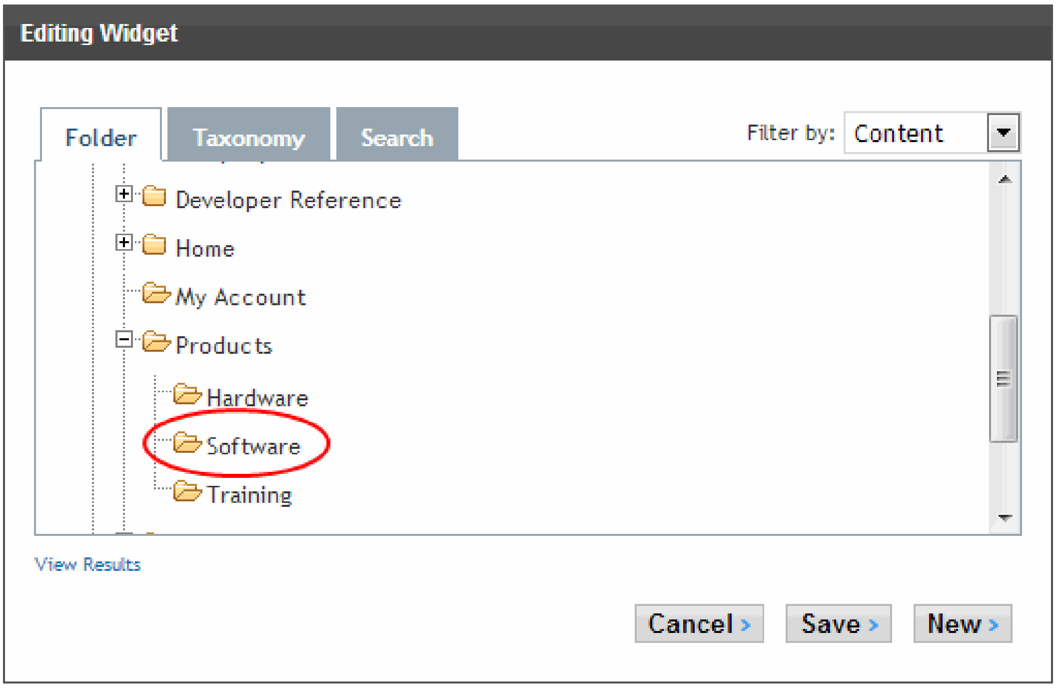
3. Set the right column to 65% width by clicking the pencil icon, changing its width to **65 Percent**, and clicking **Save**.

Step 2: Insert New Content Block Widget into Right Column

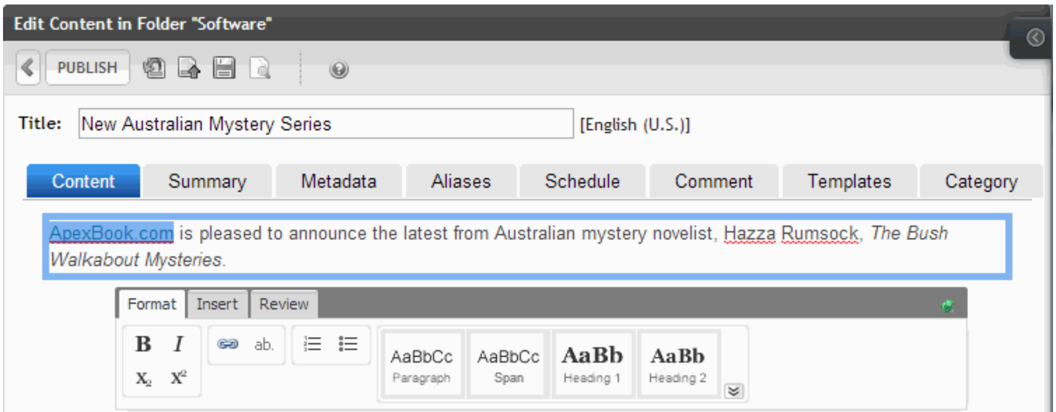
When the columns are set, insert a ContentBlock widget into the right column.

1. From the PageBuilder tool bar, open the widget menu ( ). It shows widgets that the administrator assigned to the page wireframe in *Creating a PageBuilder Wireframe* on page 676.
2. Drag and drop the Content Block widget to the right column. The Content Block Control appears in the column.

3. Click **Edit** (). The Editing Widget screen appears.

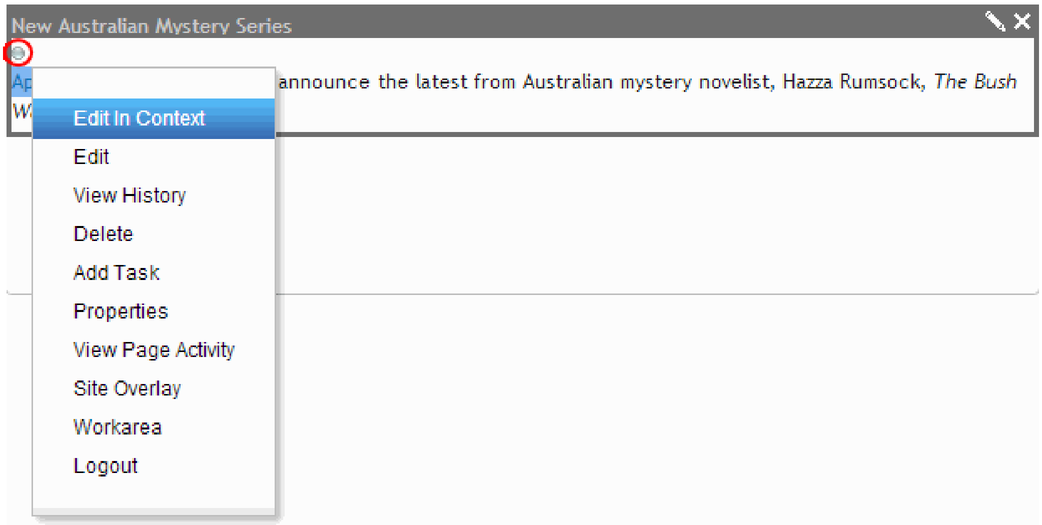


4. On the Folder tab, choose **Root > Mainsite > Content > Products > Software** and click **New** to place the new content in the Software folder. The Edit Content screen appears.
5. Add a **Title**.
6. In the content area, enter some text and click **Publish**.



When published, the content appears in the column.

7. If you want to edit content on this page, click the Access Point (◉). A menu displays.

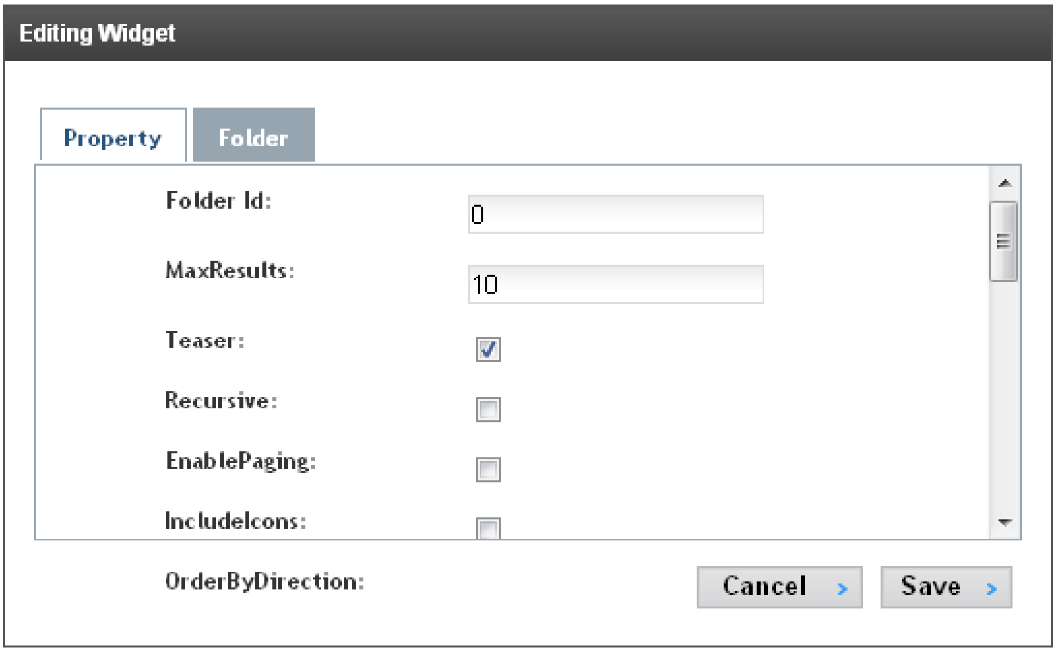


Step 3: Insert a List Summary Widget into Left Column

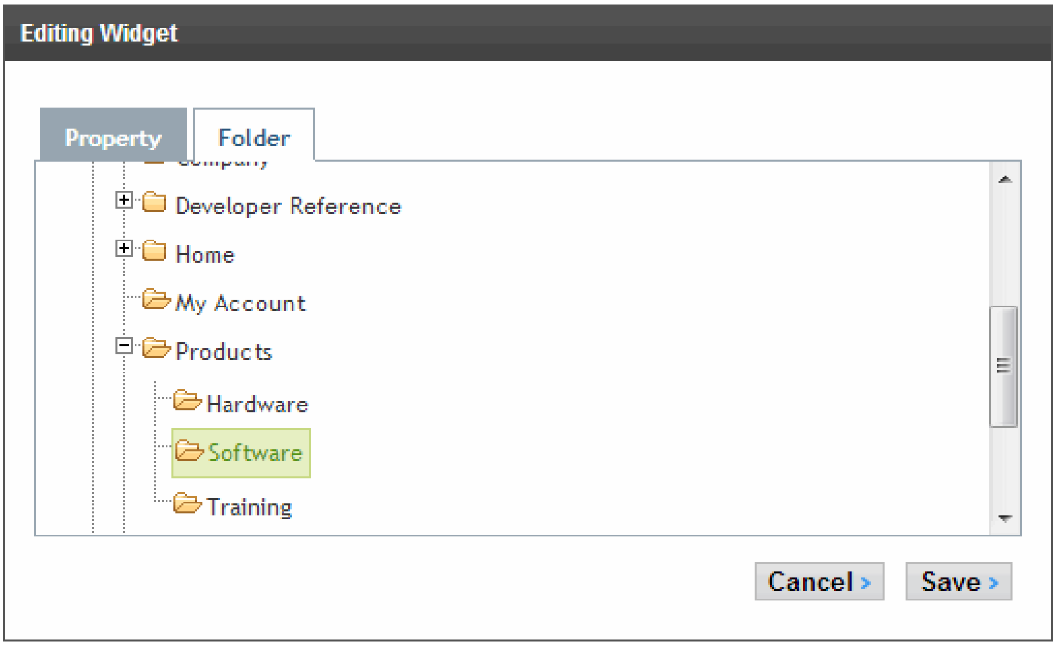
After you insert content in the right column, insert a List Summary widget in the left column.

1. From the PageBuilder menu, open the widget menu ( ). Widgets assigned to the page wireframe in *Creating a PageBuilder Wireframe* on page 676 appear.
2. Drag and drop the List Summary widget into the left column. The List Summary widget appears, displaying a list summary for content in the root folder.

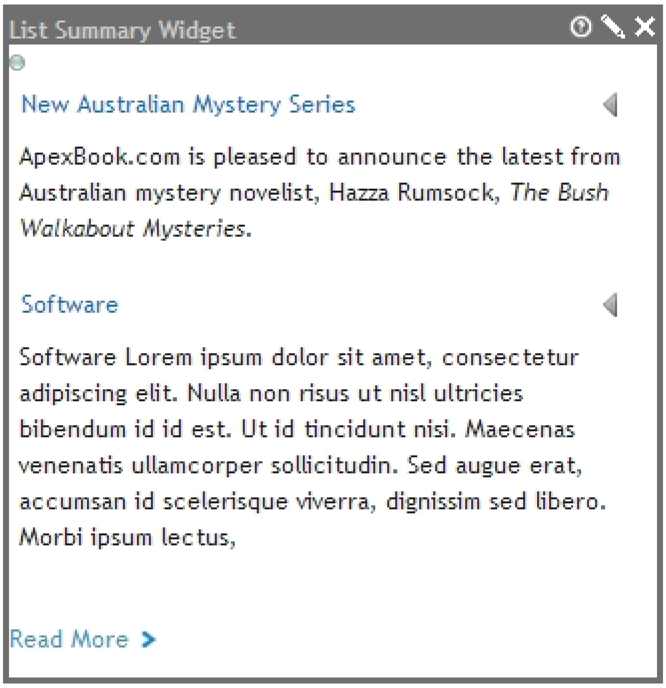
3. Click **Edit** ( ). The Editing Widget screen appears.



4. On the **Folder** tab, choose **Root > Mainsite > Content > Products > Software**.



5. Clicks **Save**. The List Summary widget shows the Summary information from the content in the Software folder.

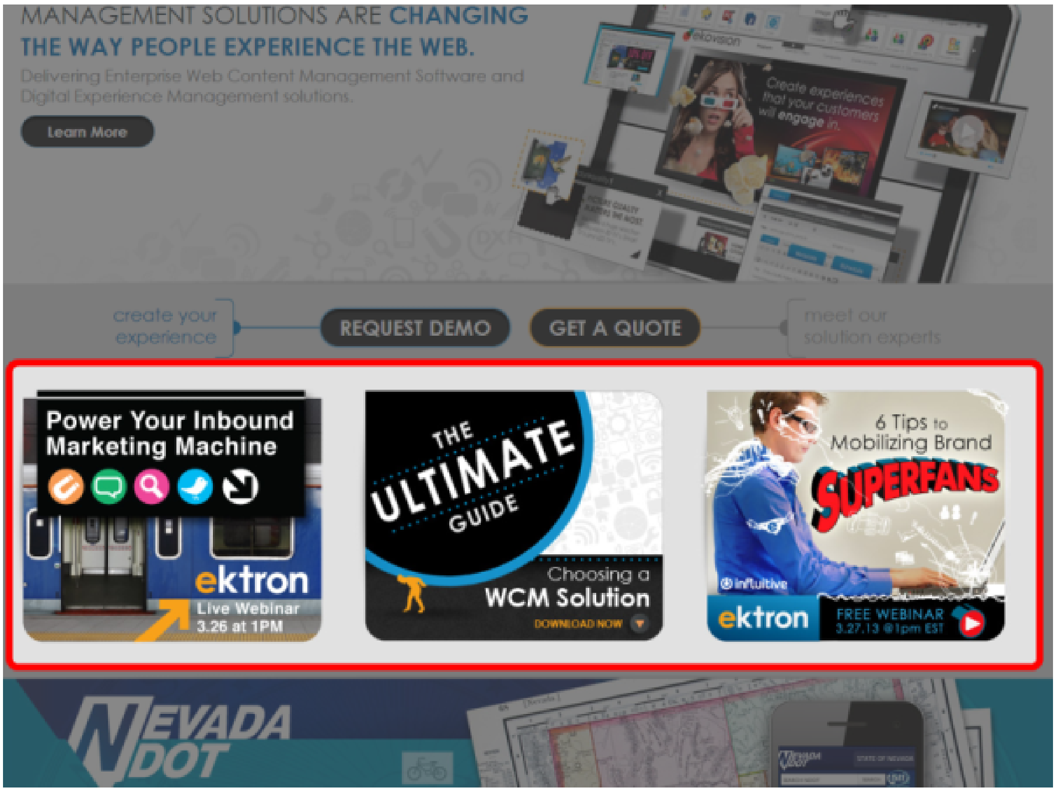


6. From the PageBuilder menu, choose **File > Check In**. You can review the page in Preview mode and make sure it is formatted properly.
   - Choose **View > Preview Layout** to see the page in a browser.
   - Choose **View > Mobile > iPhone**, **iPad**, or **Droid** to see the page on a simulated mobile device.
7. When the page is complete, choose **File > Publish** from the PageBuilder menu.

Using Responsive Frameworks with PageBuilder

You can modify the look of a page by adding columns that can contain dropzone elements. Each column that you add responds according to the design rules that are applied to your site. For Ektron releases prior to Version 8.7, when you added a column to a PageBuilder page, you selected a unit of measurement (pixel, em, percent) and number of units (for example, 200). With Version 8.7 and beyond, you also can choose your site's CSS framework (for example, Bootstrap).

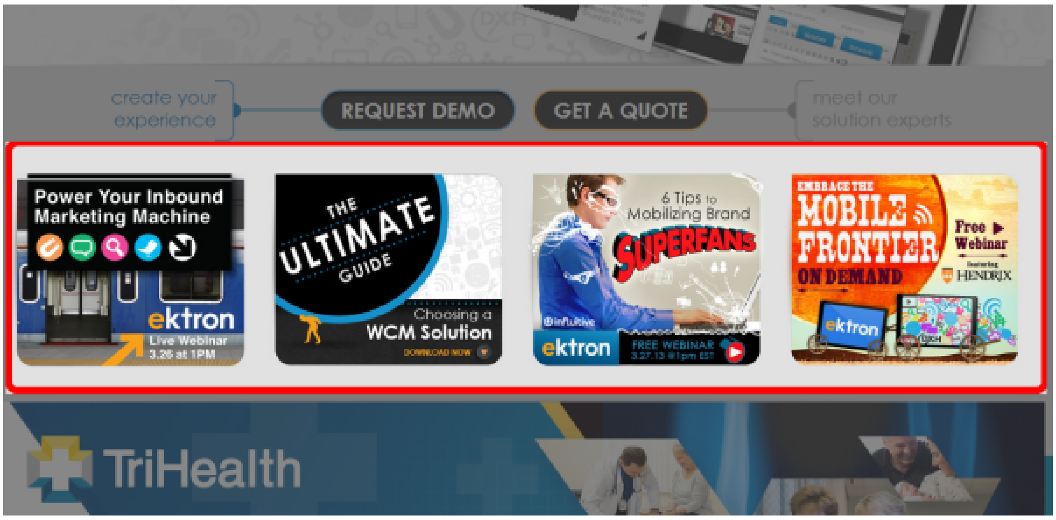
Responsive Web Design (RWD) lets columns fit in a window without horizontal scrolling. The following image shows a Web page built with the Twitter Bootstrap framework and PageBuilder. The highlighted section displays 3 columns within 1 PageBuilder dropzone. Each column displays a different widget.



When this page is resized, styles rearrange the columns so that they fit without horizontal scrolling.

If you want to add another column and more widgets to a row, apply styles to the column according to the website's CSS framework.

To continue the example, the row now has 4 columns. Apply to each column a value of `Span3`, so the combined width totals `span12`, the maximum width of a Bootstrap page. Now, 4 columns (each containing widgets) fit into this section of the page. If the browser is resized, each column is sized according to the Bootstrap styles.



If you view this page on a smart phone, the columns are rearranged.

You can use a variety of RWD frameworks, such as:

- **Twitter Bootstrap**—a free collection of tools for creating websites and Web applications that contains HTML and CSS-based design templates for typography, forms, buttons, charts, navigation, other interface components, and optional JavaScript extensions. See the Twitter Bootstrap website.
- **Foundation**—a light-weight framework for rapidly building prototypes and production websites. See the Foundation website.

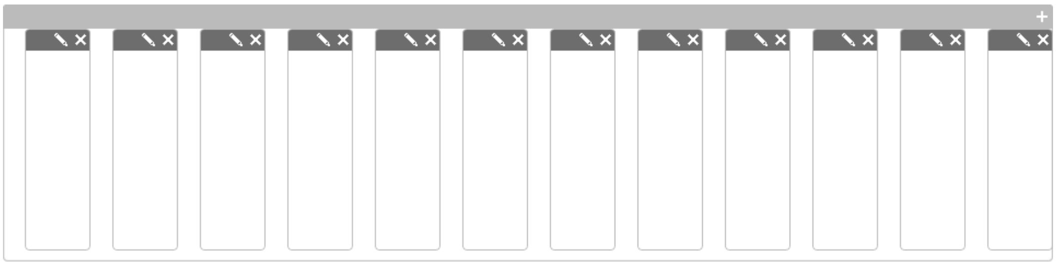
- **Skeleton**—a small collection of CSS files for rapid development of sites that look beautiful at any size. See the Skeleton website.

IMPORTANT: The `pagebuilder.config` file contains sample data from the Twitter Bootstrap and Foundation frameworks. If you use a different RWD framework (such as Skeleton), add the necessary CSS style sheets to your site, and update `pagebuilder.config` with the framework's class names and CSS paths. See *Creating Web Pages with PageBuilder* on page 659.

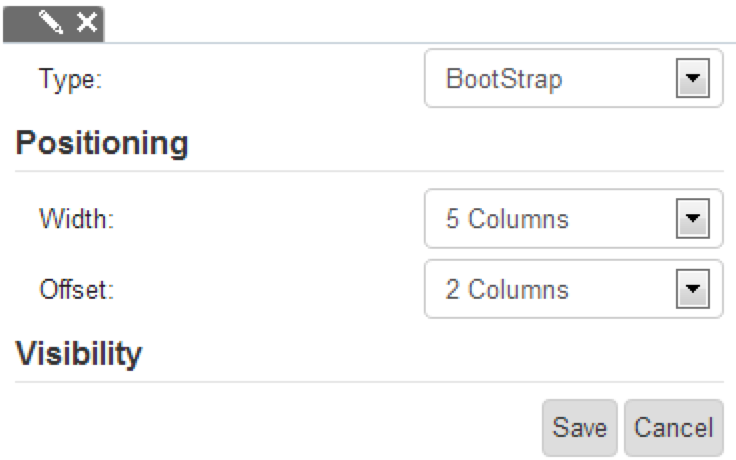
Any element on the page can take as many columns as it needs, but all elements in a row must not exceed the maximum number of columns. Twitter Bootstrap and Foundation have a grid system of 12 columns per row; Skeleton has 16 columns per row. For example, the following patterns represent how many columns each element uses in a row. No pattern exceeds 12 (unless you use Skeleton's 16 columns); periods indicate offset columns (spaces). An offset pushes a column to the right. See the following examples.

```
1 1 1 1 1 1 1 1 1 1 1 1 — 12 single columns
4 4 4                   —  3 columns (4 columns-wide each)
1 1 2 3 4 1             —  6 columns (varying column widths)
6 6                     —  2 columns (6 columns-wide each)
4 . . . . 4             —  2 columns (4 columns-wide, with a 4-column offset)
. . . 3 . . . 3         —  2 columns (3 columns-wide, with 2 offsets)
. . . . 8               —  1 column  (8 columns-wide, with a 4-column offset)
. . 5 . . . . .         —  1 column  (5 columns-wide, with a 2-column offset)
```

The following result occurs from adding 12 columns of Type: **Bootstrap**.



When you add a column to a PageBuilder page and click **Resize** ( ), then chooses the Type: **Bootstrap**, the following Resize form appears.



The following result occurs from choosing Type: **Bootstrap**, Width: **5 Columns**, Offset: **2 Columns** (which leaves 5 columns to the right).

The following result occurs from adding a column to the previous example, and choosing Type: **Bootstrap**, Width: **4 Columns**, Offset: **1 Column** for the new column. (Pattern: `. . 5 . 4`)

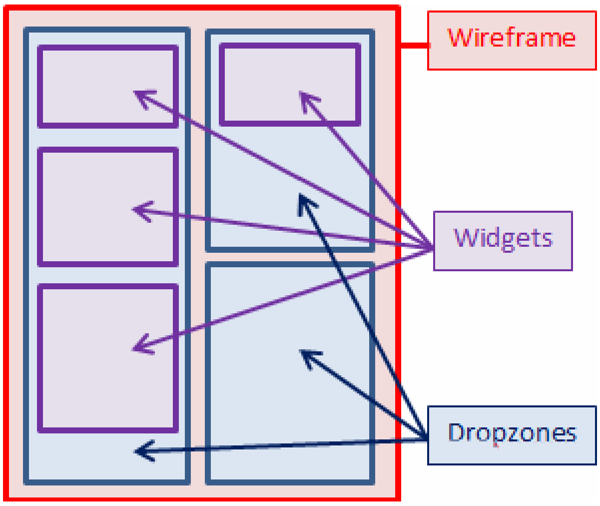
Note that if you shrink the window from right to left, the second column gets moved under the first, as follows:

Developing Wireframe Templates

NOTE: Internet Explorer cannot accommodate more than 32 style sheets in one page. This problem can affect PageBuilder pages, because each widget may include one or more style sheets, and a page can host any number of widgets.

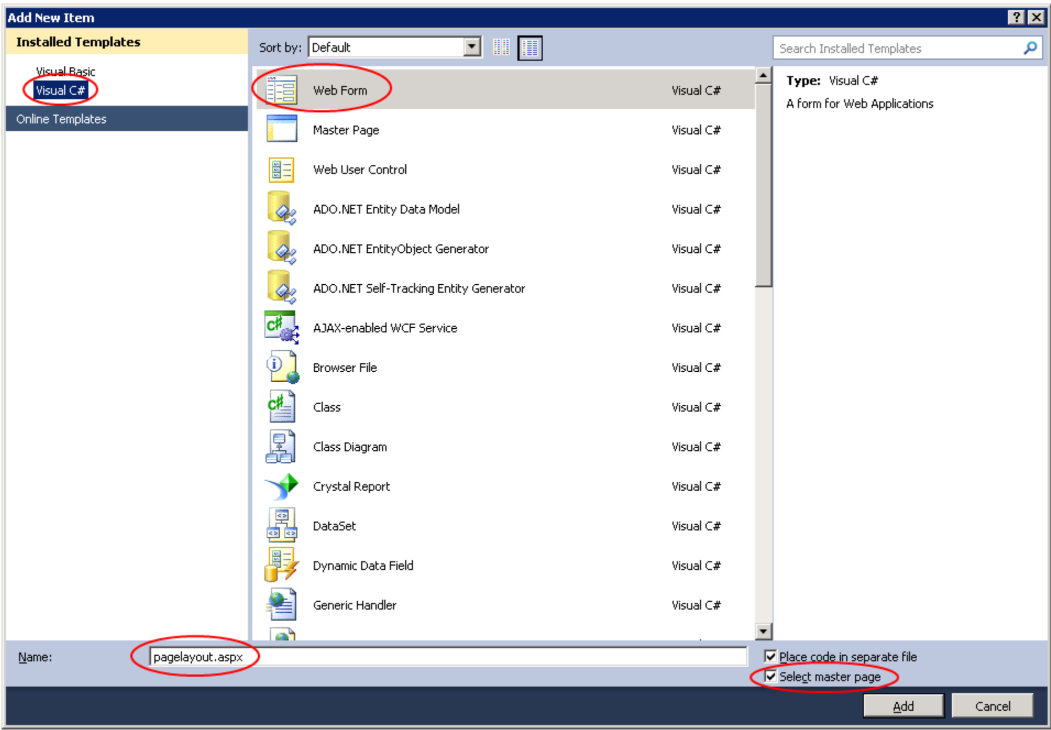
Creating a PageBuilder Wireframe

You first create a wireframe. Next, define the dropzone, one or more areas of the page on which a content creator drags and drops *widgets*. The relationship between a wireframe, a dropzone, and a widget is illustrated below.



To create a wireframe that contains one dropzone:

1. Open the website in Visual Studio.
2. Choose **Web Site > Add New Item** to add a new Web form to the site.
3. Select **Web Form**.
4. Set the **Name** to `PageLayout.aspx`, the **Language** to Visual C#, and check **Select master page**.



5. Click **Add**.
6. When prompted to select a master page, choose from the directory *siteroot*/components/templates.
7. Register the user controls directly below the @Page directive (at the top of the file).

```
<%@ Register Assembly="Ektron.Cms.Controls"
Namespace="Ektron.Cms.Controls" TagPrefix="CMS" %>
```

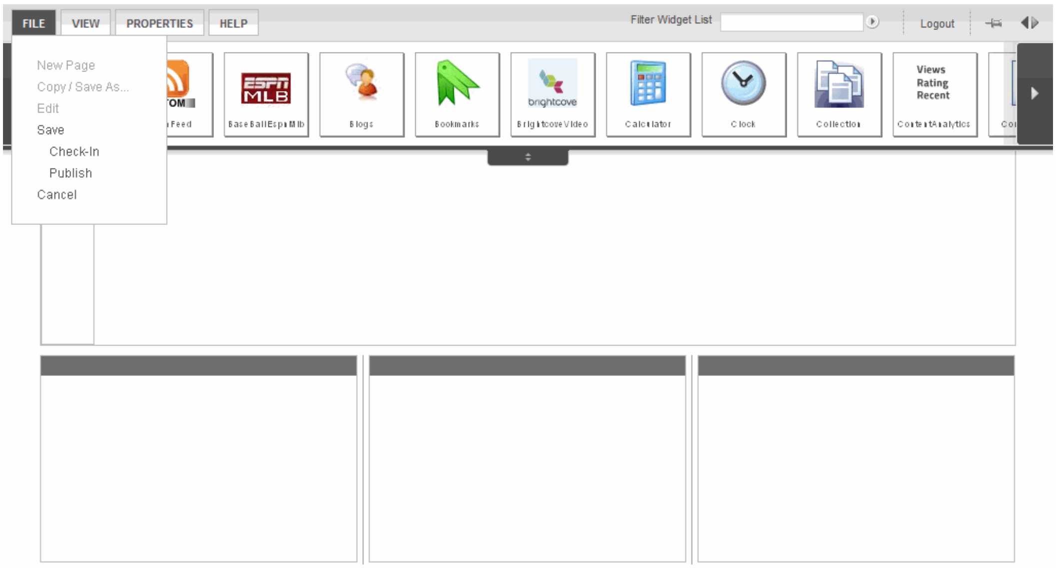
```
<%@ Register Src="~/Workarea/PageBuilder/PageControls/PageHost.ascx"
  TagPrefix="PH" TagName="PageHost" %>
<%@ Register Src="~/Workarea/PageBuilder/PageControls/DropZone.ascx"
  TagPrefix="DZ" TagName="DropZone" %>
<%@ Register Assembly="Ektron.Cms.Widget"
  Namespace="Ektron.Cms.PageBuilder" TagPrefix="PB" %>
```

8. Add code for a PageBuilder Menu (PH: PageHost) and Dropzone. To do this, locate the `ContentPlaceHolder1` and enter this code.

IMPORTANT: When inserting the following code, begin the `<ColumnDefinitions>` statements with the TagPrefix on the widget assembly registration line (`PB` in the example above). Do *not* use IntelliSense when entering `<ColumnDefinitions>` statements—it may insert an incorrect prefix.

```
<PH:PageHost ID="PageHost1" runat="server" DefaultPageID="937"
  SelTaxonomyID="94" />
  <DZ:DropZone ID="Middle" runat="server" AllowAddColumn="false"
    AllowColumnResize="false">
  <ColumnDefinitions>
   <PB:ColumnData width="100" columnID="0" unit="pixels"></PB:ColumnData>
   <PB:ColumnData width="100" columnID="1" unit="pixels"></PB:ColumnData>
   <PB:ColumnData width="100" columnID="2" unit="pixels"></PB:ColumnData>
  </ColumnDefinitions>
  </DZ:DropZone>
```

With the PageBuilder menu (PageHost) and Dropzone in place, the template looks like this when you are logged in and ready to configure a PageBuilder page.



This control lets a content author drop widgets on the page. It also provides the save/check in/publish functions, and lets the author preview the page when it is published. The content author uses a Dropzone control as a placeholder, into which you insert widgets. You also can use it to insert additional placeholders as needed.

The `pagelayout.aspx` code now looks like this.

```
<%@ Page Language="C#" MasterPageFile="~/AcmeBooksMasterPage.master" AutoEventWireup="true"
CodeFile="PageLayout.aspx.cs" Inherits="PageLayout" Title="Untitled Page" %>
<%@ Register Assembly="Ektron.Cms.Controls" Namespace="Ektron.Cms.Controls" TagPrefix="CMS" %>

<%@ Register Src="~/Workarea/PageBuilder/PageControls/PageHost.ascx" TagPrefix="PH" TagName=
"PageHost" %>
<%@ Register Src="~/Workarea/PageBuilder/PageControls/DropZone.ascx" TagPrefix="DZ" TagName=
"DropZone" %>
<%@ Register Assembly="Ektron.Cms.Widget" Namespace="Ektron.Cms.PageBuilder" TagPrefix="PB" %>

<asp:Content ID="Content1" ContentPlaceHolderID="ContentPlaceHolder1" runat="Server">
<PH:PageHost ID="PageHost1" runat="server" DefaultPageID="937" SelTaxonomyID="94" />

<DZ:DropZone ID="Middle" runat="server" AllowAddColumn="false" AllowColumnResize="false">

    <ColumnDefinitions>

        <PB:ColumnData width="100" columnID="0" unit="pixels"></PB:ColumnData>

        <PB:ColumnData width="100" columnID="1" unit="pixels"></PB:ColumnData>

        <PB:ColumnData width="100" columnID="2" unit="pixels"></PB:ColumnData>

    </ColumnDefinitions>

</DZ:DropZone>
</asp:Content>
```

Best Practice

Assign an appropriate value for the `SelTaxonomyID` property. See *Assigning a Default Page to a Wireframe* on page 687 and *Assigning a Default Taxonomy Category to a Wireframe* on page 688.

9. Open the code-behind page, `PageLayout.aspx.cs`.
10. Add a reference to the PageBuilder namespace by adding the following line after the last using statement.

```
using Ektron.Cms.PageBuilder.
```

11. Inherit the PageBuilder class instead of `System.Web.UI.Page`. To do this, change:

```
public partial class PageLayout : System.Web.UI.Page
```

To:

```
public partial class PageLayout : PageBuilder
```

12. Add the following code after the Page_Load event to handle errors and notifications.

```
public override void Error(string message)
{ jsAlert(message);
}
public override void Notify(string message)
{ jsAlert(message);
}
public void jsAlert(string message)
{ Literal lit = new Literal();
  lit.Text = "<script type=\"\"
  language=\"\">{0}</script>";
  lit.Text = string.Format(lit.Text, "alert('" + message + "');");
  Form.Controls.Add(lit);
}
```

You do not need to use the jsAlert system defined here. But if you do not, you must add overrides to handle errors and notifications.

The code page for `pagelayout.aspx.cs` looks like this.

```
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using Ektron.Cms.PageBuilder;

public partial class PageLayout : PageBuilder
{
    protected void Page_Load(object sender, EventArgs e)
    {
    }
    public override void Error(string message)
    {
        jsAlert(message);
    }
    public override void Notify(string message)
    {
        jsAlert(message);
    }
    public void jsAlert(string message)
    {
        Literal lit = new Literal();
        lit.Text = "<script type=\"\" language=\"\">{0}</script>";
        lit.Text = string.Format(lit.Text, "alert('" + message + "');");
        Form.Controls.Add(lit);
    }
}
```

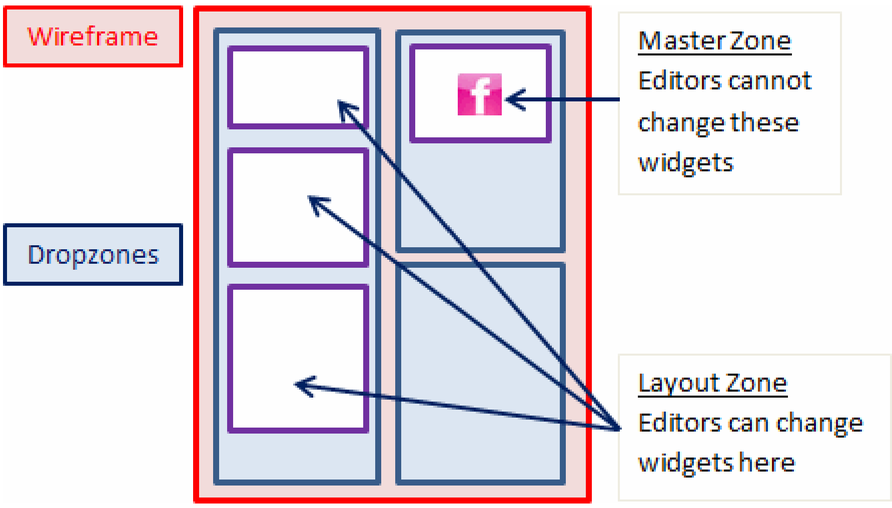
13. Save the `PageLayout.aspx` and `PageLayout.aspx.cs` files.

Creating a PageBuilder Master Layout

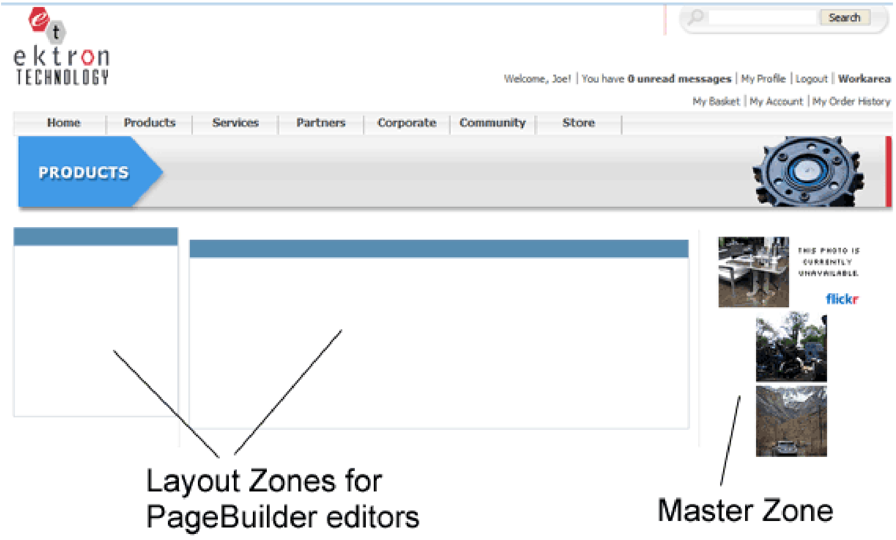
A *Master Layout* is a special type of PageBuilder template that may include a special kind of dropzone called a *Master Zone*. A *Master Zone* is only editable by users assigned to the Administrators group or the MasterLayout-Create role. All other dropzones on a *Master Layout* template are called *Layout Zones*. Anyone can edit them.

An example use of this template is: a department head reserves one Master Zone on the department pages for content that only the department head may edit. Content authors may drag and drop a widget into other dropzones, but cannot edit the Master Zone.

The following diagram shows a Master Layout template that contains 2 dropzones and 4 widgets. In the example below, the Master Zone contains a Flckr widget.

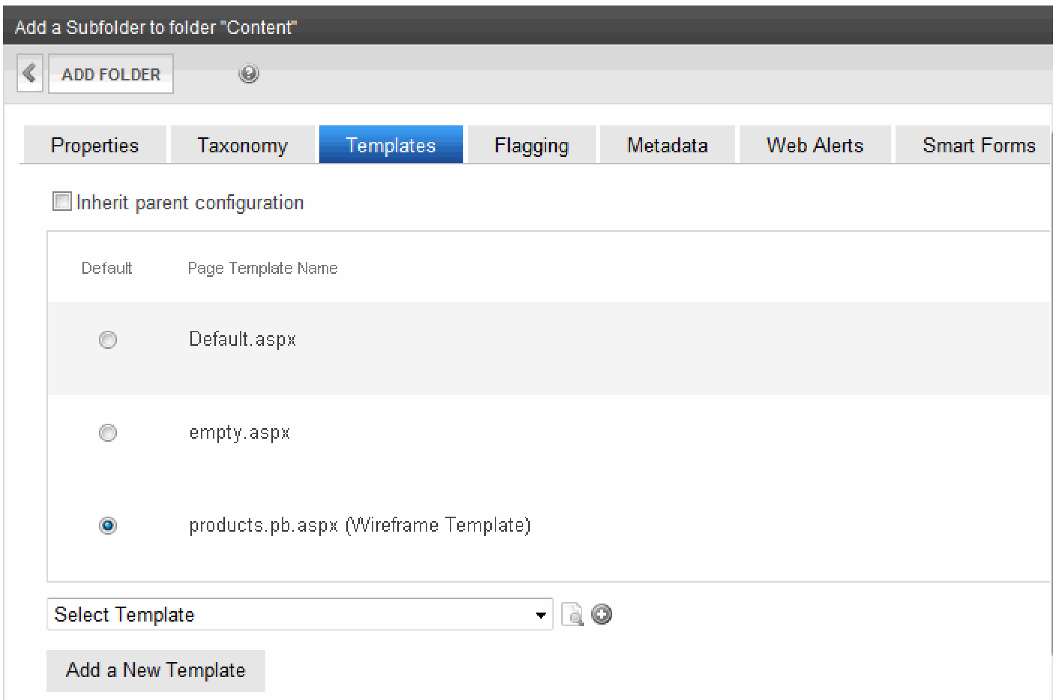


When a Master Layout is published, you can use it like any other template. The following figure shows a sample page that uses a Master Layout.

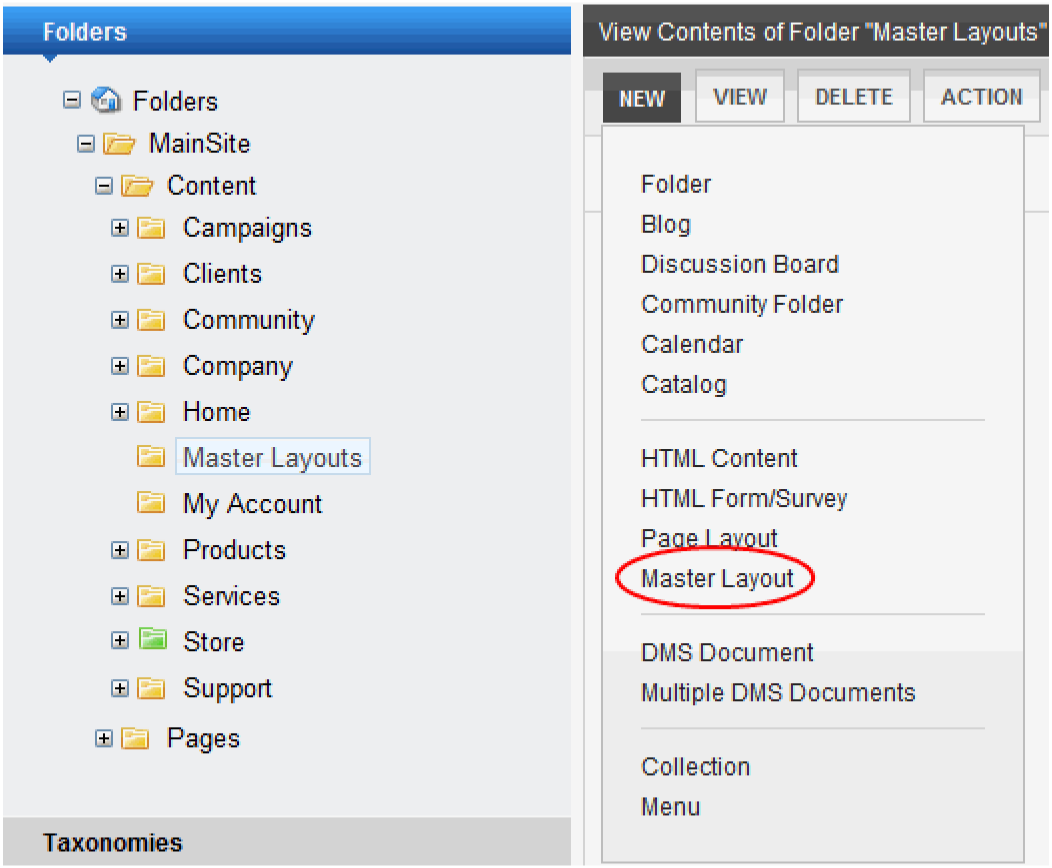


After you created a wireframe with 2 dropzones, both of which are editable, you can set a dropzone so that others may not edit it.

1. Workarea **Content** panel, choose **New > Folder**. The Add folder screen appears.
2. In the **Name** field, type `Master Layouts`.
3. In the **Templates** tab, uncheck **Inherit parent configuration**. Then, select a wireframe template from the list of templates. For example, *products.pb.aspx (Wireframe Template)*.
4. Click **Add** ( ) next to the **Select Template** field. The template is added to the list.
5. Click the radio button next to the selected template to make it the folder's default template.

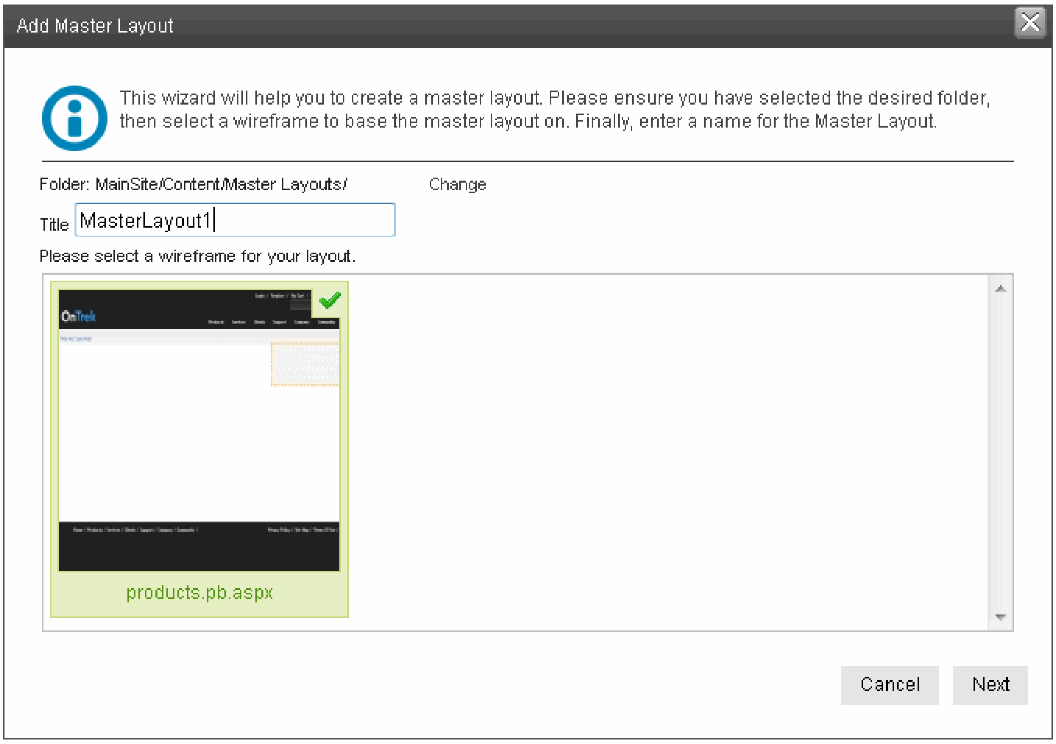


6. Click **Add Folder**.
7. In the folders screen, click the new Master Layouts folder.
8. Choose **New>Master Layout**, as shown below.



9. Set the title to **MasterLayout1**.

10. Click **Next**.



11. Set Metadata, Summary, and Taxonomy Categories if desired, then click **Finish**. A confirmation message appears.

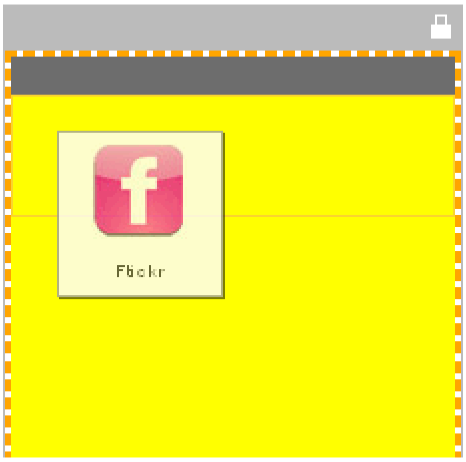
Setting a Dropzone to a Master Zone Type

After the wizard finishes, you see a new Master Layout page with dropzones that can be used for Master Layout areas. You must unlock a dropzone to convert it to a Master Zone. The following figure shows a Master Layout with dropzones.

1. Click **Lock** ( ) to change a dropzone from *Layout Zone* to *Master Zone*. A warning appears. Click **OK**.

   IMPORTANT: Unlocking this dropzone deletes columns and widgets that are on templates based on this master layout. Click **OK** to unlock this dropzone.

2. Drag and drop appropriate widgets into the Master Zone. The figure illustrates dropping a Flickr widget.

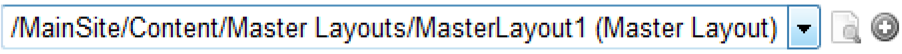


3. On the PageBuilder menu, select **File** > **Publish**.

Assign a Master Layout to the Pages Folder

Before creating a PageBuilder page based on the Master Layout, you must add it to the templates available to the Pages folder. To do this:

1. In the Workarea, choose **Folders > Mainsite > Pages**.
2. On the View Content screen, choose **View** > **Properties**.
3. Click **Edit Properties**.
4. Click the **Templates** tab.
5. Select the Master Layout.



6. Click **Add** ( ) to add it to the template list.
7. Click **Update**.

Using a Master Layout to Create a New Page

After you create the Master Layout page and assign it to the Pages folder, you can use it for other PageBuilder pages. To do this:

1. In the Workarea, choose **Folders > Mainsite > Pages**.
2. On the View Content screen, choose **New** > **Page Layout**. The Add New Page screen appears.
3. Select the new Master Layout and click **Next**.
4. Complete the settings for Title, Taxonomy, and Aliasing and click **Next**.
5. Enter Metadata and a Summary and click **Finish**. A confirmation message appears.

   You can now place widgets in the PageBuilder page's Layout Zones.

Changing a Master Zone to a Layout Zone

PREREQUISITE

You must be an Administrators group member or assigned to the MasterLayout-Create role

You may want to convert a Master Zone back to a Layout zone. To do this:

1. Access the Master Layout page that you want to edit.
2. From the PageBuilder menu, choose **File > Edit**.
3. On the layout zone, click **Lock** ( ) to change the dropzone type from Master Zone to Layout Zone. A warning appears.

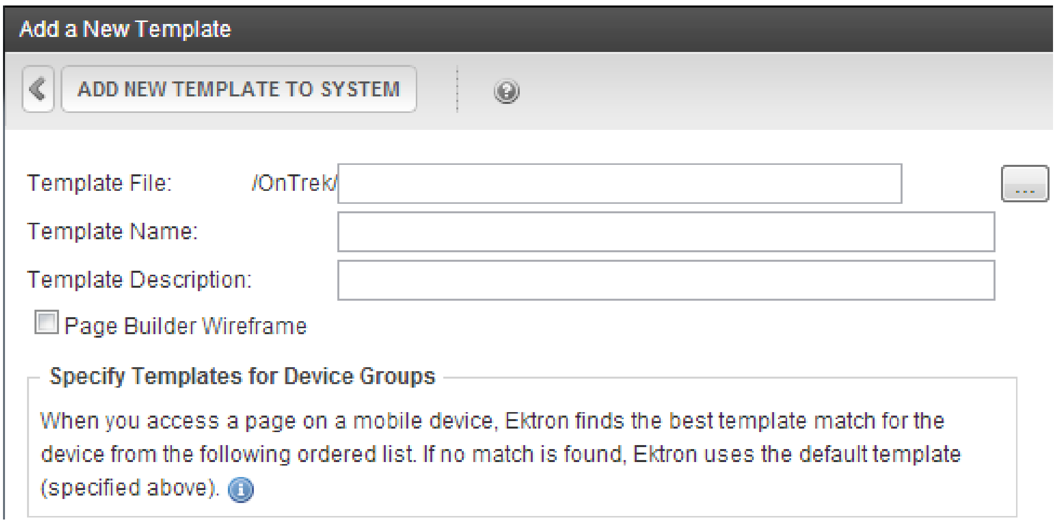
   WARNING! Locking this dropzone deletes columns and widgets in the master zone, and affects all templates based on this Master Layout.

4. The Master Zone now appears Locked. PageBuilder editors can use this Layout Zone for widgets on PageBuilder pages derived from this Master Layout.

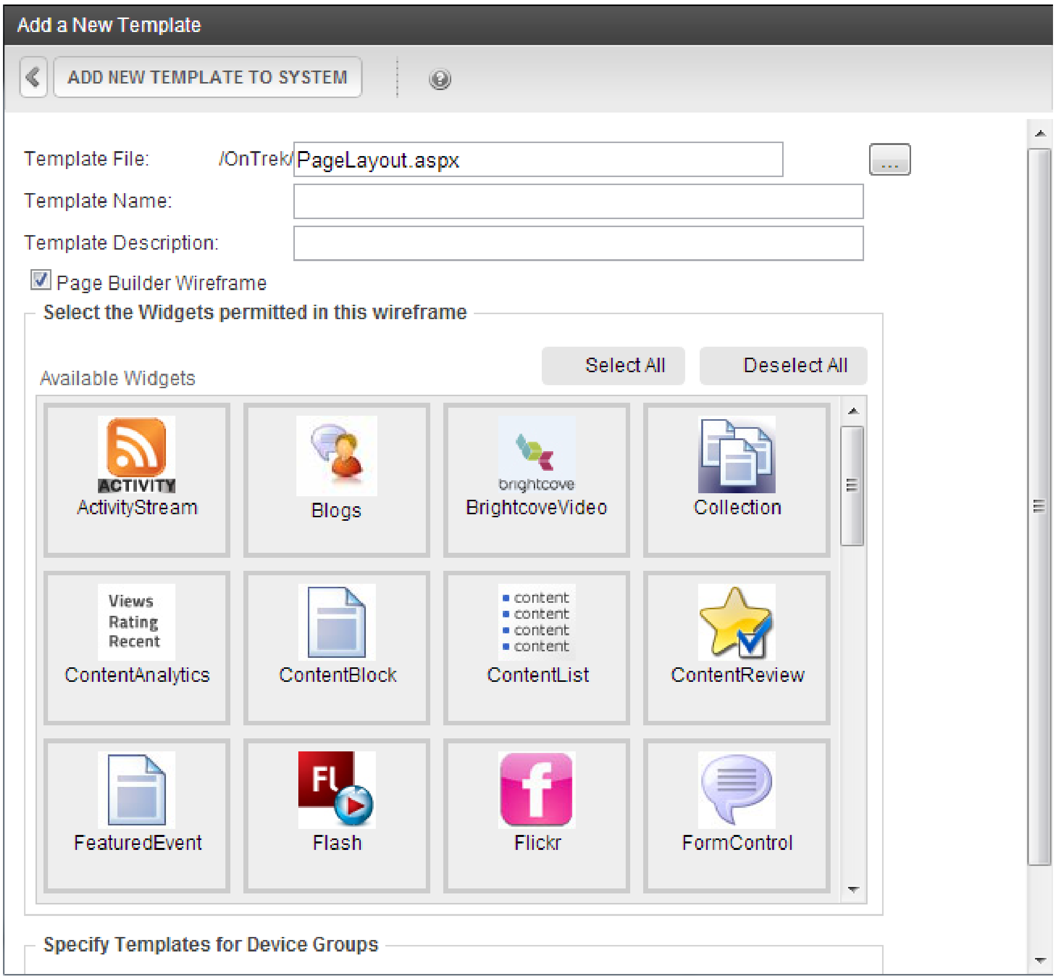
Adding the Wireframe and Widgets into Ektron

An Ektron administrator uses the wireframe that a developer made, and determines which widgets will be available to the wireframe.

1. In the Workarea, choose **Settings > Configuration > Template Configuration**.
2. Click **Add New Template to System**. The Add a New Template screen appears.



3. Click **Browse** ( ) and navigate to `PageLayout.aspx`, the wireframe you created earlier in *Creating a PageBuilder Wireframe* on page 676.
4. Click the **PageBuilder Wireframe** check box, which indicates that this template may be used to create a PageBuilder page. Widgets that can be applied to the template appear. Ektron provides many standard widgets. See *Widget Reference* on page 714.

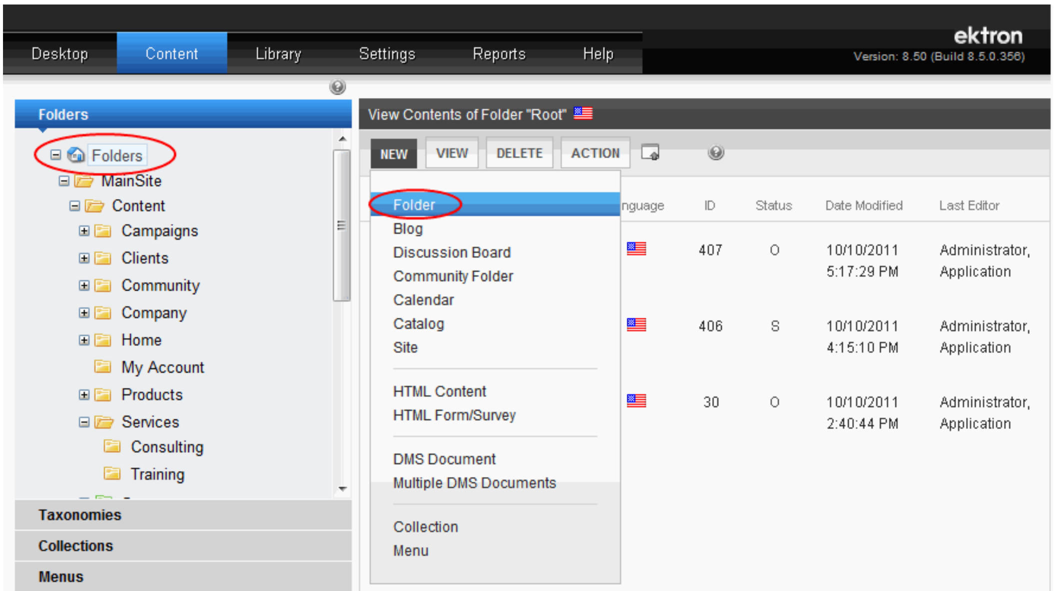


5. Click any of the widgets (for example, ContentBlock or ContentList). The background color changes indicating that they are selected.
6. Click **Add New Template to System**.

Assigning the PageBuilder Wireframe to a Folder

Create a folder for the content that appears on the new page by performing these steps.

1. Choose **Workarea > Content > Folders**. The View Contents screen appears.
2. Choose **New > Folder**.



NOTE: You should keep content and PageBuilder pages in separate folders, so you can later create and configure a folder called “Content.” The content folder will contain content blocks, assets, and sub-folders.

3. On the Proerties tab, type `Pages` in the **Name** field.
4. On the Templates tab, if **Inherit parent configuration** is checked, uncheck it.
5. Select the template that you created in *Adding the Wireframe and Widgets into Ektron* on page 685as the default (and only) template for this folder. This ensures that only PageBuilder pages can be created in this folder.
6. Click **Add** ( ) to the right of the pull-down menu. `PageLayout.aspx` is added to the list of page templates.
7. Create a corresponding content folder. However, instead of assigning `pagelayout.aspx` as the template, assign a template for creating Ektron content.

Assigning a Default Page to a Wireframe

You can assign a default page to a wireframe. If you do, and a site visitor enters a URL with a path to that wireframe that lacks a query string ID, the default page appears. The following example explains this feature.

- The following URL returns PageLayout ID 1036 in the PageBuilder folder:

  `http://`
  `siteroot`
  `/cms400developer/developer/PageBuilder/PageLayout.aspx?pageid=1036`

- The following URL returns the Page Layout page identified in the `PageLayout.aspx` file’s PageBuilder menu user control `DefaultPageID` property.

  `http://`*`siteroot`*`/cms400developer/developer/PageBuilder/PageLayout.aspx`

  (Note lack of query string parameter)

To assign a default page to a wireframe:

1. In the Workarea, create a PageBuilder page that will be used as the default pageid for a wireframe.
2. In *Visual Studio*, open the wireframe file assigned to that folder.
3. Find the PageBuilder menu user control (circled below).

```
<%@ Page Language="C#" AutoEventWireup="true" CodeFile="PageLayout.aspx.cs" Inh
<%@ Register Src="~/Workarea/PageBuilder/PageControls/PageHost.ascx" TagName="I
    TagPrefix="ucPageBuilder" %>
<%@ Register Src="~/Workarea/PageBuilder/PageControls/DropZone.ascx" TagName="I
    TagPrefix="ucPageBuilder" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.c
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>Page Builder Sample</title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <ucPageBuilder:PageHost ID="ucCms400Developer" runat="server" />
            <ucPageBuilder:DropZone ID="Top" AllowAddColumn="true"   AllowColum
        </div>
        <div>
            <ucPageBuilder:DropZone ID="Bottom" AllowAddColumn="true" AllowColu
        </div>
```

4. Add a new property, `DefaultPageID`.
5. For the property's value, enter the ID of the page you created in Step 1.

   Here is an example of that line with the `DefaultPageID` property added.

```
<ucPageBuilder:PageHost ID="ucCms400Developer" DefaultPageID=”1035” runat="server"
/>
```

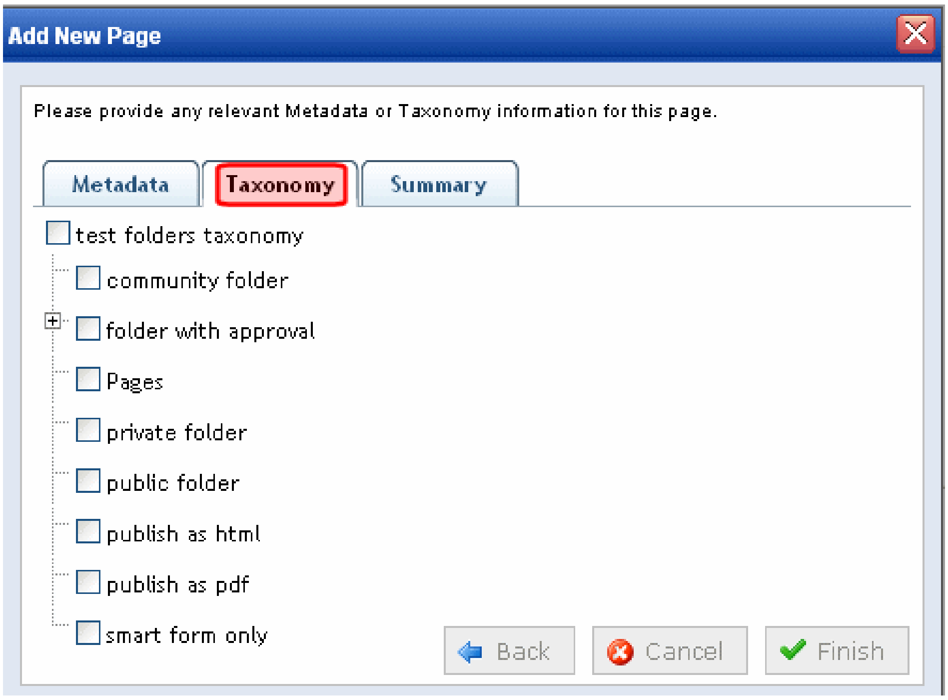
6. Save your changes.

   To continue the above example, if someone opens a browser and enters `http://`*`siteroot`*`/cms400developer/developer/PageBuilder/PageLayout.aspx`, he is redirected to

   `http://sitroot/cms400developer/developer/PageBuilder/PageLayout.aspx?pageid=1035`

Assigning a Default Taxonomy Category to a Wireframe

While creating a new PageBuilder page in the Workarea, the user can assign one or more taxonomy categories that are set in the page's folder properties. See example below.



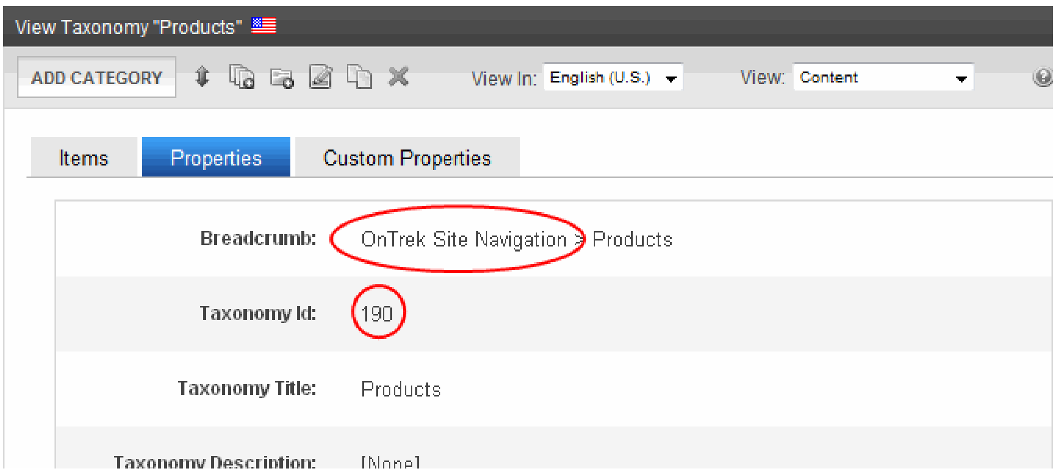
As a developer, you can assign a *default* taxonomy category to a wireframe. If you do, and the user creating a page using that wireframe makes no changes, the default category is assigned to the page. However, the user can change the taxonomy when the Add New Page screen appears.

NOTE: Default taxonomies are applied only when a user logs into a website and adds a new page -- they are *not* applied when creating new pages within the Workarea.

To assign a default taxonomy category to a wireframe:

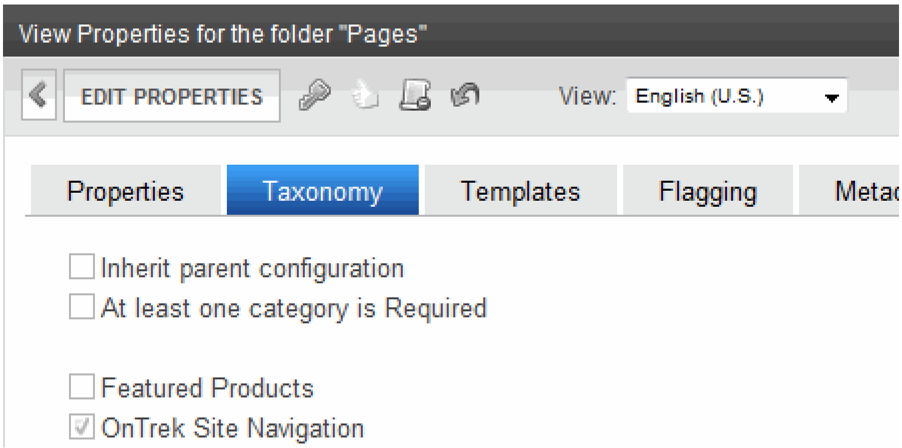
PREREQUISITE

The ID number and the name of the top-level parent taxonomy for the default taxonomy category. For example, the screen shows that the Products category ID is 190, and its parent taxonomy is OnTrek Site Navigation.

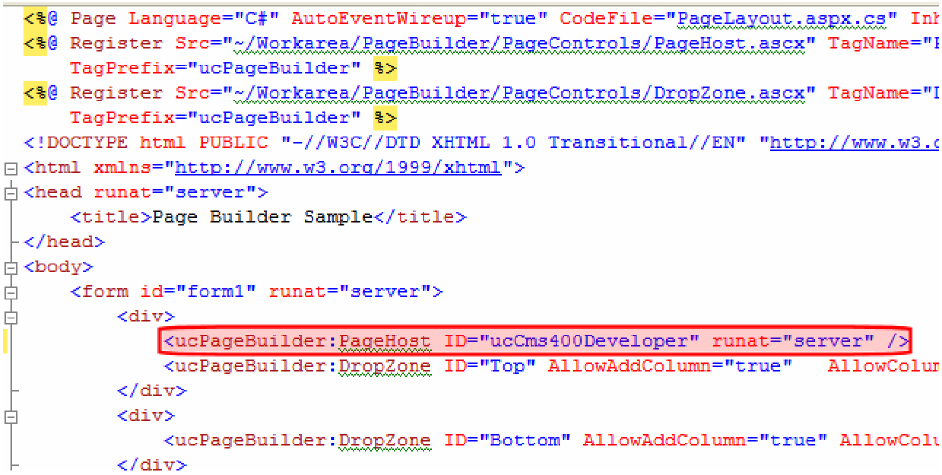


1. In the Workarea, navigate to the folder properties screen of the folder to which the wireframe is applied.
2. Click **Edit Properties**.

3. Locate the **Taxonomy** tab of the Edit Folder properties screen.



4. Check the box of the top-level taxonomy to the wireframe you want to assign.
5. Check the box of the parent taxonomy of a taxonomy *category* that you want to assign; that is, a child node below a top-level taxonomy.
6. Click **Update** to save your changes to folder properties.
7. Open *Visual Studio*.
8. Open the wireframe to which you will assign a default taxonomy.
9. Find the PageBuilder menu user control (circled below).



10. Add the property `SelTaxonomyID`.
11. For the property’s value, enter the ID of the default taxonomy or category.

    Here is an example of that control with the `SelTaxonomyID` property added.

```
<ucPageBuilder:PageHost ID="ucCms400Developer" SelTaxonomyID=”13”
runat="server" />
```

12. Save your changes.

To continue the above example, the next time someone creates a page based on that wireframe, taxonomy ID 13 will be the page’s default taxonomy category. If desired, the user can change it by navigating to the **Taxonomy** tab and assigning different or additional categories.

Customizing a PageBuilder .aspx Page

Setting a Dropzone’s Column Width Programmatically

To set a dropzone’s column widths programmatically:

1. Add the following `Register` statements to the page’s `<head>` tags.

IMPORTANT: The Widget and Dropzone assemblies must have the same Tag Prefix. See example.

```
<%@ Register Assembly="Ektron.Cms.Widget"
  Namespace="Ektron.Cms.PageBuilder" TagPrefix="PB" %>
<%@ Register Src="~/Workarea/PageBuilder/PageControls/PageHost.ascx"
  TagPrefix="PB" TagName="PageHost" %>
<%@ Register Src="~/Workarea/PageBuilder/PageControls/DropZone.ascx"
  TagPrefix="PB" TagName="DropZone" %>
<%@ Register Assembly="Ektron.Cms.Widget"
  Namespace="Ektron.Cms.PageBuilder" TagPrefix="PB"%>
```

2. Within the page’s `<body>` tags, add the following code. The following example adds 3 columns of 100 pixels each.

```
<PB:DropZone ID="Middle" runat="server">
<ColumnDefinitions>
  <PB:ColumnData width="100" columnID="0" unit="pixels"></PB:ColumnData>
  <PB:ColumnData width="100" columnID="1" unit="pixels"></PB:ColumnData>
  <PB:ColumnData width="100" columnID="2" unit="pixels"></PB:ColumnData>
</ColumnDefinitions>
</PB:DropZone>
```

Set `width` to an appropriate number. For the `unit`, the options are

- pixels
- percent
- em

Overriding the Default Folder Where New Pages are Saved

By default, when a site user creates a new PageBuilder page from an existing one, it is saved to the same Ektron folder. For example, consider this folder/content structure.

```
-Root (folder id 0)
--Products (folder id 20)
---PageLayout: “Omaha Mailorder Steaks” (content id 35)
--Services (folder id 30)
```

If you are viewing `content id` 35 and click **New Page** or **Copy/Save as**, the new page is saved to that content’s folder (`Products, folder id= 20`).

NOTE: When you create a new page layout from the Workarea, you first select a folder then begin creating the page layout.

Use the PageBuilder control’s `FolderID` property in the .aspx page to override the default and specify an Ektron folder to which new pages are saved. Here is an example of that property:

```
<ucPageBuilder:PageHost ID="ucPageHost1" FolderID="25" runat="server" />
```

When a user is working on a page that hosts this PageBuilder control, and he saves a new page, it is saved to `folder id` 25.

Setting a Cache Interval

Use the `CacheInterval` property to cache a page and its widgets that represent Ektron server controls, such as a Collection widget. This property sets the amount seconds for which data is cached. The default is 0 (zero).

```
<ucPageBuilder:PageHost ID="ucPageHost1" CacheInterval="25" runat="server" />
```

Letting Users Add Columns to a Dropzone

Use the `AllowAddColumn` property to let users add columns to a dropzone.

```
<ucPageBuilder:DropZone ID="ucDropZone1"
  AllowAddColumn="true"
  AllowColumnResize="true" runat="server" />
```

For example, a Dropzone initially contains one column, but the page creator wants 3. If this property is set to `true`, this change is possible. This property's default value is `true`.

NOTE: If you set dropzone's column widths programmatically (as explained in *Setting a Dropzone's Column Width Programmatically* on the previous page), the user cannot add a column, regardless of this setting.

Letting Users Resize a Dropzone

Use the `AllowColumnResize` property to let users change the width of columns in a dropzone.

```
<ucPageBuilder:DropZone ID="ucDropZone1"
  AllowAddColumn="true"  AllowColumnResize="true" runat="server" />
```

For example, column width is 100% by default. A page creator wants to change it to 50%. If this property is set to `true`, this change is possible. This property's default value is `true`.

NOTE: If you set dropzone's column widths programmatically (as explained in *Setting a Dropzone's Column Width Programmatically* on the previous page), the user cannot add a column, regardless of this setting.

PageBuilder Code Samples

The following shows a complete example of `AcmeBooksMasterPage.master`, `PageLayout.aspx`, and `PageLayout.aspx.cs`.

AcmeBooksMasterPage.master

```
<%@ Master Language="C#" AutoEventWireup="true"
  CodeFile="AcmeBooksMasterPage.master.cs"
  Inherits="AcmeBooksMasterPage" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
```

```
  <title>Acme Books</title>
  <asp:ContentPlaceHolder id="head" runat="server">
  </asp:ContentPlaceHolder>
</head>
<body>
  <form id="form1" runat="server">
  <div>
    <asp:ContentPlaceHolder id="ContentPlaceHolder1"
      runat="server">
    </asp:ContentPlaceHolder>
  </div>
  </form>
</body>
</html>
```

PageLayout.aspx

```
<%@ Page Language="C#"
  MasterPageFile="~/AcmeBooksMasterPage.master"
  AutoEventWireup="true"
  CodeFile="PageLayout.aspx.cs"
  Inherits="PageLayout" Title="Untitled Page" %>
<%@ Register
  Assembly="Ektron.Cms.Controls"
  Namespace="Ektron.Cms.Controls" TagPrefix="CMS" %>
<%@ Register
  Src="~/Workarea/PageBuilder/PageControls/PageHost.ascx"
  TagPrefix="PH" TagName="PageHost" %>
<%@ Register
  Src="~/Workarea/PageBuilder/PageControls/DropZone.ascx"
  TagPrefix="DZ" TagName="DropZone" %>
<%@ Register
  Assembly="Ektron.Cms.Widget"
  Namespace="Ektron.Cms.PageBuilder"
  TagPrefix="PB" %>
<asp:Content ID="Content1"
  ContentPlaceHolderID="ContentPlaceHolder1" runat="Server">
  <PH:PageHost ID="PageHost1" runat="server"
    DefaultPageID="937" SelTaxonomyID="94" />
  <DZ:DropZone ID="Middle" runat="server"
    AllowAddColumn="false" AllowColumnResize="false">
    <ColumnDefinitions>
      <PB:ColumnData width="100" columnID="0" unit="pixels"></PB:ColumnData>
      <PB:ColumnData width="100" columnID="1" unit="pixels"></PB:ColumnData>
      <PB:ColumnData width="100" columnID="2" unit="pixels"></PB:ColumnData>
    </ColumnDefinitions>
  </DZ:DropZone>
</asp:Content>
```

PageLayout.aspx.cs

```
using System;
using System.Data;
using System.Configuration;
using System.Collections;
```

```
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
using Ektron.Cms.PageBuilder;
public partial class PageLayout : PageBuilder
  { protected void Page_Load(object sender, EventArgs e)
      {}
    public override void Error(string message)
      {jsAlert(message);}
    public override void Notify(string message)
      {jsAlert(message);}
    public void jsAlert(string message)
      { Literal lit = new Literal();
        lit.Text = "<script type=\"\" language=\"\">{0}</script>";
        lit.Text = string.Format(lit.Text, "alert('" + message + "');");
        Form.Controls.Add(lit);
      }
  }
```

16

Optimizing Page Layout with Multivariate Testing

Multivariate testing lets you offer several variations of the same page, then measure site visitors' reactions to each variation. The one that generates the most conversions is automatically promoted to the design for that page, thereby maximizing your website's ROI.

The variations can alter any number of page elements (images, copy, buttons, form fields, and so on) to find the combination that most effectively compels site visitors to take the next step. No longer do you need to speculate on the best page design; now, you can use actual, timely data drive those decisions.

Ektron Multivariate testing is easy to implement, requiring no help from a developer or designer.

This section also contains the following topics.

How Multivariate Testing Works

Content variations appear to site visitors during an *experiment*. The page variation that a site visitor sees is randomly selected by the system. When a visitor navigates to a special page called the target, it is logged as a *conversion*. A conversion might be a donation, registration, sales lead, and so on. Conversions are tracked, and the variation that produces the most conversions is automatically promoted to the website.

Sometimes, this type of testing is called "A/B Testing", but Multivariate Testing is far more than that. A/B testing provides only a few variations. With Multivariate Testing, the number of page combinations grows exponentially as the number of layout and content combinations increase.

IMPORTANT: The Multivariate Testing feature requires the use of PageBuilder templates. For more information, see *Developing Wireframe Templates* on page 676.

Also, the Multivariate testing feature is part of Ektron's *Marketing Optimization Suite*. For more information about the suite, including webinars, white papers, instant demonstrations, and so on, see Rapidly Test and Target to Optimize Results.

An Example of Multivariate Testing

In the example below, the marketing manager wants to know which of 3 ads produces the most visits to a registration page.

- The *experiment page* contains ads that link to a registration form.
- A *target* page contains the registration form.
- *A conversion* is a visits to the target page produced by each ad.

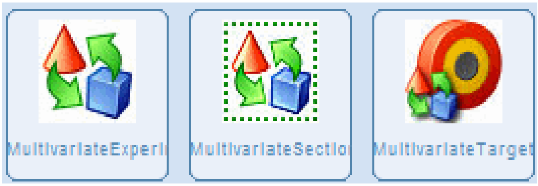
When the target number of conversions occurs, the variation achieving it automatically becomes the permanent page on the site. The optimum page runs on the website without further effort by the website Admin.

Using Widgets for Multivariate Testing

You use the following PageBuilder widgets for Multivariate Testing:

- Multivariate Experiment widget
- Multivariate Section widget
- Multivariate Target widget

The widgets look like this in the PageBuilder widget tray.



The following list describes each widget type.

- **Multivariate Target** widget (for the Target Page)—When a page view occurs on a page containing this widget, the conversion count is increased. See *Multivariate Target Widget Details* on page 707
- **Multivariate Experiment** widget (for the Experiment Page)—This controls the experiment. Settings include the target content number, start/stop button and the Report hide/show button. This is only available when logged in and editing the PageBuilder experiment page. See *Multivariate Experiment Widget Details* on page 707
- **Multivariate Section** widget (for the Experiment Page)—This widget lets you drag and drop various content widgets into it. These produce the variations used during the experiment. A slider control selects each specific content used in the variations.

More than one Multivariate Section widget can be used on a page. See *Multivariate Section Widget Details* on page 708

Using PageBuilder Pages and Content

Before you create a Multivariate Experiment, you will need to have 2 Web pages: the Target page and the Experiment page.

Both pages are created with PageBuilder which lets you drag and drop widgets into your page. For more information about PageBuilder, see *Creating Web Pages with PageBuilder* on page 659. You may choose any type of widget for your pages.

Creating a Multivariate Experiment

PREREQUISITES

To run Multivariate Tests, you must be an Administrator or have the Multivariate Tester Role assigned. For more information see *Defining Roles* on page 1120.

To create a Multivariate experiment:

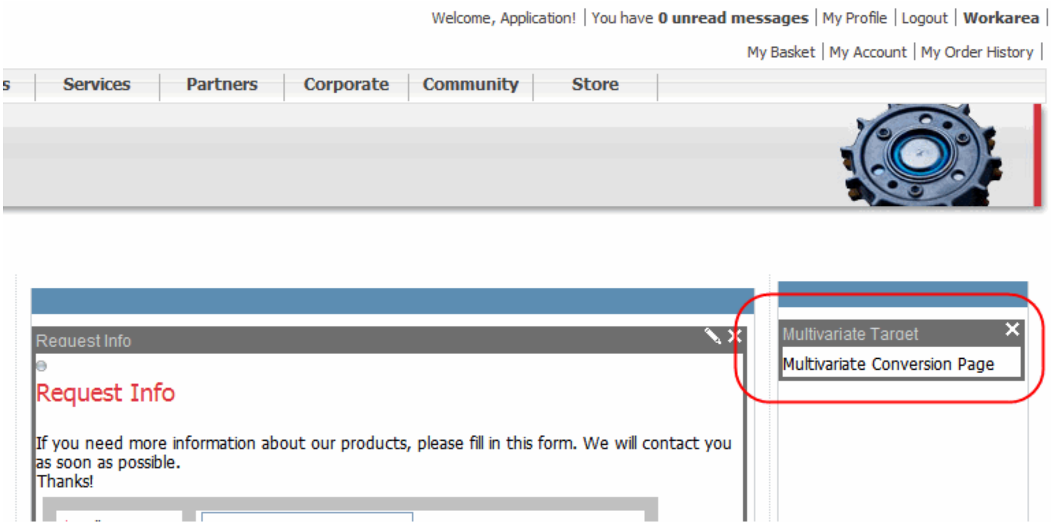
1. Create a target page that contains the Target widget. See Also: *Creating a Multivariate Target Page* below
2. Create an experiment page that contains the content variations with the Experiment and Section widgets. See Also: *Creating a Multivariate Experiment Page* on the facing page
3. Run the experiment until it automatically ends or you stop it. See Also: *Starting and Running an Experiment* on page 702

Creating a Multivariate Target Page

The target page is the Web page you wish your visitors to view. It contains the Multivariate Target Wizard. Visitors arrive here by clicking links on the experiment page.

To create the target page:

1. Create or edit the PageBuilder page with the target content.
2. Note and record the ID of the content number on this page. (For example: 948.) This ID number is used in Step 3 below *Creating a Multivariate Experiment Page* below.
3. Add the Multivariate Target widget to any location on the page.



4. Publish this page

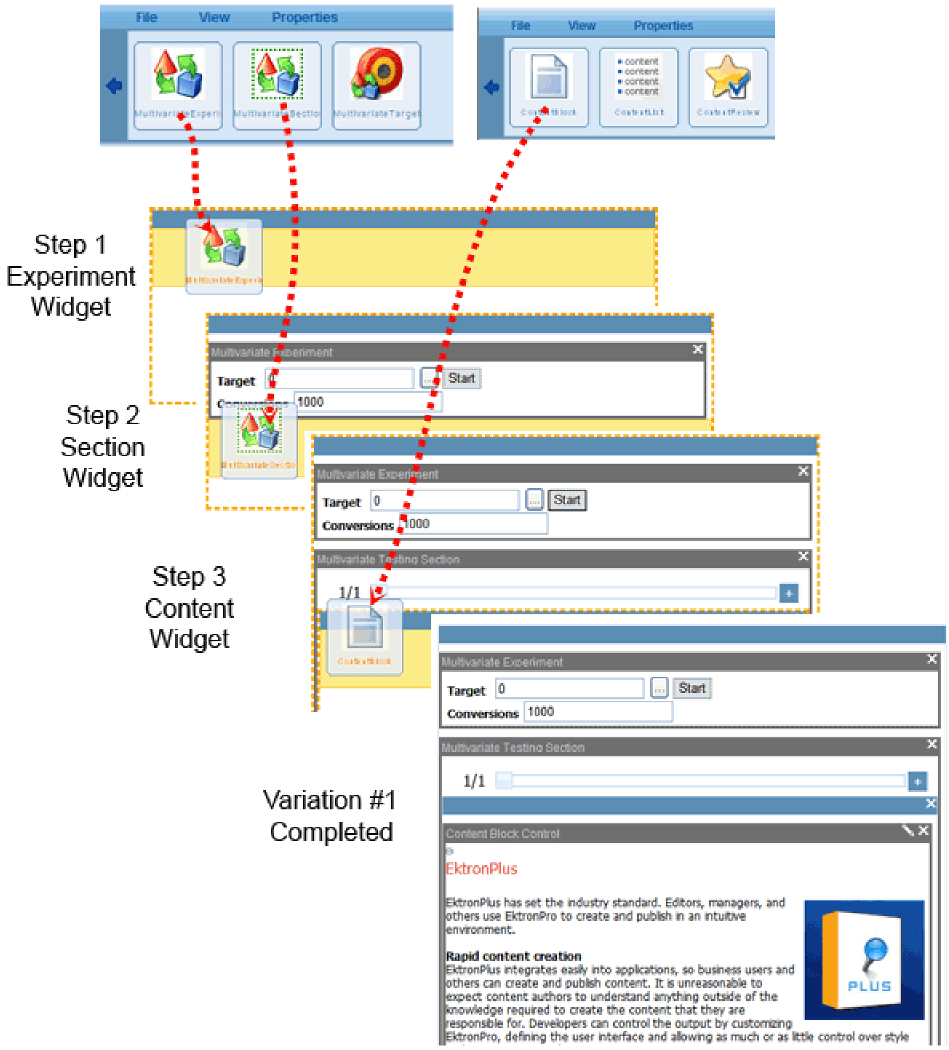
After creating the Target Page, create the Multivariate Experiment Page.

Creating a Multivariate Experiment Page

The Experiment page contains:

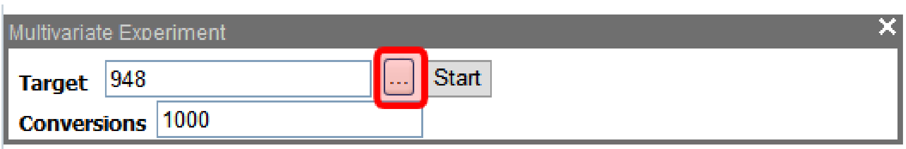
- the Experiment widget
- the Section widget(s)
- the content variations

The following illustration shows the basic steps to create an experiment page with Multivariate Test widgets.

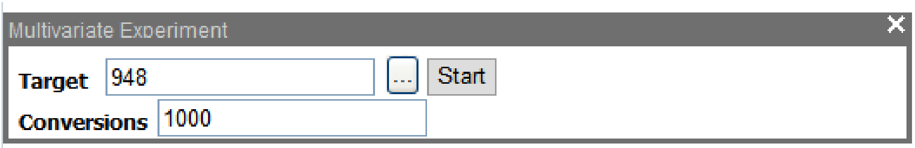


To create a multivariate experiment page:

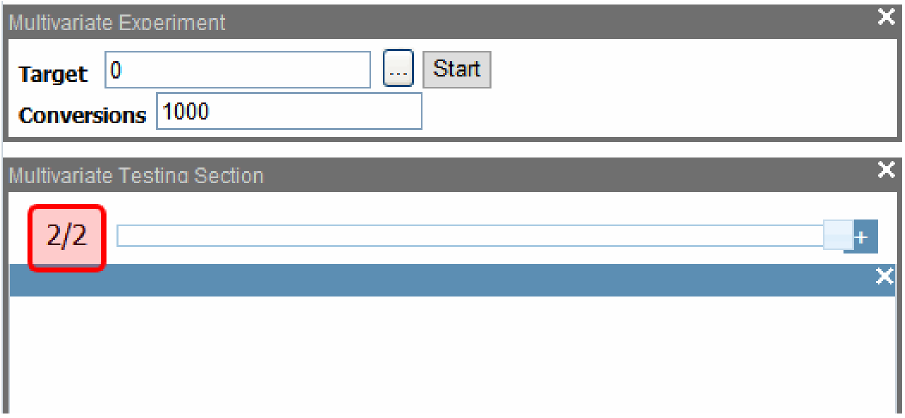
1. Create or edit the PageBuilder page you wish to use during the experiment. See Also: *Creating Web Pages with PageBuilder* on page 659
2. Place the Multivariate Experiment widget in any location on your Web page. Do not worry about the appearance of this widget. Multivariate Test widgets do not appear on a Web page when you are not logged in. Only the content shows. For more information, see *Multivariate Experiment Widget Details* on page 707
3. Enter the Target Page Content Id number. (For example, 948.) (See step 2 of *Creating a Multivariate Target Page* on page 698) To help find the content, browse the content folders by clicking the Ellipsis button.



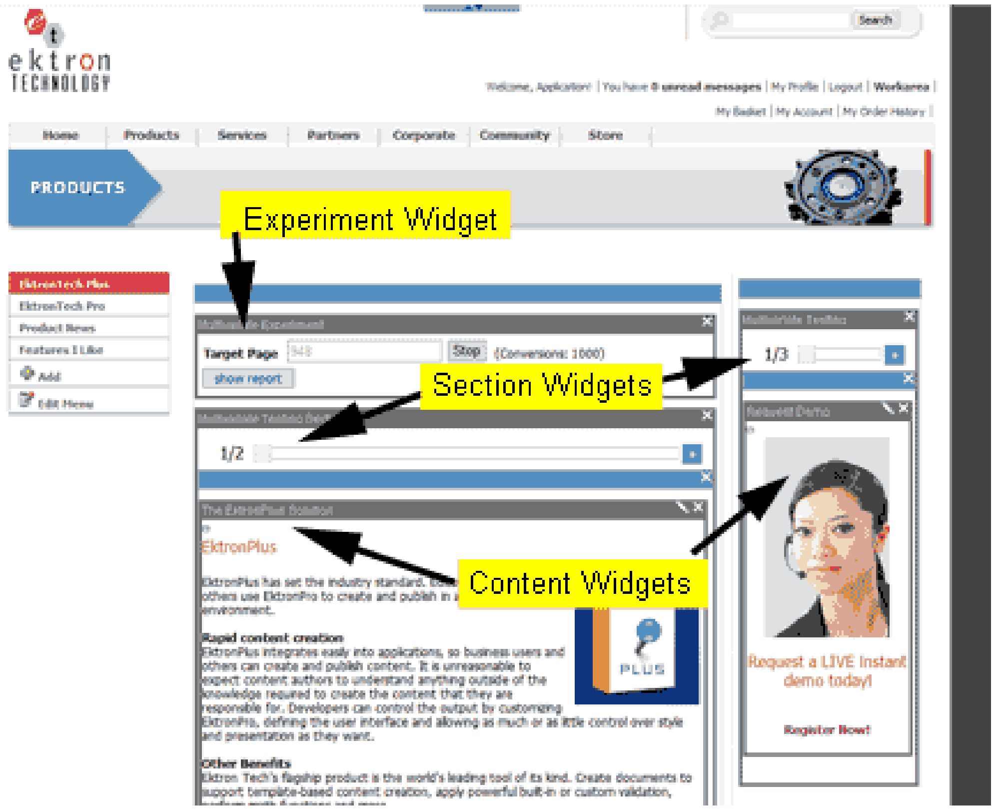
4. Enter the Conversions before promote value. Setting this to 1000 tells the experiment to automatically end when one variation has reached 1000 conversions.



5. Place at least one Multivariate Section widget into the location where your content variations should appear. For more information, see *Multivariate Section Widget Details* on page 708
6. Drag any type of content widget into the Multivariate Section widget.
7. Configure the content widget with the appropriate settings. (You may use any widget inside the Multivariate Section widget. The Content widget was chosen for the purposes of this example.)
8. Add more variations by clicking the Add Variations button () and repeat steps 6 and 7. You now have variation 2 of 2.



9. If you wish to add another section and variations, go back to step 5 and continue. The image below shows a completed experiment page that has 2 Section widgets.

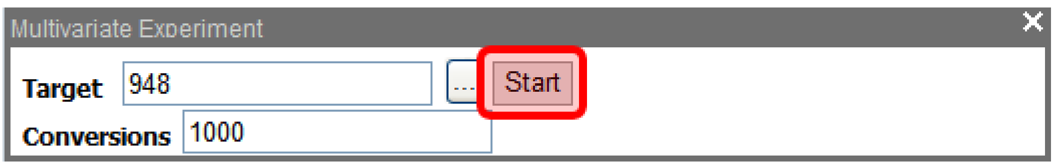


10. Publish the PageBuilder page. Now you are ready to run the experiment.

Starting and Running an Experiment

When you create the Target Page and Experiment Page:

1. Select the PageBuilder page that contains the Multivariate Experiment widget.
2. Click **File > Edit** to see the Experiment widget.
3. On the Experiment widget, click the **Start** button.



4. After you click **Start**, you see the **Stop** and **Show Report** buttons.

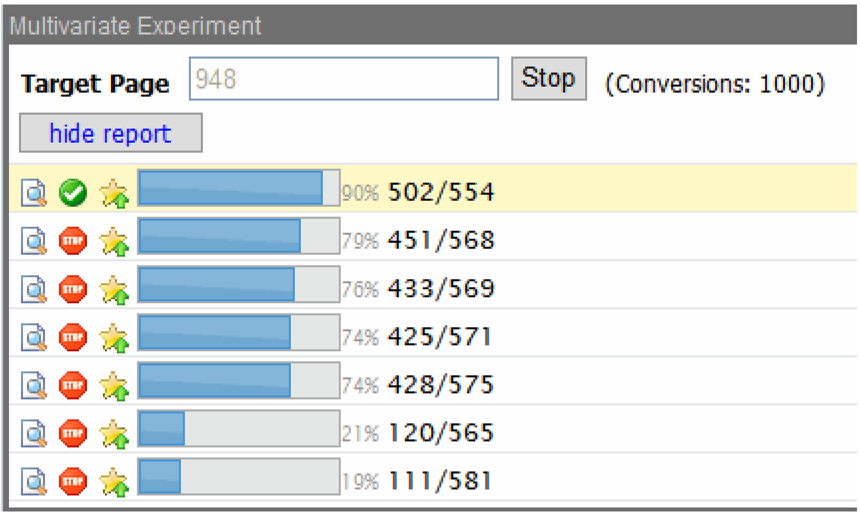
When an experiment is running, visitors see a randomly-chosen page variation. The visitor continues to see this variation until the experiment is ended.

NOTE: During an experiment, testers may modify variations and content within the Multivariate Section widget.

Displaying Reports During an Experiment

Click the **Show Reports** button to see the experiment's progress. The reports shows:

- the percentage of conversions compared to visits
- the number of conversions
- the total number of visits to each variation



Click the Preview button ( ) to see the page variation associated with the progress bar.

For more information on using and interpreting reports, see *Using Reports* on page 705.

Enabling or Disabling a Variation

At any time during the experiment, you may disable any variation. Do this by clicking the ( ) button which currently shows the variation is enabled. The variation then becomes disabled and cannot be viewed by site visitors.

When a variation is disabled, visitors who have seen this page no longer see it but see another variation instead.

You may re-enable a variation by pressing the ( ) button, which currently shows the variation as disabled. The variation then becomes enabled and visitors can view it.

Stopping the Experiment

At any time during the experiment, click the Stop button on the Experiment widget.

This suspends the experiment. Counters stop incrementing, even though visitors continue to see the page variations.

While the experiment is stopped, cookies are neither set nor read. For more information about cookies, see *Cookies in Multivariate Testing* below. When you stop an experiment, the Multivariate Section widget remains on the experiment page.

You may restart the experiment again by pressing the Start button. All counters are reset to 0 and restarted.

Automatically Ending the Experiment

When one variation reaches the target number of conversions, it automatically becomes the page variation all visitors see. All other variations are disabled.

Manually Ending the Experiment

During the experiment, you may click on the Promote button ( ) of the specific variation you wish to promote. This ends the experiment, and the selected variation becomes the page variation all visitors see. All other variations are disabled. When the experiment automatically or manually ends, the Multivariate Section widget is removed from the experiment page.

Cookies in Multivariate Testing

When visitors view the experiment page, a cookie is set in the browser. This cookie indicates the specific variation seen by the visitor. From this point forward, if they next visit the target page, this cookie is read and the proper variation counter is increased.

A cookie persists forever or until the cookies are removed from the browser cache. The cookie gives a visitor a consistent page variation each time they revisit during the experiment.

Visitors that block cookies are not counted in conversions. Also, they see random page variations each time they visit the page.

Using a Target Page Outside of You Website

When your target page is outside of your website, you must create an intermediate page that contains the Target widget, and redirect the visitor to the outside address.

For example, to test visitors from your page to `http://www.NFL.com`:

1. Create a new PageBuilder page.
2. Add the target widget to it.
3. Add the code that will redirect the visitor from this page to `www.NFL.com`.
4. Create content with links to the target page you just created.

When the experiment is running, the experiment page links the visitor to this intermediate page and the conversion is counted. Then, the redirect takes the visitor to the external page.

Repeating an Experiment

To repeat an experiment after it has ended, you first must restore the history of this page. To restore history of a PageBuilder page, follow the steps in *Restoring a Previous Version* on page 303.

After you restore the previous version, you may edit the parameters of the experiment, modify the content, and run the experiment again.

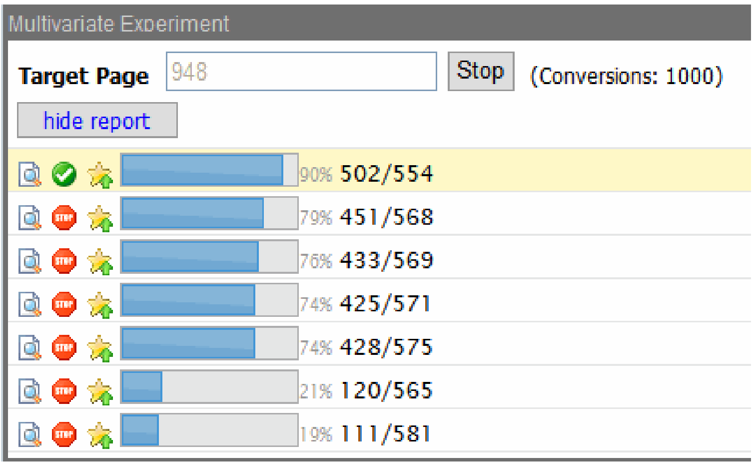
Scheduling an Experiment

The PageBuilder page has the same properties as other content types, including the Schedule Property. To set the beginning and ending date of the page, edit the PageBuilder page and follow the procedure for setting content schedules as described in *Scheduling Content* on page 296.

Be sure to set the Schedule End Date to be long enough past the time you believe the experiment will automatically end.

Using Reports

Reports show how each variation has performed during the experiment. Click on the Show Report button in the Experiment widget to see the progress and results.



The bar graph shows the conversion percentage.

The numbers to the right of the bar graph show 2 values. The first value is the percent of conversions compared to the total number of visits to the experiment page. On variation #2 above, the “79%” means that 568 visitors to this variation have successfully reached the target page 451 times.

The numbers after the percentage show the actual conversations. The first number before the forward slash (/) indicates the total number of conversions during the experiment. The second number is the total number of times this variation was viewed by a visitor. Users that are logged in are counted as a page view to the experiment page but not counted on the target page as a conversion.

The following list describes how to use each button.

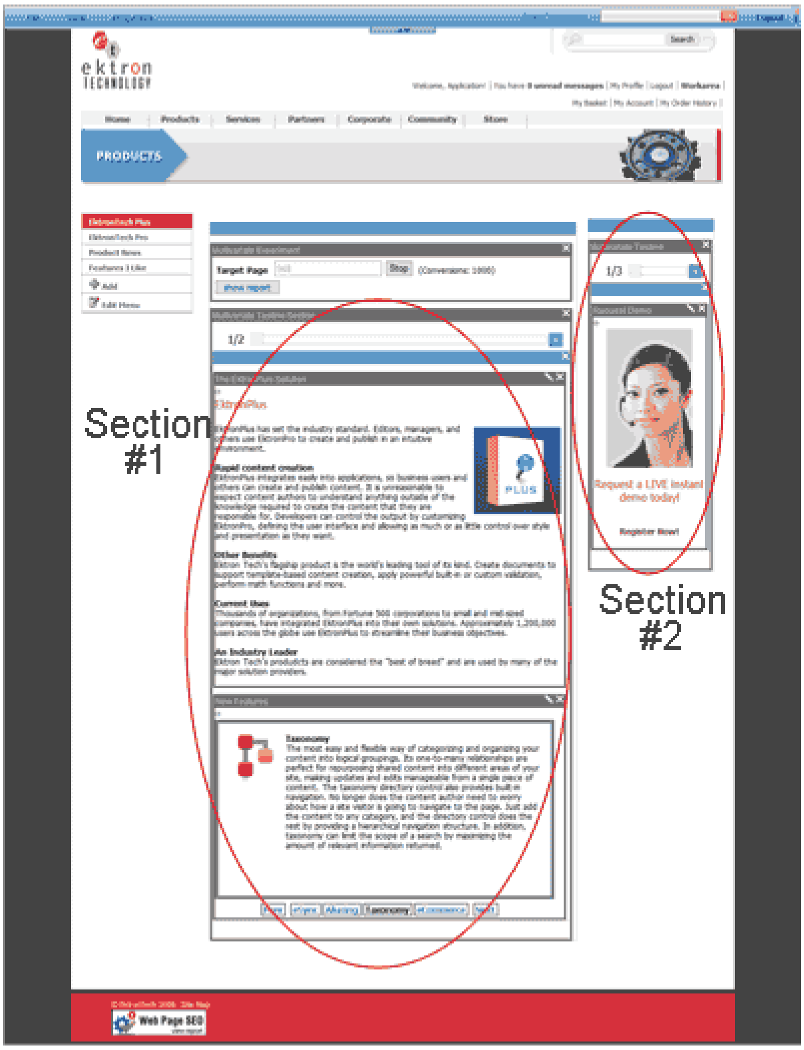
- **Preview**—Shows the page configurations for this specific variation. Notice that not only does the content in the Multivariate Section wizards change, but also the slider number changes too.

- **Variation Enabled**—When this appears, this variation is currently selected to run. Click this button *to disable* this variation.
- **Variation Disabled**—When this appears, this variation is currently not selected to run. Click this button *to enable* the variation.
- **Promote**—Click this button to promotes this specific variation to become the actual page seen by visitors. All other variations are disabled and the experiment is ended.

Using Multiple Section Widgets

You may create a PageBuilder page with more than one Section widget. This provides greater flexibility in helping to identify combinations of content and images that provide the best conversion results.

A page containing 2 Multivariate Section widgets is shown below.



The contents inside the Section widgets are part of the variations shown randomly during the experiment.

The Number of Variations Tested

The number of variations in a Multivariate Experiment grows exponentially as you add sections and variations.

For example, if you have 2 sections with 3 variations in each section, there are a total of 8 (2^3) pages to be tested. If you increase this to 4 variations each, there are 16 (2^4) pages.

Multivariate Target Widget Details

The target widget is placed on the page containing the content you wish people to find.

The target widget does not have any configurations and need only reside somewhere on the page. Use only one Target widget per PageBuilder page

The Target Page

The target (or results) page contains the Multivariate Target widget.

Whether you arrive at the target page by browsing to the variations page first or by browsing to the target page directly, the views are counted with the following exceptions:

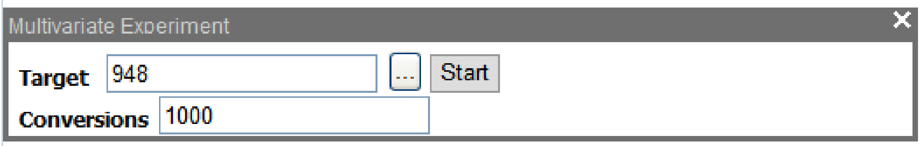
- if you are logged in
- if you have not first visited the experiment page to receive the cookie
- if you have cleared the cookies before visiting the target page

NOTE: Users that are logged in are counted as a page view of the experiment page but not counted on the target page as a conversion.

Multivariate Experiment Widget Details

The Multivariate Experiment widget contains all of the information about the variations you use in an experiment. It also contains the Start/Stop button and the conversion limits. Use only one Experiment widget per PageBuilder page.

The image below is an example of the Multivariate Experiment widget before the experiment is started.



- **Target**—This is the content ID of the target page.
- **Conversions**—This is the number of conversions any variations must have before the experiment is stopped automatically.

Set the target page's ID number and the value of **Conversions**. When this value is reached, the experiment promotes the variation with the highest percent of success, and disables all other variations.

To start the experiment, click the **Start** button.

Below is an example of a Multivariate Experiment widget while an experiment is running. If desired, you can click the **Stop** button to stop the experiment.

The experiment widget also shows reports to indicate how each variation has performed during the experiment.

Click the **Show Report** button to see the conversion information during the experiment. For further information about reports, see *Using Reports* on page 705.

Automatic Promotion

Automatic promotion occurs when the target number of conversions occurs on one of the variations. For more information see *Automatically Ending the Experiment* on page 704.

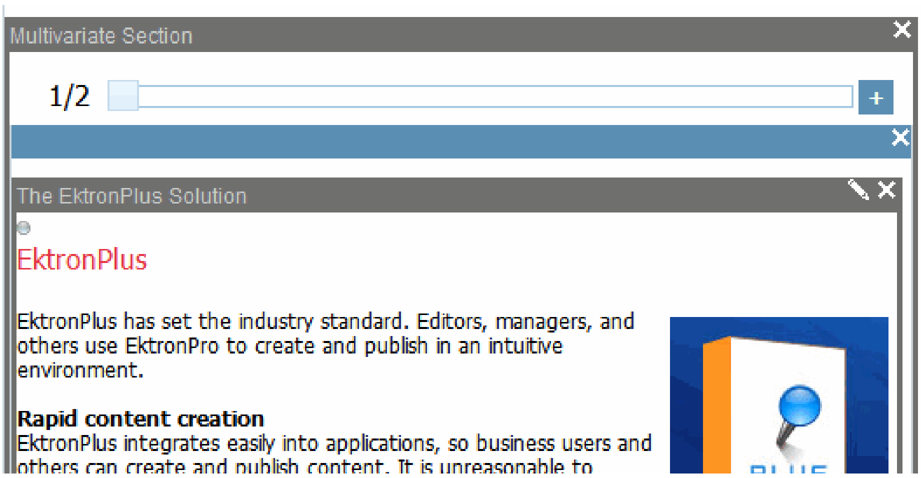
Manual Promotion

During an experiment, you may choose a specific variation to be the page that all visitors see and end the experiment. For more information see *Manually Ending the Experiment* on page 704.

Multivariate Section Widget Details

The Multivariate Section widget contains the content variations for the experiment. By using a variety of content combinations, the experiment tests the best arrangement of content to accomplish the desired conversion goals. The content is presented randomly to the site visitor. You may use one or more Section widgets per PageBuilder page.

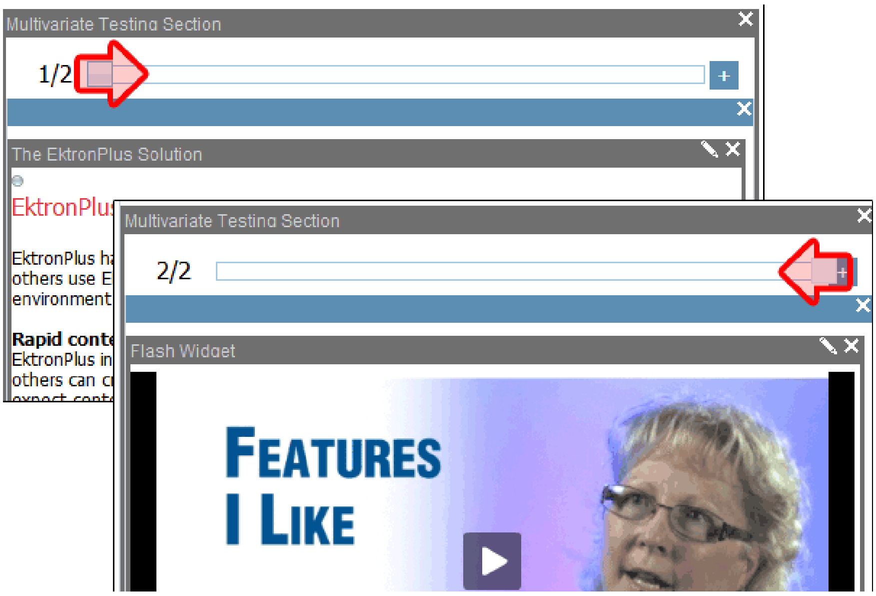
The following sample Web page contains the Multivariate Section widget.



Variation Selector Slider

The slider bar at the top of the Multivariate Section widget is used to select the variation.

The sample Web pages below demonstrate the slider control for variation 1/2 and 2/2.



Move the slider to see each variation.

Click **Add Variation** (+) to add another variation. Drag and drop the content widget into this section. After configuring it, this content widget is now one of the variations used in the experiment cycle.

Progress Bar

During the experiment, statistics are collected on:

- the number of page visits to the target page
- the number of page visits to a specific variation

The experiment progresses until it is either stopped or ended. For more information, see *Using Reports* on page 705.

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Using Widgets

A widget is a mini-application that can provide either specific functionality (search, social bars, and so on) or areas into which you can add Ektron content (content blocks, list summaries, collections, and so on). You can drag and drop widgets onto a page using a wireframe, dropzones, and widgets.

To open the widget bar from the PageBuilder menu, click the up/down ( ) or down ( ) controls.

A widget consists of 3 file types.

- `.ascx`—contains a widget's source code
- `.ascx.cs` or `.vb`—contains widget's code-behind
- `.ascx.jpg`—image that represents a widget in the widget selection tool

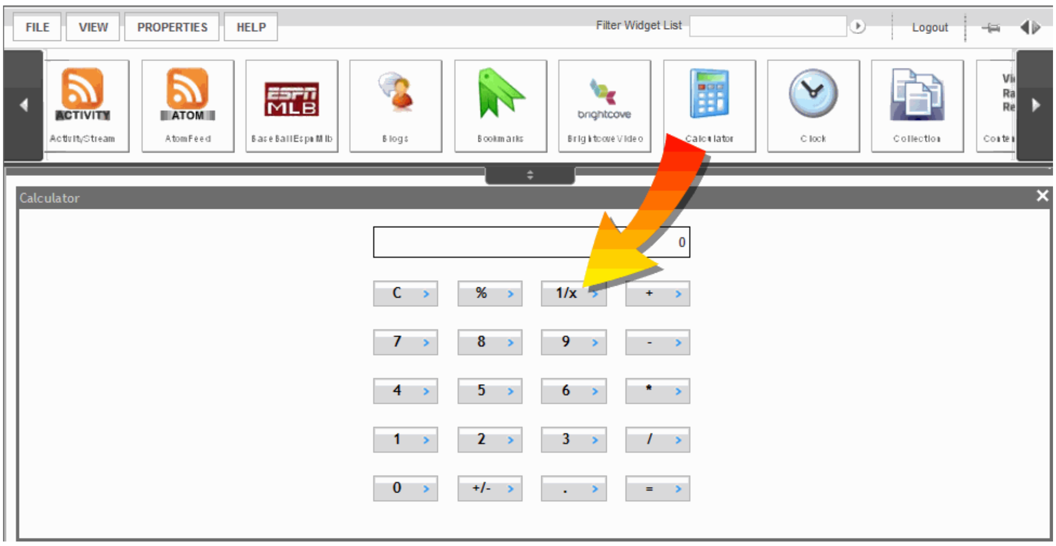
NOTE: Your widget might use additional files, such as `.css` or `.js` files.You should place these files in a folder within *`siteroot`*`/widgets`, and give the folder the same name as the custom widget.

When you create a widget, save files to the *`siteroot`*`/widgets` folder. This folder path is defined in the site *`root`*`/web.config` file, so if you need to change the folder name or path, you must update the following `web.configek_widgetPath` element:

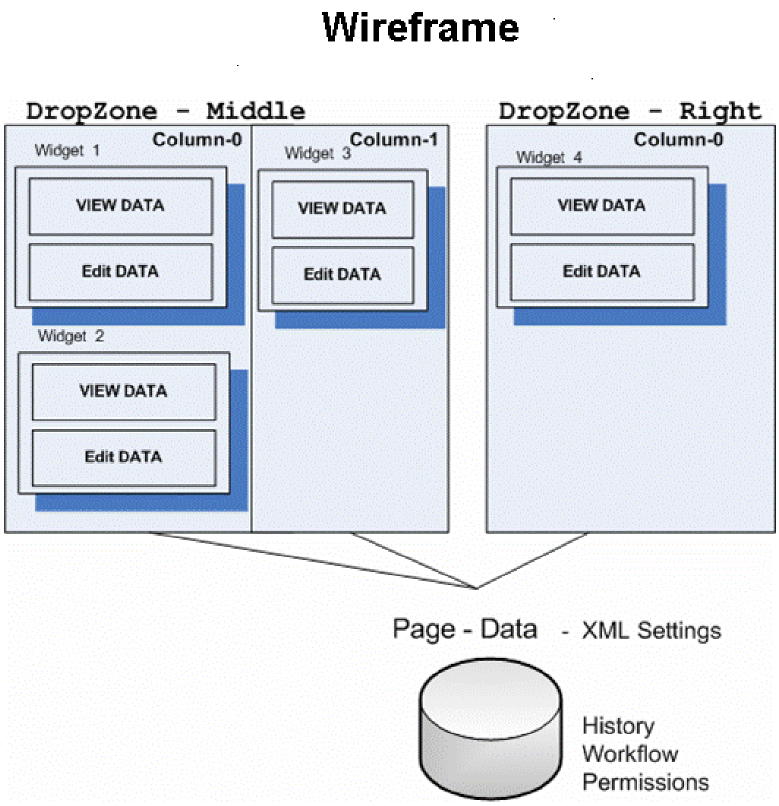
```
<add key="ek_widgetPath" value="Widgets/" />.
```

Ektron stores each page's data (a serialized XML string) as a type of content within the Ektron Workarea. The string is stored like other content types, such as HTML content and XML Smart Forms.

After widgets are integrated into Ektron, you can add them to a *dashboard* in your profile page or a community group's page. You also can drag-and-drop these building blocks onto a PageBuilder page. See Also: *Personalizing a Web Page* on page 825



The following figure shows the relationship between a wireframe, dropzones, and widgets.

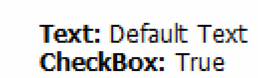


- A wireframe can have several dropzones.
- Each dropzone can have several columns.
- Each column can have several widgets.

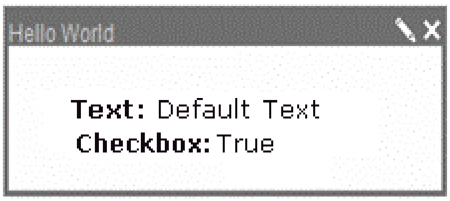
Widget States

Widgets placed on a PageBuilder page have 3 possible combinations of states.

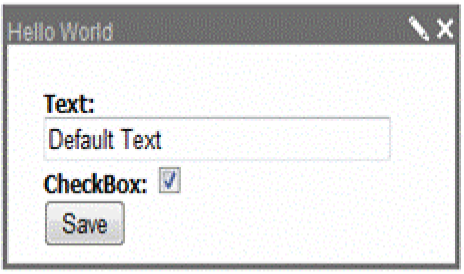
- View page mode—View widget mode—Widget content appears on page. For example:



- Edit page mode—View widget mode—Widget can be placed on the page, moved, and deleted. For example:



- Edit page mode—Edit widget mode—User defines widget information. For example:



In a widget's user control file, you create an `asp:MultiView` element that determines available actions when a widget is in View mode and Edit mode.

```
<%@ Control Language="C#" AutoEventWireup="true"
  CodeFile="HelloWorld.ascx.cs" Inherits="widgets_HelloWorld" %>
<%@ Register Assembly="System.Web.Extensions, Version=1.0.61025.0,
  Culture=neutral, PublicKeyToken=31bf3856ad364e35"
  Namespace="System.Web.UI" TagPrefix="asp" %>
  <asp:MultiView ID="ViewSet" runat="server" ActiveViewIndex="0">
  <asp:View ID="View" runat="server">
  <!-- You Need To Do .............................. -->
    <asp:Label ID="HelloTextLabel" runat="server"></asp:Label><br />
    <asp:Label ID="CheckBoxLabel" runat="server"></asp:Label>
  <!-- End To Do .............................. -->
    </asp:View>
    <asp:View ID="Edit" runat="server">
    <div id="<%=ClientID%>_edit">
      <!-- You Need To Do .............................. -->
        <asp:TextBox ID="HelloTextBox" runat="server" Style="width: 95%">
          </asp:TextBox><br />
        <asp:CheckBox ID="MyCheckBox" runat="server" Checked="false" />
          <br /><br />
      <!-- End To Do .............................. -->
        <asp:Button ID="CancelButton" runat="server" Text="Cancel"
          OnClick="CancelButton_Click" />   
        <asp:Button ID="SaveButton" runat="server" Text="Save"
          OnClick="SaveButton_Click" />
    </div>
  </asp:View>
  </asp:MultiView>
```

Widget Reference

Widgets are typically located in the Ektron `webroot/siteroot/widgets/` folder. Ektron assigns standard names to widgets. Ektron administrators can change a widget's name on the Synchronize Widgets Screen.

If you want to remove a widget from use:

1. Delete the widget's files from the `/siteroot/widgets/` folder.
2. Navigate to **Settings > Configuration > Personalizations > Widgets** and click **Synchronize**. The widget is removed from the list of widgets, and from the dashboard of any users and community groups.

Activity Stream—Displays activities of a user or group, depending on the type of page on which it is placed. See Also: *Using the ActivityStream Widget* on page 1233

Blog—After you select a blog id, displays posts from that blog.

Brightcove Video—Plays a Brightcove video. See also *Using a Brightcove Video Widget* on page 748.

Collection—Displays a collection. You select a Collection ID.See Also: *Working with Collections* on page 355

ContentAnalytics—Displays information about a set of content or products. The following figure shows the Highest Rated products in the default Software taxonomy.

Content Block—Lets user enter a content ID and display that content in the widget. Alternatively, user can create new HTML content from the widget.

Content List—Displays a list of content blocks. In contrast to a List Summary, where content must be in a specified folder, the ContentList control displays content from any Ektron folder.

Content Review—Places a ContentReview server control on the page. This control allows site visitors to rate and review the current page. See Also: *ContentReview* on page 1712 server control

Flash—Displays a selected flash file which resides in Ektron. You can also set the display's height and width. See Also: *Using the Flash Widget* on page 746

Flickr—Display Flickr's Most Recent or Most Interesting photos. The user also can select the number of rows and columns for the image display.

GoogleGadget—Select from several Google feeds to display in the widget.

HelloWorld—Very simple widget. Created by Ektron to help developers understand how to create their own widgets.

iFrame—Lets user enter a path to a Web page or an item on the Web page.

List Summary—Displays an Ektron List Summary, a list of certain types of content in a selected folder. See Also: *ListSummary* on page 1756 server control

MessageBoard—Allows user to leave comments on the page. See Also: *MessageBoard* on page 1786 server control

Metadata List—Displays content whose metadata fits a selected folder location and keywords. See Also: *MetadataList* on page 1796 server control.

Most Popular—Reports on the following categories of content on your website: Most Viewed, Most Emailed, Most Commented, or Highest Rated. See Also: *Most Popular Widget* on page 607

Multivariate Experiment—This controls the experiment. Settings include the target content number, start/stop button and the Report hide/show button. See Also: *Using Widgets for Multivariate Testing* on page 697

Multivariate Section—Lets you drag and drop various content widgets. These produce the variations used during the experiment. See Also: *Using Widgets for Multivariate Testing* on page 697

Multivariate Target—When a page view occurs on a page containing this widget, the conversion count is increased. See Also: *Using Widgets for Multivariate Testing* on page 697

Views Rating Recent **ProductAnalytics**—Displays information about a set of content or products. The following figure shows the Highest Rated and most Viewed products in the Hardware taxonomy.

QRCode—Generates a QR code based on the information you provide.

RSS **RSS Feed**—Allows a user to enter the path of an Really Simple Syndication (RSS) feed.

Spacer—Lets you create an unused space on the Web page.

TabPlus—Lets you display more than one type of content in a tabbed widget. You can display a tab for a Content Block, a List Summary, a Collection, or Upcoming Events.

Targeted Content—Lets you create a set of conditions. As soon as any condition evaluates to true, an appropriate widget appears. See Also: *Creating Conditions with the Targeted Content Widget* on page 731

Taxonomy Summary—Displays content assigned to a taxonomy category. See Also: *Using Taxonomies* on page 777, *Directory* on page 1718 server control

Trends—By default, the Trends widget shows the Most Viewed content on your website. You can edit the widget so it displays any of these content categories instead: Most Emailed, Most Commented, or Highest Rated. See Also: *Trends Widget* on page 610

Upcoming Events—Shows a list of scheduled calendar events.

WebCalendar—Provides full calendar functionality, including adding events. See Also: *Working with Calendars* on page 514

YouTube **YouTube Video**—Lets you embed code for any YouTube video.

Creating the “Hello World” Widget

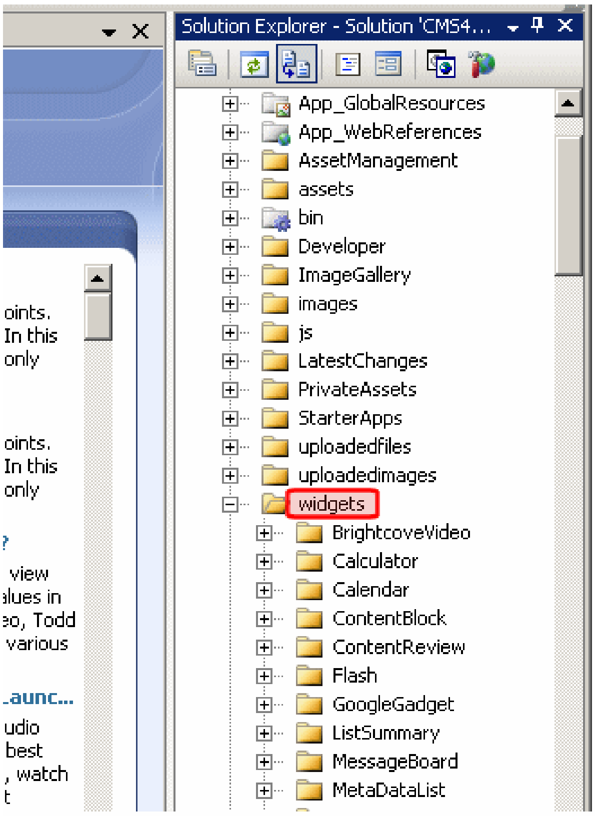
NOTE: For more information on creating widgets, see Break It Down! Widget Development How-to (Part 1).

To learn how to create a widget, create a simple widget in the *siteroot*/widgets folder. This widget is based on the Hello World widget that is installed with the sample site with the following files:

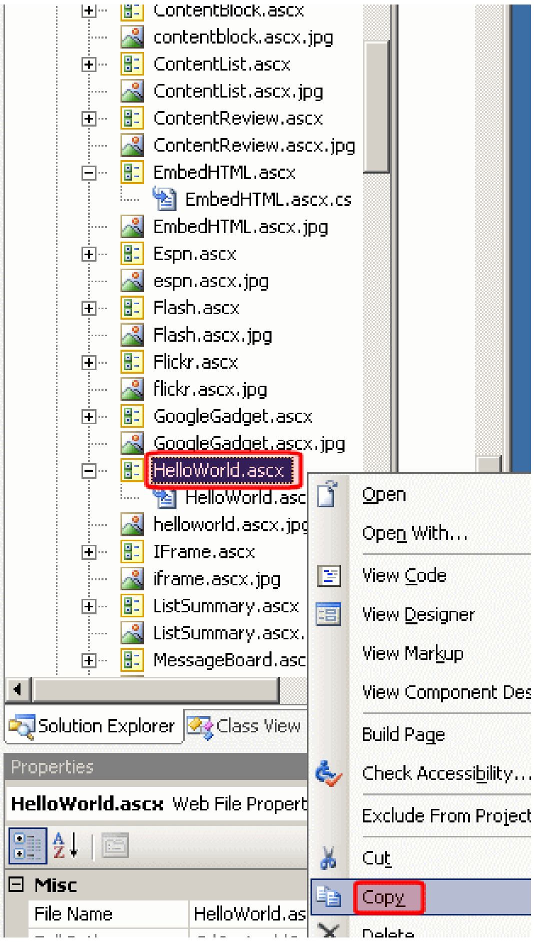
- HelloWorld.ascx—user control file
- HelloWorld.ascx.cs—user control code-behind file
- HelloWorld.ascx.jpg—image that represents this control on the widget menu

Step 1: Copy, Paste, and Rename HelloWorld.ascx and HelloWorld.ascx.jpg

1. Open your website in Visual Studio.
2. In the Visual Studio Solution Explorer, open the widgets folder.

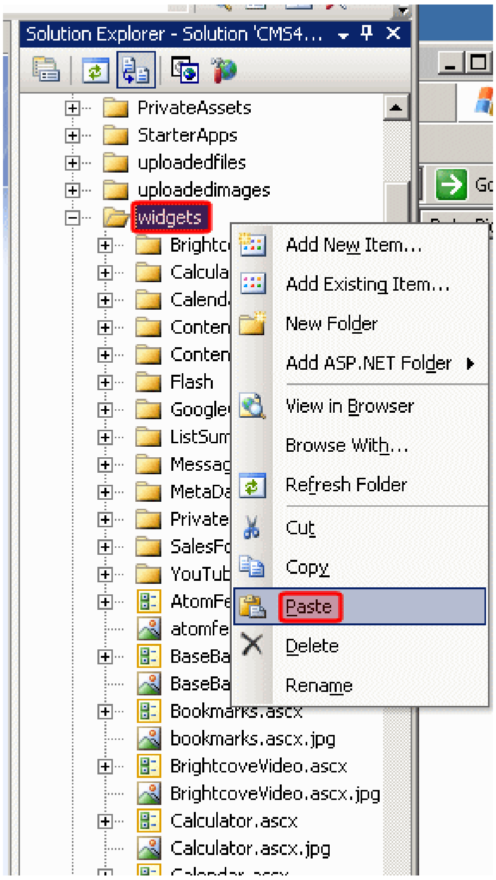


3. Within that folder, scroll down to and select `HelloWorld.ascx`.

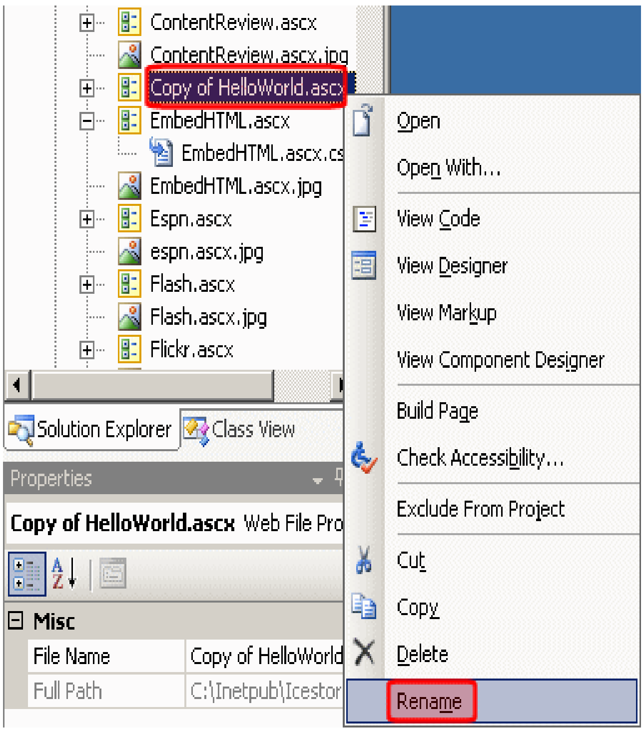


4. Right click the mouse and choose **Copy**.
5. Scroll up to the `widgets` folder.

6. Right click the mouse and choose **Paste**.



7. Scroll down until you see `Copy of HelloWorld.ascx`.
8. Right click and choose **Rename**.



9. Rename the file `new_widget.ascx`. Visual Studio automatically renames the code-behind file to `new_widget.ascx.cs`.
10. Copy, paste, then rename the `helloworld.ascx.jpg` file to `new_widget.ascx.jpg`. The image file is 48 x 48 pixels and 72 dpi. Ektron administrators and content authors drag a widget's image onto the page.

Step 2: Update the Class Names in the New Files

1. Double click on `new_widget.ascx` to open it.
2. On the first line of that file, replace the reference to `HelloWorld` (circled below) with `new_widget`.

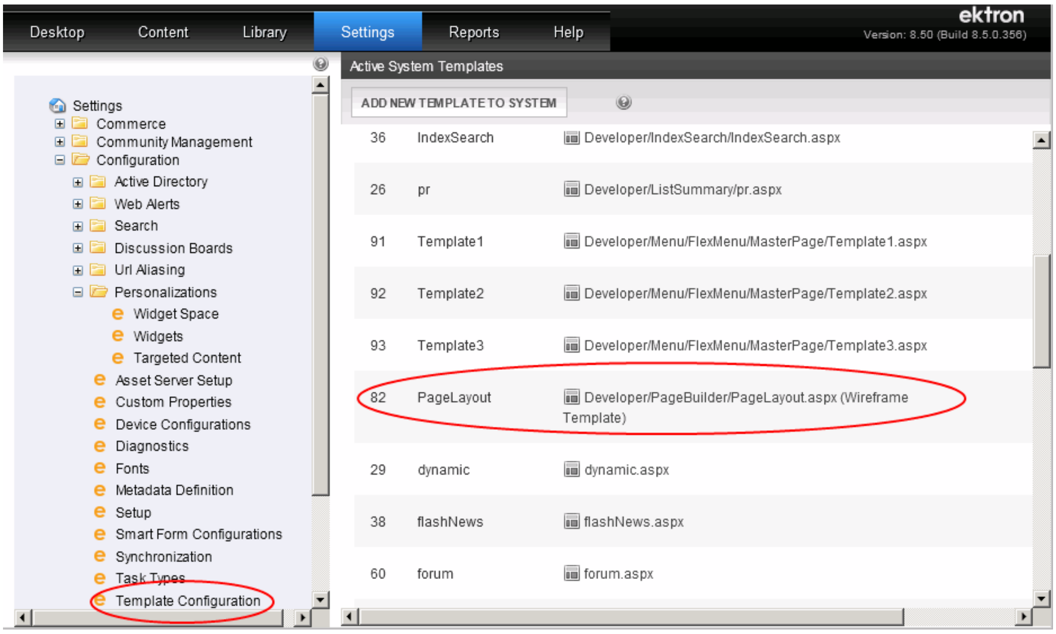
3. Double click on the code-behind file, `new_widget.ascx.cs`.
4. Replace the class `HelloWorld` with `new_widget`.

5. Save `new_widget.ascx` and `new_widget.ascx.cs`.
6. Check for errors by choosing **Build > Build Page** for each file. Correct any errors before proceeding.

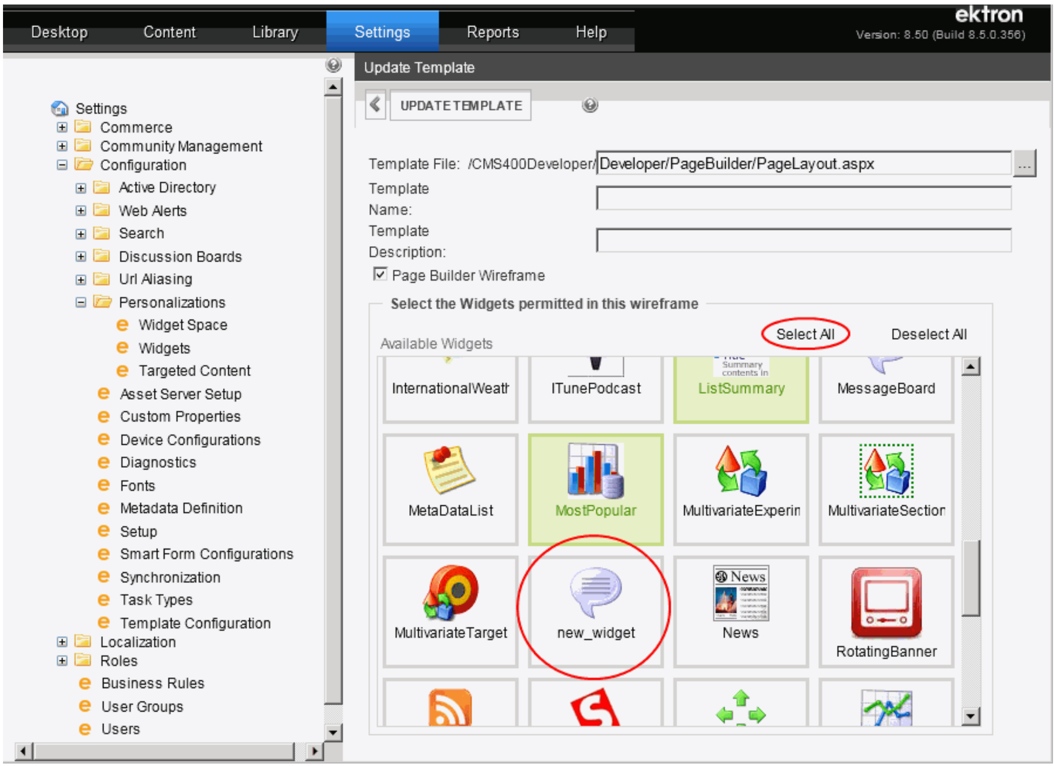
Step 3: Add Widget in Workarea

1. Open the Workarea.
2. Choose **Settings > Configuration > Personalizations > Widgets**.
3. Click **Synchronize**. The new user control file, `new_widget.ascx`, appears in the list.
4. Choose **Settings > Configuration > Template Configuration**.
5. Find the template that you created in *Developing Wireframe Templates* on page 676, `PageLayout.aspx`. Or, any wireframe template that you are using to create a

PageBuilder page.

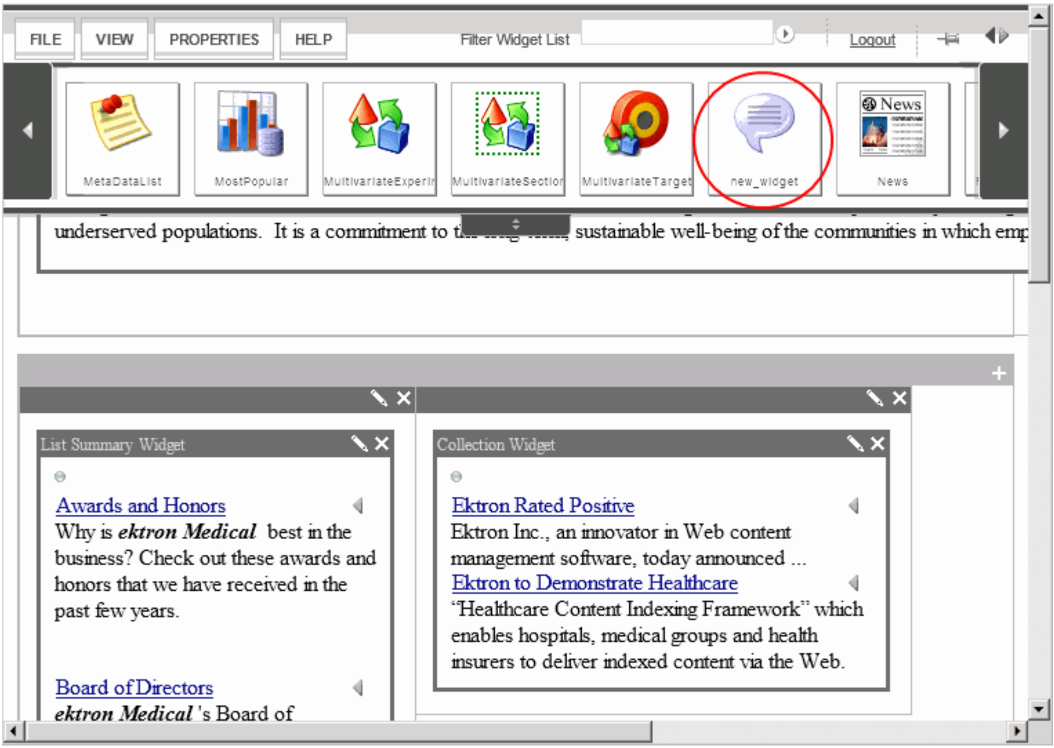


6. Click **Update Template**. On the Update Template screen, scroll down until you see the new widget.



7. Click **Select All** (circled in the figure).
8. Click **Update Template**. For directions on creating a PageBuilder page, see *Developing Wireframe Templates* on page 676.

9. Go to Content and select a folder that has a PageBuilder page.
   a. Choose **Content > Folders > PageBuilder** and click on PageLayout.
   b. Click **Edit Page Layout**.
10. Open the widget menu. Make sure your new widget appears on the menu.



After you create a new widget and enable it in the Workarea, you can begin to customize it. For more information about customizing widgets, see *Customizing Widgets* on page 726.

Understanding the User Control (.ascx) File

Here is the `new_widget.ascx` file that is the basis of the widget.

```
<%@ Control Language="C#" AutoEventWireup="true"
  CodeFile="new_widget.ascx.cs" Inherits="widgets_new_widget" %>
<%@ Register Assembly="System.Web.Extensions,
  Version=1.0.61025.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35"
  Namespace="System.Web.UI" TagPrefix="asp" %>
    <asp:MultiView ID="ViewSet" runat="server" ActiveViewIndex="0">
        <asp:View ID="View" runat="server">
            <!-- You Need To Do ..............................  -->
<asp:Label ID="TextLabel" runat="server"></asp:Label><br />
<asp:Label ID="CheckBoxLabel" runat="server"></asp:Label>
            <!-- End To Do ............................  -->
        </asp:View>
        <asp:View ID="Edit" runat="server">
            <div id="<%=ClientID%>_edit">
                 <!-- You Need To Do ............................  -->
<asp:TextBox ID="TextTextBox" runat="server" Style="width: 95%">
</asp:TextBox><br />
<asp:CheckBox ID="MyCheckBox" runat="server" Checked="false" />
<br />
                 <!-- End You Need To Do ........................  -->
```

```
<asp:Button ID="CancelButton" runat="server" Text="Cancel"
  OnClick="CancelButton_Click" />
<asp:Button ID="SaveButton" runat="server" Text="Save"
  OnClick="SaveButton_Click" />
          </div>
      </asp:View>
</asp:MultiView>
```

Notice the following elements of the file.

- The `asp:MultiView` element declares that the control has 2 possible modes: View and Edit.

  ```
  <asp:MultiView ID="ViewSet" runat="server" ActiveViewIndex="0">
  ```

- in *view* mode, the marketing team can see the control but not change it.
- in *edit* mode, the developers can change the control's content and properties.
- Between the `multiview` tags is information about the control in view mode. It has 2 fields: one is a text field, and the other is a check box.

  ```
  <asp:View ID="View" runat="server">
  <asp:Label ID="HelloTextLabel" runat="server"></asp:Label><br />
  <asp:Label ID="CheckBoxLabel" runat="server"></asp:Label>
  </asp:View>
  ```

- Also between the `multiview` tags is information about the control in edit mode. In edit mode, a text box, a check box, and a Save button appear. The text box and check box collect end-user input, and the Save button saves that input to the database.

  ```
  <asp:View ID="Edit" runat="server">
  <div id="<%=ClientID%>_edit">
  <!-- You Need To Do .............................. -->
  <asp:TextBox ID="HelloTextBox" runat="server" Style="width: 95%">
  </asp:TextBox><br />
  <asp:CheckBox ID="MyCheckBox" runat="server" Checked="false" /> <br />
  <!-- End You Need To Do .............................. -->
  <asp:Button ID="CancelButton" runat="server" Text="Cancel"
    OnClick="CancelButton_Click" />
  <asp:Button ID="SaveButton" runat="server" Text="Save"
    OnClick="SaveButton_Click" />
  ```

Understanding the Code-behind (.ascx.cs) File

Review the code-behind file,`new_widget.ascx.cs`.

- A series of `using` statements are at the top of the file. Notice the Ektron ones in particular:

  ```
  using Ektron.Cms.Widget;
  using Ektron.Cms;Marketing team
  using Ektron.Cms.API;
  using Ektron.Cms.Common;
  using Ektron.Cms.PageBuilder;
  using System.Text.RegularExpressions;
  ```

- Next, note a widget host class, which inherits the `system.Web.UI.UserControl` and `IWidget` classes.

  ```
  public partial class widgets_new_widget: System.Web.UI.UserControl, IWidget
  ```

The following figure summarizes the remaining elements of the code-behind file.


```
public partial class widgets_HelloWorld : System.Web.UI.UserControl, IWidget
{
    #region properties
    private string _HelloString;
   [WidgetDataMember("Hello Wolrd")]
    public string HelloString { get { return _HelloString; } set { _HelloString = value; } }
    #endregion

    IWidgetHost _host;

    protected void Page_Init(object sender, EventArgs e)
    {   string sitepath = new CommonApi().SitePath;
        _host = Ektron.Cms.Widget.WidgetHost.GetHost(this);
        _host.Title = "Hello World Widget";
        _host.Edit += new EditDelegate(EditEvent);
        _host.Maximize += new MaximizeDelegate(delegate() { Visible = true; });
        _host.Minimize += new MinimizeDelegate(delegate() { Visible = false; });
        _host.Create += new CreateDelegate(delegate() { EditEvent(""); });
        PreRender += new EventHandler(delegate(object PreRenderSender, EventArgs Evt) { SetOutput(); });
        _host.HelpFile = sitepath + "WorkArea/help/personalization_admin.83.6.html";
        ViewSet.SetActiveView(View);
    }

    void EditEvent(string settings)
    {
        HelloTextBox.Text = HelloString;
        ViewSet.SetActiveView(Edit);
    }

    protected void SaveButton_Click(object sender, EventArgs e)
    {
        HelloString = HelloTextBox.Text;
        _host.SaveWidgetDataMembers();
        ViewSet.SetActiveView(View);
    }

    protected void SetOutput()
    {
        OutputLabel.Text = HelloString;
    }

    protected void CancelButton_Click(object sender, EventArgs e)
    {
        ViewSet.SetActiveView(View);
    }
```

- In the next line, notice the widget's properties: a string for the text field, and a boolean for the check box. You define the variables and their type here. Possible types are string, integer, long and date.

```
#region properties
private string _HelloString;
private bool _CheckBoxBool;
[WidgetDataMember(true)]
public bool CheckBoxBool { get { return _CheckBoxBool; }
  set { _CheckBoxBool = value; } }
[WidgetDataMember("Hello Wolrd")]
public string HelloString { get { return _HelloString; }
  set { _HelloString = value; } }
#endregion
```

- The following is a widget host declaration.

```
private IWidgetHost _host;
```

- The following is the widget's `page_init` events.

```
protected void Page_Init(object sender, EventArgs e)
  { _host = Ektron.Cms.Widget.WidgetHost.GetHost(this);
    _host.Title = "Hello World Widget";
    _host.Edit += new EditDelegate(EditEvent);
    _host.Maximize += new MaximizeDelegate(delegate() { Visible = true; });
    _host.Minimize += new MinimizeDelegate(delegate() { Visible = false; });
    _host.Create += new CreateDelegate(delegate() { EditEvent(""); });
    PreRender += new EventHandler(delegate(object PreRenderSender, EventArgs Evt)
      { SetOutput(); });
```

```
    ViewSet.SetActiveView(View);
  }
```

Comments about the page_init code

- The `gethost` method returns a reference to the container widgethost for this widget. This is the case in both Personalization and PageBuilder.
- The `Title` property is the title of this widget. By setting it in `page_init` for the widget, we inform the host what text to put in the title bar above the widget. This works in both PageBuilder and Personalization.
- The events below `host.Title` are raised by the widgethost. It's up to the widget to subscribe to them. In all cases, if we don't subscribe to them, the icons don't show up. This is a method of attaching widget code to button clicks and other events that occur outside the widget.
- For `PreRender`: Ektron renders the contents of this widget on pre-render, thus ensuring a single render event. Another option is to call `SetOutput` on the Load event, but you can only do that if the widget is not in edit mode currently.
- The final line sets the view to display mode.
- The following is the declaration of the widget's `edit` events.

```
void EditEvent(string settings) {
string sitepath = new CommonApi().SitePath;
ScriptManager.RegisterClientScriptInclude(this, this.GetType(),
  "widgetjavascript", sitepath + "widgets/widgets.js");
ScriptManager.RegisterOnSubmitStatement(this.Page, this.GetType(),
  "gadgetescapehtml", "GadgetEscapeHTML('" + HelloTextBox.ClientID + "');");
HelloTextBox.Text = HelloString;
MyCheckBox.Checked = CheckBoxBool;
ViewSet.SetActiveView(Edit);
}
```

Comments about the edit code

IMPORTANT: You must register JavaScript and cascading style sheet (css) instructions in an external file.

- The Edit event is triggered by the widgethost, and if you subscribed to it already, it will call the delegate here.
- Use `sitepath` to ensure that the correct path for included files is used across installations.
- Ensure that it works inside update panels by calling the `scriptmanager` to include the script. Alternatively, you can use `Ektron.Cms.Api.Js.RegisterJSInclude ScriptManager.RegisterOnSubmitStatement(this.Page, this.GetType(), "gadgetescapehtml", "GadgetEscapeHTML('" + HelloTextBox.ClientID + "');");`
- The `onsubmitstatement` is JavaScript that is run when the widget is submitted. It calls escape html, which cleans the submitted text to avoid any XSS.
- Notice the editing fields, so users can see the existing data.

  HelloTextBox.Text = HelloString;

  MyCheckBox.Checked = CheckBoxBool;

  ViewSet.SetActiveView(Edit);

- The following code is the widget's `save` events.

```
protected void SaveButton_Click(object sender, EventArgs e)
  { HelloString = ReplaceEncodeBrackets(HelloTextBox.Text);
    CheckBoxBool = MyCheckBox.Checked;
    _host.SaveWidgetDataMembers();
    ViewSet.SetActiveView(View);
  }
```

- The following code is the widget's `SetOutput` events.

```
protected void SetOutput()
  { HelloTextLabel.Text = HelloString;
// client javascript remove brackets, server side adds back
    CheckBoxLabel.Text = CheckBoxBool.ToString();
  }
```

- The following code is the widget's `Cancel` events.

```
protected void CancelButton_Click(object sender, EventArgs e)
  { ViewSet.SetActiveView(View); }
```

- The following code is for greater than and less than signs.

```
protected string ReplaceEncodeBrackets(string encodetext)
  { encodetext = Regex.Replace(encodetext, "&lt;", "<");
    encodetext = Regex.Replace(encodetext, "&gt;", ">");
    return encodetext; }
```

Customizing Widgets

The following topics let you further customize widget behavior.

Working with JavaScript and Cascading Style Sheets

You can use JavaScript or a cascading style sheet to add custom functionality or styling to a widget. To do this, place the JavaScript or cascading style sheet (css) instructions in an external file, then register it in the code-behind file.

Example of including a JavaScript file.

```
void EditEvent(string settings)
JS.RegisterJSInclude(this, _api.SitePath +
  "widgets/contentblock/jquery.cluetip.js", "EktronJqueryCluetipJS");
```

Example of including a .css file.

```
Css.RegisterCss(this, _api.SitePath
  + "widgets/contentblock/CBStyle.css","CBWidgetCSS");
```

WARNING! You must register JavaScript and .css files in an external file, as shown above. If you do not, the OnSubmit event places HTML in the TextArea field in encoded brackets (< >) and generates a dangerous script error.

The `JS.RegisterJSInclude` and `Css.RegisterCss` functions take 3 arguments.

- **1**—A reference to the control that needs the script or style sheet on the page. Typically, 'this' or 'me'. For example:
  - `this`
- **2**—The URL of the script or style sheet being included. You should prefix the URL with a site path so it can be used with URLs like `http://localhost/ektrontech` and

`http://ektrontech`. For example:
  - `_api.SitePath + "widgets/contentblock/jquery.cluetip.js"`
  - `_api.SitePath + "widgets/contentblock/CBStyle.css"`
- **3**—A unique key. Only include the script specified by a key once. Your organization should develop a standard way to define JavaScript and .css keys. For example:
  - `"EktronJqueryCluetipJS"`
  - "CBWidgetCSS"

NOTE: Widgets use an update panel for partial postbacks. As a result, the ASP.NET tree view and file upload controls do not work with widgets. Ektron has workarounds for these functions. For an example of a tree view, see the content block widget (*siteroot*/widgets/contentblock.ascx). For an Ajax file uploader, see the flash widget (*siteroot*/widgets/flash.ascx).

Verifying that a Page is a PageBuilder Page

Whenever your code is interacting with a widget, you need to verify that it is on a PageBuilder page (as opposed to another Ektron page that hosts widgets, such as personalization).

To check for this, insert the following code:

```
Ektron.Cms.PageBuilder.PageBuilder p = (Page as PageBuilder);
If(p==null) // then this is not a wireframe
When you want to check the mode, use code like this.
If(p.status == Mode.Edit) // we are in edit mode
```

Applying Global and Local Properties to Widgets

Global and local widget properties reduce your development effort by eliminating settings data classes. While you can still use these classes and manage your own serialization, for the vast majority of types, the built-in engine performs the necessary work.

Global properties apply to every instance of a widget. *Local* properties apply to one instance. If both local and global values are assigned to a property, local overrides global.

As an example of using a local property to override a global, consider a ListSummary widget. You may want its sort mostly by modified date in descending order, but in certain instances you want to sort by title in ascending order.

- Global—**Workarea > Settings > Configuration > Personalizations > Widgets**

```
[GlobalWidgetData()]
public string NewWidgetTextData {
get {return _NewWidgetTextData;} set {_NewWidgetTextData = value;
}}
```

- Local—Drop the widget onto PageBuilder page, then click edit (Pencil icon).

```
[WidgetDataMember()]
public string NewWidgetTextData
  { get { return _NewWidgetTextData; } set { _NewWidgetTextData = value; } }
```

Setting a Widget’s Global Properties

A *global* property lets an Ektron developer or administrator assign properties and values that apply to all instances of a widget. You apply a global property to the widget’s code-behind page. Administrators could then set or update the property’s value in the Workarea’s Widgets screen.

For example, the Brightcove Video widget requires a player ID. You could insert that in the widget's code-behind file. Then, an administrator could review and possibly update that information in the Workarea widgets screen. Whenever a user drops a Brightcove Video widget onto a page, the player ID is already assigned.

If the developer does *not* set a default value in code-behind, an administrator must set one on the Workarea's Widgets screen.

If the developer *does* set a default value in code-behind, it will be applied unless changed by an administrator on the Workarea's Widgets screen.

Steps for Setting a Global Property

1. Open the widget's code-behind file, which is located in the `siteroot/widgets` folder.
2. In the `properties` section, insert the `GlobalWidgetData` attribute (shown below) to set the global property's name and type.

```
[GlobalWidgetData()]
public string NewWidgetTextData
  { get { return _NewWidgetTextData; } set { _NewWidgetTextData = value; } }
```

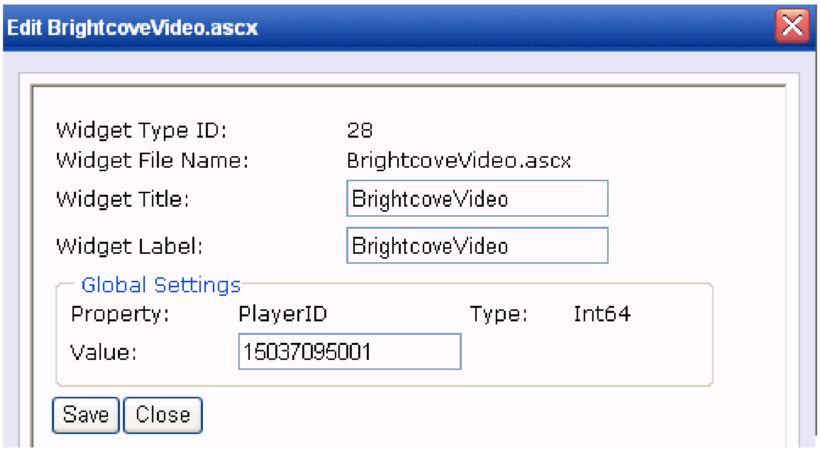
```
public partial class Widgets_BrightcoveVideo : System.Web.UI.UserControl, IWidget
{
    #region properties
    private long _PlayerID;
    public long _VideoID;
    [WidgetDataMember(15037095001)]
    public long PlayerID { get { return _PlayerID; } set { _PlayerID = value; } }
    [GlobalWidgetData(15053010001)]
    public long VideoID { get { return _VideoID; } set { _VideoID = value; } }
    public long publisherID = 14459838001;  // Your company Publisher ID Get from
    public string token = "R2tftyEmD8Kn3M3zoXFj9gA7rax2BIzZDijTcsUCkJl5tXA8c-hgwQ
    #endregion
```

The supported types for `GlobalWidgetData` are

- Date Time
- int
- long
- double
- boolean
- string
- any enumeration

3. Save the code-behind file.
4. In the Workarea, go to **Settings > Configuration > Widgets**.
5. Click **Edit** for the widget whose code-behind file you edited in Step 1. A dialog box lets

you view and edit global properties set in code-behind.



Setting a Widget's Local Properties

A *local* property lets an Ektron user assign property values that apply to a particular instance of a widget. For example, the Brightcove Video widget requires a Video ID, which identifies the video that appears where you drop the widget.

To set a local property:

1. Open the widget's code-behind file, which is located in the `site root/widgets` folder.
2. In the `properties` section, insert the `WidgetDataMember` attribute to set the property. See example below.

```
[WidgetDataMember(150530105432)]1
public long VideoID
  { get { return _VideoID; } set { _VideoID = value; } }
```

3. If you want to set a default value for the widget, use the attribute's optional argument, which follows `[WidgetDataMember`. In the example above, the value is `150530105432`.
4. Save the settings in your properties by populating them as you normally would.
5. In the Save event, call `_host.SaveWidgetDataMembers();`.

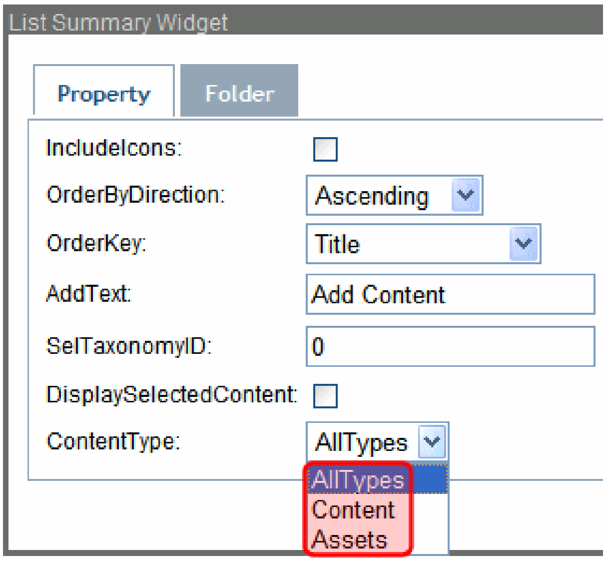
```
protected void SaveButton_Click(object sender, EventArgs e)
{
     VideoID = Int64.Parse(tbData.Text);
    _host.SaveWidgetDataMembers();
    ViewSet.SetActiveView(View);
}
```

Adding a Field to a Widget

This section provides an example of adding a Content type drop-down to the List Summary widget. The drop-down lets the person dropping the widget on the page select from these choices.

- all types of content
- HTML content only
- assets only

Here is what the drop-down looks like once it is implemented.



To add this drop-down to the List Summary widget:

1. In Visual Studio, open the ListSummary widget, *siteroot*`/widgets/ListSummary.ascx`.
2. Find the text `DisplaySelectedContent`.
3. Below `DisplaySelectedContent`, add the following code to create a drop-down list for the `ContentType` property.

```
<tr>
  <td>DisplaySelectedContent:</td>
  <td>
    <asp:CheckBox ID="DisplaySelectedContentCheckBox" runat="server" />
  </td>
</tr>
<tr>
  <td>ContentType:</td>
  <td>
    <asp:DropDownList ID="ContentTypeList" runat="server">
    <asp:ListItem Value="AllTypes">AllTypes</asp:ListItem>
    <asp:ListItem Value="Content">Content</asp:ListItem>
    <asp:ListItem Value="Assets">Assets</asp:ListItem>
    </asp:DropDownList>
  </td>
</tr>
```

4. Save the `ListSummary.ascx` file.
5. Open the code-behind file, `ListSummary.ascx.cs`.
6. In the properties region, declare a string variable for the `ContentType` property:

```
private string _ContentType;
```

7. Create a local property with default setting of `AllTypes`:

```
[WidgetDataMember("AllTypes")]
public string ContentType { get { return _ContentType; }
  set { _ContentType = value; } }
```

8. In the `EditEvent` area, set the select list's value to `ContentType`:

```
ContentTypeList.SelectedValue = ContentType;
```

9. In the `SaveButton_Click` event, set `ContentType` as the select list's value:

```
ContentType = ContentTypeList.SelectedValue;
```

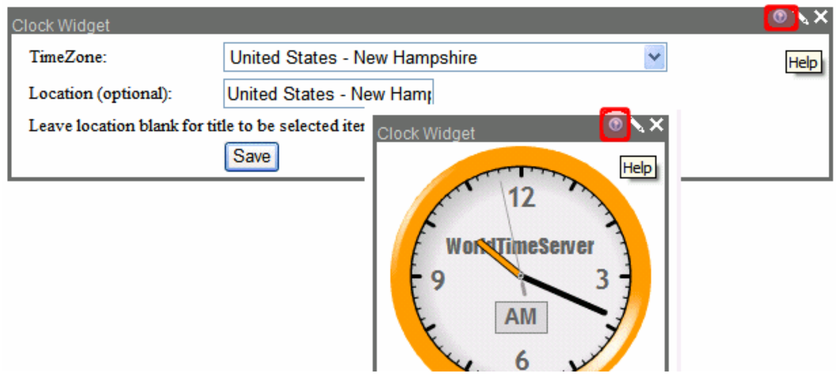
10. In the `SetListSummary()` function, set the List Summary server control's `ContentType` to the `CMSContentType` property:

```
ListSummary1.ContentType =
  (CMSContentType)Enum.Parse(typeof(CMSContentType), ContentType);
```

11. Save the `ListSummary.ascx.cs` file.

Including Help for a Widget

You can include help for any widget that has the help icon ().



The help icon only appears when a user is editing a PageBuilder page. The icon appears both when a user is viewing a widget and editing its properties. It is not available to a page’s site visitors.

To create a widget’s help file:

1. Create an HTML file with information for users who will drop the widget on the PageBuilder page.

   You could create a content block within Ektron then switch to source view, copy the content into a word processor (like Notepad), and save it with an HTML extension.

2. Save the help file to the folder that contains the widget.
3. Add the WidgetHost’s `HelpFile` property to the code-behind of the page that hosts the widget. See example below.

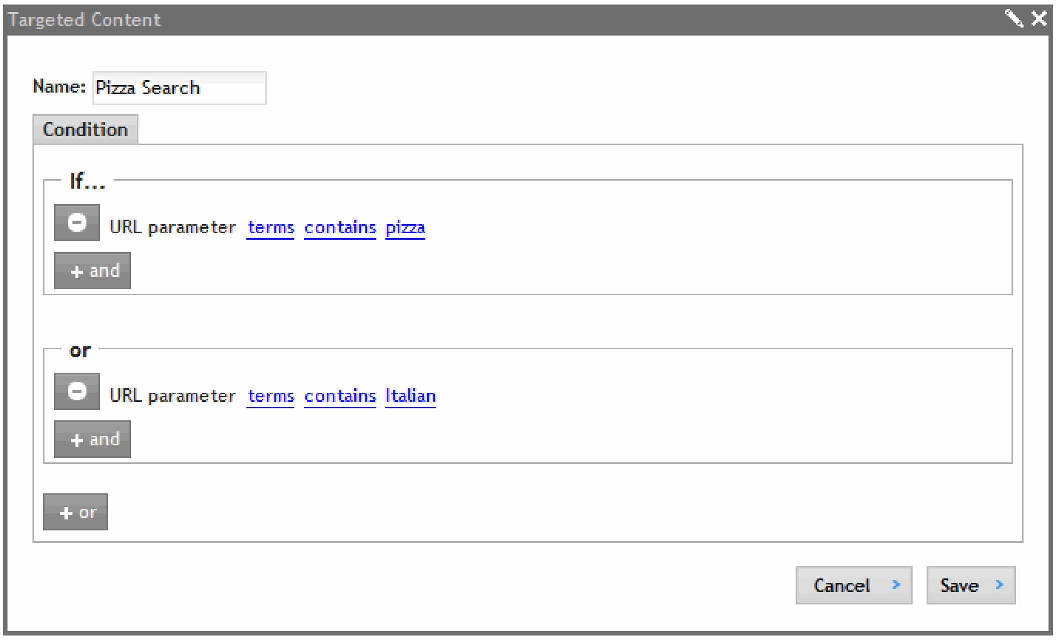
```
protected void Page_Init(object sender, EventArgs e)
{
  _host = Ektron.Cms.Widget.WidgetHost.GetHost(this);
  _host.HelpFile = "~/widgets/myWidget/help.html";
```

Creating Conditions with the Targeted Content Widget

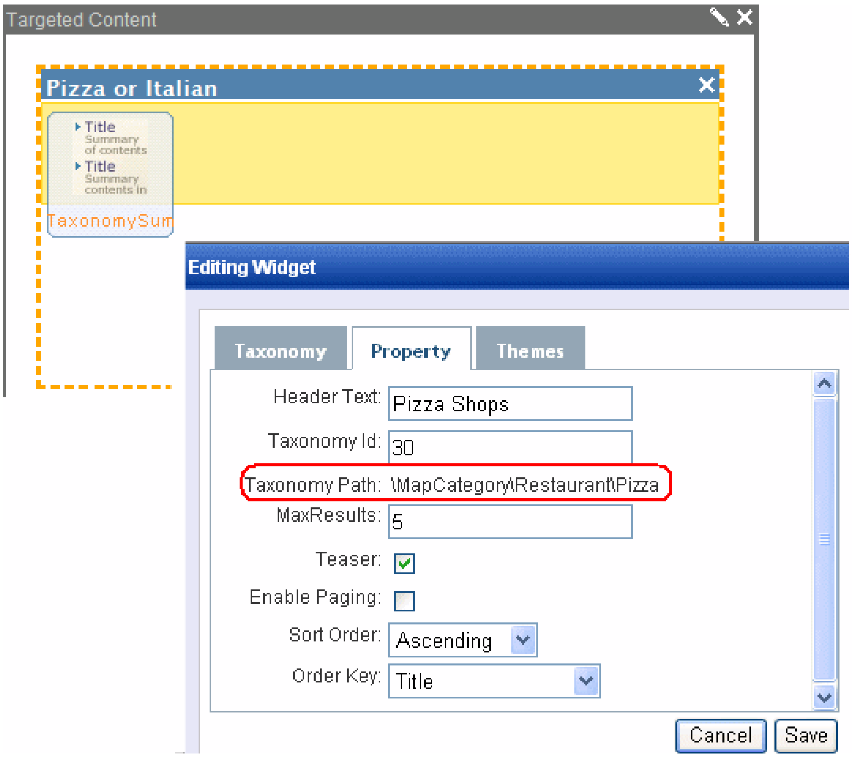
The Targeted Content widget lets you personalize a site visitor's experience by providing content that matches their interests, thereby placing your site information in the context of your users. For example, the search keywords used to find your site might determine the best offer to show a prospect. Or, site members might explicitly state their interests by adding to their user profile or filling out a survey.

In both cases, the Targeted Content widget ensures the delivery of the right experience to compel each site visitor to take action. The widget lets you gather information from each interaction, and use that information to direct visitors to content that relates to their specific interests.

Targeting content is as easy as creating an email rule in *Microsoft Outlook*, or a playlist in *iTunes*. Each widget has 1 or more conditions. Each condition can have 1 or more criteria. For example, a condition may stipulate that the URL parameter `terms` contains either "pizza" or "Italian."



After assigning conditions to a Targeted Content widget, you assign one or more widgets to it. The widgets appear on the page only if a condition evaluates to true. To continue the example, if the page has a URL parameter that contains "pizza," display a Taxonomy Summary widget showing content to which the taxonomy category "pizza" is assigned.



You can assign any number of conditions to the Targeted Content widget. As soon as one is true, its associated widgets appear, and any remaining conditions are ignored.

The Targeted Content widget can evaluate the following information about a page's site visitor.

- *search engine* or *URL* that directed the person to the page
- the page's *URL parameters*
- the user's device, such as a Smart Phone
- the page from which he was directed
- regional information about the visitor: U.S state or country
- information in the visitor's Facebook profile, such as if the person's marital status is single
- whether a certain *cookie* is on the person's computer
- if logged in
  - *user or membership group* to which he belongs
  - any of the person's *custom user properties* that match your criteria
- the current *date and time* on the Ektron server

Here are examples of using the Targeted Content widget.

- Your jewelry store is promoting gold necklaces. You create a hyperlink with a Campaign ID of gold. For example, `http://www.mystore.com/product.aspx?cid=gold`. In the Targeted Content widget, set the condition **URL Parameter CID contains gold**.

  If condition = true, the Targeted Content widget displays a ContentBlock widget that promotes gold necklaces.

- You are promoting a race to NASCAR fans. Your site has a membership group for NASCAR fans, and anyone visiting the site can join. In the Targeted Content widget, create a condition **If user is in Group NASCAR**.

If condition = true, the Targeted Content widget displays a WebCalendar widget that lists upcoming NASCAR races.

- On Sunday Feb. 28, you are running a sale: all couches are 50% off. In the Targeted Content widget, set **Date is 2013-02-28**.

  If condition = true, the Targeted Content widget displays a TaxonomySummary widget that lists all couches and the discounted price.

- Display the "Engineering" Community Group's activity stream to its members. You have a Community Group for the Engineering Department. In the Targeted Content widget, set **User is In GroupEngineering**.

  If condition = true, the Targeted Content widget displays an Activity Stream widget, set up as follows:

  - `ObjectID`= ID of the Engineering group
  - `FeedType` = **Community Group**

- If the referring page is a Search Engine and its keywords include Pizza, you want to show a list summary of Pizza shops. Assume your content includes restaurant listings, and taxonomy categories are applied to this content. One category is pizza. In the Targeted Content widget, set **Search Engine Keywords is Pizza**.

  If condition = true, the Targeted Content widget displays a TaxonomySummary widget that lists all content assigned to the category Restaurants > Pizza.

- If a site visitor's Facebook profile "likes" Sony, display Sony products. In the Targeted Content widget, set the condition **Facebook Info: Likes contains Sony**.

  If condition = true, the Targeted Content widget displays a ContentBlock widget that promotes Sony products.

- See Also: 4 Trends that Shape the Future of Content Targeting

Creating a Targeted Content Widget

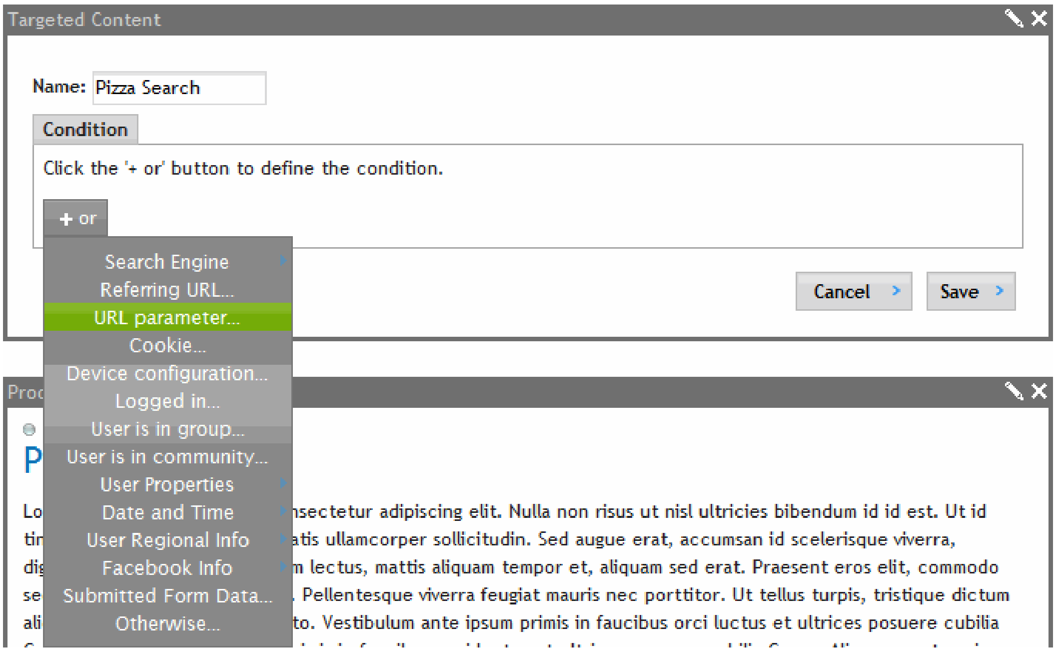
PREREQUISITE

The Targeted Content widget must be on the list of widgets assigned to the page's template. See Also: *Adding the Wireframe and Widgets into Ektron* on page 685

1. Drag and drop the Targeted Content widget onto a PageBuilder page.
2. By default, the first condition is added to the widget. Click **Edit Condition**.

3. Enter a condition name.
4. Click **+or** to set up the first condition.

5. Select an option from the drop-down list of condition criteria.

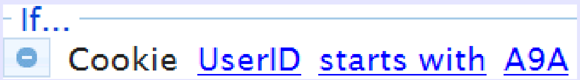


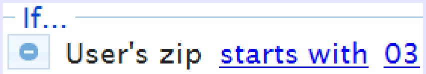
The following table describes the criteria options.

Criterion	Use this criterion to specify widgets that will appear if

Search Engine	• If the site visitor was referred to this page from any search engine (or not)
	• If the search engine from which the site visitor was referred is one of the following
	   ◦ Google
	   ◦ Bing
	   ◦ Yahoo
	   ◦ Other
	   ◦ None
	• If the search engine's keywords are (are not, contain, start with, or end with) a specified value

Referring URL	The referring host matches a string value (for example, www.example.com). This is helpful for determining the site from which a visitor came to your site, such as a Facebook fan page.

Criterion	Use this criterion to specify widgets that will appear if
URL parameter	The current page contains the specified URL parameter. For example, you create a campaign selling gold jewelry and base its content on the URL parameter `cid=gold`. If the URL of the page that hosts the Targeted Content widget contains `cid=gold` (for example, *`http://www.mystore.com/product.aspx?cid=gold)`*, then display widgets assigned to that Targeted Content widget.
Cookie	A cookie matching the specified pattern is found on the site visitor's computer. Cookies are generally stored as name value pairs, such as UserID—A9A3BECE0563982D. When checking for a cookie, you complete 3 fields. • cookie ID • logic (is, is not, contains, starts with, ends with) • a value For example, if a certain campaign placed cookies beginning with A9A, you would set up the criterion like this:  **NOTE:** The cookie criterion does not support subkeys, such as `ecm.userid` or `ecm.sitepath`. To work around this problem, use a `contains` operator and enter the text following `.ecm`, such as `sitepath`.
Device Configuration	The user's device matches a Device Configuration that you specify. For example, a content block displays only if a user accesses your website with a Smart Phone. To learn about Device Configurations, see *Ektron's Mobile-Driven Web Experience* on page 133.
BreakpointConfig	The user's device matches a breakpoint that was defined in *Ektron's Mobile-Driven Web Experience* on page 133.
Logged in	The user is or is not logged in.
User is in group	**NOTE:** Only applies to logged-in users. User is member of an Ektron User or Membership Group that you select from drop-down list.See Also: *Membership Users and Groups* on page 1161, *Managing User Groups* on page 1106

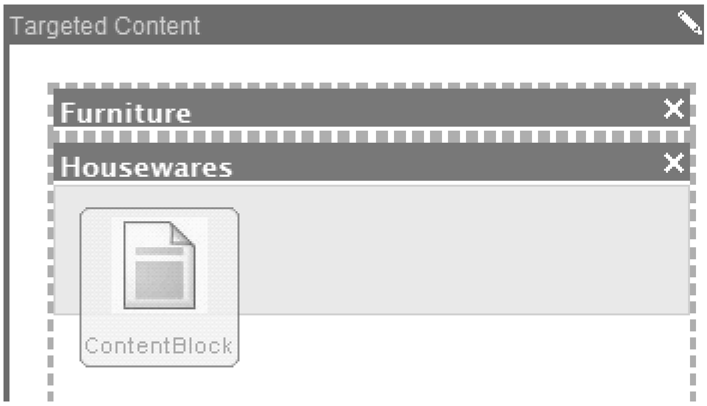
Criterion	Use this criterion to specify widgets that will appear if
User is in community	**NOTE:** Only applies to logged-in users. User is a member of an Ektron Community Group that you select from drop-down list.See Also: *Managing Community Groups* on page 1181
User Properties	**NOTE:** Only applies to logged-in users. The value of the logged-in user's custom property satisfies the logic for the value you specify. See Also: *Creating Custom User Properties* on page 1108 Example: Zip code is a Custom User Property. You want to display a list of stores in New Hampshire for users whose Zip Code begins with 03.  Condition / result Zip code = 03458 true Zip code = 02103 false
Date and Time: Day	The actual date (according to the Web server's clock) and a date you enter satisfy the specified logic. Logic operators: • is • is not • less than • greater than • equal to or less than • equal to or greater than Examples: Assume today's date is 2010-01-01 Condition / result Date = 2010-01-01 true Date < 2010-01-01 false Date >= 2009-12-01 true

Criterion	Use this criterion to specify widgets that will appear if
Date and Time: Day of Week	The current day (according to the Web server's clock) satisfies the specified logic. Logic operators: • is • is not Examples: Assume today's date is 2010-03-01 (Monday) Condition / result Day of week is Monday true Day of week is Tuesday false Day of week is not Tuesday true
Date and Time: Day of Month	The actual date (according to the Web server's clock) and a date you enter satisfy the specified logic. Logic operators: • is • is not • less than • greater than • equal to or less than • equal to or greater than Examples: Assume today's date is 2010-03-01 (Monday) Condition / result Day of month is 01 true Day of month is not 01 false Date >= 2009-12-01 true

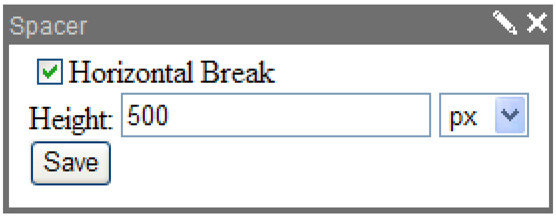
Criterion	Use this criterion to specify widgets that will appear if
Date and Time: Hour of Day	The actual hour (according to the Web server's clock) and number between 1 and 23 you enter satisfy the specified logic. The numbers are based on a 24 hour clock so, for example, 5 p.m. is 17. Logic operators: • is • is not • less than • greater than • equal to or less than • equal to or greater than Examples: Assume current time is 18:30:00 Condition / result *Hour of day* is 18 true *Hour of day* is 23 false *Hour of day* >= 12 true
User Regional Info	Enter the user's country or state, or both. State selections are limited to states in the United States. This information is retrieved from the IP address of the person who is using your website. To retrieve this information, see *Using GeoIP Information in the Targeted Content Widget* on page 1901.

Criterion	Use this criterion to specify widgets that will appear if
Facebook Info	If the criterion matches information in the user's Facebook profile, display the widgets inserted into this condition. For example, if the criterion is **Marital Status is Single** and the user's Facebook Profile matches that value, display the assigned widgets.This criterion only works with users who log in via *Getting Started with Ektron* on page 5. You can apply any of these facebook fields. • Age • Gender • Marital Status • Likes • Employment **Use Contains with Free Text Fields** On fields that use free text (such as Likes), you should use the **contains** operator, as opposed to **is** or **is not**. **Contains** is more flexible and finds a partial match. For example, if the user likes **U.S. Soccer** and you enter the term **soccer** and the **contains** operator, a partial match is made, so the user sees the related widget. On the other hand, if the user likes **U.S. Soccer** and you enter the term **soccer** and the **is** operator, an exact match is not made, so the user does not see the related widget. **The Likes Field** The **Likes** field lets you search through users' Facebook profile **Likes and Interests**. Or, you can narrow it down to a specific like/interest. For example, you could display a widget promoting Red Sox merchandise if, in their Facebook profile, users like a **Sports Team** that **contains Red Sox**.
Submitted Form Data	Uses field and value for a form (by ID).
Persona Title	The site visitor matches the persona that you define in this condition.
Otherwise	No condition evaluates to true. **NOTE:** You would typically use this criterion last, since it always evaluates to true. Any conditions below this are ignored.

6. Add additional criteria as desired. See Also: *Using Widgets* on page 711
7. Click **Save**.
8. Drag to the area below the new condition one or more widgets that appear if the condition evaluates to true.

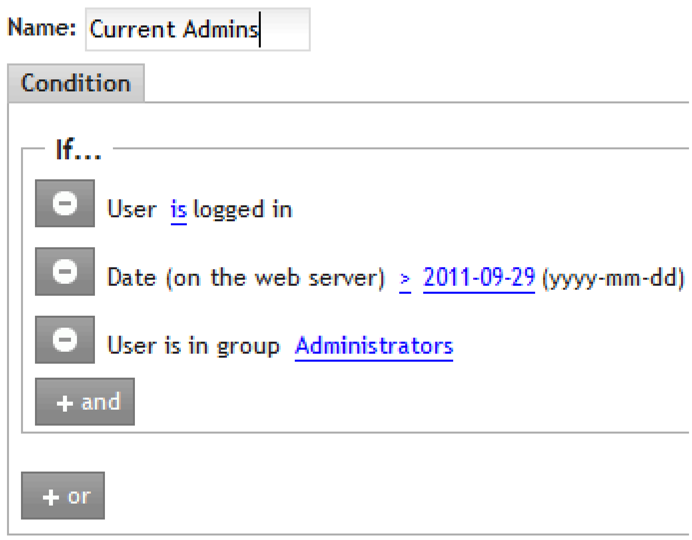


9. If the widget requires you to fill out properties, click **Edit** and complete the screen.



Using Multiple Criteria in a Condition

Any condition can have several criteria joined by and an AND operator.



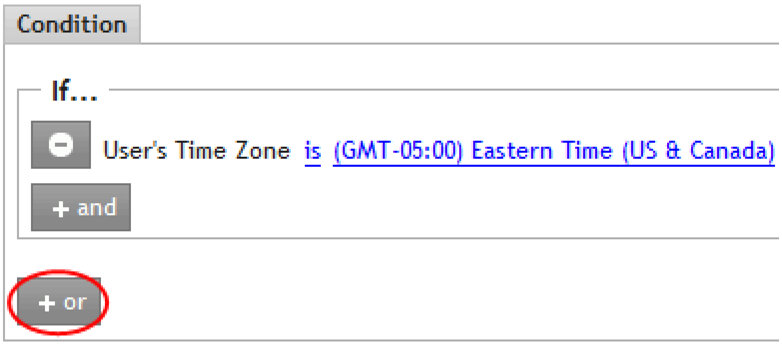
In this example, all conditions must be true for the widgets assigned to this Target Content widget to appear.

- the user is logged in
- today's date must be later than September 29, 2011
- the user is a member of the Ektron user group Administrators

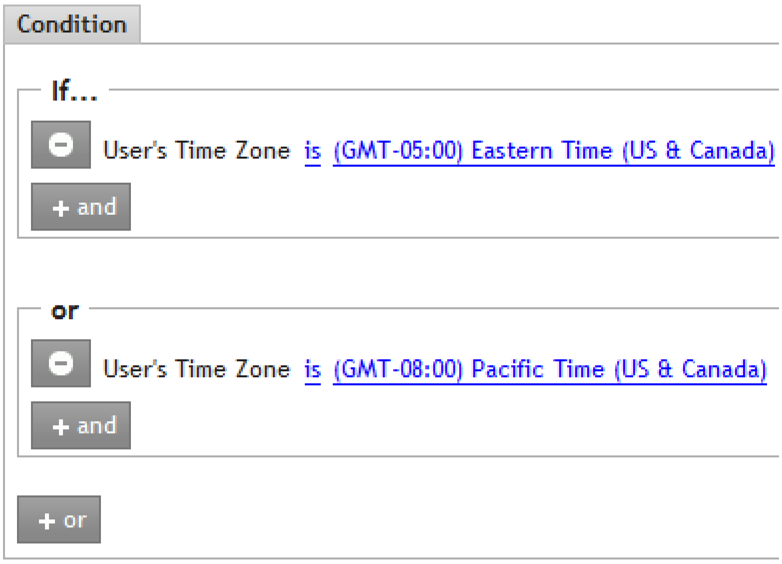
If any of these condition is *not* true, the next condition assigned to the widget is evaluated, if one exists.

If *all conditions are true*, the widgets assigned to this Targeted Content widget appear. Additional conditions assigned to this widget are ignored.

You can also specify an OR relationship among criteria in one condition. To do so, click **+or** below any condition (circled below), then enter the OR condition.



For example, assume you want the time zone criteria to include Eastern Time and Pacific Time (but not in between).



Each set of criteria is evaluated independently. If any criteria set is true (that is, all of its statements are true), the widgets assigned to this Targeted Content widget appear. Additional conditions assigned to this widget are not evaluated. If none of the criteria sets is true, the next condition assigned to the widget is evaluated, if one exists.

Editing a Condition

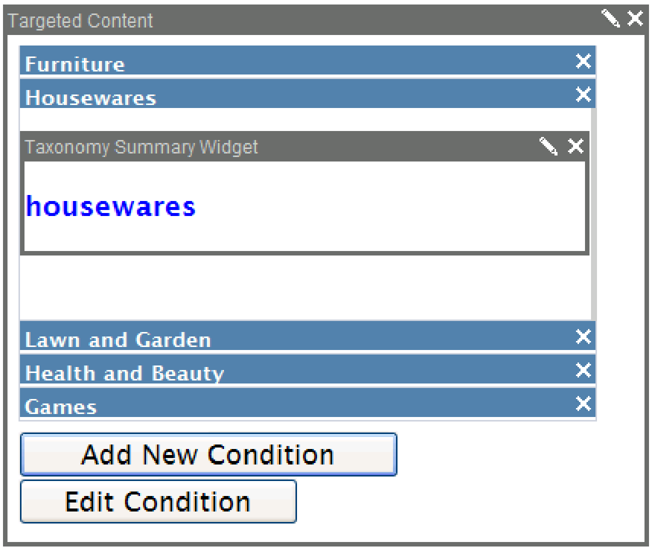
There are 2 aspects to editing a condition within a Targeted Content widget.

- Editing a Condition's Criteria
- Editing Widgets Assigned to the Condition

Editing a Condition's Criteria

NOTE: This assumes you are on the PageBuilder page that contains the widget and in Edit mode.

1. Click the condition you want to edit.
2. The area below it expands. Any widgets assigned to the condition appear.



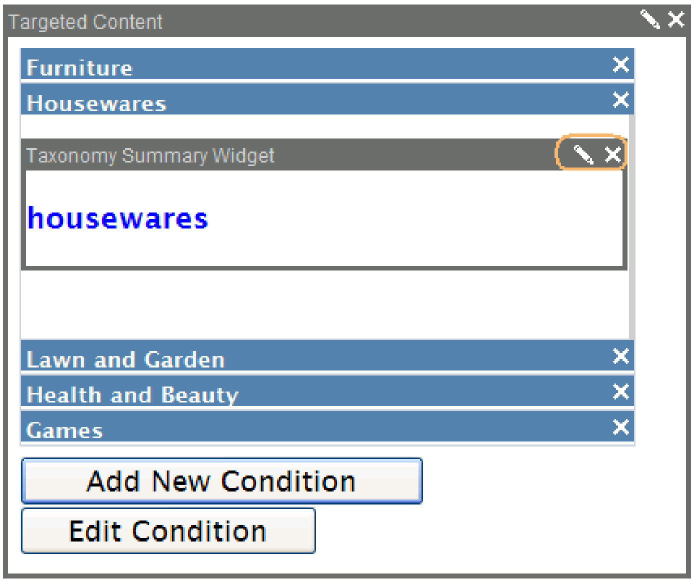
3. Click **Edit Condition**.
4. Edit the condition then click **Save**.

See also *Using Multiple Criteria in a Condition* on page 741 and *Creating Conditions with the Targeted Content Widget* on page 731

Editing Widgets Assigned to the Condition

NOTE: This assumes you are on the PageBuilder page that contains the widget and in Edit mode.

1. Click the condition that has the widget you want to edit.
2. The area below it expands. Any widgets assigned to the condition appear.



3. If you want to delete the widget, click **X** in its upper right corner (circled above).
4. To edit the widget's properties, click the pencil icon in the upper right corner (circled above). Click **Save**.

Customizing the Targeted Content Widget

To create a custom version of the Targeted Content widget (for example, to add rule templates):

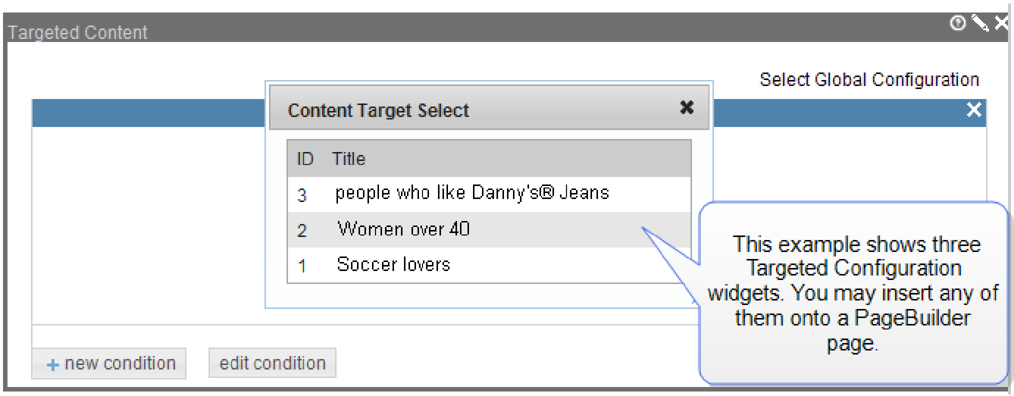
1. Open the `siteroot/widgets/Edit TargetedContent.ascx.cs` file.
2. Create a class, for example, `MyRuleTemplate`, that inherits `Ektron.RuleEditor.RuleTemplate` in `#region Rule Templates`.
3. Modify `private void AddAllRuleTemplates`.
4. Add an instance of your class to the rest of the rule templates. For example, `AddRuleTemplate(new MyRuleTemplate());`

Using Targeted Content Configurations

Use the Targeted Content Configuration screen to create, store, edit and delete configurations.

A Targeted Content Configuration is a Targeted Content widget that you create and store in the Ektron Workarea. When users drop a Targeted Content widget onto a PageBuilder page, they can select from any of the configurations defined in the Workarea. (See the following example.) A configuration lets you reuse the same Targeted Content widget on any number of pages.

After dropping a Targeted Content Configuration within a Targeted Content widget, you cannot edit its conditions on that page. You can only edit its conditions within the Workarea. See *Editing a Condition's Criteria* on page 742.



If you later change a configuration setting, all widgets using that configuration are automatically changed.

IMPORTANT: If you apply no conditions to a configuration and reference it in a Targeted Content widget on a PageBuilder page, nothing appears on the page.

Referring to a Targeted Content Configuration

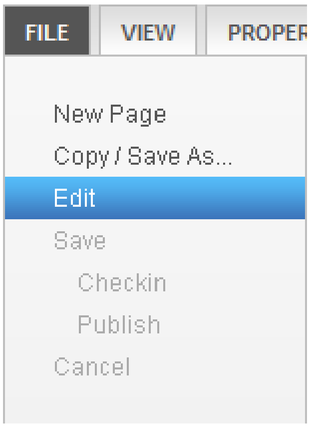
To refer to a Targeted Content Configuration:

PREREQUISITE

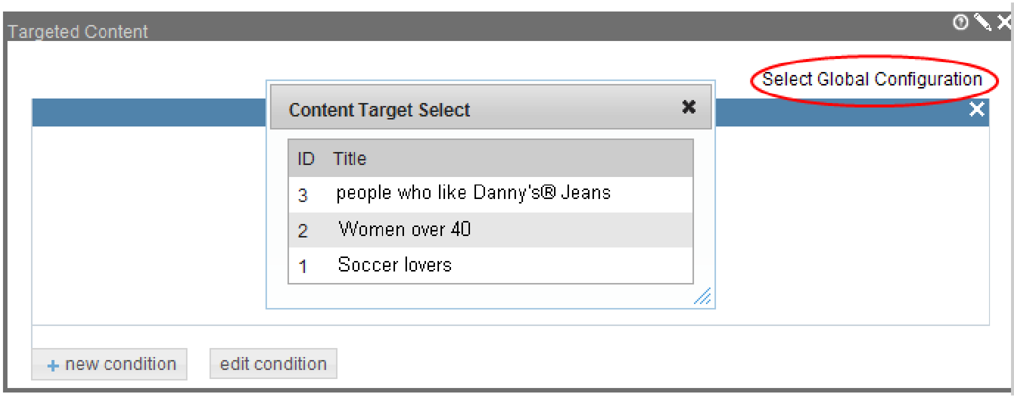
The PageBuilder page must include the Targeted Content widget. See Also: *Adding the*

Wireframe and Widgets into Ektron on page 685.

1. Edit a PageBuilder page.



2. Drag and drop a Targeted Content widget.
3. Click **Select Global Configuration** (circled below).
4. Select the Targeted Content Configuration you want to place on the page.



5. Save, check in, or publish the page.

NOTE: You can apply a global configuration to an existing widget. If you do, the global configuration replaces all conditions and results you previously applied.

Creating a Targeted Content Configuration

If you have created a Targeted Content widget, the process of creating a Targeted Content Configuration is almost identical.

PREREQUISITE

To access this screen, you must be a member of the Administrators group.

To create a Targeted Content Configuration:

1. In the Workarea, choose **Settings >Configuration > Personalizations > Target Content**.
2. Click **Add**. The Add Target Content Configuration screen appears.
3. Enter a **Title**.

4. Complete the steps to create a Targeted Content Configuration. For details on how to do this, see .
5. Click **Save**.

Editing a Targeted Content Configuration

If you edit a Targeted Content Configuration that is placed on one or more PageBuilder pages, they will reflect the edit after you publish the page.

PREREQUISITE

To access this screen, you must be a member of the Administrators group.

1. In the Ektron Workarea, choose **Settings > Configuration > Personalizations > Targeted Content**.
2. Click **Edit** ( ) to the left of the configuration you want to edit. The widget appears.
3. Edit as necessary. See Also:
4. Click **Save**.

Deleting a Targeted Content Configuration

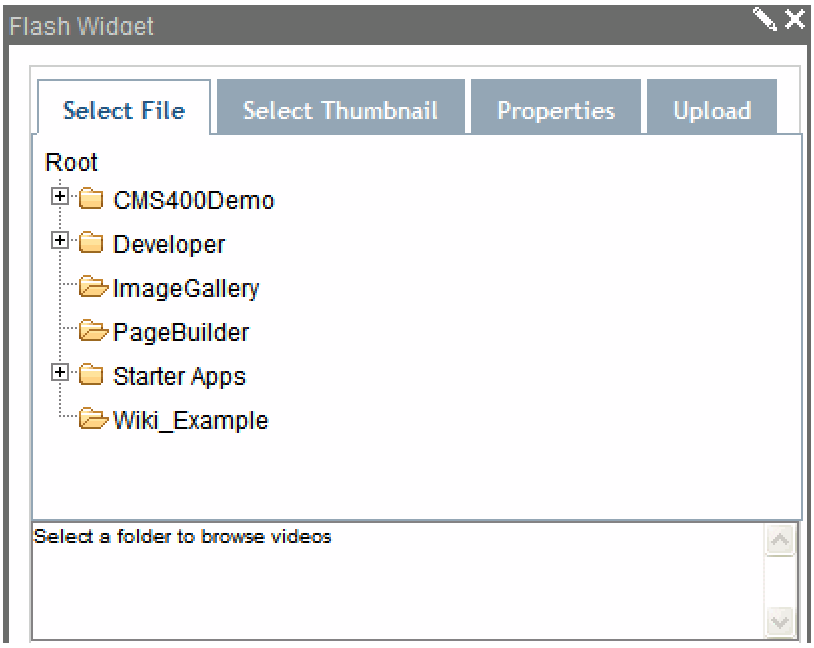
IMPORTANT: If you delete a Targeted Content Configuration that was placed on one or more PageBuilder pages, they display a blank area where the widget was dropped.

PREREQUISITE

To access this screen, you must be a member of the Administrators group.

1. In the Ektron Workarea, choose **Settings > Configuration > Personalizations > Targeted Content**.
2. Click **Delete** ( ).
3. Check the box to the left of the configuration you want to delete.
4. Click **Delete**.

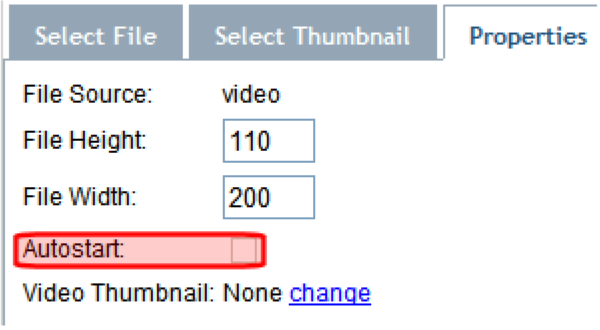
Using the Flash Widget



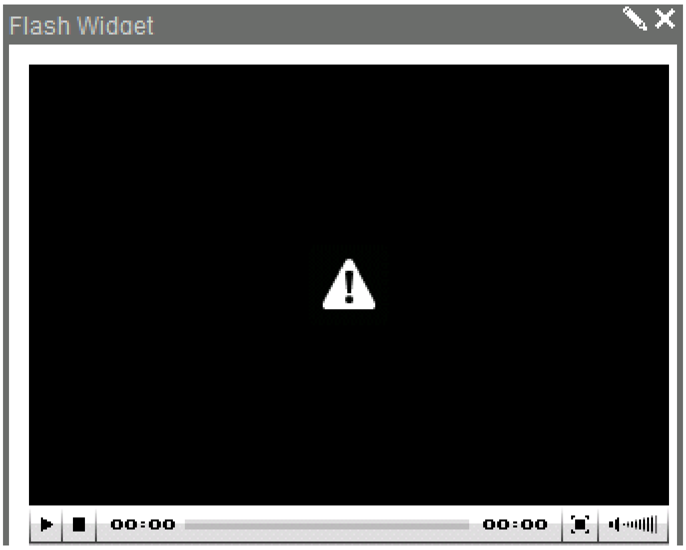
- This widget supports both .flv and .swf file types.
- If you will use .flv files, make sure it is added as a file type. See Also: *Supported Types of Assets* on page 312
- If the Flash file you want to display *has* already been added to Ektron, use the Select File tab to it.
- If the file has *not* been added to Ektron, first use the Select File tab to select a folder for the Flash file. Then, use the Upload tab to navigate your computer's file system, and upload the file to the selected folder.
- The thumbnail feature only works with .flv file types. If you select a Thumbnail, it appears within the Flash player when the page loads. See example below.

- The thumbnail is only applied to this instance of the widget—not the Flash file. If you apply this video to a different widget on this page, you must reapply a thumbnail.
- The thumbnail is an image file that was dropped into Ektron as an asset. It cannot be a library image.

- The autostart feature works only with .flv files.



- If you log in then upload a flash file, and certain requirements are not met for that file, you see the following image where the widget appears.



The following conditions cause this image to appear.

- The flash file’s folder properties require certain metadata and/or a taxonomy category to be applied, and they have not.
- The folder has an approval chain, and this content has not been approved.

Using a Brightcove Video Widget

IMPORTANT: You need an account on Brightcove to show videos in the Ektron Brightcove Video widget.

Your Brightcove.com account lets you upload, store, and play videos on your Web page with the Ektron Brightcove Video widget.

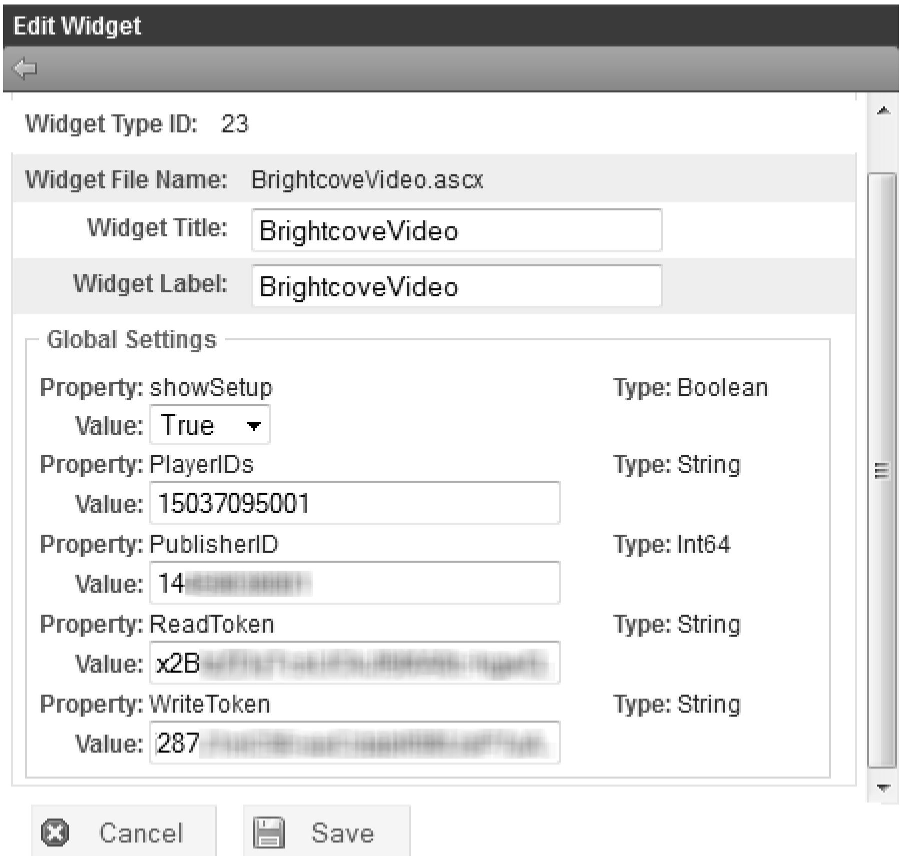
Setting Up Your Account Information for the First Time

You see the following screen the first time you use a Brightcove Video widget if you have not entered account information in the Workarea. Enter your Brightcove account information here. After you successfully save your account data, this screen does not appear again.

Adding a Brightcove Video Widget

Follow these steps to play videos with the Brightcove Video widget.

1. Set the Brightcove Video widget Configuration in the Workarea if you did not use the first timer screen shown in the previous section.
   a. From the Workarea, choose **Settings > Configuration > Personalizations > Widgets**.
   b. Click **Edit** () next to **BrightcoveVideo.ascx** to set the properties shown below.



NOTE: Brightcove provides the values for the Global Settings for this widget on your Brightcove Account pages. Log in to Brightcove and go to Account Settings > API Management.

   c. Click **Save**.

2. Place the Brightcove widget on a PageBuilder page.
   a. Edit a PageBuilder page.
   b. Drag and drop the Brightcove widget into a dropzone.
   See *Editing Content on a PageBuilder Page* on page 665 for more information about PageBuilder and widgets.

3. Upload Videos Using the Brightcove Video widget.

NOTE: You can upload your video using your Brightcove.com account or follow these steps and upload a video using the Ektron Brightcove Video widget.

a. Click **Edit** ( ) on the Brightcove Video widget.

b. Notice there are 3 tabs across the top—Video **List**, **Search**, and **Upload**.

c. Click **Upload**.

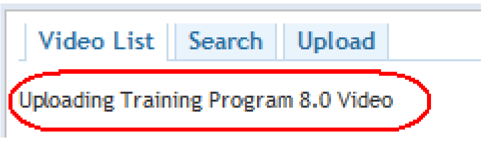
d. Enter **Video Name**.

e. Enter **Video Description**.

f. Click **Browse** and choose the video file to upload.

g. Click **Upload**.

A message on the Edit window shows that the Video is being uploaded. In this example, we are uploading the *Training Program 8.0* video.

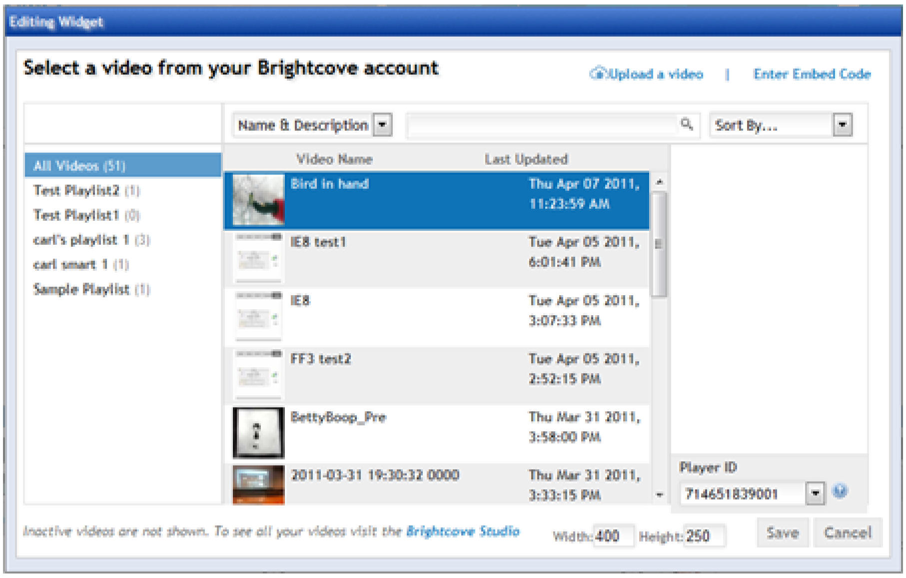


NOTE: Your video may not be available to view immediately after uploading. Allow time for Brightcove to publish it or check its status on your Brightcove Account page.

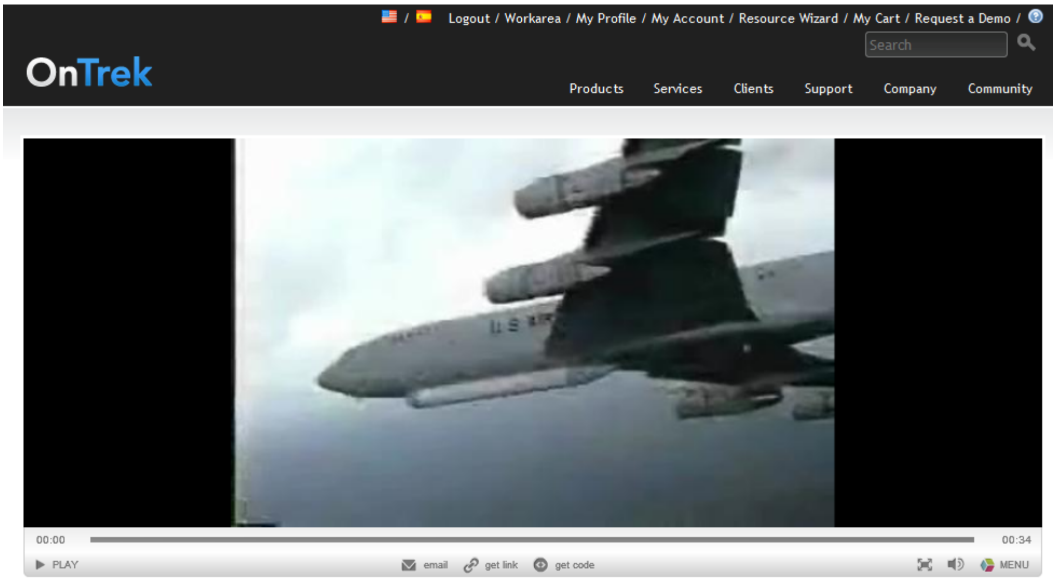
4. Choose the Video to Play in the Brightcove Video widget.

a. Click **Edit** ( ) on the Brightcove Video widget.

b. Click either the picture or title of the video you want to show in this widget.



The following image is an example of the Brightcove Video widget on an Ektron OnTrek website page.



Troubleshooting the Brightcove Video Widget

If your videos do not show in the Brightcove Video widget, check the following topics.

- Did the video upload succeed?

  Check the status of your video by logging into your account on Brightcove and looking for it in the Media Library.

- Is the video encoded according to requirements from Brightcove?

  According to Brightcove's article Uploading Videos with the Media Module, "Your video files can use most available file formats; if your files are not already encoded as VP6 (FLV—Flash video) or H.264, Brightcove transcodes them into one of those formats."

- Do you see the video on the widget when editing the PageBuilder page but not when you publish the page?

  Check the **publisherID** setting in the widget Configuration.

Additional Information

- Brightcove Documents: http://support.brightcove.com/en/docs
- Brightcove: Setting Your HTML5 Video Delivery Options
- Brightcove: Delivering Video with HTML5 and Smart Players
- Brightcove: Test Your Browser for Brightcove HTML5 Video Player

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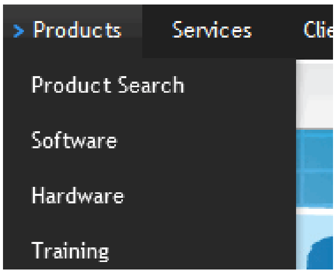
18

Using Menus

Ektron's Menu feature lets users create and maintain a drop-down menu system for your website. The menu options can link to content, library files, external hyperlinks, and submenus. Below is a sample menu.



In this example (delivered with Ektron OnTrek sample site), the menu appears when a site visitor moves the cursor over **Products on the home page**. If a content contributor with permission to edit menus signs in to Ektron then views the menu, it has options for editing the menu and adding content.

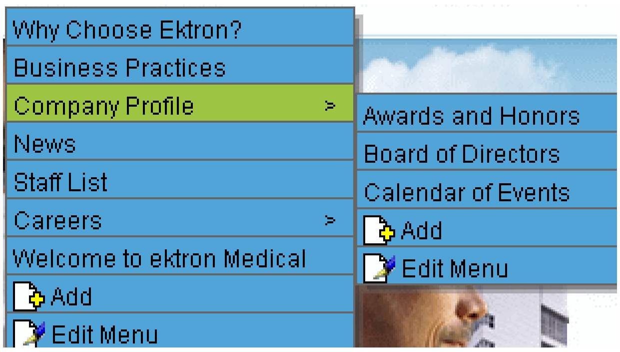
NOTE: If you choose to hide the border that surrounds content when you are logged in, the **Add** and **Edit** options are also hidden. This lets you view the page as it appears when not logged in. If the page is set to show borders and you still do not see **Add** and **Edit**, the feature may be turned off. Ask your administrator or website Developer for more information.

Managing menus is a two-step process. The first sections in this chapter describe the first step: how Ektron users create and update menus. In the second step, a developer places a menu server control on a Web form. The control manages how the menu displays on your website.

The Structure of Menus and Menu Items

Menus have the following structure:

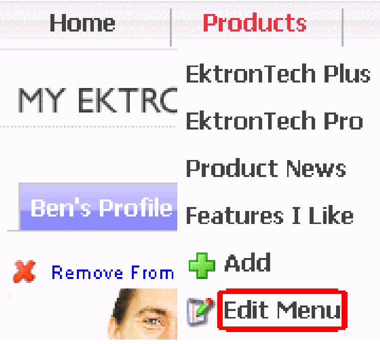
- **menu**—top-level structure that is a placeholder for menu items and submenus. It is assigned to a content folder. A menu also identifies the page template used to display menu options that are content.
- **menu item**—options on a menu; can be any of the following
  - content of any type
  - library file
  - external hyperlink (link to a page outside your website)
  - submenu—a link to another menu. Below, the menu on the right is a submenu. It appears when the user hovers the cursor over **Company Profile**.



Accessing the Menus Feature

There are 3 ways to access the Menus feature:

- the Workarea, by choosing the menu's content folder then clicking **View > Menu**
- the Workarea, by choosing **Content > Menus**
- the website's **Edit Menu** option, shown below



If you choose the first or second option, you select a specific menu. Then, it appears on the View Menu screen. For the third option, the selected menu appears on the View Menu screen.

From the View Menu screen, you can perform the following actions on a menu.

- Create a new menu
- Edit its information (for example, the URL and template link)
- Translate it
- Delete it
- Add or remove items
- Change the sequence of items
- Edit menu items
- For submenus
    - add /remove items
    - change sequence of items
    - edit menu information
    - edit menu items

Permission to Use Menus

To work with menus, a user must be one of the following.

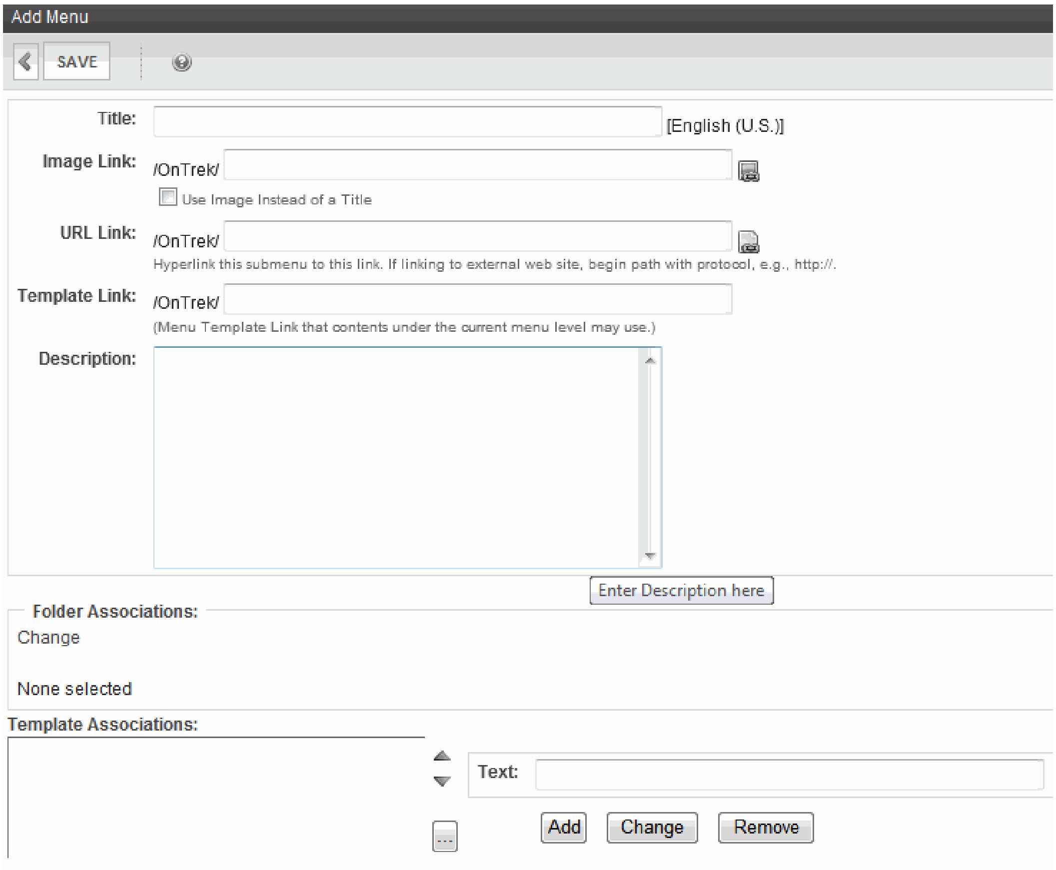
- a member of the Administrators user group
- assigned the Collection and Menu Admin role See Also: *Defining Roles* on page 1120
- assigned the Menu Admin role

Adding a Menu

You can create a menu by navigating to a folder or by choosing **Content > Menus** from the Workarea's left frame. If you choose **Content > Menus**, it is automatically assigned to the root folder. In contrast, if you choose a content folder then create a menu, it is assigned to that folder.

Adding a Menu via Content Folder

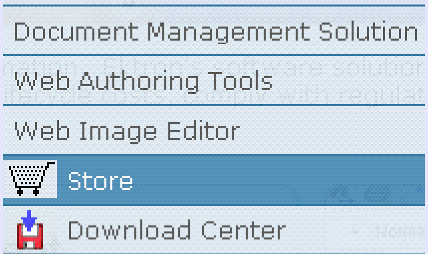
1. Navigate to a content folder.
2. The current language appears as a flag next to the screen title. To create the menu in this language, proceed to the next step. To change the new menu's language, click **View > Language** and select the new language.
3. Click **New > Menu**. The Add Menu screen appears.



4. Use the following information to complete the screen.

Fields on the Add/Edit Menu Screen

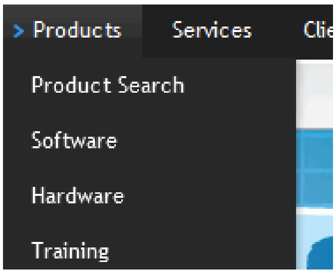
Field	Description
Title	The name given to the menu by its creator. It appears on the Web page to indicate the kind of information on the menu.

<table>
<tr><th>Field</th><th>Description</th></tr>
<tr><td>Image Link</td><td>
You can have an image appear next to or instead of the menu title. For example:


To do this:
PREREQUISITE
The image must reside in the library. If it does not, add it before proceeding. For more information, see Adding a File to the Library on page 340.

Click the icon to the right of the ImageLink field ( ).
The library window opens.
Navigate to the folder that contains the image you want to use.
Click Insert.

Using Image to Replace Title Text
Alternatively, you can replace menu text with an image, so that only the image appears on the menu. To do this, check the Use image instead of a title box.
</td></tr>
</table>

Field	Description
	After you create a menu, your developer links it to text or an image on a Web page by modifying a page template. When a site visitor moves the cursor over the text or image, the menu appears. In the example below, the menu appears when the site visitor moves the cursor over **Products**. 
URL Link	You can also assign a URL link to a menu using this field. If you do, and the user *clicks* the link text or image, he jumps to the specified page. For example, in this field, you assign the product landing page, `siteroot/products.aspx`. In the illustration above, if the user *moves the cursor* over **Products**, the assigned menu appears. However, if the user *clicks***Products** , he jumps to `siteroot/products.aspx`. **Entering the Path to the Landing Page** The path may be • relative to site root, such as `siteroot/jobs.aspx` • a static template path or a dynamic path, such as `wellness.aspx?id=40&wellness=Hemophilia` • an external hyperlink, such as `http://www.example.com`.
Template Link	**NOTE:** This field applies to content only. It has no effect on other types of menu items (such as images). Also, this field only affects content that dynamically references a content block, such as `/CMS400Min/therapies.aspx?id=84`. If the menu option is a template that includes content (for example, `/CMS400Min/news.aspx`), the template identified here is ignored. If you want to apply a template to this menu, enter it here. If you do, content on this menu uses this template when selected from the menu. If you do not, this menu's content uses the template specified in its Quicklink.
Description	Add a more detailed description for the menu.
Folder Associations	See *Effect of Assigning a Folder to a Menu* on page 772.
Template Associations	See *Effect of Assigning a Template to a Menu* on page 774.

5. Click **Save**.

After creating the menu, you may assign items to it. See *Adding a Menu Item* below.

Adding a Menu via the Menus Tab

If you choose a content folder then create a menu, it is assigned to that folder.

1. From the Workarea, click **Content > Menus > Menus**.
2. The current language appears in the **View** field. To create the menu in this language, proceed to the next step. To change the new menu's language, select one from the **View** field drop-down.
3. Click **Add**. The Add Menu screen appears.
4. To complete the fields on the Add Menu screen, see *Fields on the Add/Edit Menu Screen* on page 756.

After creating the menu, you may assign items to it. See *Adding a Menu Item* below.

Adding a Menu Item

There are 3 ways to add a menu item.

Adding a Menu Item via Content Folder

To add a menu item via a content folder:

1. Navigate to the content folder that contains the menu to which you want to add items.
2. Click **View > Menu**.
3. In the View Language drop-down, select the menu's language.
4. Click the menu. The View Menu screen opens, displaying the menu's items. Submenus look like this: .
5. To add a new item to the menu, click **Add Items**.

   The Add New Item screen displays a list of items you can add to the menu. Use to the table below to select a type of menu item, and follow the steps to add it.

Menu item type	For more information, see
Content	*Adding Content as a Menu Item* on page 762
Any library file: image, file, Quicklink, hyperlink to the menu	*Adding a Library File as a Menu Item* on page 763
External hyperlink	*Adding an External Hyperlink as a Menu Item* on page 763
Submenu	*Adding a Submenu as a Menu Item* on page 764

- After you insert menu items, you can view and modify information about them. To do that, click the item's title. Use the following information to complete the fields on the

Edit Menu Item screen.

Fields on the Add/Edit Menu Item Screen

Title—The name of the menu item. It appears on the Web page to indicate the item.

Image Link—You can have an image appear next to or instead of the menu title. For example:

To do this:

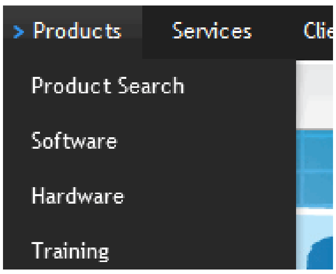
NOTE: Before beginning these steps, the image must reside in the library. If it does not, add it before proceeding. For more information, see *Adding a File to the Library* on page 340.

1. Click **image** ( ).
2. The library window opens.
3. Navigate to the folder that contains the image you want to use.
4. Click **Insert** ( ) to insert it.

Replacing Title Text with Image

Alternatively, you can have the image replace the menu text, so that only the image appears on the menu. To do this, check the **Use image instead of a title** checkbox.

URL Link—After you create a menu, your developer links it to text or an image on a Web page by modifying a page template. When a site visitor moves the cursor over the text or image, the menu appears. In the example below, the menu appears when the site visitor moves the cursor over Products.



You can also assign a URL link to a menu using this field. If you do, and the user *clicks* the link text or image, he jumps to the specified page.

For example, in this field, you assign the product landing page, `siteroot/products.aspx`. In the illustration above, if the user *moves the cursor* over **Products**, the assigned menu appears. However, if the user *clicks* **Products** , he jumps to `siteroot/products.aspx`.

Entering the Path to the Landing Page

The path may be

- relative to site root, such as `siteroot/jobs.aspx`
- a static template path or a dynamic path, such as `wellness.aspx?id=40&wellness=Hemophilia`
- an external hyperlink, such as `http://www.example.com`.

Description—Add a more detailed description for the menu.

Target—

Determines the type of window that appears when you click a link in the server control.

- **_Self** (default)—opens in same window.
- **_Top**—opens in parent window.
- **_Blank**—opens in new window.
- **_Parent**—opens in the parent frame.

Link—Use this field if you want to override this content's menu template by using the template specified in its Quicklink.

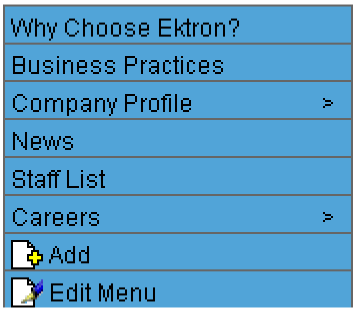
Adding a Menu Item via Menus Tab

1. From the Workarea, click **Content > Menus**.
2. Click the menu to which want to add a menu item.
3. In the View Language drop-down list, select the menu's language.
4. Click **AddItems**. The Add New Item screen displays a list of items you can add to the menu. Select a type of menu item, and follow the steps to add it.
   - Content—*Adding Content as a Menu Item* on the next page
   - Any library file: image, file, Quicklink, hyperlink to the menu—*Adding a Library File as a Menu Item* on page 763
   - External hyperlink—*Adding an External Hyperlink as a Menu Item* on page 763
   - Submenu—*Adding a Submenu as a Menu Item* on page 764
5. After you insert menu items, you can view and modify information about them. To do that, click the item's title. See Also: *Fields on the Add/Edit Menu Item Screen* on the previous page

Adding a Menu Item via Navigation Link on a Web Page

1. Log in.
2. Access the Web page that contains the link to display the menu.

3. Place the cursor on the hyperlink that causes the menu to appear. The menu appears.

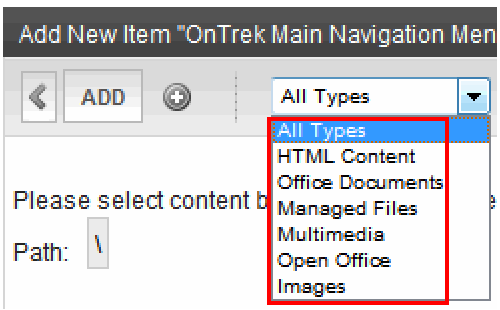


4. Click **Add**. The Add Menu screen displays a list of items you can add to the menu.
5. Select the type of menu item and follow the steps to add it.
    - Content—*Adding Content as a Menu Item* below
    - Any library file: image, file, Quicklink, hyperlink to the menu—*Adding a Library File as a Menu Item* on the facing page
    - External hyperlink—*Adding an External Hyperlink as a Menu Item* on the facing page
    - Submenu—*Adding a Submenu as a Menu Item* on page 764
6. After you insert menu items, you can view and modify information about them. To do that, click the item's title. See Also: *Fields on the Add/Edit Menu Item Screen* on page 760

The following sections explain the kinds of content you can add to a menu.

Adding Content as a Menu Item

1. Follow the directions in *Adding a Menu Item via Content Folder* on page 759, *Adding a Menu Item via Menus Tab* on the previous page, or *Adding a Menu Item via Navigation Link on a Web Page* on the previous page.
2. Click the radio button next to **Content Item**.
3. Click **Next...** The Add New Item screen appears, listing all content folders.
4. By default, all content types are available. To limit your selection (for example, Word documents), click the content types drop-down and select a type.



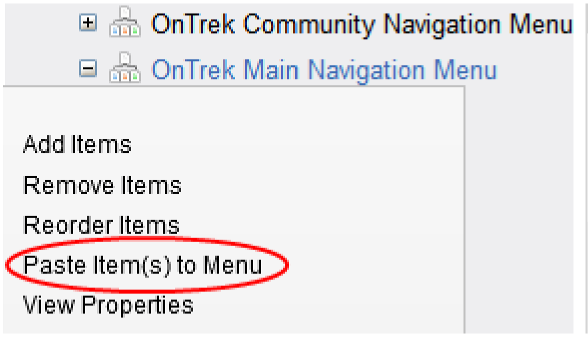
5. Content items in a folder appears below any subfolders. Click any subfolder to display its content.

6. Check all content you want to add from any single screen to the menu.

IMPORTANT: If you check items then proceed to another screen before clicking **Add**, the items on the first screen are not added to the menu.

7. Click **Add**.

   As an alternative, navigate to a content folder, click items to be assigned, right click the mouse and select **Copy**. Then, locate the menu, right click the mouse, and select **Paste Items to Menu**.



   The View Menu screen reappears, showing the new content.

8. To access the Edit Menu Item screen for the new content, hover the cursor over the title, then click. The Edit Menu Item screen lets you assign additional information to the menu item, such as the target window. See *Fields on the Add/Edit Menu Item Screen* on page 760.
9. Continue to add menu items as needed.

Adding a Library File as a Menu Item

To add a library file as a menu item via a content folder or menus tab:

1. Follow the directions in *Adding a Menu Item via Content Folder* on page 759, *Adding a Menu Item via Menus Tab* on page 761, or *Adding a Menu Item via Navigation Link on a Web Page* on page 761.
2. Click the radio button next to **Library Asset**.
3. Click **Next**. The Add New Item screen appears. Enter a title for the library file that will appear on the menu.
4. Click **Browse Library**. The library screen opens.
5. In the right frame, select the type of file to insert (image, hyperlink, and so on).

NOTE: To insert assets, the menu’s folder must contain library assets. However, you can insert library assets from other folders for which you have permission.

6. Select a library asset and click **Insert**. The Add New Item screen reappears.
7. Click **Save**.

Adding an External Hyperlink as a Menu Item

To add an external hyperlink as a menu item via a content folder or the Menus tab:

1. Follow the directions in *Adding a Menu Item via Content Folder* on page 759, *Adding a Menu Item via Menus Tab* on page 761, or *Adding a Menu Item via Navigation Link on a Web Page* on page 761.
2. Click **External Hyperlink**.
3. Click **Next**. The Add New Item screen appears.
4. Complete the fields as needed.
   - **Title**—Title of the new menu item.
   - **URL Link**—The external hyperlink's URL. For example, `www.example.com`.
5. Click **Save**.

NOTE: When you add an external hyperlink menu item, the URL does not get added to the library nor is an ID assigned to it. So, when you save the menu item, it is not added to the Ektron database nor can it be retrieved for future use.

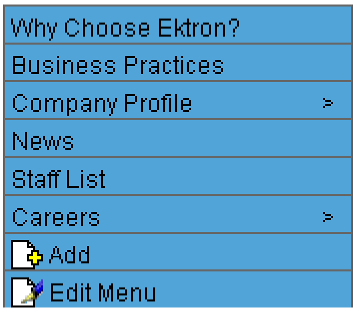
Adding a Submenu as a Menu Item

1. Follow the directions in *Adding a Menu Item via Content Folder* on page 759, *Adding a Menu Item via Menus Tab* on page 761, or *Adding a Menu Item via Navigation Link on a Web Page* on page 761.
2. Click **Sub menu**. The Add Menu screen appears.
3. Complete the fields using *Fields on the Add/Edit Menu Item Screen* on page 760 as a reference.
4. Click **Save**.

Adding New Content to a Menu via Navigation Link on a Web Page

NOTE: You can only use this feature after your Web developer has modified a page template to display the menu. For more information, see *Introduction to Menu Server Controls* on page 774.

1. Access the Web page that contains the link to display the menu.
2. Place the mouse on the hyperlink that causes the menu to appear. A menu appears.



3. Click **Add**. The Add Menu screen opens, displaying items you can add.
4. Refer to the table below for selecting a menu item and follow the steps to add it.
   - Content—*Adding Content as a Menu Item* on page 762
   - Any library file: image, file, Quicklink, hyperlink to the menu—*Adding a Library File as a Menu Item* on the previous page

- External hyperlink—*Adding an External Hyperlink as a Menu Item* on page 763
- Submenu—*Adding a Submenu as a Menu Item* on the previous page

Editing a Menu's Properties

This section describes each option for editing a menu's properties.

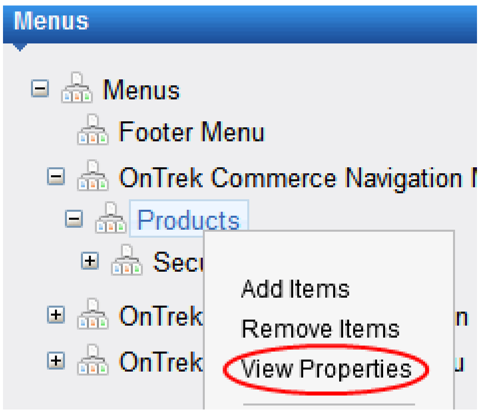
Editing a Menu's Properties via its Content Folder

1. From the Workarea, navigate to the content folder that contains the menu.
2. Click **View > Menu**.
3. Click the menu you want to edit.
4. If appropriate, click the submenu that you want to edit.
5. Click **Properties** ( ). The View Menu screen appears.
6. Click **Edit Menu**.
7. Update the fields on the screen by referencing *Fields on the Add/Edit Menu Screen* on page 756.
8. Click **Save**.

Editing a Menu's Properties via Menus Tab

1. From the Workarea, click **Content > Menus**.
2. Click the menu you want to edit.
3. Click **Properties** ( ). The View Menu screen appears.

   Alternatively, hover the cursor over the menu in the left panel, right click the mouse, and click **View Properties**.

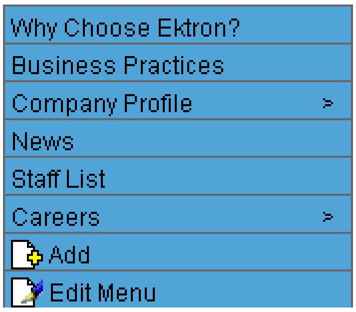
   

4. Click **EditMenu**.
5. Update the fields on the screen by referencing *Fields on the Add/Edit Menu Screen* on page 756.
6. Click **Save**.

Editing a Menu's Properties via Navigation Link on a

Web Page

1. Navigate to the Web page that contains the menu link.
2. Click the link. The menu appears.



3. Click **Edit Menu**. The menu's View Menu screen appears.
4. Click **Properties** ().
5. Click **Edit Menu**.
6. Update the fields and by referencing *Fields on the Add/Edit Menu Screen* on page 756.
7. Click **Save**.

Viewing a Menu

Just like editing a menu, you can view a menu via...

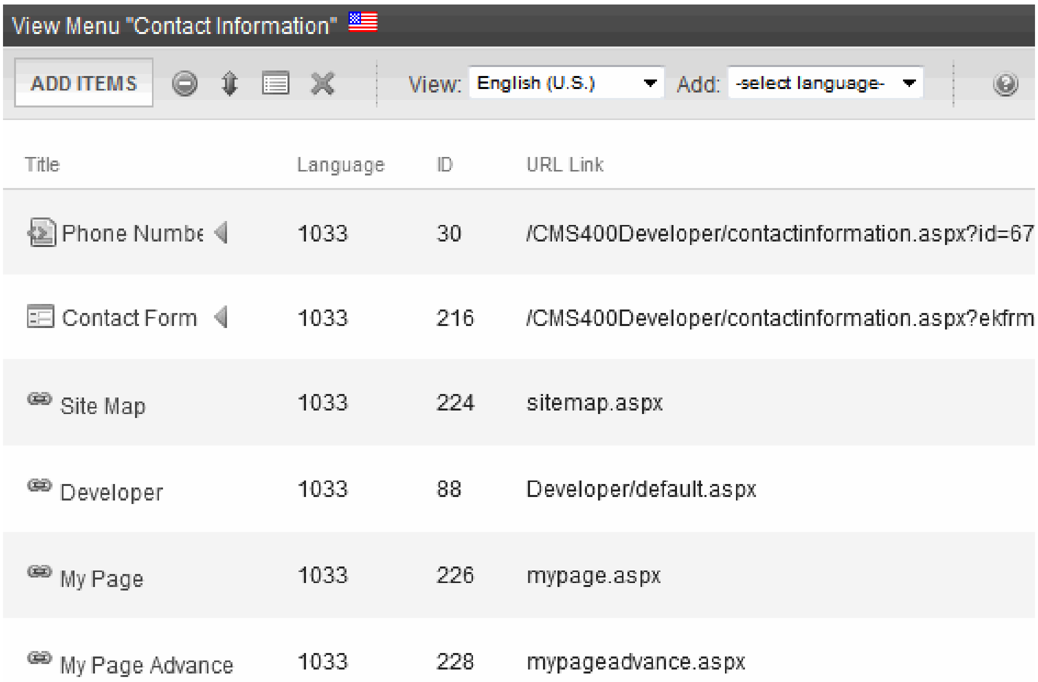
- its content folder
- menus tab
- navigation link on a Web page

When viewing a menu via the content or menu folder, you get an *internal* view of information entered by menu creator. When viewing via a navigation link on a Web page, you get an *external* view of the menu, as seen by anyone navigating website.

Viewing a Menu via its Content Folder

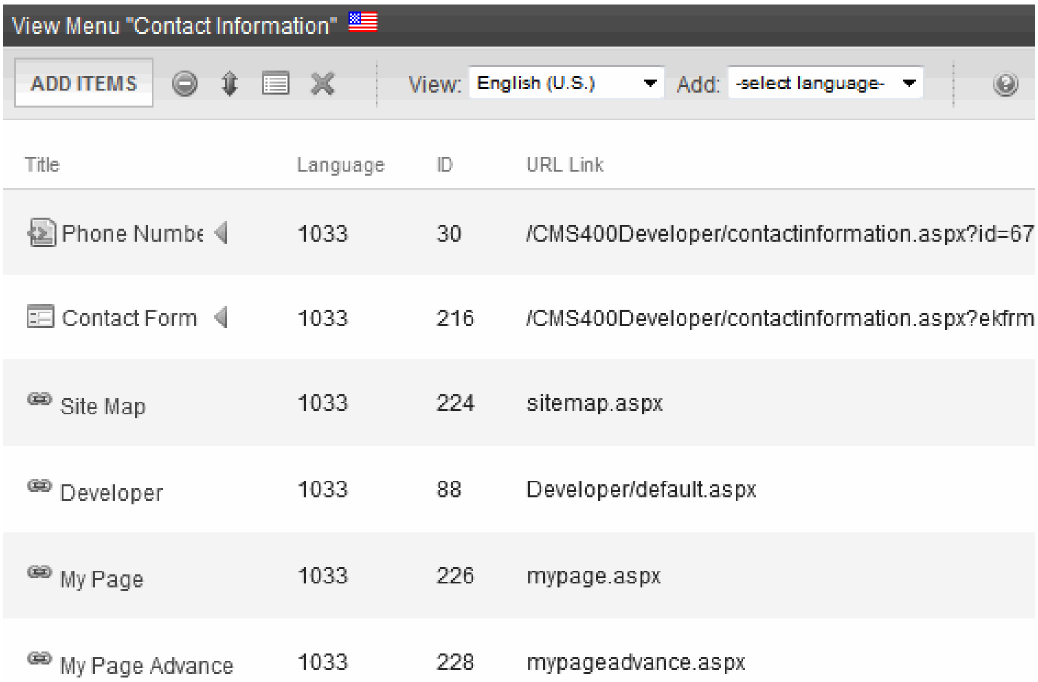
1. From the Workarea, navigate to the content folder that contains the menu.
2. Click **View > Menu**. The View All Menus screen displays all menus in the folder.

3. Click the menu you want to view. The menu's options appear.

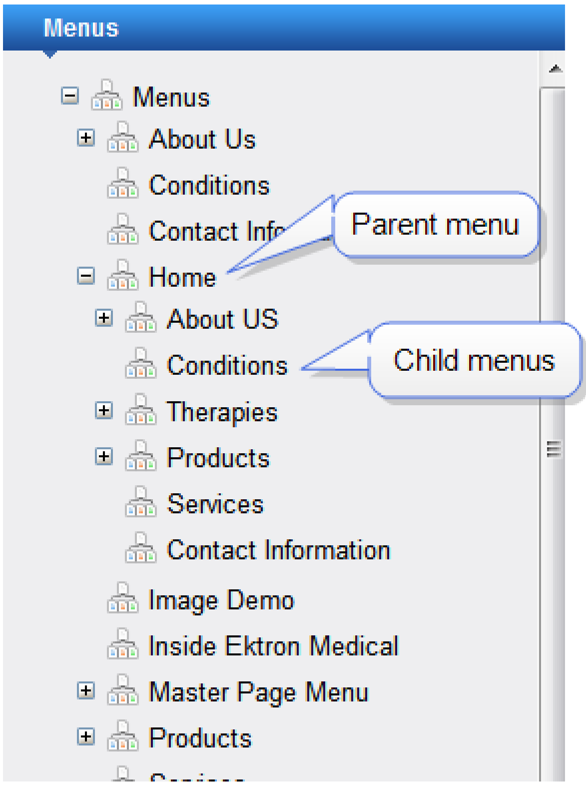


Viewing a Menu via the Menus Tab

1. From the Workarea, click **Content > Menus**. The View All Menus screen appears.
2. Click the menu you want to view. The menu's options appear.

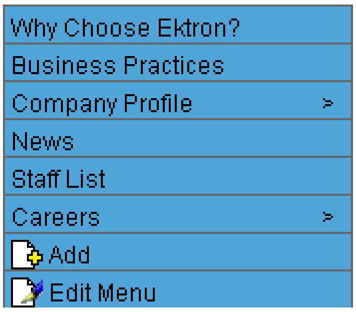


NOTE: If your Workarea language is set to *all languages*, you cannot view child menus—only parent menus. To view a child menu, select its parent menu's language, using the **View > Language** menu option.



Viewing Menus via Navigation Link on a Web Page

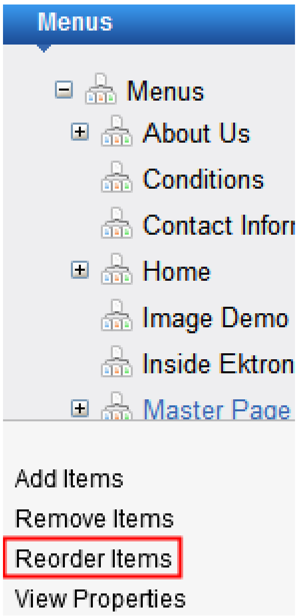
1. Access the Web page on which your Web developer inserted the link to display the menu.
2. Click the link that launches the menu on the Web page. A menu appears.



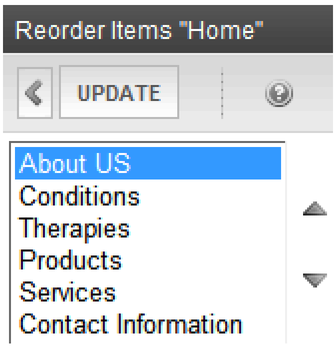
Reordering Menu Items

1. Navigate to the View Menu screen for the menu that you want to rearrange. See *Viewing a Menu* on page 766.
2. From the toolbar, click **Reorder** ( ).

   Alternatively, hover the cursor over the menu in the left panel, right click the mouse, and click **Reorder Items**.



The Reorder Items screen appears.



3. Click the item you want to move.
4. Click the up arrow to move it up, or the down arrow to move it down.
5. When finished, click **Save**.

Deleting a Menu

1. Access the View Menu screen, as described in *Viewing a Menu via its Content Folder* on page 766 or *Viewing a Menu via the Menus Tab* on page 767.
2. Click the menu you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK** to delete the menu.

NOTE: Deleting a menu automatically deletes all menu items associated with it. Do not confuse the menu link with the item itself. For example, deleting a menu deletes its *links* to content but has no effect on the content.

Deleting a Menu Item

1. Access the View Menu screen, as described in *Viewing a Menu via its Content Folder* on page 766 or *Viewing a Menu via the Menus Tab* on page 767.
2. Click **Remove Items** ().
3. Check the box next to items that you want to remove.
4. Click **Remove**.

Working with Menus in a Multi-Language System

NOTE: For background information about supporting multiple languages on your website, see *Working with Multi-Language Content* on page 1057.

You can create an edition of any menu in every supported language. When a site visitor selects a language and clicks a menu link, Ektron displays the menu in that language if it is available. If it is not available, nothing appears.

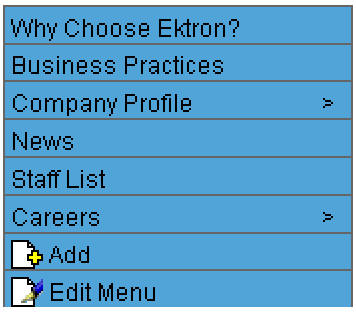
Before creating or translating a menu, you should create or translate all content that will be on the menu. In this way, you can link this content to the new menu. However, after creating a menu, you can add new items to it.

Translating a Menu

To translate a menu into any supported language: You can navigate to the menu via the website or from the Workarea. Each procedure is described below.

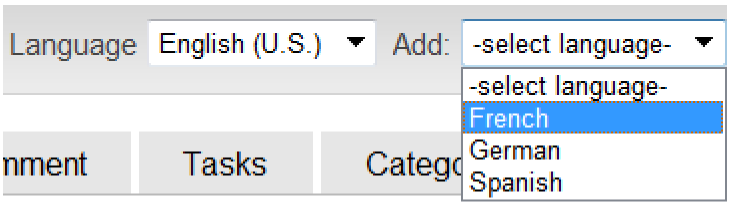
By Navigating the Site

1. Sign on to an Ektron website.
2. Select the menu's current language.
3. Navigate to the page that has the menu you want to translate.
4. Click the menu and the **Edit Menu** option.



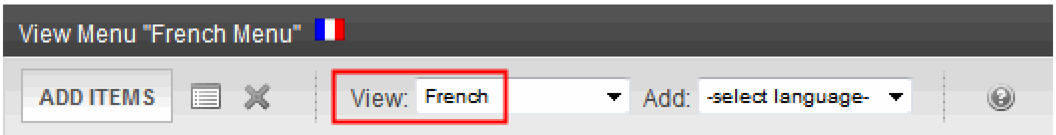
The View Menu screen appears for the selected menu.

5. From the Add drop-down list, select the language into which you want to translate the menu.



The Add Menu screen appears.

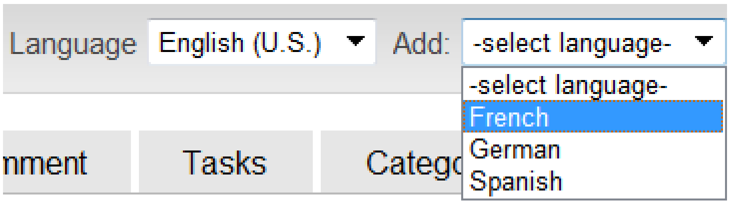
6. Complete the screen for the menu in the selected language. See *Fields on the Add/Edit Menu Screen* on page 756.
7. Click **Save**. The View Menu screen reappears. Now, the **View** drop-down displays the menu’s new language.



8. Add items to the menu. See *Adding a Menu Item* on page 759. If adding content, you can only insert an item in the selected language. Later, you can add more menu items, edit them, delete them, view them, and so on.

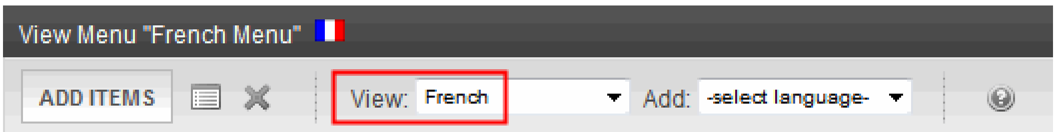
By Accessing the Menus Report Screen

1. From the Workarea screen, click **Content > Menus**.
2. Click the menu you want to translate. The View Menu screen appears for the selected menu.
3. From the Add drop-down list, select the language into which you want to translate the menu.



The Add Menu screen appears.

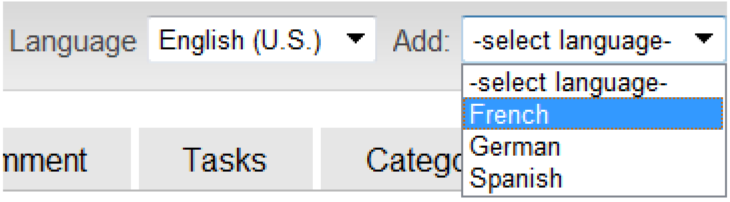
4. Complete the screen for the menu in the selected language. See *Fields on the Add/Edit Menu Screen* on page 756.
5. Click **Save**. The View Menu screen reappears. Now, the **View** drop-down displays the menu’s new language.



6. Add items to the menu. See *Adding a Menu Item* on page 759. If adding content, you can only insert an item in the selected language. Later, you can add more menu items, edit them, delete them, view them, and so on.

Creating a Menu in Any Language

1. From the Workarea screen, click **Content > Menus > Menus**.
2. From the language drop-down list, select the new menu's language.



3. Create the menu. See *Adding a Menu via the Menus Tab* on page 759.

Assigning Folders or Templates to a Menu

Effect of Assigning a Folder to a Menu

If all of the following conditions apply...

- you assign a folder to a menu
- a user navigates to any content item that resides in the folder
- a Flex Menu whose `EnableSmartOpen` property is true appears on the screen

...the Flex Menu automatically displays the items on the associated submenu.

NOTE: Navigation to the content can consist of clicking a quicklink, a menu option, a list summary item, the result of a search, and so on.

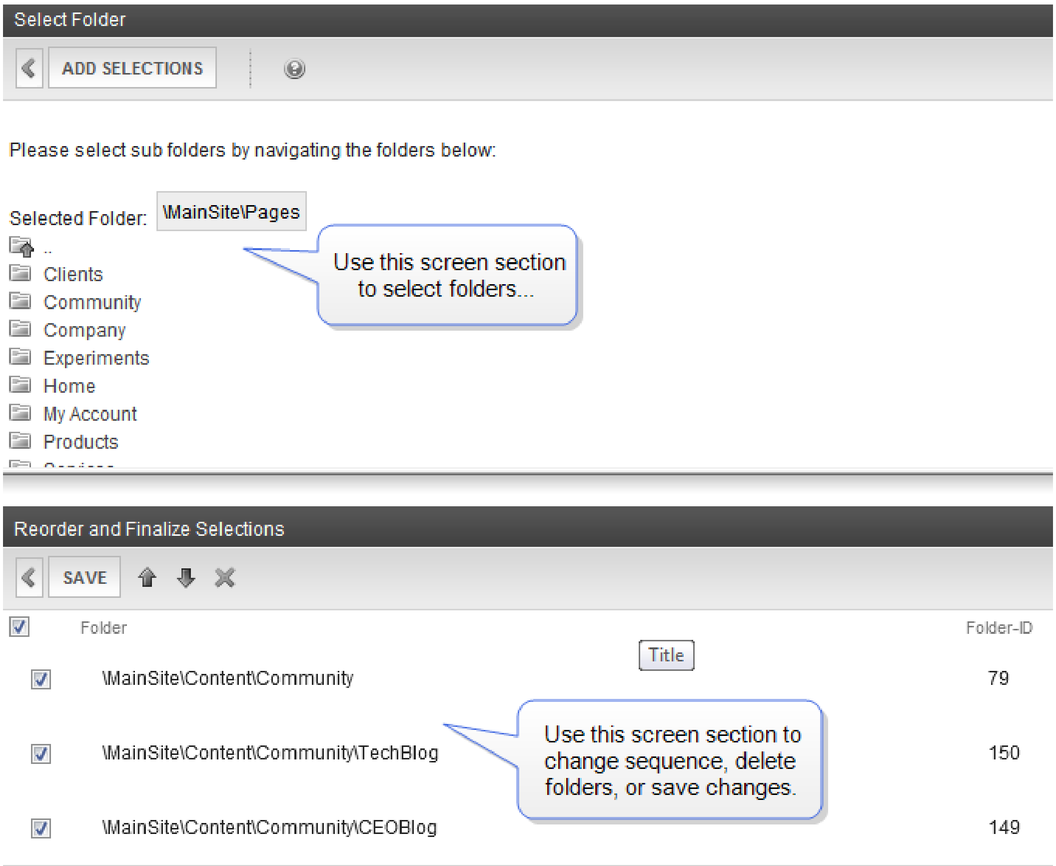
In effect, you are instructing Ektron to expose a menu whenever a content item that resides in a selected folder appears. As a result, a user looking for a specific item sees similar items.

As an example, assume your website sells books, and folders are organized by genre. One of your folders is "Teen Fiction." You create a submenu that contains the top 5 sellers in "Teen Fiction." You then associate the Teen Fiction folder with that submenu. When a site visitor finds views a book in that category, a Flex Menu in the page's left column displays the top 5 Teen Fiction titles.

Using the Select Folder Screen

The Select Folder screen lets you assign new folders to a menu, reorder folders, and delete folders from the menu association. These tasks are described below.

When you click **Change** below **Folder Associations** on the Edit menu screen, the Select Folder screen appears.



The following table describes tasks you can perform on these screens.

Task	Instructions
Add folder to list	1. In the top of the screen, navigate to the folder you want to add. 2. Click **AddSelections**.
Remove folder from list	1. In the lower section of the screen, click the box to the left of the folder. 2. Click **Delete** ( ).
Remove all folders from list	1. Click check box to the left of **Folder**.  2. Click **Delete** ( ).

Task	Instructions
Move a folder up or down on the list **NOTE:** The folders' sequence has no impact on how they are used. It only affects the appearance of the Select Folders screen.	1. Click check box to the left of the folder. 2. Click the up or down arrow buttons.
Save changes and return to Edit Menu screen	Click **Save**.
Exit screen; do not save changes	Click **Exit** ( ).

Effect of Assigning a Template to a Menu

If all of the following conditions apply....

- you assign a template to a menu
- a user navigates to any content item that uses the template
- a Flex Menu whose `EnableSmartOpen` property is **true** appears on the screen

...the Flex Menu automatically displays the items on the associated submenu.

NOTE: Navigation to the content item can consist of clicking a quicklink, a menu option, a list summary item, the result of a search, and so on.

In effect, you are instructing Ektron to expose a menu whenever a content item that uses one or more selected *templates* appears on the screen. As a result, a user who begins looking for a specific content item sees similar items.

As an example, assume your website sells books, and your templates are organized by genre. One of your templates is "Teen Fiction." You create a submenu that contains the top 5 sellers in "Teen Fiction." You then associate the Teen Fiction *template* with that submenu. If a site visitor visit a page describing the book, the Flex Menu in the page's left column displays the 5 top Teen Fiction titles.

Assigning a Template to a Menu

1. Move to the **Template Associations** area of the Edit menu screen.
2. In the box on the right, enter the template that you are assigning to this menu. It can be an Ektron template, or any file that you wish.
3. Click **Add**.

To later change or remove the template, select it then click **Change** or **Remove**.

Introduction to Menu Server Controls

IMPORTANT: Starting from release 8.6, the Flex Menu and Menu server controls were replaced by the FrameworkUI: <ektron:MenuView> templated server control. If you are already using the Flex Menu and Menu server controls, you can continue to do so, but Ektron recommends using current versions of functionality.

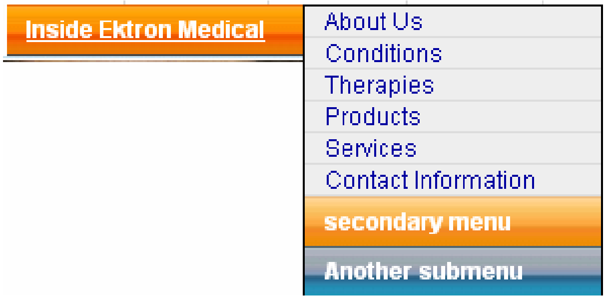
Managing menus is a two-step process. The previous section describes the first step, which is how Ektron users create and update menus. The second step involves a developer placing a menu server control on a Web form. The server control manages the display of the menu on your website. This section introduces concepts that affect all of them, and explains the differences between them.

Ektron provides 2 menu server controls: *Flex Menu* on page 1728 and *Menu* on page 1781

Contrasting Menu Server Controls

Appearance

<table>
<tr><th>Type</th><th>Appearance</th></tr>
<tr><td>Flex</td><td>

or


(Other styles are available)</td></tr>
<tr><td>Menu</td><td>
</td></tr>
</table>

Properties

Property	Flex Menu	Menu
508 compliant	✓	

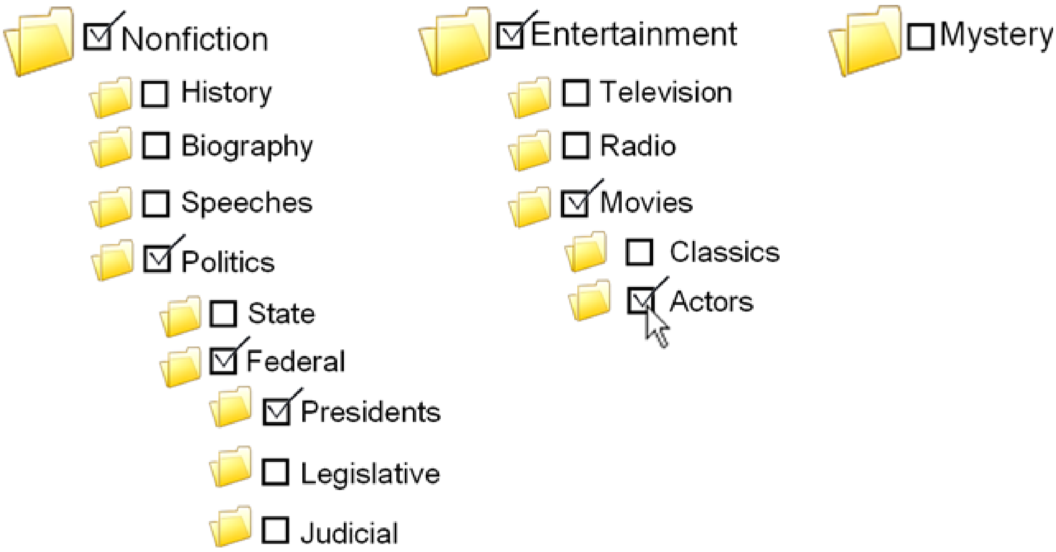
Property	Flex Menu	Menu
Shutter menu (When you click a menu, it opens directly below the menu title)	✓	
Secondary menu opens when cursor hovers over it	✓ (alternative: secondary menu opens when clicked)	
Starts out collapsed; expands as site visitor selects secondary menu	✓	
All menu levels open when page displays	✓ (optional)	✓
Can display secondary menu to the right of the root menu, instead of directly below it	✓ (optional)	
How appearance is modified	Server control properties and style sheet	Xslt and style sheet
How behavior is modified	Xslt	Xslt and style sheet
Option to launch menu links in a new window		

19

Using Taxonomies

Ektron's taxonomy is a content-level categorization system that uses one-to-many relationships to create a scalable organization of content. For example, if you looked for information about one Ronald Reagan, he may be found in many categories such as a US President, a US Governor, or as a movie actor. When you apply Ronald Reagan to taxonomy categories, you create a multiple relationship so that site visitors can find the content, however they think about it.

A taxonomy hierarchy arranges content from general categories to specific categories. For example, Books > Nonfiction > US Politics > Federal > Presidents. Content can relate to multiple categories (also Entertainment > Movies > Actors), creating multiple "routes" to information at the end of the hierarchy.



Taxonomies let you create a navigation structure that is independent of the folder structure. You may have content about Ronald Reagan in a Famous People folder, but the Presidents and Actors taxonomies are applied to that content, independent of the folder.

The following link shows a video that introduces Ektron taxonomies: Taxonomy Video.

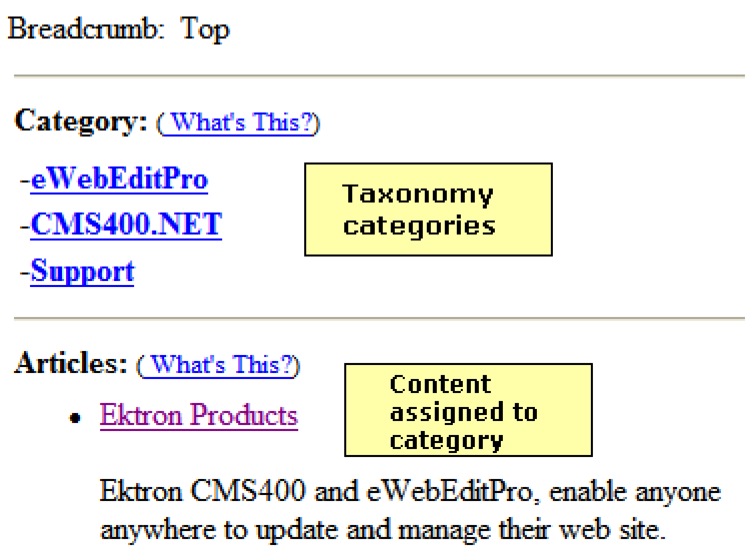
You can use taxonomies in many way. For example, use them with GeoMapping to help site visitors narrow shopping choices in the immediate vicinity, or organize a photo album by categories, or group discussion board topics, and so on.

Ektron's URL aliasing uses taxonomy hierarchies to generate human-readable and SEO-friendly addresses, leveraging the various ways that people relate to the content to determine the alias; search engines can find content with multiple terms.

Planning a Taxonomy

A taxonomy is comprised of a list of categories that you can place on a Web page. When that page displays, the taxonomy's categories appear, followed by all published items in the taxonomy.

To help site visitors find your website's content via a taxonomy, your developer places a Directory server control on a Web page. See Also: *Directory* on page 1718. It looks something like this.



There is no limit to the number of category levels you can assign to a taxonomy.

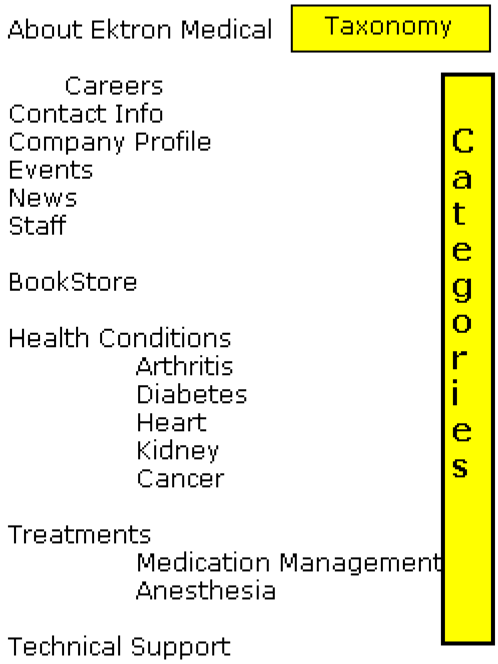
Also, a taxonomy can link to all content in a folder, so the display is based on folder structure. Alternatively, you can assign content items from various folders to a taxonomy.

To illustrate the benefits of a content-based taxonomy, assume your website is for a college. Several items relating to the graduate school are organized under major departments: Admissions, Academics, Faculty, Library, and so on. You can

1. Create a Graduate School taxonomy.
2. Use it to categorize all content relevant to graduate students (regardless of their department).
3. Display them on a graduate students page.

It helps to design a taxonomy on paper before creating it in Ektron. This can let you determine relationships among the kinds of information before you try to implement the taxonomy.

As an example, here is a hierarchy of some content in the Ektron sample site. The top level item is the taxonomy. All levels below it are categories.



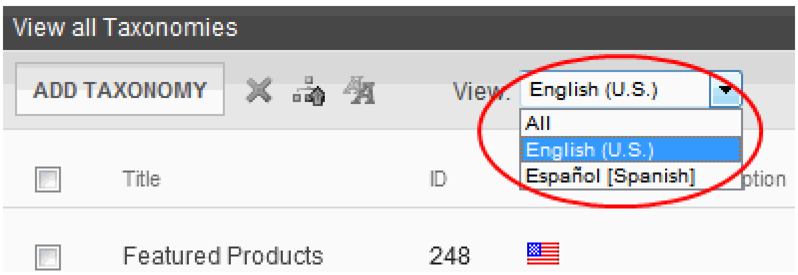
Next, review the site content and decide which content items and folders to assign to which taxonomy categories. Some categories may map directly to a folders. Other categories may refer to content from several folders. After you determine how content and folders will be assigned to taxonomy categories, sign on to Ektron and set up those relationships.

Creating a Taxonomy

PREREQUISITE

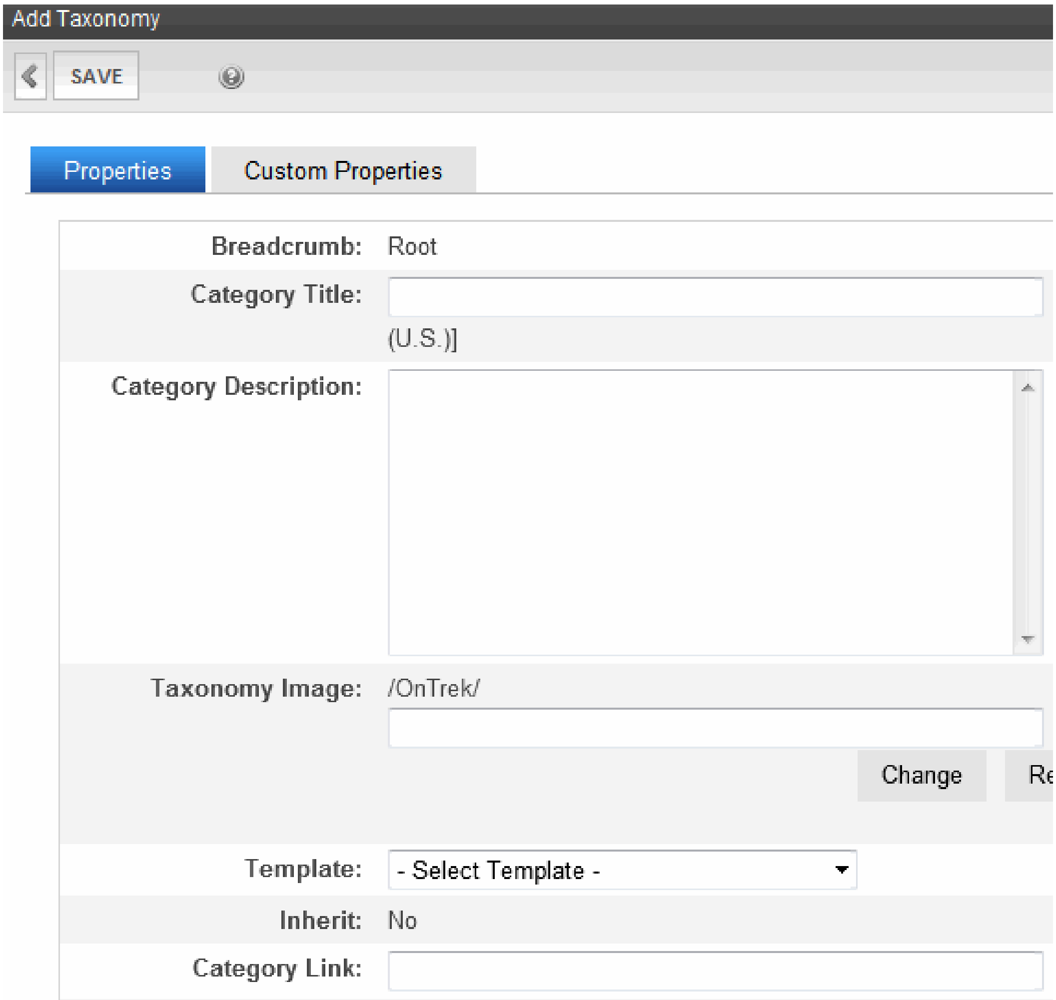
Only administrators or users to whom the Taxonomy-Administrator role is assigned see the **Content > Taxonomy** option See Also: *Defining Roles* on page 1120

1. Workarea **>Content > Taxonomies > Taxonomies**.
2. Use the **View** > language selector to choose a language for the taxonomy.



See Also: *Creating a Taxonomy in a Multi-Language Environment* on page 815

3. Click **Add Taxonomy**. The Add Taxonomy screen appears.



4. Complete the screen with the following information.
   - **Category Title—**Give the taxonomy a title. The title identifies the taxonomy wherever it appears. The title *cannot* contain most non-alphanumeric characters, including commas and periods.
   - **Category Description—**If desired, enter a more complete description of the taxonomy. It appears only on the Edit Taxonomy screen.
   - **Taxonomy Image—**If desired, you can assign an image to this taxonomy. For example, in the eCommerce feature, you could display an image that indicates the type of products that make up the taxonomy.

     To display the taxonomy image, use Ektron's API.
   - **Template—**If desired, select a template to apply to the taxonomy or category. See Also: *Applying a Template to a Taxonomy or Category* on page 784
   - **Inherit** (only appears when creating a category underneath a taxonomy)—Check this box if you want this category to inherit its template from the parent category or taxonomy. If not, assign a template using the **Template** field (above).
   - **Category Link—**Use this field to direct a site visitor who clicks this taxonomy or category to a page on your website. For example, when someone is using your site's company directory and clicks Human Resources > Benefits, he is directed to

that area of your site.

Without a Category Link, if a site visitor clicks a taxonomy category, the results appear on the same page.

Enter a path to a destination page relative to your site root folder. For example, `aboutus.aspx`. When a site visitor clicks this taxonomy or category, the site visitor is directed to `http://`*`your-URL`*`/`*`siteroot`*`/aboutus.aspx`.

You could also direct the user to a content ID, such as `aboutus.aspx?id=62`.

- **Synchronize Languages—**Check this box to *synchronize* all language versions of content assigned to this taxonomy. That is, maintain the same content in multiple language versions of a taxonomy.

  For example

  - you have English and Spanish versions of the taxonomy 'Press Releases'
  - content ID 406 exists in English and Spanish

  If you add content ID 406 to the English 'Press Releases' taxonomy, Spanish content ID 406 is added to the Spanish 'Press Releases' taxonomy.

  Conversely, if you delete content ID 406 from the Spanish 'Press Releases' taxonomy, content ID 406 is removed from the English 'Press Releases' taxonomy.

  As another example

  - you have English and a Spanish versions of the taxonomy 'Press Releases'
  - content ID 407 exists in English only

  If you add content ID 407 to the English 'Press Releases' taxonomy, the Spanish 'Press Releases' taxonomy is not affected, since content ID 407 does not exist in Spanish.

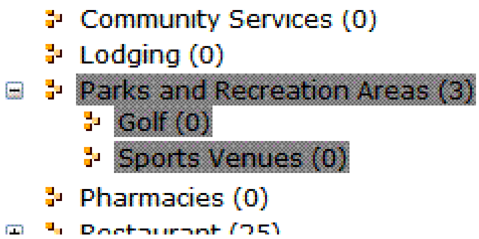
  Conversely, if you delete content ID 407 from the English 'Press Releases' taxonomy, the Spanish 'Press Releases' taxonomy is not affected, since content ID 407 does not exist in Spanish.

  See Also: *Working with Metadata that does not work with XLIFF* on page 1079

- **Create the Taxonomy in All Languages—**Check this box if, whenever a taxonomy is created in the default language, it is also automatically created in all other enabled languages.
- **Enable—**Check this box if you want this taxonomy or category, and its subcategories, to appear when this taxonomy appears on your website.

  Uncheck this box to block categories from appearing as part of this taxonomy. For example, you have not finished creating content for a category.

  If you uncheck this box, this node and its child nodes are indicated by a gray background in the Workarea (see image below).



The gray background also appears when users work with this taxonomy or category on the Edit Content screen's **Category** tab.

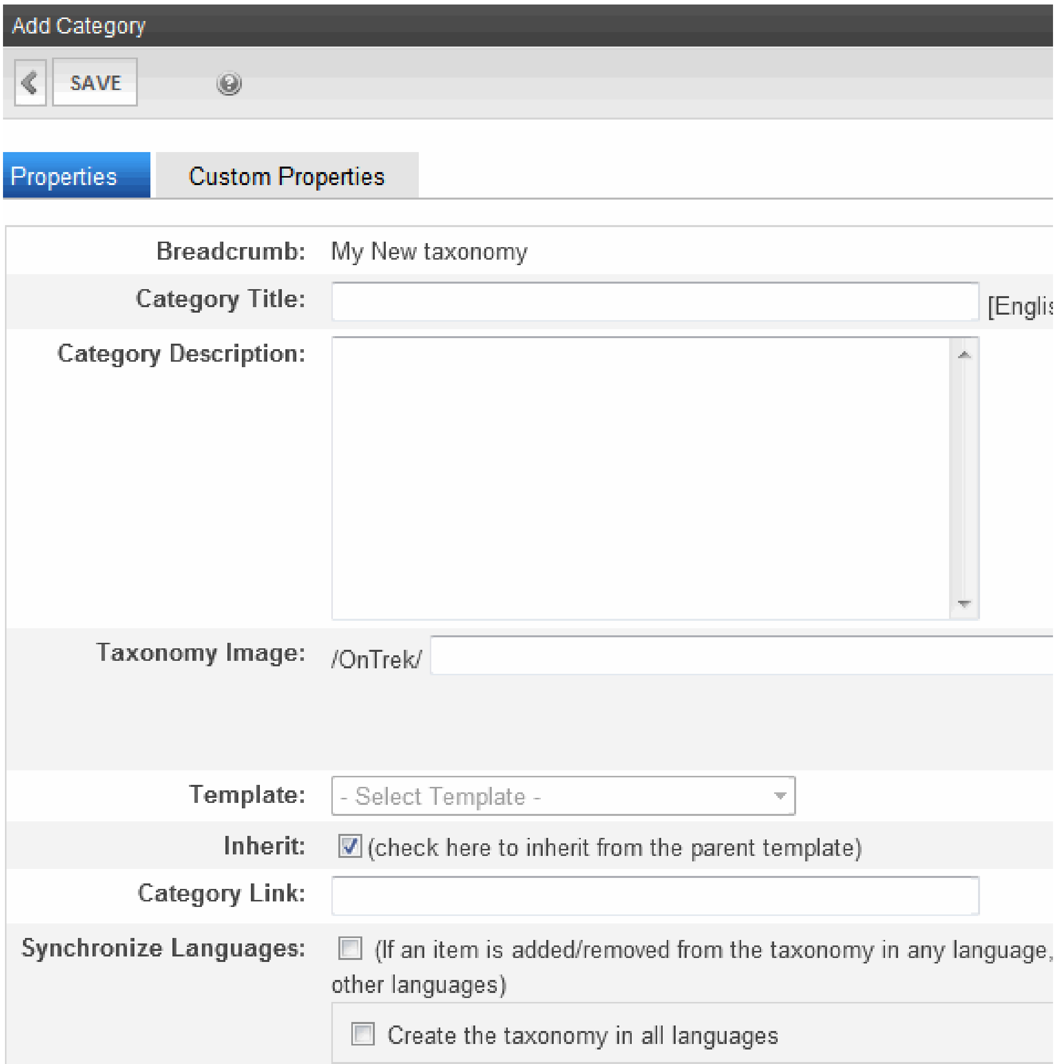
This setting does not prevent you from assigning taxonomies or categories in the Workarea.

- **Configuration—**Select a configuration with which to associate the taxonomy.
  - Content
  - User
  - Group

NOTE: By default, a new taxonomy's configuration is **content**. Also, this field only appears for a taxonomy. It does not appear for categories, which are below the taxonomy.

Custom Properties tab—Let you extend the taxonomy's functionality by creating custom fields to capture additional information.

5. Click **Save**. The View Taxonomies screen appears.
6. Add categories to this new taxonomy by clicking **Add Category**. The Add Category screen appears.



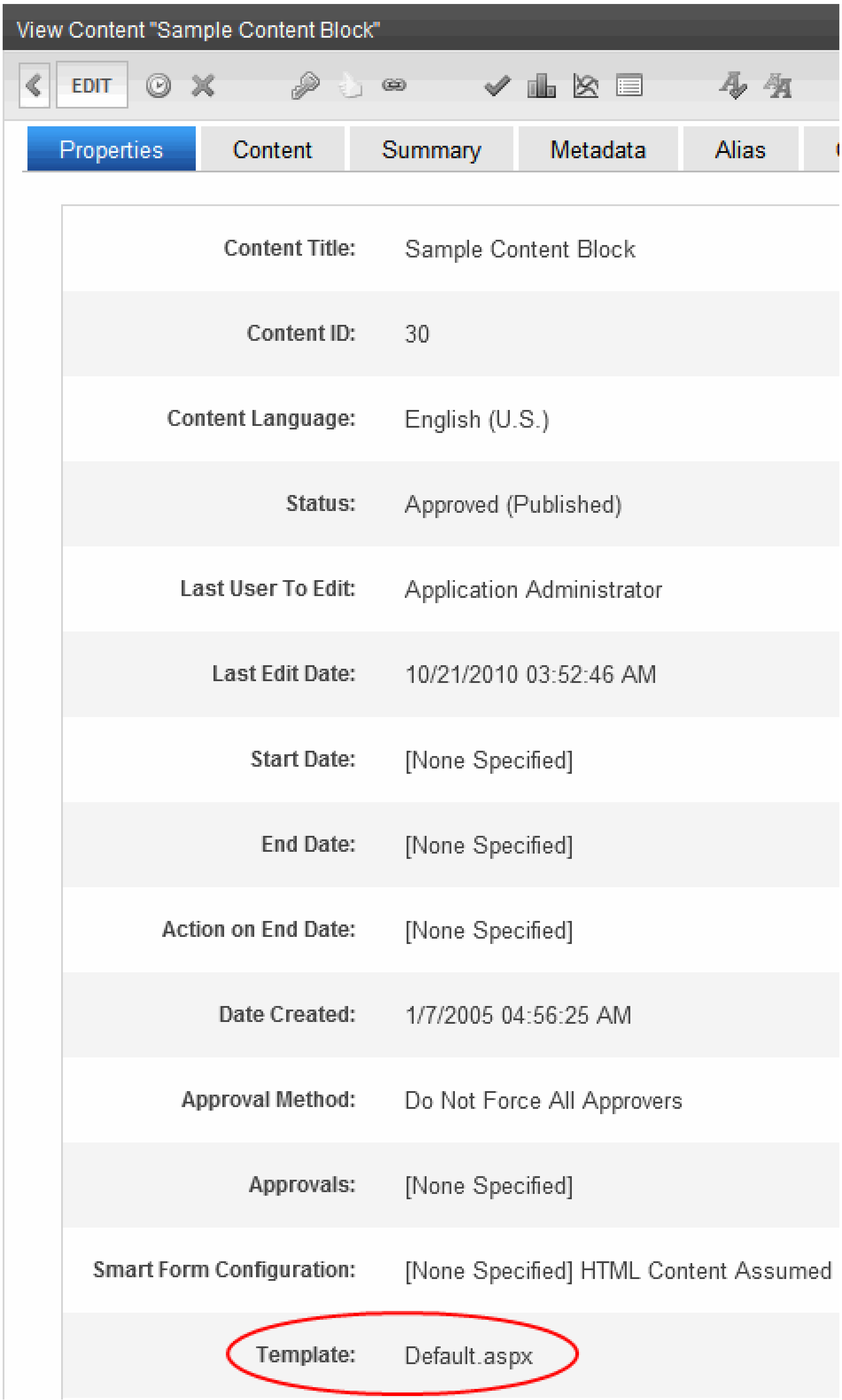
7. Enter the Category information. See Step 4 for information about these fields.
8. When finished, click **Save**.
9. Repeat this process for each category you wish to add to this taxonomy.

NOTE: You can also assign a Taxonomy to content using the Edit Content in Folder screen's **Category** tab.

Applying a Template to a Taxonomy or Category

Taxonomy categories are designed to help site visitors find content. To provide a taxonomy-based search, your developer places a Directory server control on a Web page.

By default, when a user clicks a hyperlink on such a Web page, it uses the template assigned to the linked content (as illustrated below). See Also: *Working with Templates* on page 382



To display the linked content in a different template:

1. When creating or editing a taxonomy or category, select the appropriate template at the **Template** pull-down field (shown above).

NOTE: Any category below the root level can inherit its parent's taxonomy template. Use the **Inherit** checkbox to do this.

You may need a developer's help with the rest of these steps.

2. In Visual Studio.Net, open the .aspx page that contains the directory server control.
3. Look at the server control's **MarkupLanguage** property.
4. If the property is blank, open the following file: *siteroot*/workarea/template/taxonomy/taxonomy.ekml.

   If the property displays an EkML file, open that file. Its path may be listed in the property. If the .ekml file's path is blank, it is workarea/template/taxonomy/.
5. Find the following line: [$HyperLink]
[$Teaser]
6. Replace it with the following: [$Title]
[$Teaser]
7. Save the .ekml file.

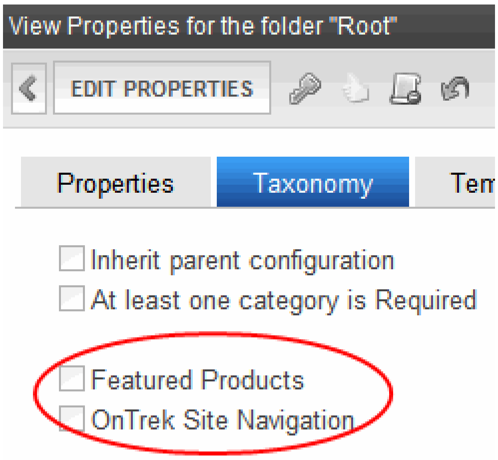
The content selected from this Directory server control will now use the template assigned to the taxonomy or category.

Assigning a Taxonomy Configuration

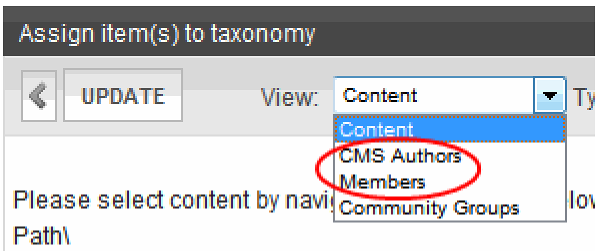
There are 3 taxonomy configurations (that is, types).

Content—Associate this taxonomy with content. When this configuration is selected

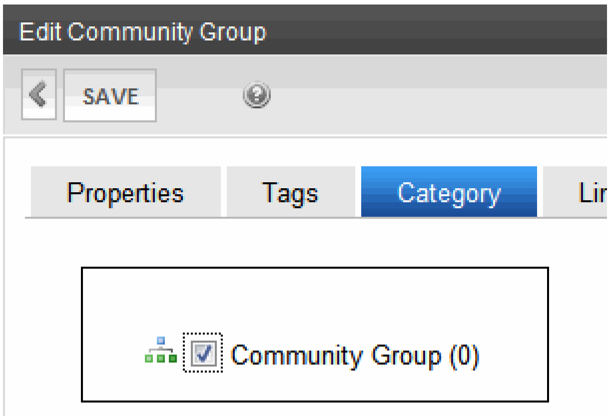
- you can assign content to the taxonomy or category
- the taxonomy category appears on every folder's properties screen (shown below)



User—Associate this taxonomy with Ektron or membership users. You select users for this taxonomy on the Assign Items to Taxonomy screen.



Group—This taxonomy's categories can be assigned to community groups from the **Category** tab of the Edit Community Group screen.

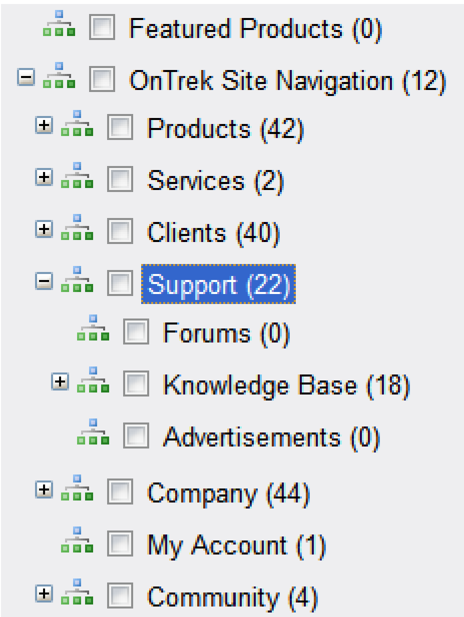


If you do not check this box, users can only view taxonomy or category assignments on the **Category** tab.

Whether or not this box is checked, you can assign taxonomy categories to community groups via the View All Categories of Taxonomy screen.

Numbers on the View Categories Screen

When editing content, if you choose the **Category** tab, you see Taxonomy categories that may be applied to this content. The number to the right of any taxonomy or category is the total items assigned to it. For example, the *Support* taxonomy has 22 categories in it.



The number includes individual items plus all items in any assigned folders. So, for example, if one content item and one folder are assigned to a category, and the folder has 5 items, the category's number is six.

Assigning Taxonomies and Categories

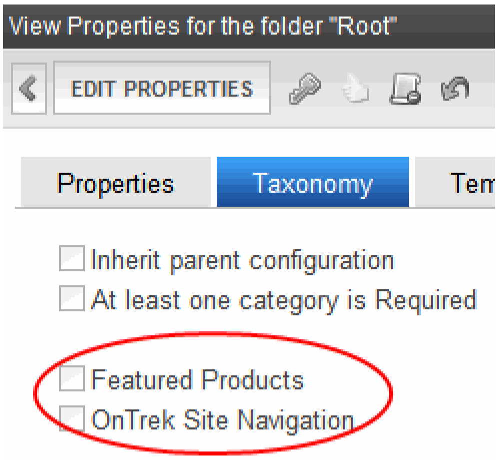
The following table summarizes information about assigning a taxonomy or category to content, users or community groups.

To assign a taxonomy category to	Available methods	Prerequisites	For more information, see
Content **NOTE:** Regardless of the method you use to assign a taxonomy to content, the result is the same.	from the Edit Content in Folder screen	• Must be authorized to edit the folder's content • You can only select from taxonomies assigned to the content's folder	*Assigning a Taxonomy or Categories to Content* below
	from the Content Tab > Taxonomy screen	Must be member of administrators group or Taxonomy administrator	*Assigning Content to a Taxonomy or Categories* on the facing page
Ektron Users	from the Assign Item(s) to Taxonomy screen	Taxonomy's **Configuration > User** check box is checked	*Assigning a Taxonomy or Categories to a User* on page 798
Membership Users	• from the Assign Item(s) to Taxonomy screen • after logging into a Community site, editing the user profile	Taxonomy's **Configuration > User** check box is checked	*Assigning a Taxonomy or Categories to a Membership User* on page 796
Community Group	• from the Workarea's Assign Item(s) to Taxonomy screen • from the Workarea's Community Group Area • after logging into a Community site, editing the community group profile	Taxonomy's **Configuration > Group** check box is checked	*Assigning a Taxonomy or Categories to a Community Group* on page 792

Assigning a Taxonomy or Categories to Content

Ektron lets content authors assign a taxonomy or categories to content by navigating to a content block, clicking its **Category** tab, opening a taxonomy, and checking the correct level.

However, all taxonomies may not be available to every content item. Use a folder property's **Taxonomy** tab to determine which taxonomies may be assigned to content in a folder.



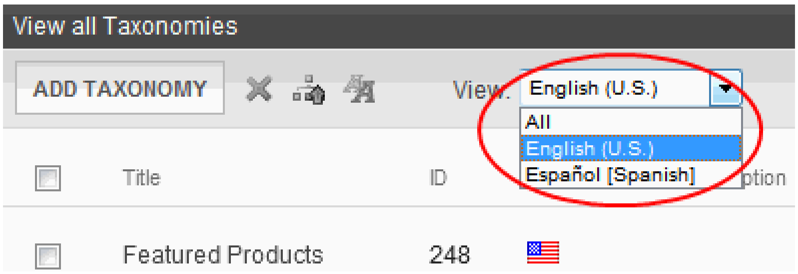
For example, a folder's content consists of restaurants, and you want to restrict users to the Restaurant taxonomy—users cannot assign other categories to that folder's content.

Assigning Content to a Taxonomy or Categories

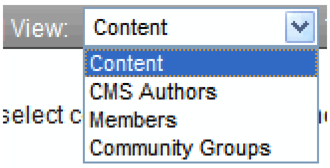
PREREQUISITES

- You can perform this procedure only if a taxonomy's **Configuration > Content** check box is checked.
- Only Administrators Group members or taxonomy administrators can assign taxonomy categories to content via the View All Categories of Taxonomy screen. See Also: *Defining Roles* on page 1120

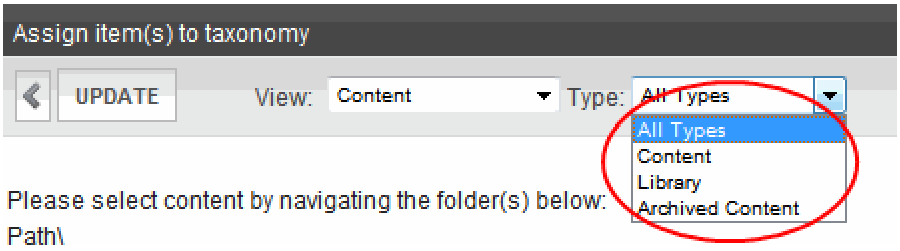
1. From the Workarea, go to **Content > Taxonomies**.
2. Select a language whose taxonomies you want to work with. You can choose **All**.



3. Select a taxonomy.
4. Select the category to which you want to assign content.
5. Click **Assign Items to Taxonomy** ( ).
6. From the View drop-down, choose the type of the item to associate. See Also: *Assigning a Taxonomy Configuration* on page 786



7. If you select **Content**, choose the type of content you wish to see via the **Type** pulldown.



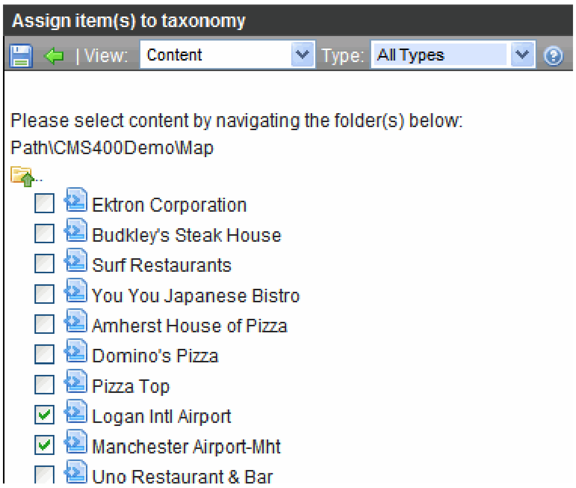
- **All types**—both archived and active content
- **Content**—active content only
- **Library**—library files
- **Archived Content**—only content that has been archived and set to remain on site.

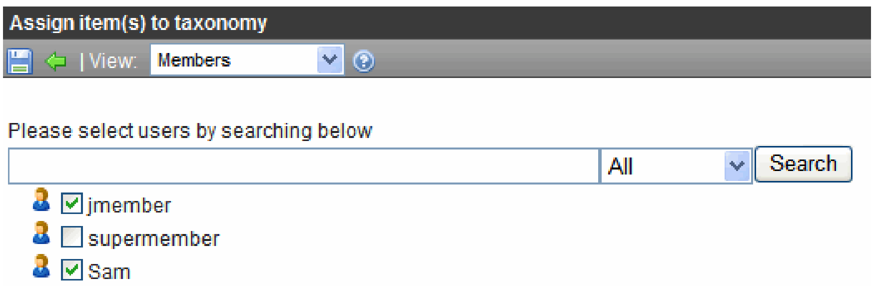
8. Navigate to the folder that contains the content you want to assign to the taxonomy or category.

   or

   Search for the user or community group to assign to the taxonomy or category.

NOTE: Folder content appears below the folder list (see below). Also, only content in the selected language appears.





9. Check the box to the left of content, user, or community group you want to assign. You can assign all types of content, even blogs.

Assigning a Taxonomy or Categories to a Folder

An administrator can make a taxonomy available to a folder:

1. From the Workarea, click **Content > Folders** then click a folder.
2. Choose **View > Properties**.
3. Click **EditProperties**.
4. On the **Taxonomy** tab, uncheck the **Inherit parent configuration** checkbox if it is checked. See Also: *Inheriting Taxonomies from a Parent Folder* below
5. Check a taxonomy or categories that should be available to this folder.

From now on, users editing content in this folder can assign categories from the selected taxonomies.

Inheriting Taxonomies from a Parent Folder

Unlike many folder properties, Taxonomy settings are not inherited from a parent folder by default. But you can cause them to be inherited if that is appropriate. If you are not working on the root folder and the appropriate set of Taxonomies is applied to a folder's parent folder, go to the folder's properties screen and check the **Inherit parent configuration** checkbox.

Requiring the Assignment of at Least One Category

In folder properties, you can require all content to be assigned at least one taxonomy category. If you do, when content in that folder is saved, Ektron verifies that at least one taxonomy category is assigned. If none is found, the user must assign a taxonomy category before saving the content.

To set a folder-level requirement for content to be assigned a taxonomy category:

1. Navigate to the folder.
2. Choose **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Taxonomy Tab**.
5. Check the **At least one category is Required** checkbox.
6. Click **Update**.

Assigning a Folder to a Taxonomy or Categories

PREREQUISITES

- You can perform this procedure only if a taxonomy's **Configuration > Content** check box is checked.
- Only administrators or users to whom the Taxonomy-Administrator role has been assigned see the **Content > Taxonomies** option. See Also: *Defining Roles* on page 1120

NOTE: If you assign a folder, a relationship is established between the folder's *content* and the taxonomy category. The folder is only a convenience for creating this relationship.
Because there is no relationship between a folder and a taxonomy category, if you delete the folder from the taxonomy, the taxonomy category is still applied to the folder's content.

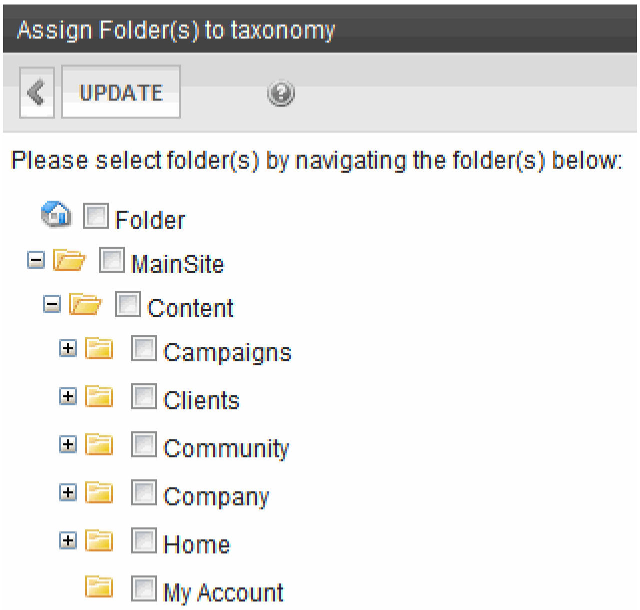
You can assign a folder to a taxonomy, thereby displaying published content in the folder *when the page is viewed*. As content is added to or deleted from the folder, the taxonomy on the Web page changes dynamically.

For example, you have a "Top News Stories" folder, in which newer news items are frequently added, and old ones are deleted. The taxonomy only shows the latest news items. The updating of the content is handled by the taxonomy automatically.

IMPORTANT: If you *move* content from a folder to which a taxonomy category is assigned, the category remains with the content in the new folder. If the new folder also has a taxonomy category assigned, the new category is also applied to the moved content.

To assign a folder to a taxonomy category:

1. From the Workarea, choose **Content > Taxonomies**.
2. Select the language of the taxonomy on which to work.
3. Select the taxonomy or category to which you want to assign a folder.
4. Click **Assign Folders to Taxonomy** ( ).
5. Navigate to the folder you want to assign to the taxonomy or category.
6. Check the folders you want to assign.



7. Click **Update**.

NOTE: Only checked folders are assigned to the taxonomy or category. Checking a parent folder has no effect on its child folders.

Assigning a Taxonomy or Categories to a Community Group

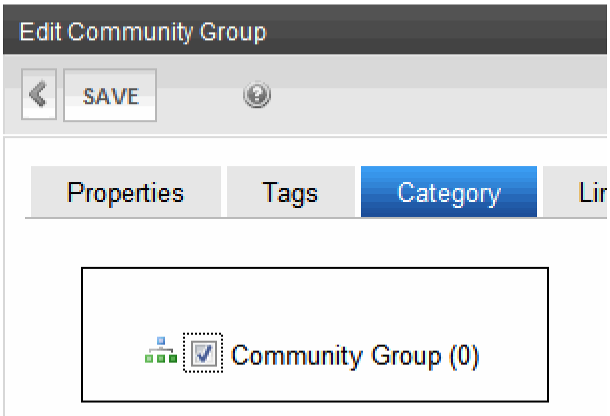
PREREQUISITE

You can perform this procedure only if a taxonomy's **Configuration > Group** check box is checked. See Also: *Assigning a Taxonomy Configuration* on page 786

You can assign a taxonomy or categories to a community group from either a community website or the Workarea.

Assigning a Taxonomy or Categories to a Community Group from the Workarea Community Group Area

1. Navigate to **Settings > Community Management > Community Groups**.
2. Select a community group.
3. Click **Edit this Community Group**.
4. Click the **Category Tab**.

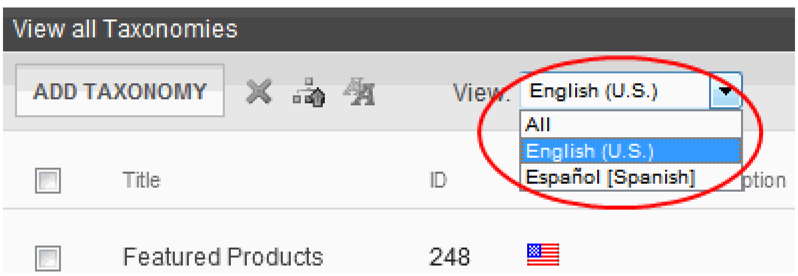


5. Check the taxonomies or categories to apply.
6. Click **Save**.

Assigning a Taxonomy or Categories to a Community Group from the Workarea

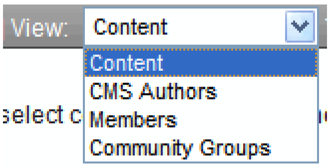
Members of the administrators group or taxonomy administrators can assign a taxonomy or categories to community groups via the View All Categories of Taxonomy screen. See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content > Taxonomies**.
2. Select a language whose taxonomies you want to work with. You can choose **All**.

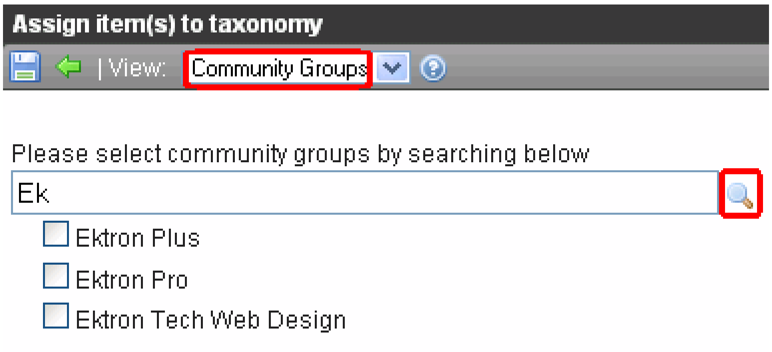


3. Select a taxonomy.
4. Select the category to which you want to assign content.
5. Click **Assign Items to Taxonomy** ( ).

6. From the View drop-down, click **Community Groups**.



7. A search field appears. Click the search icon to see a list of all community groups. Or, enter one or more letters, and only groups containing them appear.

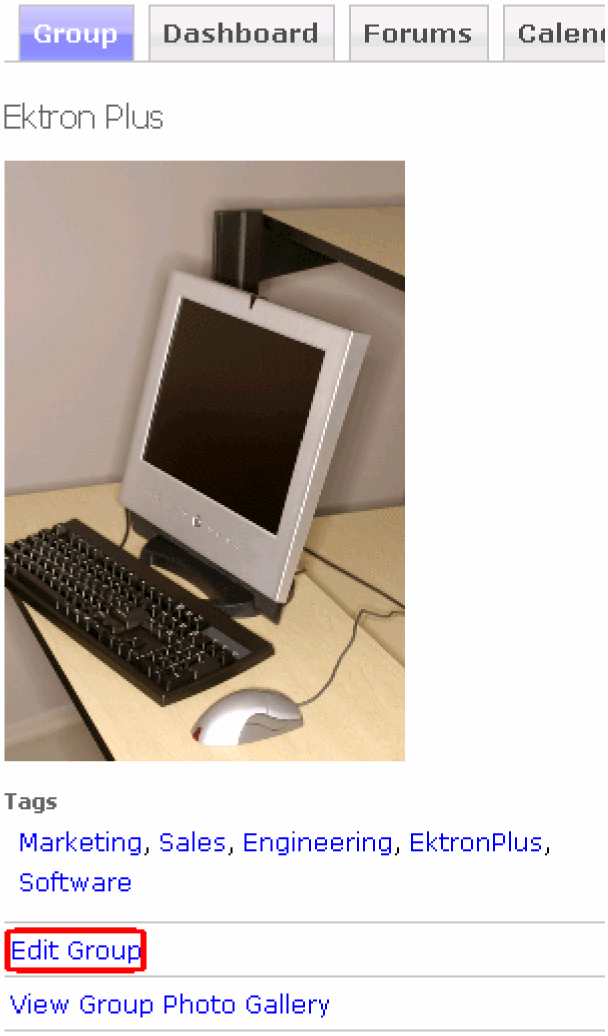


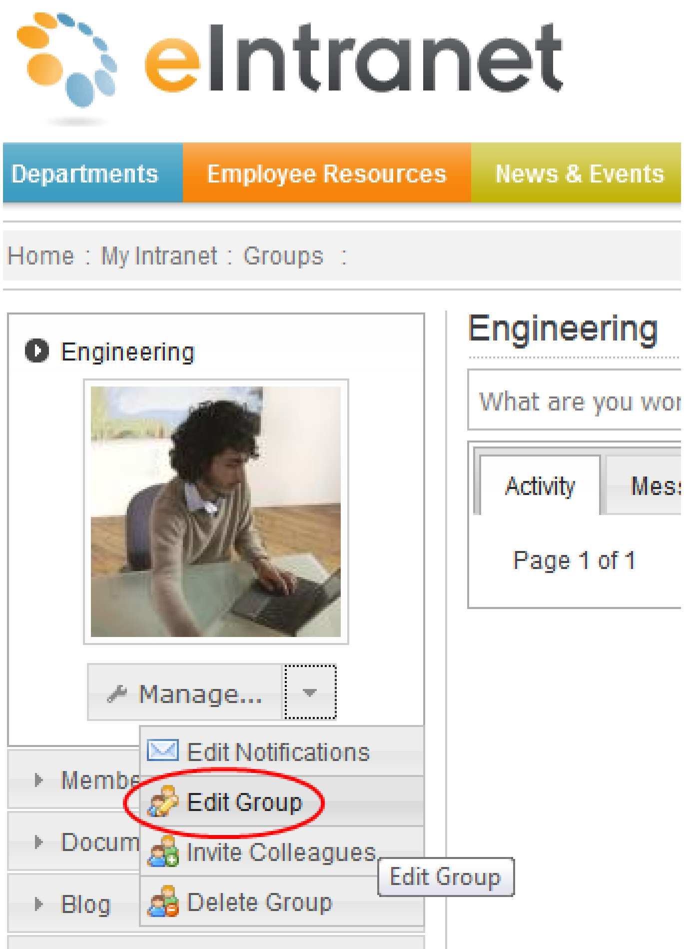
8. Check the box next to community groups you want to assign.
9. Click **Save**.

Assigning a Taxonomy or Categories to a Community Group from a Community Website

1. Log into the Community website.
2. Click the **Community Groups** link. The link's location varies, depending on your site setup.
3. Click the community group that you want to edit.

4. Click **Edit Group**.





5. Click the **Category** tab.
6. Check taxonomies or categories to apply.
7. Click **Save**.

Assigning a Taxonomy or Categories to a Membership User

You can assign a taxonomy or categories to a membership user from a Community website or the Workarea.

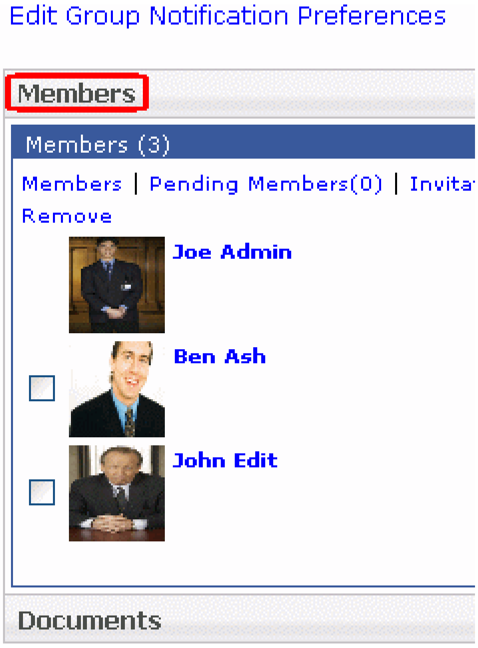
PREREQUISITE

The taxonomy's **Configuration > User** box is checked.

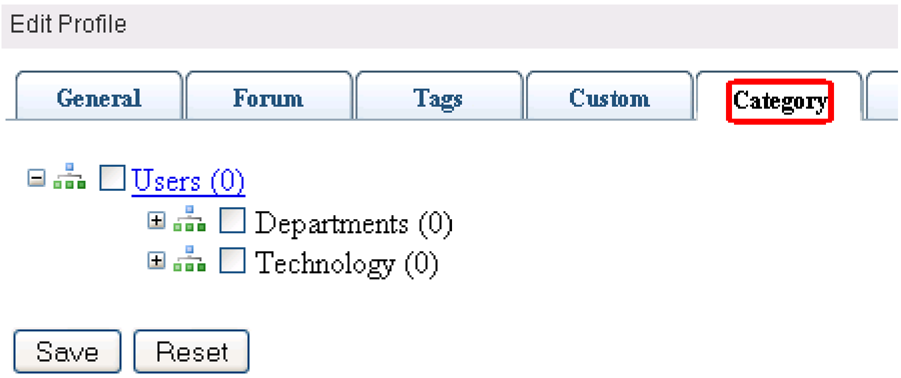
Assigning a Taxonomy or Categories to Community Group from Website

1. Log into the Community website.
2. Click the **Community Groups** link. The location of this link varies, depending on your site setup.
3. Click the community group whose members you want to edit.

4. Click **Members**.



5. Click a user.
6. Click **EditProfile**.
7. Click the **Category** tab.



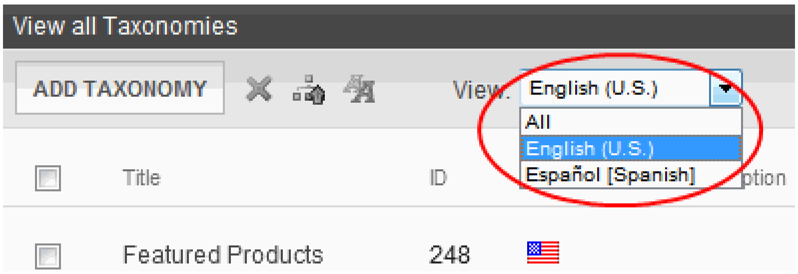
8. Check the taxonomies or categories to apply.
9. Click **Save**.

Assigning a Taxonomy or Categories to Community Group from Workarea

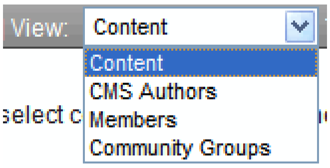
PREREQUISITE

Members of the administrators group or taxonomy administrators can assign a taxonomy or categories to community group members via the View All Categories of Taxonomy screen. See Also: *Defining Roles* on page 1120

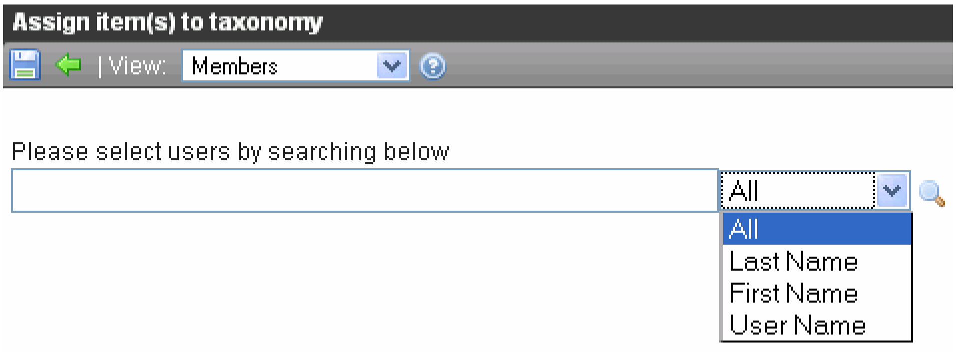
1. From the Workarea, go to **Content > Taxonomies**.
2. Select a language whose taxonomies you want to work with (see image below). You can choose **All**.



3. Select a taxonomy.
4. Select the category to which you want to assign content.
5. Click **Assign Items to Taxonomy** ( ).
6. From the View drop-down, click **Members**.



7. A search field appears. Click the search icon to see a list of all community members. Or, enter one or more letters, and only members containing them appear. You can use the pulldown to specify if you are searching the membership user's first name, last name or user name.



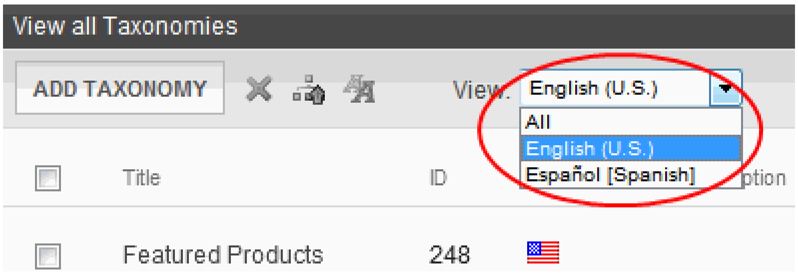
8. Check the box next to membership users you want to assign.
9. Click **Update**.

Assigning a Taxonomy or Categories to a User

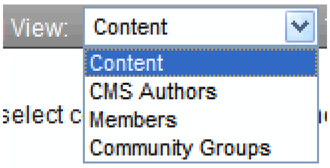
PREREQUISITE

Members of the administrators group or taxonomy administrators can assign a taxonomy or categories to Ektron users via the View All Categories of Taxonomy screen. See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content > Taxonomies**.
2. Select a language whose taxonomies you want to work with (see image below). You can choose **All**.



3. Select a taxonomy.
4. Select the category to which you want to assign content.
5. Click **Assign Items to Taxonomy** ( ).
6. From the View drop-down, click **CMS Authors**.



7. A search field appears. Click the search icon to see a list of all Ektron users (that is, **authors**). Or, enter one or more letters, and only users containing them appear. You can also use the pulldown to specify if you are searching the user's first name, last name or user name.
8. Check the box to the left of the users you want to assign.
9. Click **Update**.

Additional Taxonomy or Category Tasks

This section also contains the following topics.

Viewing All Taxonomies

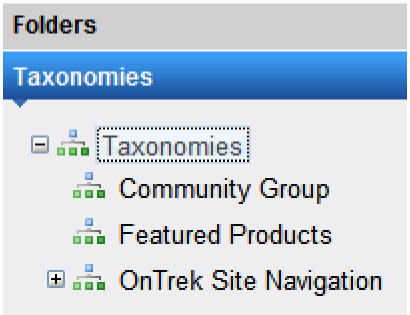
The View All Taxonomies screen displays all taxonomies currently in Ektron. The language pull down lets you filter the list by a language. To work with any taxonomy, select it. When you do, it appears within the View All Categories of Taxonomy screen.

Viewing a Taxonomy

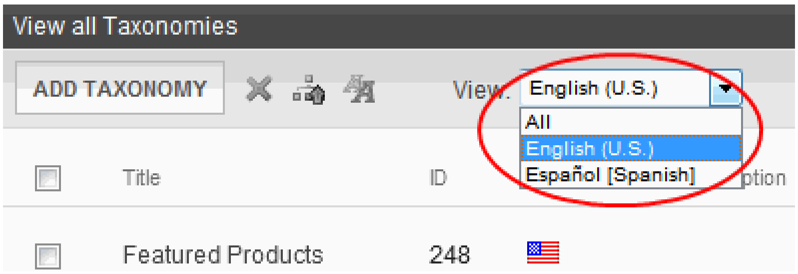
The View All Categories of Taxonomy screen exposes all categories in a selected taxonomy. Use this screen to perform tasks on a taxonomy or one of its categories, such as adding new categories, assigning content to a category, and changing the order of items.

To access the View All Categories of Taxonomy screen:

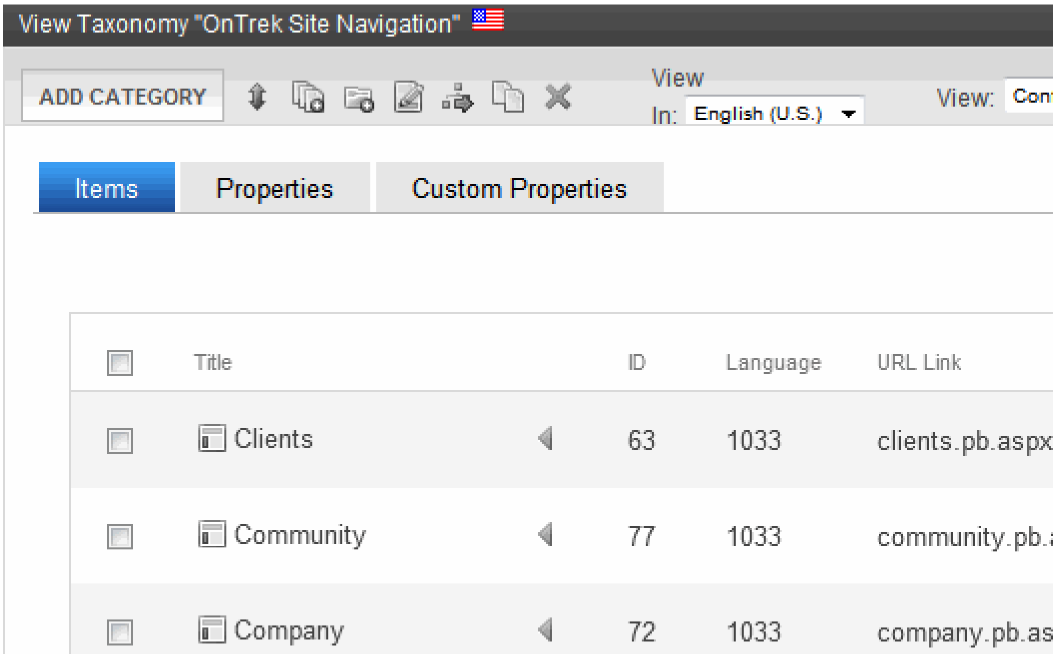
1. From the Workarea, go to **Content > Taxonomies**
2. Click the top Taxonomy node to see all taxonomies.



3. Use the language pull-down to select the language of the taxonomy you want to work with



4. Click a taxonomy. The View Taxonomy screen appears.



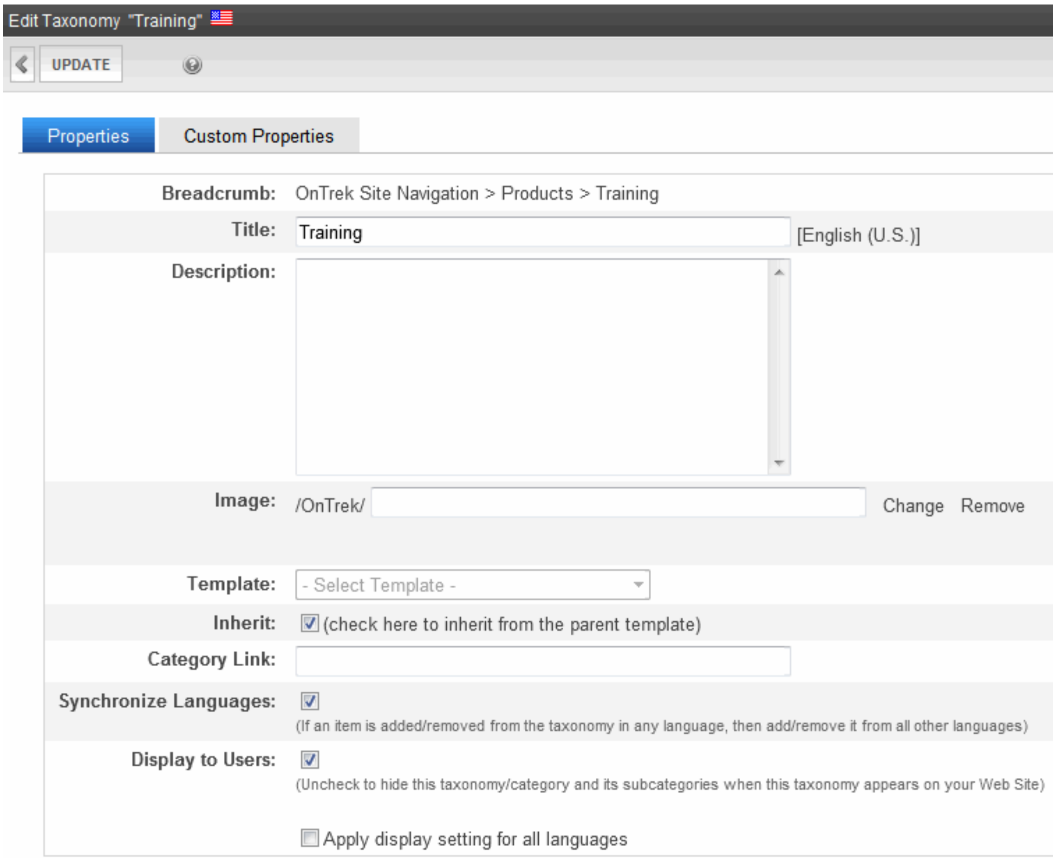
Editing the Fields of a Taxonomy or Category

PREREQUISITE

Only administrators or users assigned to the Taxonomy Administrator role see the **Content > Taxonomies** option. See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content > Taxonomies**.
2. Select the taxonomy from the list of taxonomies.

3. Click **Edit** ( ). The following screen appears.



For a description of these fields, see *Creating a Taxonomy* on page 780.

Adding a Taxonomy or Category

PREREQUISITE

Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option.See Also: *Defining Roles* on page 1120

To add a category to a taxonomy, or to add a subcategory to a category:

1. From the Workarea, go to **Content Tab > Taxonomy**.
2. Select the taxonomy or category under which you want to create a new category.
3. Click **Add Category**. The Add Category screen appears.
4. Complete the fields for the new category.
5. Click **Save**.

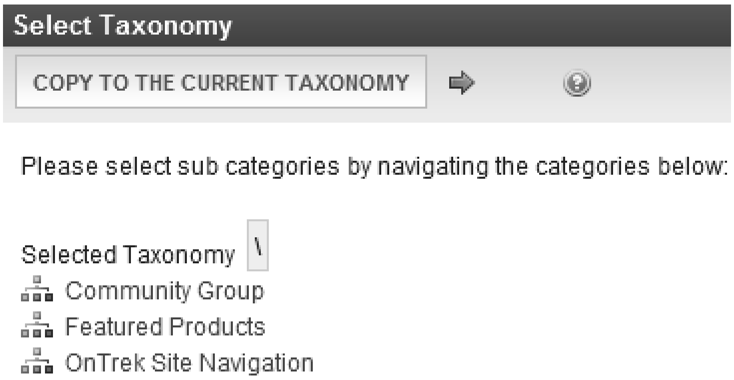
Copying and Moving a Taxonomy or Category

You can move any taxonomy category to any other taxonomy or category. There are 2 ways to do this.

Copying and Moving a Taxonomy or Category using a

Toolbar Button

1. From the **Content > Taxonomies** area of the Workarea, open the category that you want to move or copy.
2. Click **Move/copy** ().
3. A dialog appears. Select a taxonomy category to which you want to move/copy the current category.



4. Click
   - right arrow () to *move the* taxonomy or category to the new location
   - **Copy to the current Taxonomy** to *copy* the taxonomy or category to the new location

Copying and Moving a Category using Menu Options

1. From the left panel of the Taxonomy area, right click a category.
2. Choose **Cut *category name*** or **Copy *category name***.
3. Hover over the destination category
4. Click **Paste Taxonomy**.

Deleting a Taxonomy or Category

NOTE: After you delete a taxonomy, it can no longer be assigned to content and folders. Further, existing links to content (via the **Category** tab) are deleted. And, if a taxonomy was assigned to a folder (via the Folder Properties screen), it is no longer assigned.

See Also: *Deleting a Taxonomy in a Multi-Language Environment* on page 816

Deleting a Taxonomy from View All Taxonomies Screen

NOTE: Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option. See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content> Taxonomies**.
2. From the View All Taxonomies screen, check the box next to the taxonomy you want to delete.
3. Click **Delete** ().

   NOTE: The delete button does not appear if the language selector is set to **All**.

Deleting a Category from View All Categories Screen

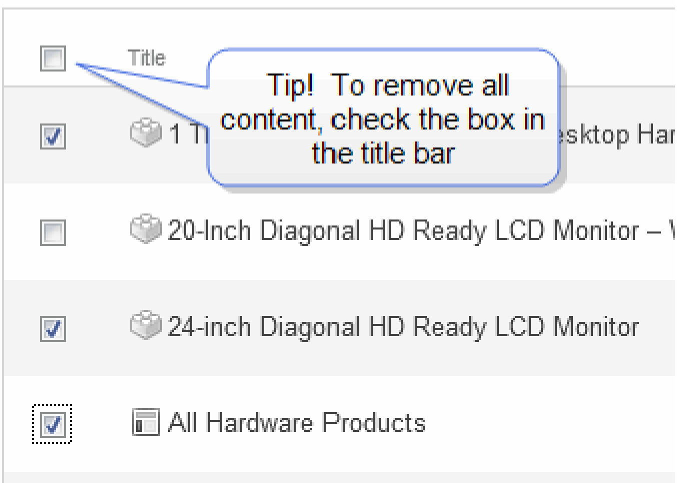
1. From the Workarea, go to **Content > Taxonomies**.
2. Select a taxonomy from the list of taxonomies. The taxonomy items and properties appear on the right.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**.

Removing Content from a Taxonomy or Category

PREREQUISITE

Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option.See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content > Taxonomies**.
2. Select a taxonomy or category.
3. Check the box to the left of content you want to remove.



4. Click **Remove Items**.

Removing a Folder from a Taxonomy or Category

PREREQUISITE

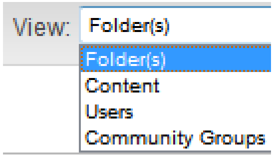
Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option.See Also: *Defining Roles* on page 1120

If you assign a content folder to a taxonomy category, the internal relationship is between the folder’s content and a taxonomy category. A folder is merely a convenience for creating this relationship. There is no data connection between a folder and a taxonomy category.

Therefore, if you delete a content folder from a taxonomy category, all content in that folder remains assigned to it. To remove the folder’s content from the category, see *Removing Content from a Taxonomy or Category* above.

However, after deleting a content folder, the connection between the folder and taxonomy category is broken. So, content subsequently added to the folder is not assigned to the taxonomy.

1. From the Workarea, go to **Content > Taxonomies**.
2. Select the taxonomy or category that has the folder that you want to delete.
3. From the View drop-down, select **Folder(s)**.



4. Check the box next to folders you want to remove.

NOTE: To remove all folders, check the box in the title bar.

5. Click **Remove Items**.

Reordering Categories

PREREQUISITE

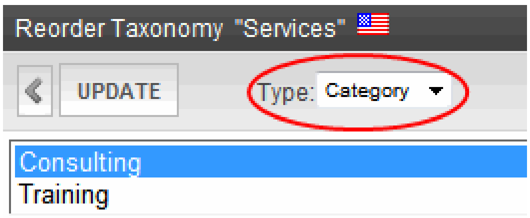
Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option.See Also: *Defining Roles* on page 1120

You can reorder the categories of a taxonomy or one of its categories. Reordered *subcategories* appear only within the Workarea.

To reorder the categories assigned to a taxonomy or category:

See Also: *Adding a Taxonomy or Category* on page 802

1. From the Workarea, go to **Content > Taxonomy**.
2. Select a taxonomy or category that has content that you want to reorder.
3. Click **Reorder** ( ).
4. Set the Type drop-down list to Category.



5. Select an item that you want to move up or down.
6. Click the up or down arrow to move the item in that direction.
7. Continue steps 5 and 6 until all content is in the desired order.
8. If there are several language versions of this taxonomy, you can automatically reorder all versions. To do that, check **Apply ordering for all languages**.
9. Click **Update**.

Reordering Content Assigned to a Taxonomy Category

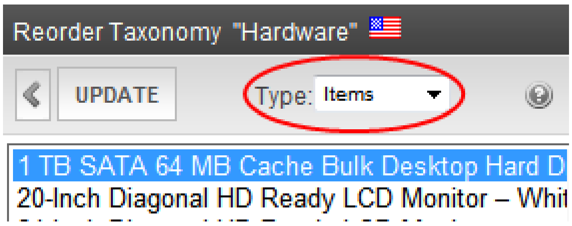
You can reorder (that is, change the sequence of) content within a category. Reordered *content* appears within the Workarea and can appear on your website of the Directory server control's `ItemSortOrder` property is set to `taxonomy_item_display_order`.

To reorder the content assigned to a category:

PREREQUISITE

Only administrators or users to whom the Taxonomy Administrator role has been assigned see the **Content > Taxonomies** option.See Also: *Defining Roles* on page 1120

1. From the Workarea, go to **Content > Taxonomies**.
2. Select the taxonomy or category that has the content that you want to reorder.
3. Click **Reorder** ( ).
4. Set the **Type** drop-down list to **items**.



5. All items assigned to the category appear.
6. Select content that you want to move up or down.
7. Click the up or down arrow to move the item in that direction.
8. Continue steps 6 and 7 until all content is in the desired order.
9. Click **Update**.

Importing and Exporting a Taxonomy

You can *export* any taxonomy as an xml file. Then, you can reuse it or send it to someone else, who would *import* it to bring a copy of it onto their computer.

You can use the Export/Import feature like a "save as" feature. For example, you want to create a taxonomy that is similar to an existing one but has a few differences. The easiest way to do this is to export an existing one, import it under a new name, and edit it.

Below is an example of part of a taxonomy saved as an XML document.

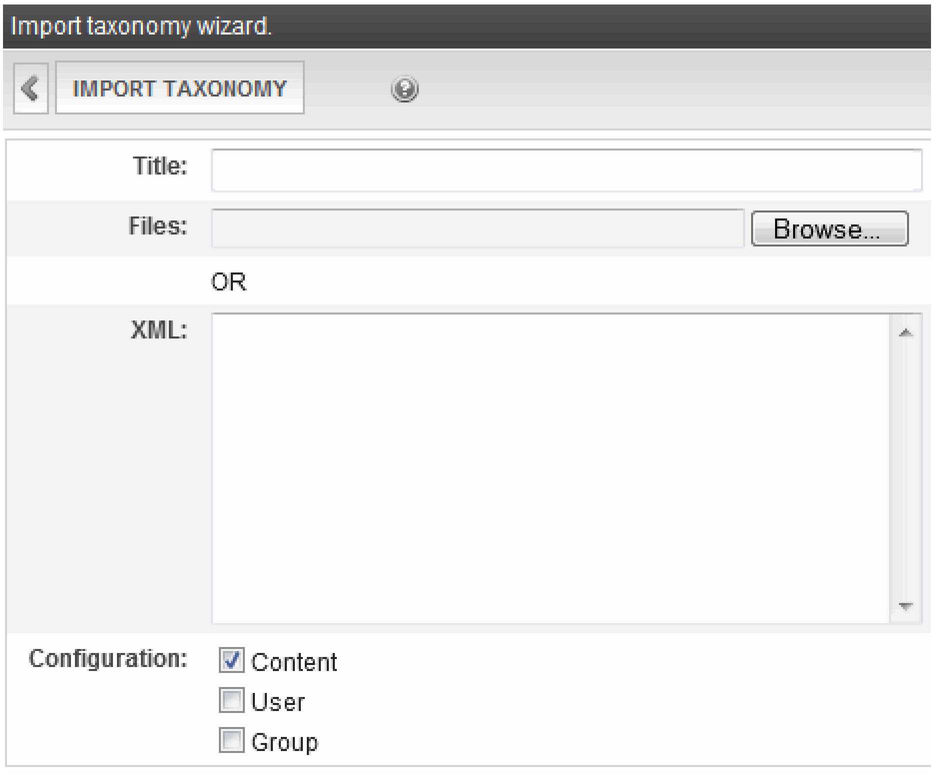
```
<ArrayOfTaxonomyData
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <TaxonomyData>
    <TaxonomyId>959</TaxonomyId>
    <TaxonomyName>Bob Taxonomy</TaxonomyName>
    <TaxonomyLanguage>1033</TaxonomyLanguage>
     <TaxonomyLanguageName>English (U.S.)</TaxonomyLanguageName>
     <TaxonomyDescription>Sample</TaxonomyDescription>
```

```
    <Taxonomy>
      <TaxonomyData>
        <TaxonomyId>960</TaxonomyId>
        <TaxonomyName>Subnode</TaxonomyName>
        <TaxonomyLanguage>1033</TaxonomyLanguage>
        <TaxonomyLanguageName>English (U.S.)</TaxonomyLanguageName>

      </TaxonomyData>
    </Taxonomy>
  </TaxonomyData>
</ArrayOfTaxonomyData>
```

Importing a Taxonomy

1. From the Workarea, go to **Content > Taxonomies > Taxonomies**.
2. Click Import Taxonomy ( ). The Import Taxonomy screen appears.



3. In the **Title** field, enter a name for your new taxonomy.
4. Click **Browse**.
5. Navigate to the taxonomy file you want to import. The path appears in the **Files** field.

NOTE: Alternatively, you can enter or paste the xml into the **XML** box.

6. Determine the taxonomy’s configuration. See Also: *Assigning a Taxonomy Configuration* on page 786
7. Click **Import Taxonomy**.

NOTE: If you assign a name that is already given to a taxonomy, Ektron appends a number to the title, beginning with 1.

Exporting a Taxonomy

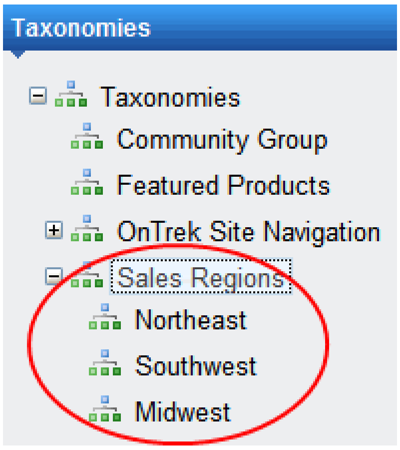
Exporting a taxonomy means saving it as an .xml file on your computer or network drive. To export a taxonomy:

1. From the Workarea, go to **Content > Taxonomies**.
2. Select the language of the taxonomy that you want to export.
3. All taxonomies in that language appear.
4. Click a taxonomy that you want to export.
5. Click **Export Taxonomy** ( ).
6. You are prompted to select a folder into which to save it.

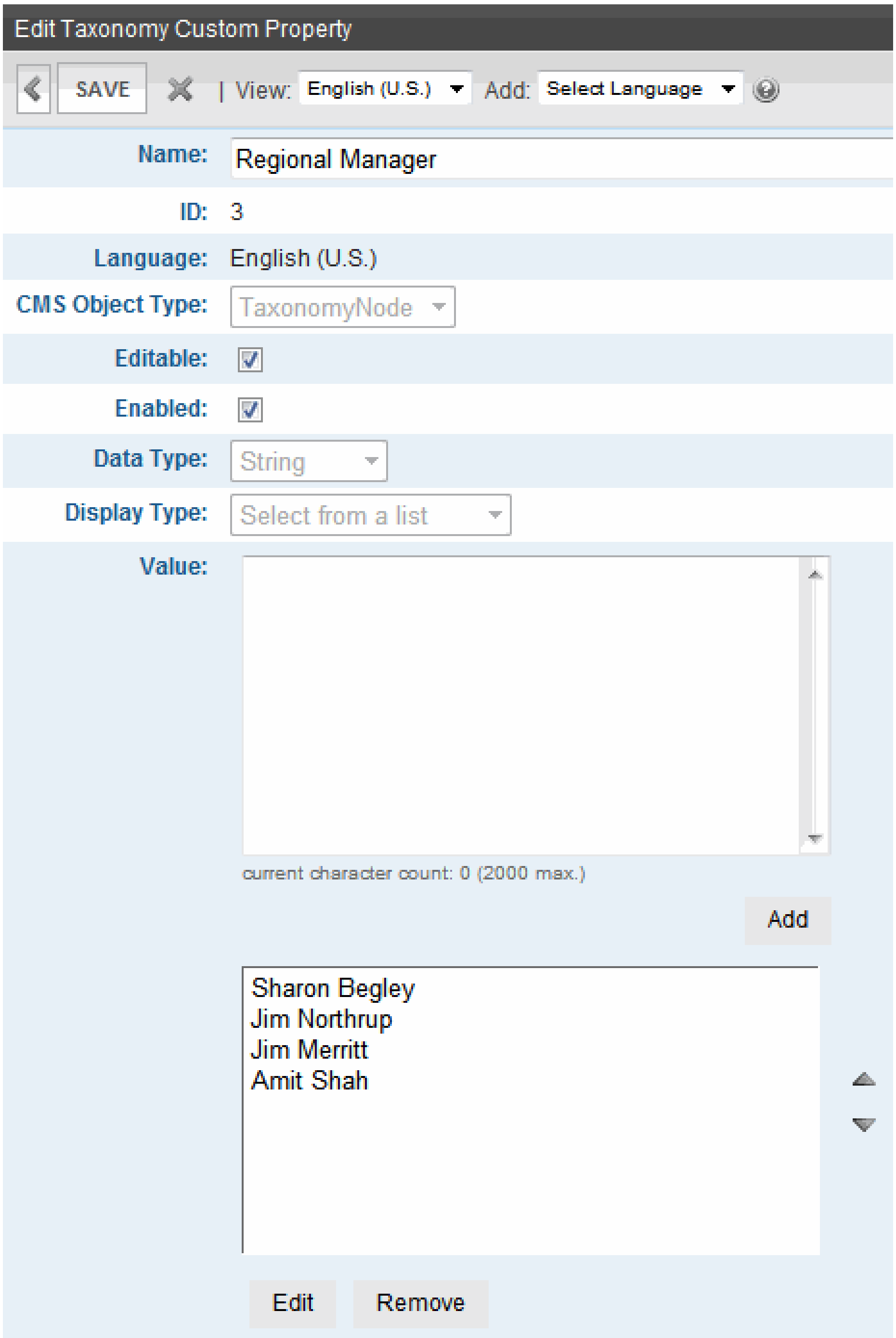
Assigning Custom Properties to a Taxonomy

Custom properties let you extend the functionality of taxonomies by creating custom fields to capture additional information. Custom properties act like metadata for taxonomies and categories.

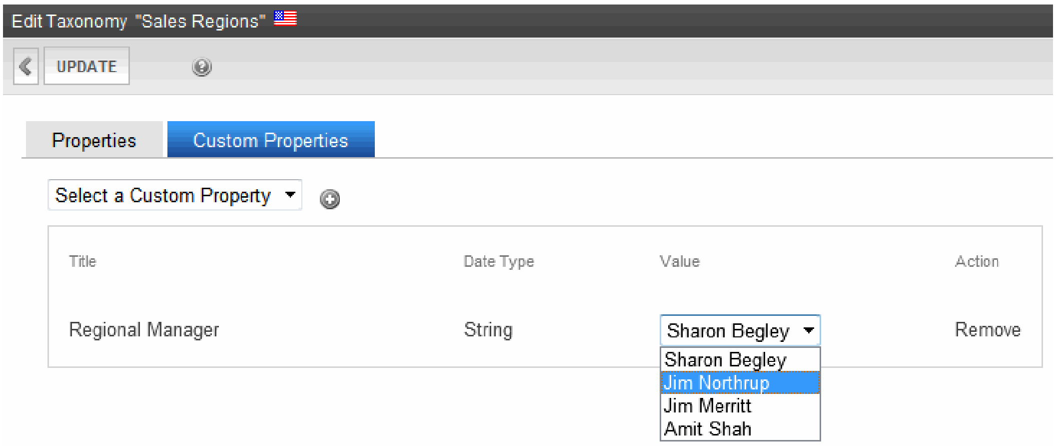
For example, your organization manages a nationwide chain of retail stores. You create a Sales Region taxonomy, where each category represents a different geographic region. Sample categories are Northeast, Southeast, Midwest (as shown below).



You could create a custom taxonomy property named `Regional Manager` and use that to create a list of regional managers.



Next, access each region, click the **Custom Properties** tab, and apply a manager to the region.

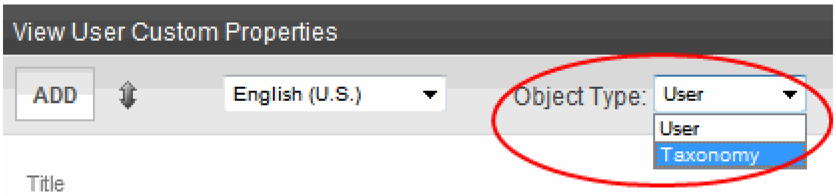


PREREQUISITE

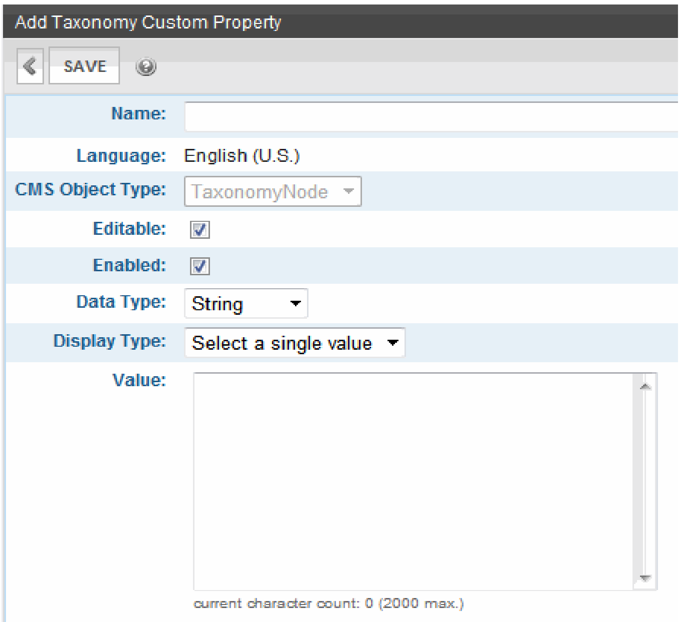
Only members of the Administrator User Group or those assigned to the taxonomy administrator role can work with custom taxonomy properties.

Creating Custom Taxonomy Properties

1. Go to the **Settings > Configuration > Custom Properties** screen.
2. Select the language of the new custom property. You will only be able to apply the custom property to taxonomies/categories in this language.
3. From the **ObjectType** pulldown, click **Taxonomy**.



4. Click **Add.** The Add Custom Property screen appears.



- **Name—**Enter the custom property name. The name identifies the custom property on the Edit Taxonomy screen's Custom Properties tab.
- **Editable—**Check this box to allow the user who is applying this custom property to choose a value or edit the default value.
- Uncheck the box if the user cannot choose or edit the value. In this case, he is only applying the property. If a property is *not* editable and has several values (type `string: select from list` or `boolean`), only the first or selected value is applied to the property.
- **Example of an Editable Custom Property**
- Assume you manage an auto parts stores and want a custom taxonomy property to indicate if a car can be repaired at a facility. You create a property named **Repair Services Available**, and make it boolean and editable. Then, the person applying that custom property to a taxonomy category can choose **Yes** or **No** to indicate if repair services are available.
- **Enabled—**Check this box if this property can be applied to a taxonomy or categories. If you uncheck this box, this property does not appear on the Edit Taxonomy screen's **Custom Properties** tab.
- **Data Type—**
  - **String**—a series of characters
  - **Boolean**—true (yes) or false (no)
  - **Numeric**—a series of numbers
  - **DateTime**—one or more dates and times selected from a calendar popup
- **Display Type/Value—**If the Data Type is String, Numeric or DateTime, you have 2 choices.

  NOTE: If the Data Type is boolean, select either **Yes** or **No**.

  - **Select a single value**—the property accepts one value
  - **Select from a list**—the property accepts several values. When you choose this option, a lower field appears.

    In the top field, insert a value then click **Add**. When you do, the value moves to the lower field. Continue until all values are entered.

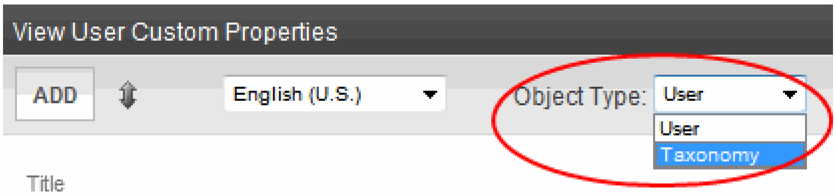
    If you want to edit the order of the values, use the up/down arrows (circled above).

    NOTE: If **Editable** is checked and you insert several values, the user applying the custom property can choose the value. If **Editable** is not checked, the first value is applied to the custom property.

5. Click **Save**.

Editing a Custom Taxonomy Property

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. Select the language of the custom property.
3. From the **ObjectType** pulldown, click **Taxonomy**.



4. Click the **Title** of the custom taxonomy property you want to edit.
5. The Edit Custom Property screen appears.
6. Move to the field you want to change. You can edit these fields:
   - Name
   - Editable
   - Enabled
   - Value

   For descriptions of these fields, see *Creating a Taxonomy* on page 780.

   NOTE: You cannot edit the **ID, Language, CMS Object Type, Data Type,** or **Display Type** fields. If you need to change these fields, delete the custom property and create a new one.

7. Click **Save**.

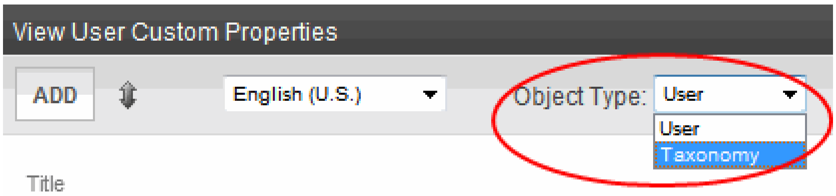
Deleting a Custom Taxonomy Property

If you delete a custom taxonomy property

- it remains assigned to all taxonomy and categories to which it is assigned
- it cannot be assigned to additional taxonomy and categories

To delete a custom taxonomy property:

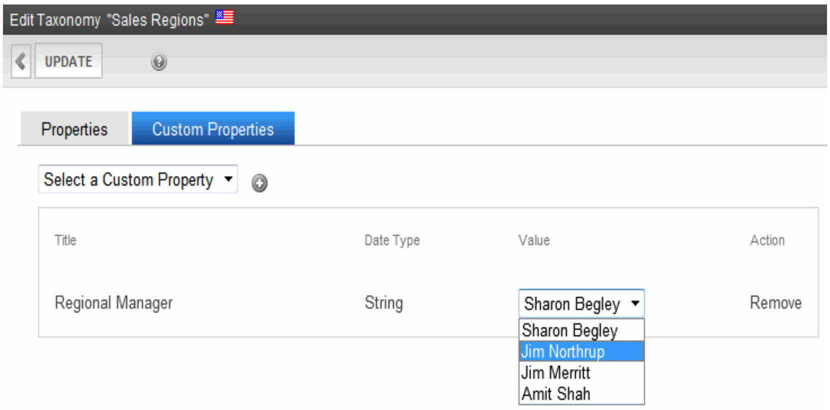
1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **ObjectType** pulldown, click **Taxonomy**.



3. Select the language of the custom property.
4. Click the **Title** of the property you want to delete.
5. Click **Delete** ( ).
6. A dialog box asks you to confirm.
7. Click **OK**.

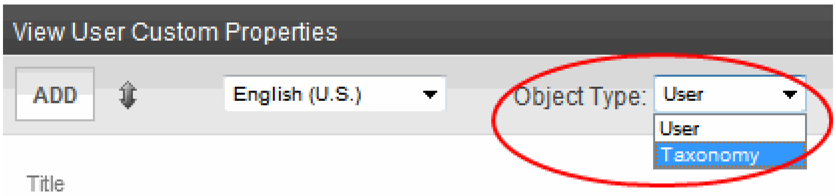
Reordering Custom Taxonomy Property Values

From the Edit Custom Property screen, you can change the order in which the values appear on the **Custom Properties** tab.

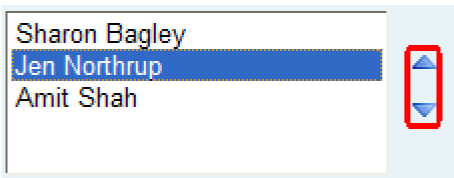


To set the order of values in a custom taxonomy property:

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **ObjectType** pulldown, click **Taxonomy**.



3. Select the language of the custom property.
4. Click the **Title** of the custom taxonomy property.
5. In the **Value** field, select item(s) to reorder.



6. Click the **Up** or **Down** arrows to move the value up or down.
7. Click **Save**.

Multiple Language Support for Custom Taxonomy Properties

Like most Ektron objects, custom taxonomy properties have a language attribute. Each taxonomy also has a language. You can apply custom properties to a taxonomy only if their languages match.

Translating a Custom Taxonomy Property into Another

Language

When creating a custom property, you select its language. See Also: *Creating Custom Taxonomy Properties* on page 810 This section describes how to save a custom taxonomy property in a different language. The new version uses the same ID number as the original language version. You can change the following fields from the original.

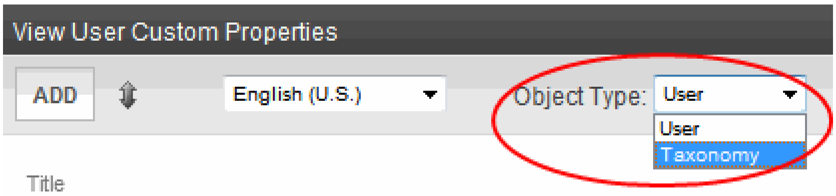
- Name
- Editable
- Enabled
- Data Type
- Display Type
- Value

For descriptions of these fields, see *Creating a Taxonomy* on page 780.

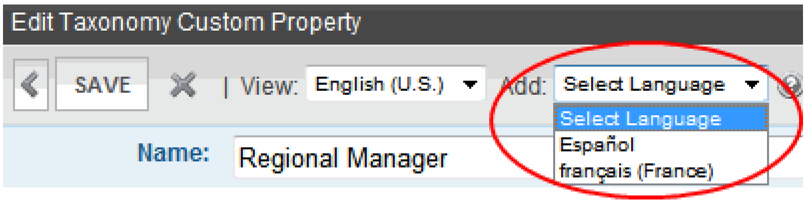
After you create the new language version, it is no longer linked to the original. For example, if you edit or delete the original language version, that does not affect the new version.

To create a custom taxonomy property in another language:

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. Select the language of the custom property.
3. From the **ObjectType** pulldown, click **TaxonomyNode** (shown below).



4. Click the **Title** of the custom taxonomy property to be created in another language.
5. From the **Add** pulldown, select the language in which you want to create the custom property.



NOTE: The **Add** drop-down shows enabled languages for which this custom property does not already exist.

6. Information from the original language property fills the screen as default values. Edit them as desired.
7. Click **Save**.

Working with Taxonomies in a Multi-Language

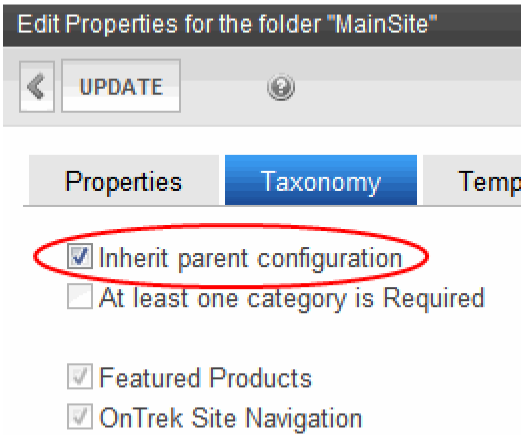
Environment

This section explains how taxonomy is supported in a multi-language environment.

Initially, all related-language versions of a taxonomy inherit properties from the original language version. For example, if you create a taxonomy in English and French is also enabled, the French Taxonomy description is the same as the English one, as are the taxonomy image, taxonomy template, value of **Display?** checkbox, and so on.

However, after the initial creation of the multiple-language versions, changes to taxonomy properties affect the current language only -- they do not affect the related-language versions.

If there are several language-related versions of a taxonomy and you select one of them then edit a folder's taxonomy properties, content in the related language inherits the taxonomy folder properties.



For example, assume you select English, then edit a folder's taxonomy properties and apply a taxonomy or categories. If you later edit French content in that folder, the corresponding French taxonomy's categories are available to be assigned via the **Category** tab.

Further, the value of the **At least one category is Required** check box is also inherited. This means that if a category must be applied to English content, it is also required for French content.

Creating a Taxonomy in a Multi-Language Environment

When you create a new taxonomy, you select a language. At that point, a version of that taxonomy is created for each enabled language.

For example, you create a taxonomy in English, and French and Spanish are also enabled (in the **Settings > Language Settings** screen). Ektron has versions of that taxonomy in English, French, and Spanish. The ID of each taxonomy is the same, but the language ID is different. You do not need to use all language versions. And, if you add categories to one language taxonomy, those categories are automatically added to the other language versions of that taxonomy.

The **Synchronize Languages** field on the taxonomy properties screen determines if all language versions are linked. If that field is checked and you assign content to the English taxonomy, content with the same id in the other languages is assigned to the French and Spanish versions.

Deleting a Taxonomy in a Multi-Language Environment

If you delete a taxonomy, all related language versions are also deleted.

Enabling or Disabling a Taxonomy in a Multi-Language Environment

If you enable a new Workarea language, a version of every taxonomy is automatically created in that language.

If you disable a language, all of its taxonomies are deleted.

See Also: *Determining Which Languages are Available* on page 1059

Assigning Content to a Multi-Language Taxonomy

Ektron supports multiple language versions of content. When applying content to a taxonomy category, you can only apply content whose language matches the taxonomy language. If that content exists in other languages, the related-language version is also applied to the related-language taxonomy if the **Synchronize Languages** field is checked on the Taxonomy Properties screen.

So, to continue the above example, assume there is a taxonomy in English and you apply content item ID=30, **Sample Content Block** to one of its categories. If that taxonomy exists in German, the content block titled Ektron **Server Kontrollen** (also ID=30) is applied to the corresponding category in the related German taxonomy.

If there is no corresponding German content, nothing is applied to the German taxonomy category.

Removing Content from a Multi-Language Taxonomy

If you remove content from a taxonomy in any language, it is removed from all language-related taxonomies.

Assigning Folders to a Multi-Language Taxonomy

When you assign a folder to a taxonomy category, you indicate that all folder content is assigned to that node. Ektron folders are language-neutral, so the folder is also applied to the corresponding taxonomy category in every language. However, only folder content that matches the taxonomy's language is assigned to the taxonomy category.

So, for example, a folder has 3 content blocks.

- English—Content in folder in language 100, 101, and 102
- German—Content in folder in language 100

If you apply that folder to a taxonomy, the English version of the taxonomy has 3 content blocks assigned, but the German version only gets one content block (ID 100).

If content is later added to the folder, new English content is assigned to the English taxonomy, and new German content is assigned to the German taxonomy.

NOTE: If you apply a folder to a taxonomy, numbers on the View Taxonomy screen indicate how many content items are applied to it. Unless you have the same number of content items in each language, this number is different for every language.

Removing Folders from a Multi-Language Taxonomy

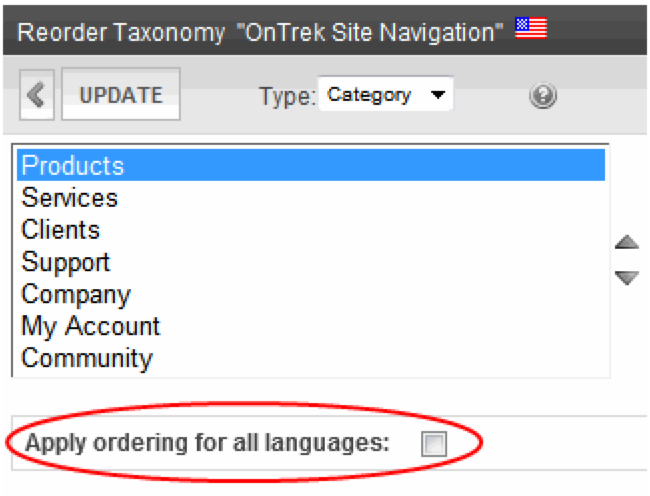
If you remove a folder from its assignment to a taxonomy or category, the content in that folder is still applied. So, you must also remove all of its content, as described in *Removing Content from a Multi-Language Taxonomy* on the previous page.

Reordering Content in a Multi-Language Taxonomy

If you reorder the content assigned to a taxonomy or category, there is no change to corresponding categories in other languages. This is because there is no guarantee that content that exists in one language exists in the other languages.

Reordering Categories in a Multi-Language Taxonomy

If you reorder categories assigned to a taxonomy or category, you have the option of applying the changes to all language-related categories.



Using Taxonomies with Social Networking

If you have a community or social networking website, you can assign users and community groups to a taxonomy. This allows site visitors to search for users and groups by category.

To enable a taxonomy-based search of users and community groups, a developer uses the following server controls on your site.

- **CommunityGroupBrowser control**—lets a site visitor browse a taxonomy category for community groups

See Also:

- *Managing Community Groups* on page 1181
- *Assigning a Taxonomy or Categories to a Community Group* on page 792

20

Using Breadcrumbs

A Breadcrumb displays a path to the current page, providing another type of site navigation.

Sitemap versus History Breadcrumbs

Ektron provides 2 kinds of breadcrumbs.

- **Sitemap**—Displays a path to the current page, like the path shown in a Yahoo! directory listing. Sitemap breadcrumbs always show the same path to a page, regardless of how it was reached. You can also use sitemap breadcrumb information to deploy a site map.

  Since you determine the organization of a sitemap breadcrumb, you must define the trail in the Workarea. To do that, see *Creating Sitemap Breadcrumbs* below. To learn how to place a sitemap breadcrumb on a template, see *FolderBreadcrumb* on page 1736server control.

- **History**—More accurately fulfilling the breadcrumb metaphor, history breadcrumbs display a trail of recently-visited pages. Site visitors can click a link in a history breadcrumb to jump to that page. For example, **Products > Monitors > Flat Panel** shows that you arrived at the current page by clicking **Products**, then **Monitors**, then **Flat Panel**.

  A history breadcrumb requires no setup in the Workarea. To place a history breadcrumb on a Web page, see *BreadCrumb* on page 1664 server control.

Creating Sitemap Breadcrumbs

The following topics explain how to create and manage Sitemap Breadcrumbs in the Workarea.

Inheritance and Breadcrumbs

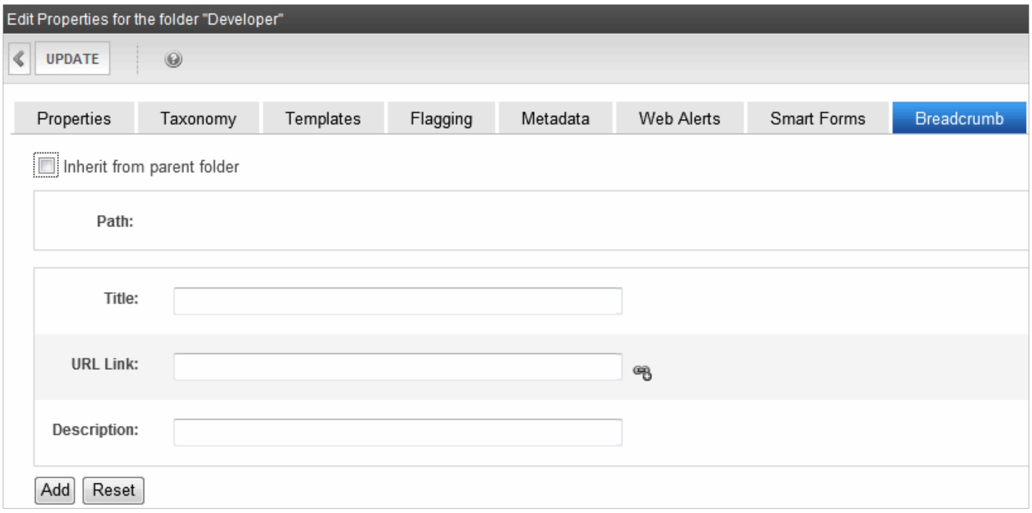
A folder can inherit a sitemap breadcrumb path from its parent, or you can break inheritance and assign it a unique path. Use the Folder Properties screen Breadcrumb tab’s **Inherit Parent Configuration** checkbox to retain or break inheritance.

Adding a Breadcrumb Trail

PREREQUISITE

Determine which topics should appear on a Sitemap Breadcrumb trail for content in a folder. A trail typically consists of topics that introduce a folder's content, but you can create any sequence that makes sense. For example, on a university website, content that describes the women's swimming team has this trail: **Home > Athletics > Women's Athletics > Swimming**.

1. Navigate to the folder for which you want to add the breadcrumbs.
2. Click **View > Properties**.
3. Select the language of the breadcrumbs. You must set up a separate breadcrumb path for every language for which you want to support breadcrumbs.
4. Click **Edit Properties**.
5. Click the **Breadcrumb** tab. The Edit Breadcrumbs screen appears.



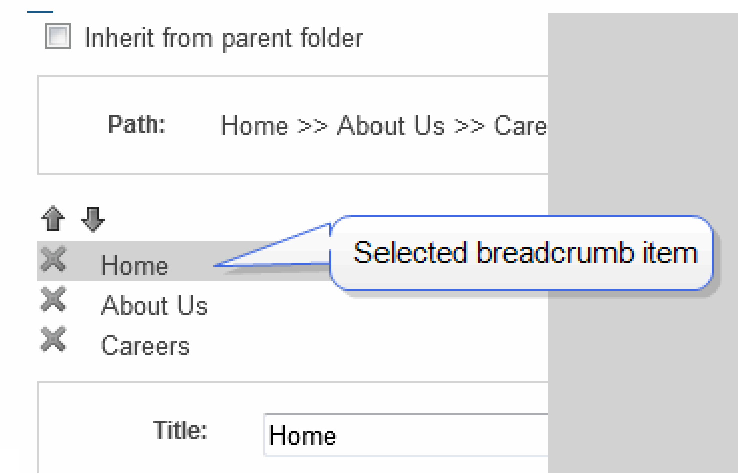
6. If desired, uncheck the **Inherit from parent folder** box.
7. Add the following information.
   - **Title**—the breadcrumb name as you want it to appear in the breadcrumb trail
   - **URL Link**—the URL path to the breadcrumb’s destination, typically an Ektron content item.
     - If you are not sure of the file path, click **Select quicklink** ( ) and select the breadcrumb's content item. Only content in the language selected in Step 3 is available. Alternatively, you can enter a URL, for example, `www.example.com`.
     - You typically enter items in the sequence in which you want them to appear in the breadcrumb trail. If you do not, you can easily change the sequence of items on this screen. See Also: *Reordering Breadcrumb Items* below
   - **Description**—add a description for the breadcrumb
8. Click **Add**. The first item in the breadcrumb path appears.
9. Repeat steps 6 and 7 for each item in the breadcrumb path.
10. Click **Update**.

Reordering Breadcrumb Items

1. Navigate to the folder for which you want to reorder breadcrumbs.
2. On the View Contents of Folder screen, click **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Breadcrumb** tab. The Edit Breadcrumbs screen appears.

5. Click a breadcrumb item.

WARNING! Clicking the Remove button deletes the breadcrumb item. See Also: *Removing a Breadcrumb Item* on the facing page

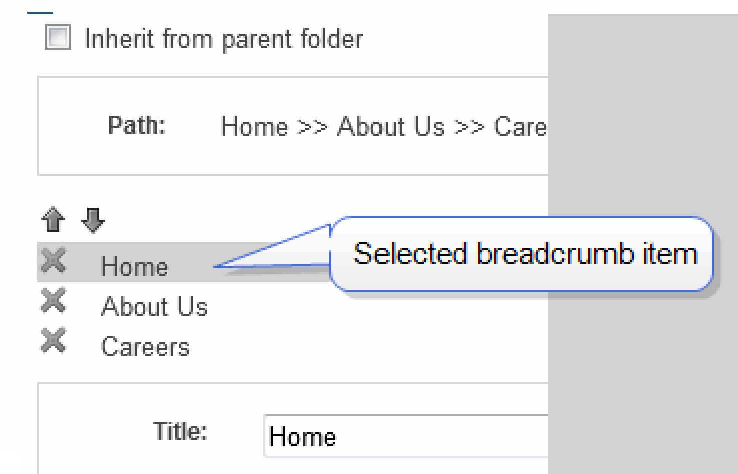


6. Click up and down arrows to move the item.
7. Click **Update**.

Editing a Breadcrumb Item

1. Navigate to the folder for which you want to edit breadcrumbs.
2. On the View Contents of Folder screen, click **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Breadcrumb** tab. The Edit Breadcrumbs screen appears.
5. Click a breadcrumb item.

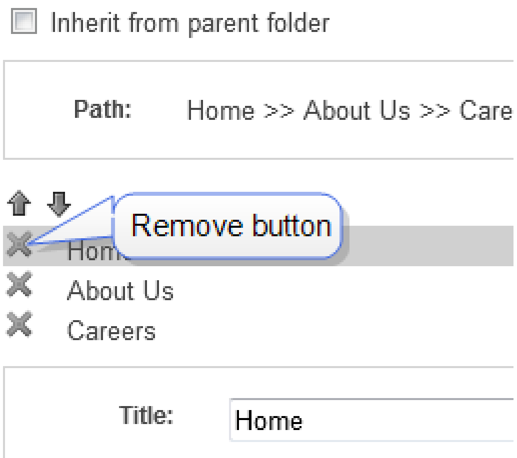
WARNING! Clicking the Remove button deletes the breadcrumb item. See Also: *Removing a Breadcrumb Item* on the facing page.



7. Edit the **Title**, **URL Link**, and **Description** information.
8. Click **Update**.

Removing a Breadcrumb Item

1. Navigate to the folder for which you want to remove a breadcrumb.
2. On the View Contents of Folder screen, click **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Breadcrumb** tab. The Edit Breadcrumbs screen appears.
5. Click **Remove** ( ) next to the breadcrumb item you want to remove.



6. Click **Update**.

Using a Folder Breadcrumb Server Control

Add the Folder Breadcrumb server control to each Web form for which you want to create a breadcrumb site map. For information about the control, see *FolderBreadcrumb* on page 1736.

Follow these steps to use a Folder Breadcrumb server control.

1. In the Workarea, define breadcrumb information for a folder. See Also: *Adding a Breadcrumb Trail* on page 820
2. Open a Web form for which you want to create a site map.
3. Drag and drop the Folder Breadcrumb server control onto the Web form.
4. Set the `DefaultContentID` or `DefaultFolderID` property. If you use `DefaultContentID`, make sure the content is in a folder for which breadcrumb information is defined. If you use `DefaultFolderID`, make sure breadcrumb information is defined for that folder.
5. Save the Web form.
6. Open a browser.

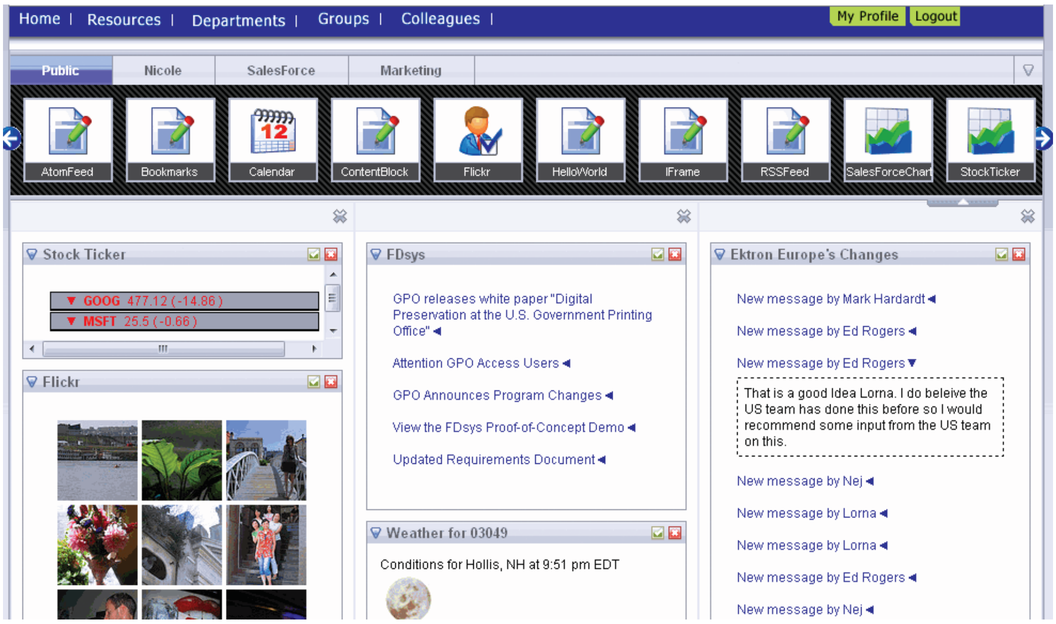
7. View a Web page that hosts the control to view the breadcrumb trail.

Personalizing a Web Page

Personalization is an integral part of websites like iGoogle and Facebook, and organizations see personalization as a way to make their sites "stickier" and more engaging. Ektron provides a framework on which to easily build personalized portals. Ektron's portal functionality lets you create a more interactive, engaging experience by giving power to the user.

Your site becomes their site when membership users can personalize their experience by adding widgets, application, and feeds, choosing and organizing content on their digital dashboard. For example, a manager can use widgets to access information about the team. An HR representative can update job postings through a widget instead of navigating to the company's careers site. Building personalization into your intranet empowers employees with customization that fits their work and personal life.

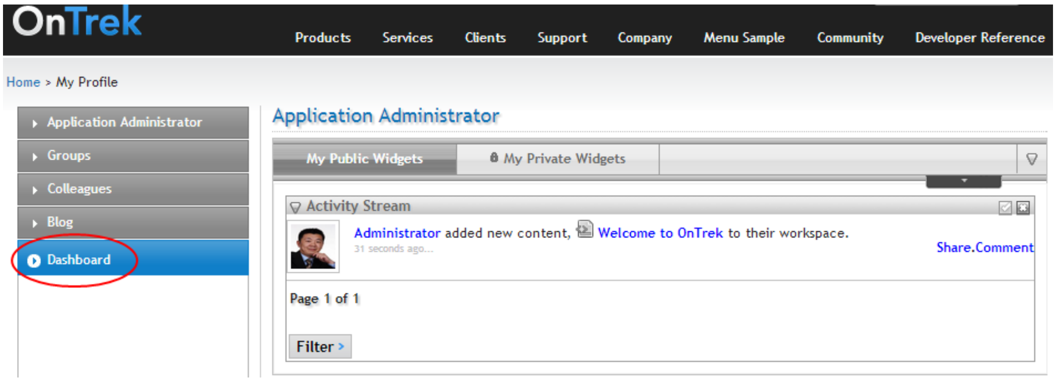
Widgets have many functions such as photos, local weather, news, a personal work calendar, a sales time line and tracker, or a feed to a discussion board about a new product release, and so on. See Also: *Widget Reference* on page 714.



You can create individual and group personalization pages.

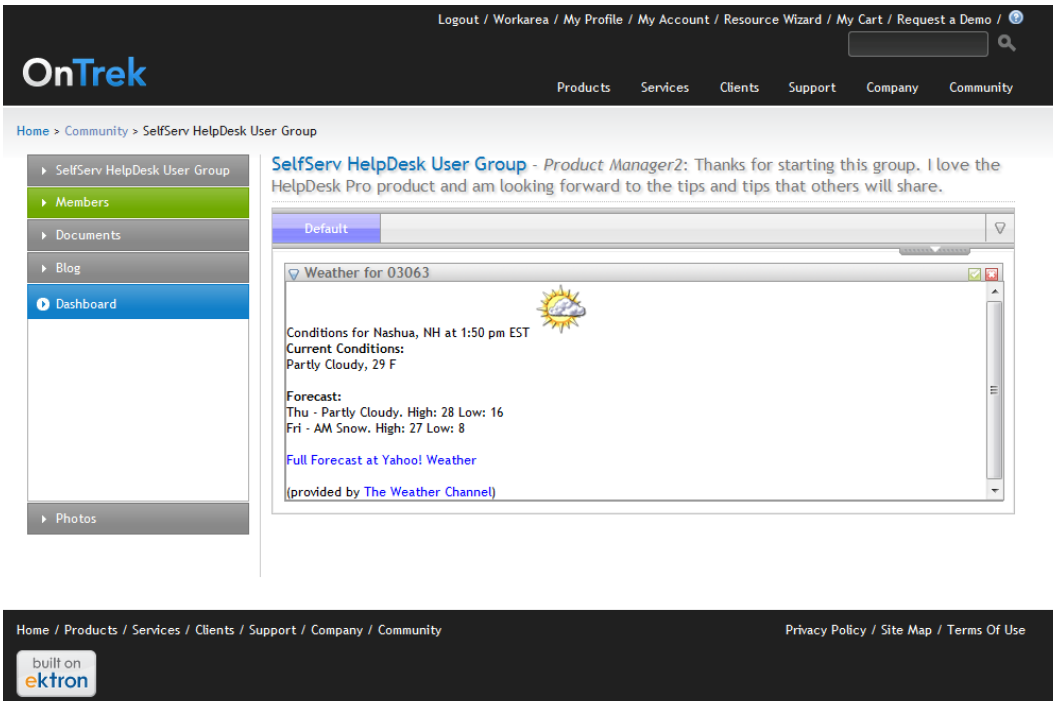
- An *individual* personalization page is used by a membership user or an Ektron user to personalize a page on your website. If a tab is *private*, only that user can view and edit it. If the tab is *public*, anyone can view it but only the signed-in user can create and edit the content.

  OnTrek site > Login > My Profile > Dashboard



- A *group* personalization page is used by group members to set up a portal page that addresses that group's needs. Any group member can view and create or edit the page's content. If a tab on a group page is *private*, only group members can view and create or edit it. If the tab is *public*, anyone can view it but only the group members can create and edit the content.

  OnTrek site > Login > Community > Community Groups > SelfServ HelpDesk User Group > Dashboard

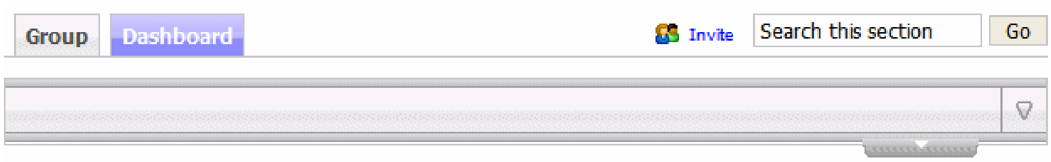


Using a Personalization Page

To access a personalization page, a membership user logs in then clicks **My profile > Dashboard**.

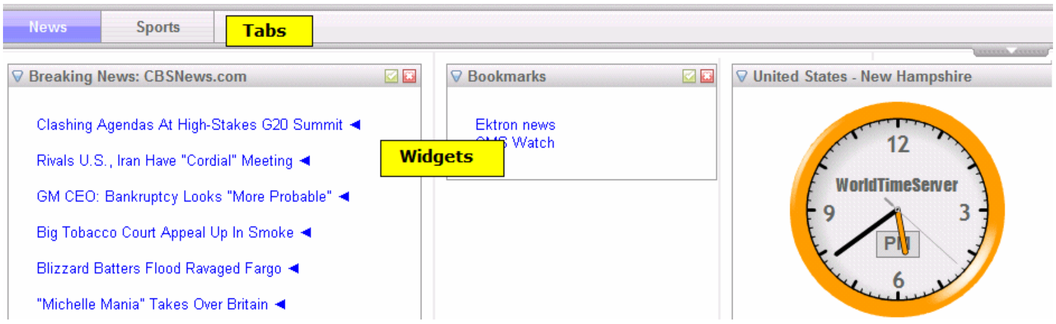
Individual page

Group page



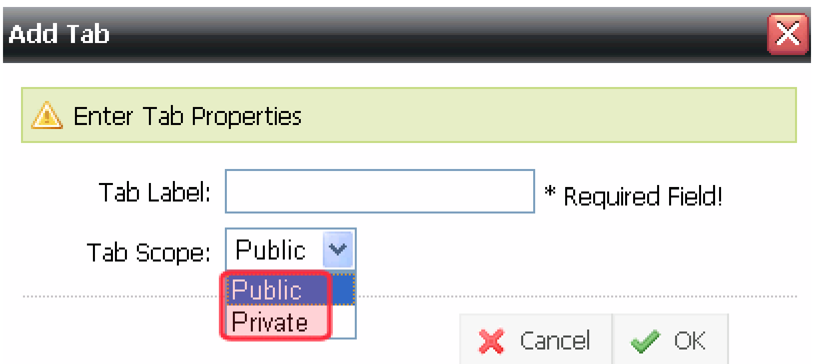
Adding a Tab

On an Ektron website, you can create and add tabs to organize content by subject. Tabbed content can be public or private. For example, a tab that displays personal financial information can be private, so only you can see it. Each tab can have multiple columns, to further customize the view.



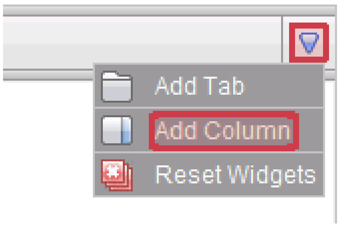
You add a tab by clicking the down arrow choosing **Add Tab** from the menu. You decide if the tab is *public* or *private*.

- Any logged-in user can see a user's *public* tab by visiting his or her profile and clicking **Dashboard**.
- A *private* tab is visible only to the user who created it.



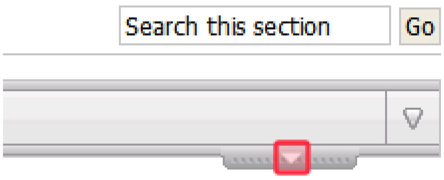
Adding a Column

You must add at least one column by clicking the down arrow and choosing **Add Column**.



Adding Widgets

Open the widget tray and select the widgets you want and place them on the page.



The selection of widgets that are available was determined when the widget space was created. See *Creating an Individual Personalization Page* below

Creating an Individual Personalization Page

The following sections show you how to create a personalization page from scratch. After you create a page, place a link to it on your site. Then, any authenticated membership user can use the page to create a personal portal.

Widget Spaces

A *widget space* declares which widgets a user or community group member can drop on a personalization page. Widgets appear in the personalization screen's widget tray when a membership user is personalizing a pageYou can create and modify these types of widget spaces:

- **User space**— widgets that can be applied to a user's profile.
- **Group space**—widgets that can be applied to a community group. See Also: *Creating a Group Personalization Page* on page 833

  For example, NASCAR community group members are allowed to place only weather and news feed widgets onto the group's personalization page. In this case, you would:

  1. Create a widget space.
  2. Select only weather and news feed widgets.
  3. Sign on to Visual Studio to create the .aspx page.
  4. Place a Personalization user control onto the page.
  5. In the control's `widgetspaceID` property, identify the widget space you created in Step 1.

NOTE: Another type of widget space, *Workarea Dashboard*, determines which widgets are available to users when customizing their Smart Desktop.

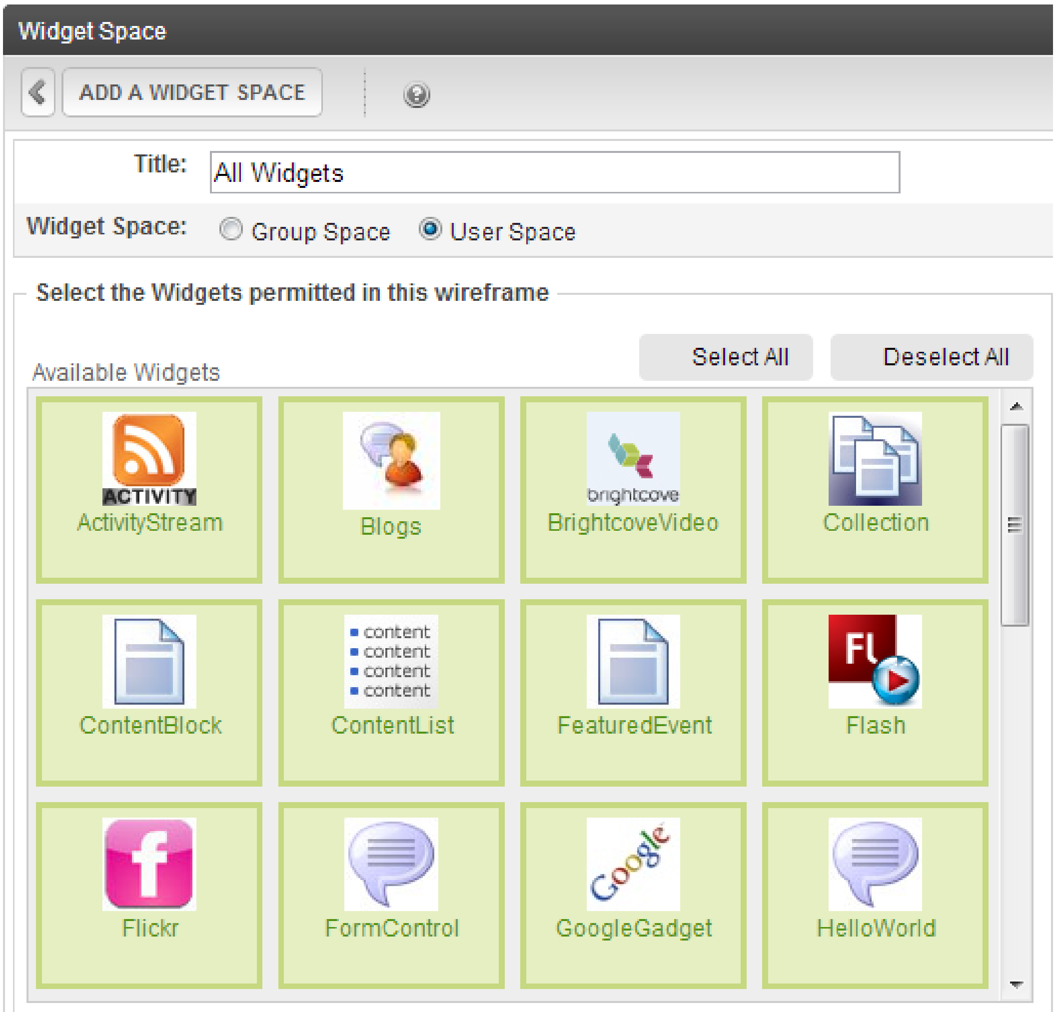
Creating a Personalization Page

PREREQUISITE

To access this screen, you must be a member of the Administrators group

1. Go to **Workarea > Settings > Configuration > Personalizations > Widgets**. See Also: *Widget Reference* on page 714
2. Click the **Synchronize Widgets from the *Website*/Widgets Folder** button make sure all widgets are available.
3. Go to **Settings > Configuration > Personalizations > Widget Space**.
4. Click **Add a Widget Space**.
5. Enter a **Title**.
6. Click **Group Space** if this widget space will be used for a community group personalization page.

   Click **User Space** if this widget space will be used for a user's personalization page.
7. Select widgets that authorized users will be able to place onto a page.



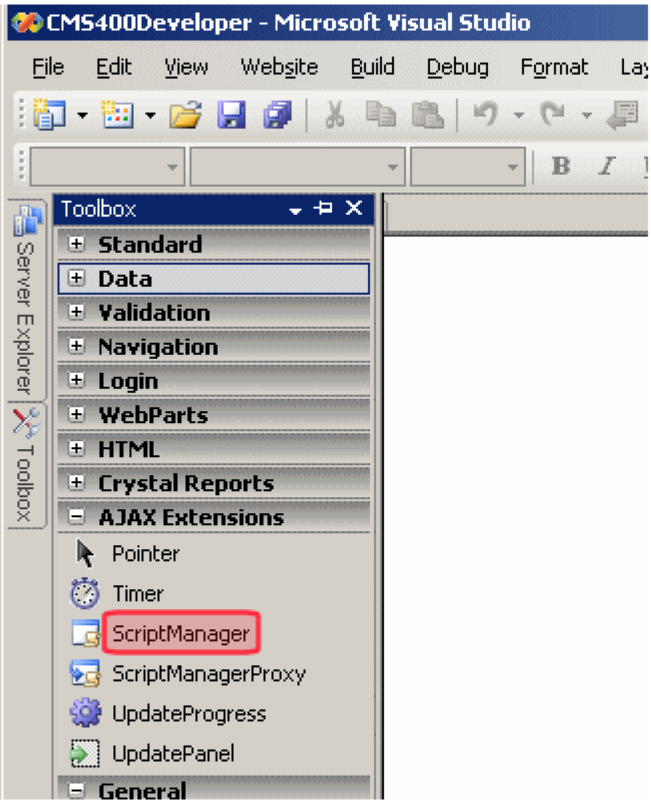
As you select a widget, its background color change

8. Click **Add a Widget Space**.

IMPORTANT: Remember your widget space's ID number. You need it when setting up the Personalization user control.

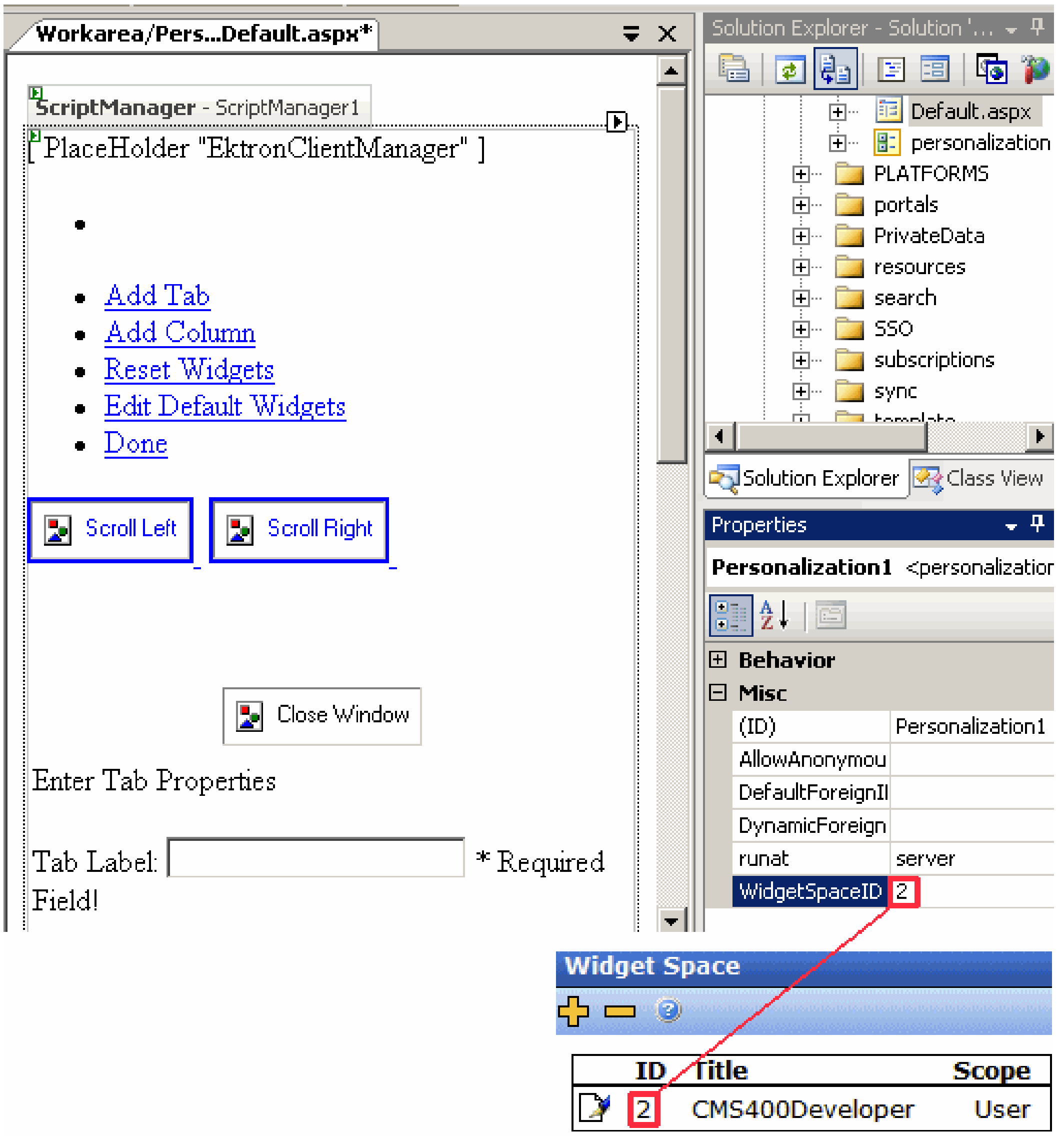
NOTE: The rest of this procedure explains how to create a personal portal for a membership user. To learn how to create a portal for a community group, see *Creating a Group Personalization Page* on page 833.

9. Open Visual Studio.
10. Create a new Web Form.
11. Switch to design view.
12. From the Toolbox, drag and drop an **Ajax Extensions > Script Manager** control.



NOTE: If you do not see a Script Manager control, install the Microsoft AJAX Library 3.5. To do this, go to Microsoft ASP.net Download.

13. In the Visual Studio folder browser, open the `workarea/personalization/` folder.
14. Drag and drop a Personalization user control (`personalization.ascx`).
15. Set the control's `widgetspaceid` property to the ID number of the widget space you added in Step 8.



16. Save the Web Form.
17. Your page should redirect the user to the personalization page, or use an ASP.NET panel to verify that user is authenticated. Here is sample code:

NOTE: The asp.net panels are implemented in eIntranet and Ektron Tech site.

Aspx.cs

```
// To check if user is logged in or not
Ektron.Cms.CommonApi IsUserLoggedIn = new Ektron.Cms.CommonApi();
if (IsUserLoggedIn.IsLoggedIn)
{
Response.Redirect("dashboard.aspx");
Or
pnlDashboard.Visible= true;
}
Else
{
pnlDashboard.Visible=false;
}
```

Aspx

```
<asp:Panel ID="pnlDashboard" runat="server" Visible="False">
<asp:ScriptManager ID="ScriptManager1" runat="server"
  EnablePartialRendering="true">
</asp:ScriptManager>
<ucEktron:Personalization ID="widgetSpace" WidgetSpaceID="1"
  DynamicForeignIDParameter="id" runat="server" />
</asp:Panel>
```

18. The Synchronize Widgets screen helps you synchronize widgets in your website's `siteroot/widgets` folder with those in your Workarea. If you need to make them available within the Workarea, click **Synchronize Widgets from the *Website*/Widgets Folder**.

    The Synchronize Widgets screen also lets you edit widgets by clicking the corresponding **Edit** button ( ). For most widgets, you can change only the title and label. However, you can change a few widgets' properties. For example, you can enter or update properties of the Brightcove video widget.

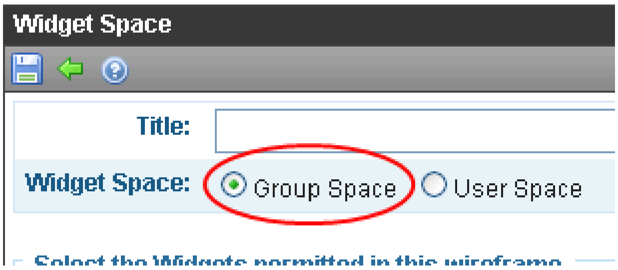
    After you click the button, you see new widgets on this screen and other Workarea screens that let you select widgets. Conversely, clicking this button removes any widgets that you delete from the `siteroot/widgets` folder.

Creating a Group Personalization Page

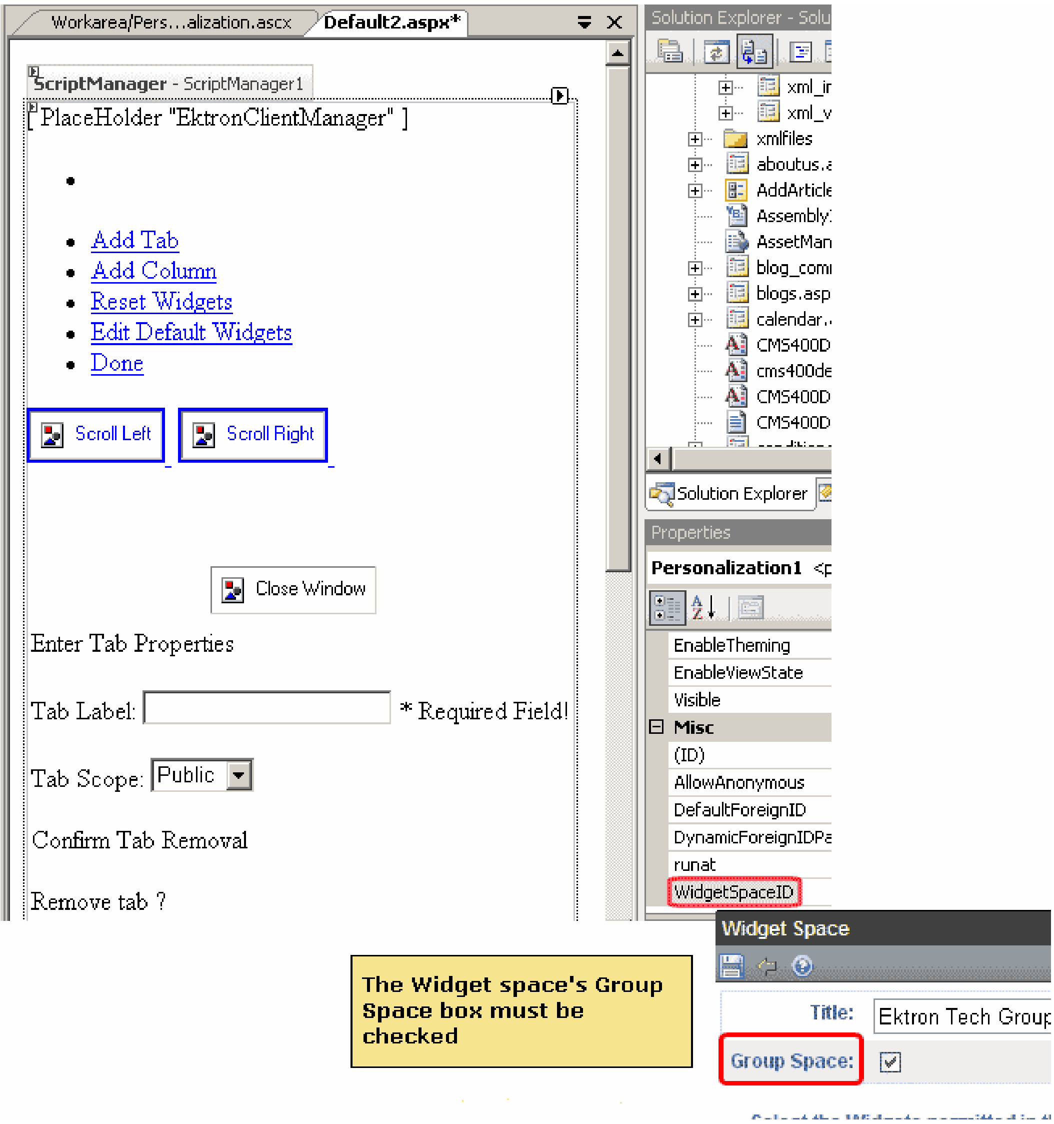
A community group personalization page is similar to an individual page. It lets group members customize a page's content by placing widgets.

To create a community group personalization page, follow the instructions in *Creating an Individual Personalization Page* on page 829, with the following differences.

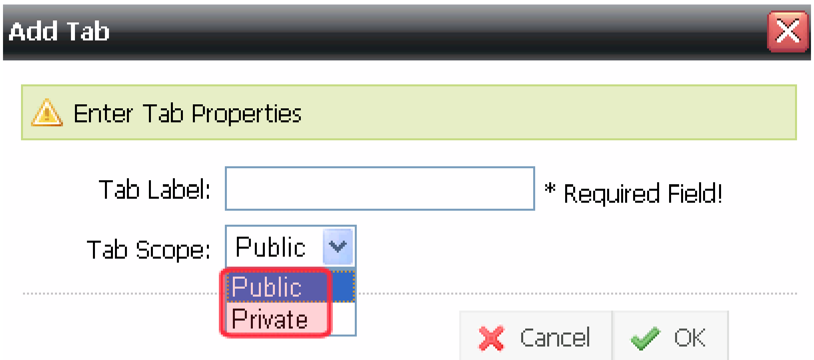
- When creating a widget space, check the **Group Space** radio button.



- When a developer creates an .aspx page and drops a personalization control, the selected widget space must be one whose **Group Space** box is checked.



- A private tab is visible only to *group* members.



22

Creating User-Friendly URLs with Aliasing

Ektron's URL aliasing makes it easy to create descriptive, meaningful and SEO-friendly URL aliases consistently, maximizing your website's placement in search results. Use of words and phrases that actually define the page increases an aliases' search engine rankings. If you follow a pattern, you can scale your aliases across your sites as they grow. Search engines find URL aliases generated by Ektron. Ektron caches aliases to improve performance of your site.

If you have a static website (for example, all HTML pages) that is indexed in a search engine, create aliases for your site and retain complete content management without affecting your search engine ranking.

If you have a PHP site, alias PHP pages and use the same query string names to pass needed information to the new .aspx pages.

NOTE: Query strings appended to an aliased page pass to the .aspx page and may be used if necessary.

Existing sites migrate easily to Ektron, adopting the new aliasing scheme. Aliasing keeps old links valid and you do not have to make changes to `web.config`. When URL aliasing is configured and enabled, content inherits the new aliasing structure.

The following link, Creating User-friendly URLs with Aliasing, is a video that explains the various types of URL aliases.

Types of URL Aliasing

- **Manual URL Alias**—give a content block a unique name. You can assign several manual aliases to content then decide which one is the primary alias. If multiple alias types are provided for a content item, you can enter any alias into the browser address field to access that content. See *Creating a Manual URL Alias* on page 845.
- **Automatic URL Alias**—create rules to be applied to the following types of CMS entities. When you add content to any of the following types, it inherits the URL alias rules. See *Creating Automatic URL Alias Rules* on page 849.
  - **Taxonomy**—create an alias that is based on the taxonomy in your CMS by using the levels of the taxonomy plus the title of the page. Because the alias is based on taxonomy, you can have multiple aliases that have relevancy to multiple search criteria.
  - **Folder**—create an alias that is based on the CMS folder structure. Descriptive folder names and a well-organized folder structure makes a URL more relevant to the content's actual location.
  - **User**—create an alias using the name of a user in the URL. For example, a friendly URL for Steve's profile page can be `www.example.com/steve`.
  - **Group**—create an alias using the name of a group to help make community pages within your Ektron website easy to remember and find. For example, a friendly URL for car enthusiasts would be `www.example.com/cars`.
- **Regular Expressions** (**RegEx**)—create a URL match pattern that can redirect or transform a range of URLs with a single setting. See *Creating RegEx Expressions* on page 854.
- **Site Alias**—lets an existing site URL have more than one URL for the same site. For example, if your company's name just changed from *Bionics* to *NewGen*, (and the site is essentially intact), you can use site aliasing so your customers can get to the same site

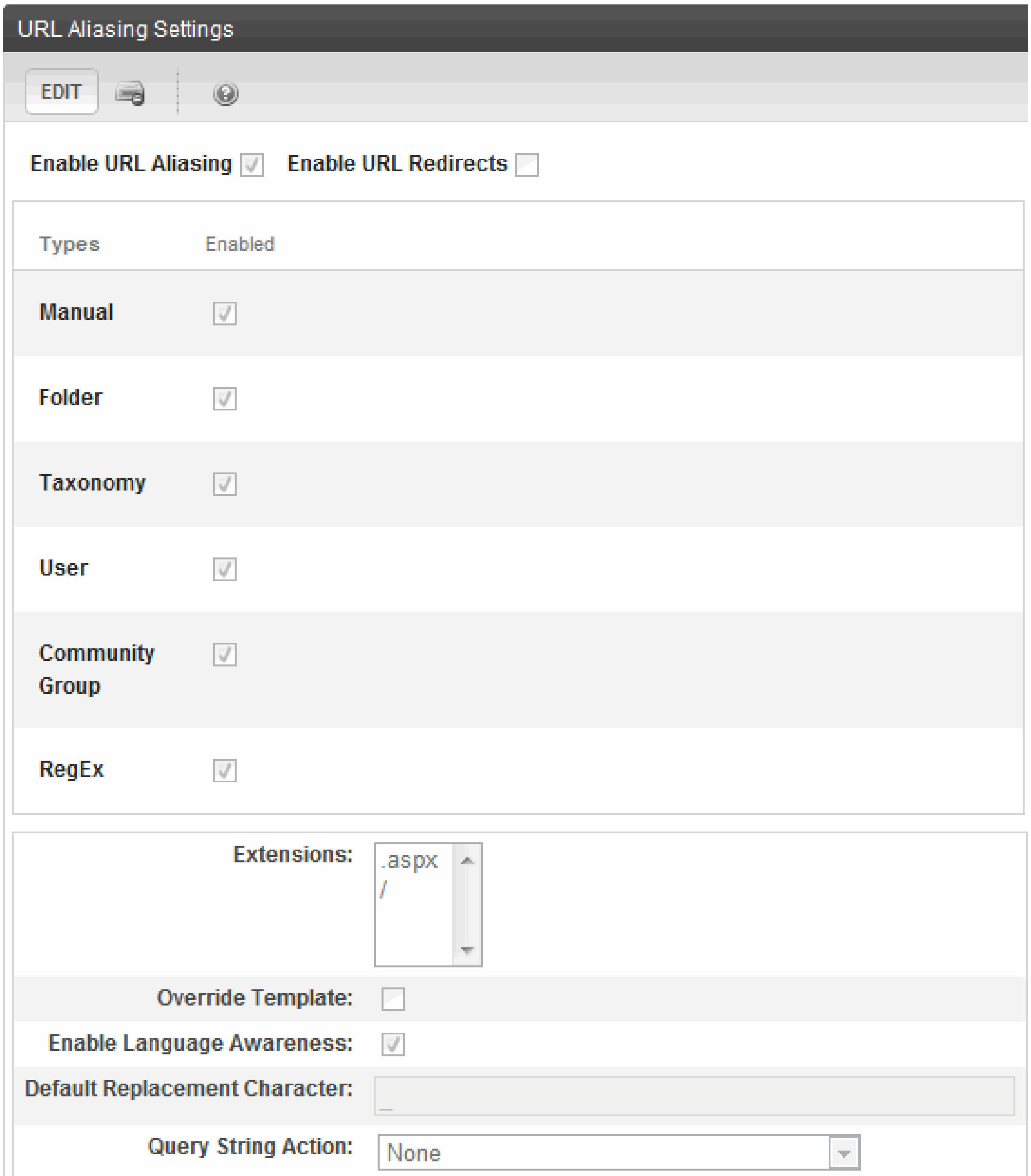
content from the old `www.bionics.com` address and the new `www.newgen.com` address. See *Creating a URL Alias for a Site* on page 856.

- **URL Redirect Alias**—lets a link to an old URL find the new or changed URL that you want. You use this alias when you need to add, change, or modify an existing URL. See *Creating a URL Redirect* on page 858.

Configuring URL Aliasing

Before you can set up aliases, you must enable the feature using the URL Aliasing Settings screen. Choose **Workarea > Settings > Configuration > URL Aliasing > Settings**. Then, click **Edit**.

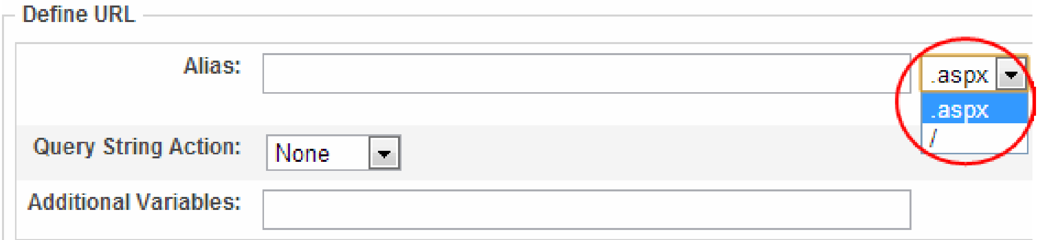
IMPORTANT: If you performed a database sync and the site being synched uses URL aliasing, you must go to its URL Aliasing Settings screen and click **Clear Cache** () to update its aliasing information. Also, If you enable or disable any alias type or caching, you must run a full crawl of your Search Server. See Also: *Managing the Search Crawl* on page 931



- **Enable URL Aliasing**—let CMS users with permissions create URL aliases.
- **Enable URL Redirects**—let CMS users with permissions create redirected URLs (for example, 301 redirects). See *Creating a URL Redirect* on page 858.
- **Manual**—enable manual aliasing. See *Creating a Manual URL Alias* on page 845.
- **Folder**—allow automatic folder aliases to be generated.
- **Taxonomy**—allow automatic taxonomy aliases to be generated.
- **User**—allow automatic user aliases to be generated.
- **Community Group**—allow automatic community group aliases to be generated.
- **RegEx**—allow RegEx aliases to be generated.
- **Extensions**—Enter file extensions of pages for which aliases can be created and click **Add**. Begin each extension with a period (.). By default, Ektron supplies the following extensions (which cannot be removed).
  - .aspx
  - / (the slash is actually the lack of an extension at the end of a page's name)

  Do not add any extension entered into the Handler Mapping list. See *Restrictions on Extensions* on page 842

  The values in this field appear as drop-downs in the Add a New Manual Alias and Add a New Automatic Alias screens.

  See Also: *Defining Unusual File Extensions Used in Aliasing* on page 881

- **Override Template**—A template and an alias can have the same name, for example, `www.example.com/dynamic.aspx`. If this happens, and a site visitor types such an address into the browser, this check box determines if the template page or the alias appears. If this box is checked, the alias appears instead of the template.

  NOTE: The template must be defined within the **Workarea Settings > Template Configuration** screen.

- **Enable Language Awareness**—
  - Off (unchecked)—
    - URL exists in the site visitor's current language: show target.
    - URL does not exist in site visitor's current language: 404 File Not Found appears.
  - On (checked)—
    - URL exists in the site visitor's current language: show target.
    - URL does not exist in site visitor's current language:
      - If the URL exists in a language listed in the language fallback chain: show target. (See *Setting the Fallback Locale* on page 1069.)

  - If the URL does not exist in the language fallback chain, but does exist in the site default: show target.
  - If the URL does not exist in the language fallback chain, and does not exist in the site default, but exists as an alias in any language: get the first URL match and show target.
  - If the URL does not exist in the language fallback chain, and does not exist in the site default, and does not exist as an alias in any language: 404 File Not Found appears.
- **Default Replacement Character**—replace spaces in taxonomy, folder, group or user path names with a default character (such as underscore, _). You can specify replacement characters for other characters in the Replacement Character Map on the Add Aliasing Rule screen.
- **Query String Action**—Set up a rule to handle an alias's query string parameters. You can set one rule for your entire site (via this field), and separate ones that override the system-wide rule for specific manual aliases (using the Aliases screen). The following options are available.
  - **None**—If an aliased URL has a query string, it is ignored. Any query string on the target URL is used.
  - **Replace All Parameters within Alias**—replaces a target's query parameters with the alias' s query parameter. Example:

    ```
    alias's query string parameter:
    http://www.ektron.com/Contact.aspx?id=84
    Target: http://www.ektron.com/aboutus.aspx?id=35&Userid=1
    Result: http://www.ektron.com/aboutus.aspx?id=84
    ```

    (The target parameters `id=35&Userid=1` are replaced by the alias parameter `id=84`)
  - **Append Parameters to Alias**—appends the alias's parameters to the target URL. Example:

    ```
    Alias: http://www.ektron.com/Contact.aspx?id=84&lang=1033
    Target: http://www.ektron.com/aboutus.aspx?id=35&Userid=1
    Result: http://www.ektron.com/aboutus.aspx?id=35&Userid=1
      & id=84&lang=1033
    ```

    (The parameter from the alias is appended to the target)
  - **Resolve Matched Parameters within Alias**—Ektron tries to resolve matching parameters (it is case sensitive). If a match is found, the alias's query string parameter takes precedence. Example:

    ```
    alias's query string parameter:
    http://www.example.com/Contact.aspx?id=84
    Target: http://www.example.com/aboutus.aspx?id=35&UserId=10
    Result: http://www.example.com/aboutus.aspx?id=84&UserId=10
    ```

    (`id=35` is replaced by `id=84` since it matched the query string parameter. `UserId=10` was not affected because it did not match the alias query string parameter.)

Setting Default Documents for URLs

You can set the default document file (for example, `default.aspx`) in the `ek_DefaultPage` element of *siteroot*/web.config for client requests of a website that did not specify a document name. For example, if someone types `www.example.com/jobs`, and the default document is `default.aspx`, this URL resolves to `www.example.com/jobs/default.aspx`.

NOTE: The concept of default document is explained in the following Microsoft KB article: Configure the List of Default Documents in IIS 7

The `ek_DefaultPage` element determines your website's default document regardless of whether you are using URL aliasing.

If a site visitor enters an address without a page name, Ektron refers to `ek_DefaultPage`'s values. For example, the first page is `default.aspx`. If found, that page displays. If not, it looks for the second page listed, and so on. If no pages are found or a page is not specified in `ek_DefaultPage`, **Page not found** appears in browser.

Permissions for Working with URL Aliasing

- Alias-Admin privileges apply to members of the CMS Administrators group and CMS users with the Alias Administrator role.
- Alias-Author privileges apply to any CMS user with the Alias Author role.
- CMS User privileges apply to users that do not have the Alias-Author or Alias Administrators role applied.

NOTE: By default the Alias-Author role is applied to the *Everyone* group. This role can however be removed to further restrict the permissions to the CMS User state.

Task	Alias-Admin	Alias-Author	CMS User
View Settings Page	✓		
Edit Settings	✓		
View Rule List Pages	✓	✓	✓
View Rule	✓	✓	✓
Edit Rules	✓		
View Alias List Page	✓	✓	✓
View alias	✓	✓	✓

Task	Alias-Admin	Alias-Author	CMS User
Add Aliases	✓	✓	
Edit Alias	✓		
Delete Alias	✓	✓	
View Redirects Page	✓	✓	✓
Edit Redirects Page	✓		
View Alias on content tab	✓	✓	✓
Edit Alias on content tab	✓	✓	

Where Aliasing Cannot Be Applied

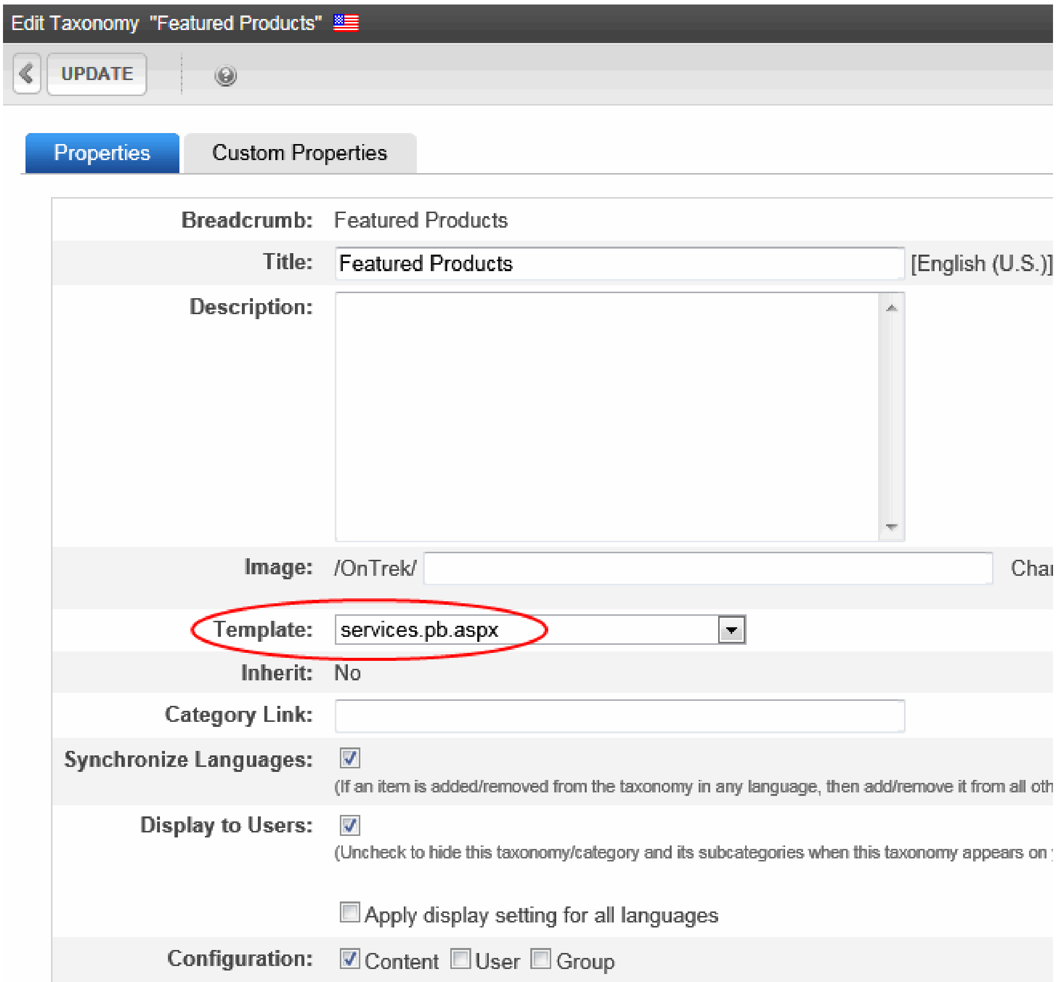
IMPORTANT: After you enable Aliasing, relative links embedded in your Web pages that are not preceded by a slash (/) may demonstrate symptoms such as runtime error notifications, broken images (you see a red X where the image should be), or missing text styling. The following Ektron Knowledge Base article analyzes this problem and presents solutions: Avoiding Style Problems, JavaScript Errors, and Broken Images When Using URL Aliasing.

You cannot apply aliasing to the following areas of Ektron.

- images
- content in root folder (cannot be automatically aliased, although you can alias it manually and by taxonomy)
- forums (discussion boards) (links within forum posts can be aliased)
- forms/polls/surveys—the form is aliased but the postback screen is not (for a workaround, see Tip/Trick: Url Rewriting with ASP.NET)
- a link to an HTML form
- eCommerce—items in a (Shopping) Cart server control use an alias *unless* you assign an .aspx page in the control's `TemplateProduct` property. If you assign a page, it is used in the product's URL, not the alias.
- If you enable .asp as an extension, the alias does not appear when a site visitor hovers the cursor over assets. Instead, the actual file name appears.

  If a site visitor hovers the cursor over HTML content, the alias does appear.

- The alias does not appear when a site visitor viewing an RSS page hovers the cursor over *assets*. Instead, the actual file name appears.
- content links within the Directory server control. If a template is assigned to a taxonomy, the template takes precedence over an alias for content found by a Directory server control.

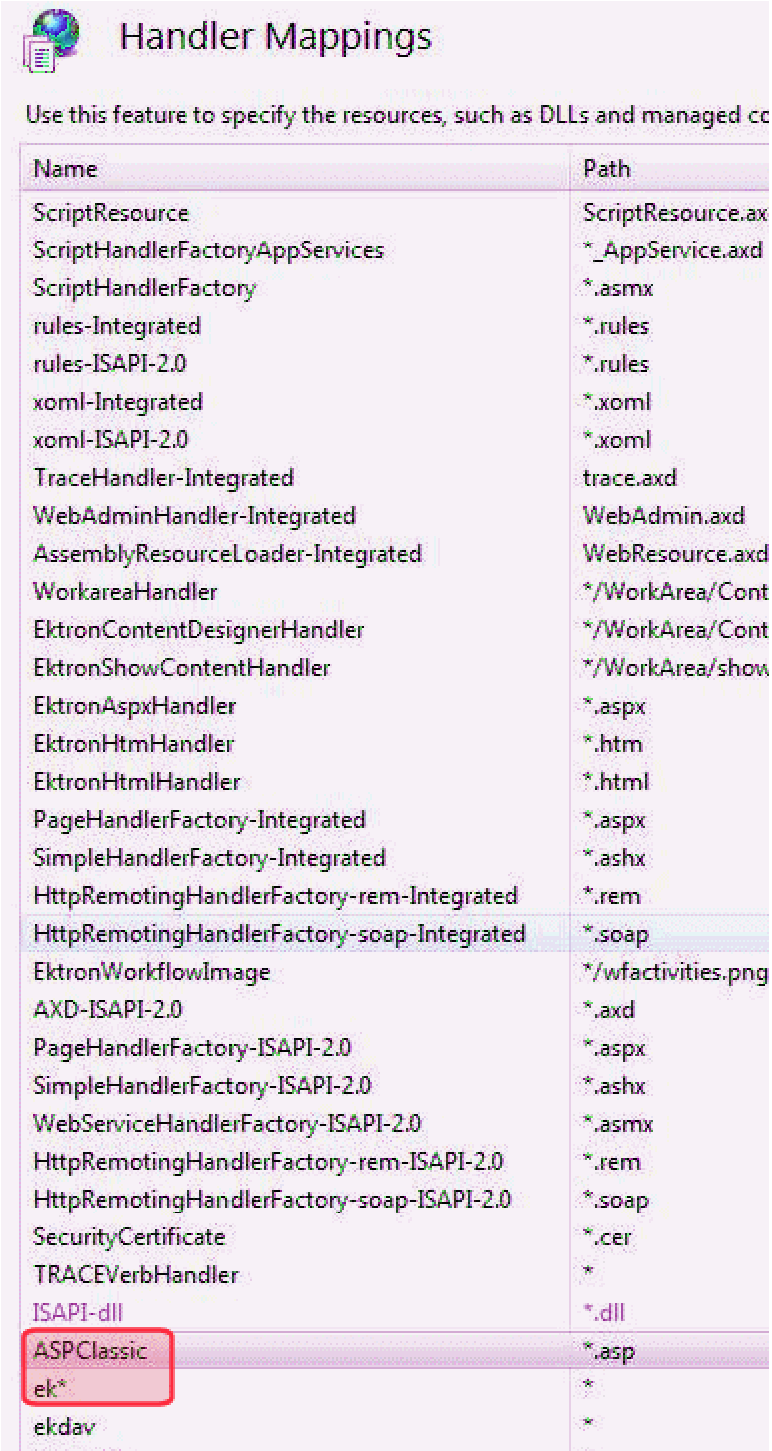


Restrictions on Extensions

IIS7 handles Web page extensions other than .aspx. There are 2 scenarios.

- If your site has non-aspx pages, you need to modify the IIS7 Handler Mapping list. In the Handler Mapping list, extensions that are below **ek*** in the list are handled by aliasing. You need to move non-aspx extensions (for example, .asp, .php, .cfm) above the **ek*** extensions in the list.
  1. Open IIS7.
  2. Right click your website.
  3. Click **Handler Mappings**.
  4. Click **View Ordered List**.
  5. Move non-aspx extensions used on your site above **ek***. For example, if your site uses .aspx pages, move **ASPclassic** above **ek***.

NOTE: After you do this, you *cannot* use these extensions as part of an alias. So, do *not* enter them into the **Extension** field of the URL Aliasing Settings screen.



- If your site previously had non-aspx pages but now it does not, set up aliases to the previous non-aspx pages so that a visitor's bookmarks will continue to work.
  1. Open IIS7.
  2. Right click your website.
  3. Click **Handler Mappings**.

4. Click **View Ordered List**.
5. On the Handler Mappings screen, move non-aspx extensions that you want to alias below **ek***. For example, if your site uses .aspx pages, move **ASPclassic** below **ek***.
6. Enter the extensions in the **Extension** field of the URL Aliasing Settings screen. See Also: *Types of URL Aliasing* on page 836

Clearing the Cache

An alias is cached whenever anyone uses it. You should periodically clear the cache so that aliases are kept current.

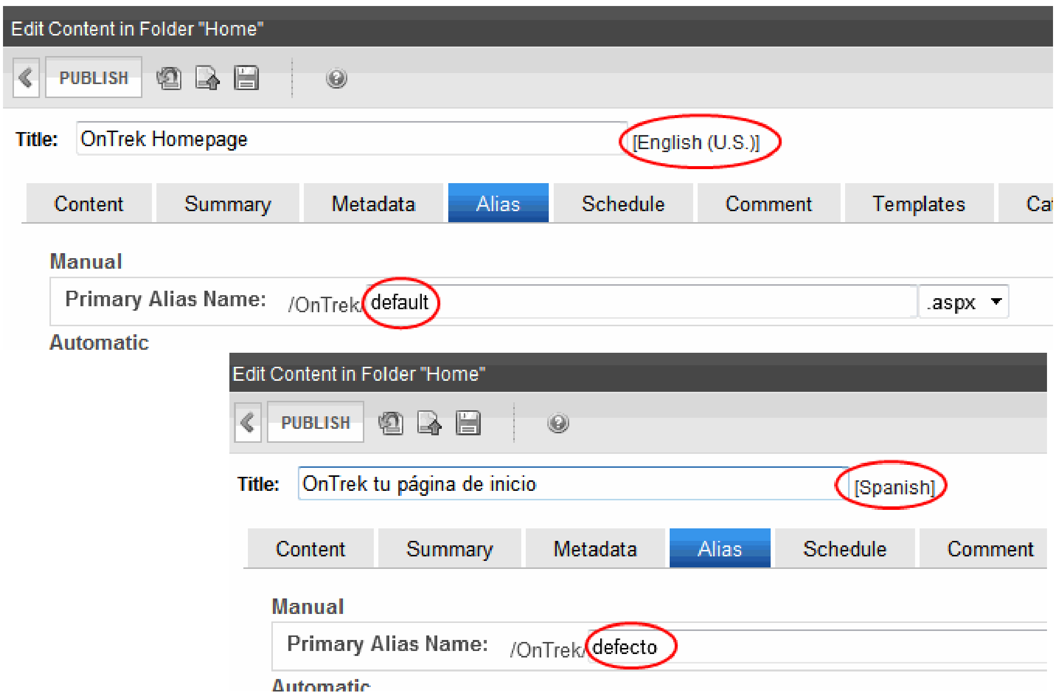
IMPORTANT: If your Ektron supports multi-site configurations, you must sign in to each site's Workarea, then manually clear its cache.

1. Choose **Settings URL Aliasing > Settings**.
2. Click **Clear Cache** ( ).

Assigning an Alias to Multi-Language Content

When a site visitor selects a language for viewing your site and enters the alias, Ektron displays the aliased content in the selected language. See Also: the **Enable Language Awareness** field in *Configuring URL Aliasing* on page 837.

You can assign a different alias to each language version of content. To do this, select the content, language, go to the **Alias** tab, and assign a language-specific alias. For example, your English home page's alias is **default**, while your Spanish alias is **defecto**.



Also, alias names must be unique only within a language. So, for example, you cannot have 2 aliases named `Ektron` within U.S. English content. But, you can have 2 two aliases named`Ektron` if one is applied to U.S. English content, and the other applies to Spanish content.

Filtering Aliases

You can have many aliases. Ektron lets you sort and filter the aliases to make it easy to isolate a subset of aliases, to work on, activate, deactivate, delete, and so on. The Aliases screen (**Workarea > Settings > Configuration > URL Aliasing > Aliases**) has the following features for filtering. You can combine these filters to narrow your focus.

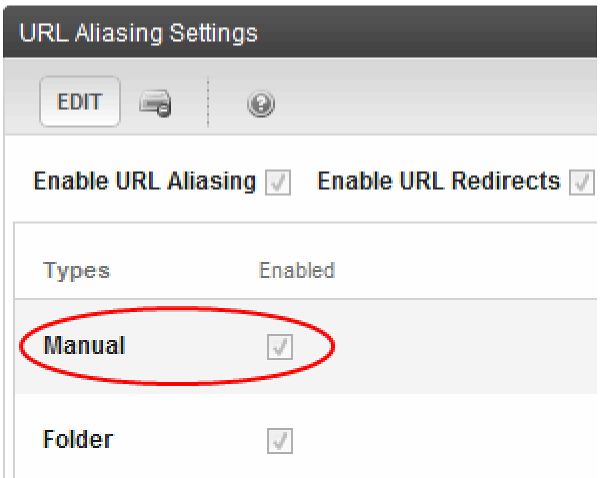
- **Type**—filters aliases by taxonomy, filter, manual, user, or group. For example, choose user and only user aliases appear.
- **Language**—filters aliases by the selected language. For example, choose Spanish, and only the Spanish aliases appear.
- **Default**—filters aliases by site, if you have multiple sites; otherwise, default.
- **Search**—Type in a string to filter the aliases.
- Sort column—Click on a column heading to sort the entries A-Z or Z-A.

Creating a Manual URL Alias

You can choose a page name that makes complex URLs easier to read and remember. For example, you can create an alias for `www.example.com/help.aspx?id=27` that resolves to `www.example.com/help.htm`. From then on, the content can be identified either by its original URL or its alias. You can create any number or aliases for a content block.

NOTE: You cannot apply an alias to the root website. For example, you cannot alias `www.example.com` with `www.example2.com`. However, you can alias anything below the root folder.
On multi-site environments, you can apply an alias to a folder on the root site, or to a folder on other sites, but not both. For example, you can have the alias `content.aspx` applied to a *root-folder*, but then the `content.aspx` alias cannot be used on a *site-folder* at the same time. However, if you apply `content.aspx` to *site1-folder*, you can also apply `content.aspx` to *site2-folder*.

To activate or disable manual aliasing, choose **Settings > Configuration > URL Aliasing > Settings**. The URL Aliasing Settings screen appears, which indicates if manual aliasing is on or off. To change its state, click **Edit**, check or uncheck the box, and click **Save**.



To view a manual URL alias:

1. Choose **Workarea > Settings > Configuration > URL Aliasing > Aliases**.
2. On Aliases screen, click the alias you want to view. The alias information appears.

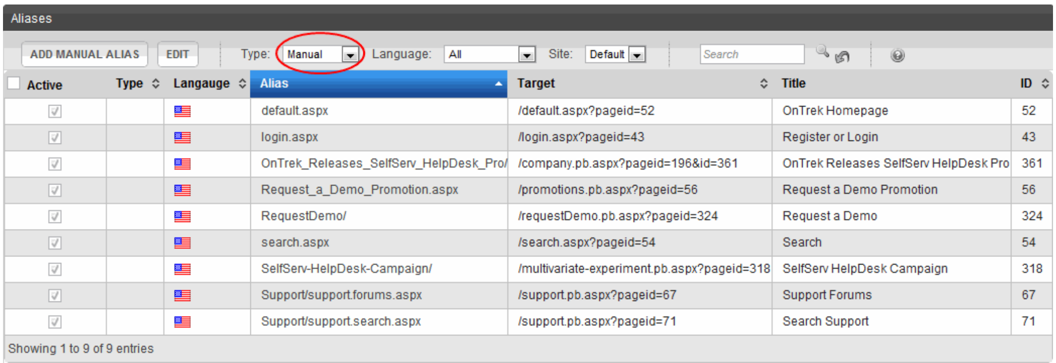
Adding/Editing a Manual URL Alias

To add or edit a manual alias, manual aliasing must first be enabled.

1. Choose **Workarea > Settings > Configuration > URL Aliasing > Aliases**. The Aliases screen appears. You can specify the following filters, or go right to Step 2.

   NOTE: If there are many aliases, use the search to find one. You can filter by alias name, Content ID, and so on.

   a. Choose **Manual** from the Type drop-down field. The manual aliases appear in the Aliases screen.

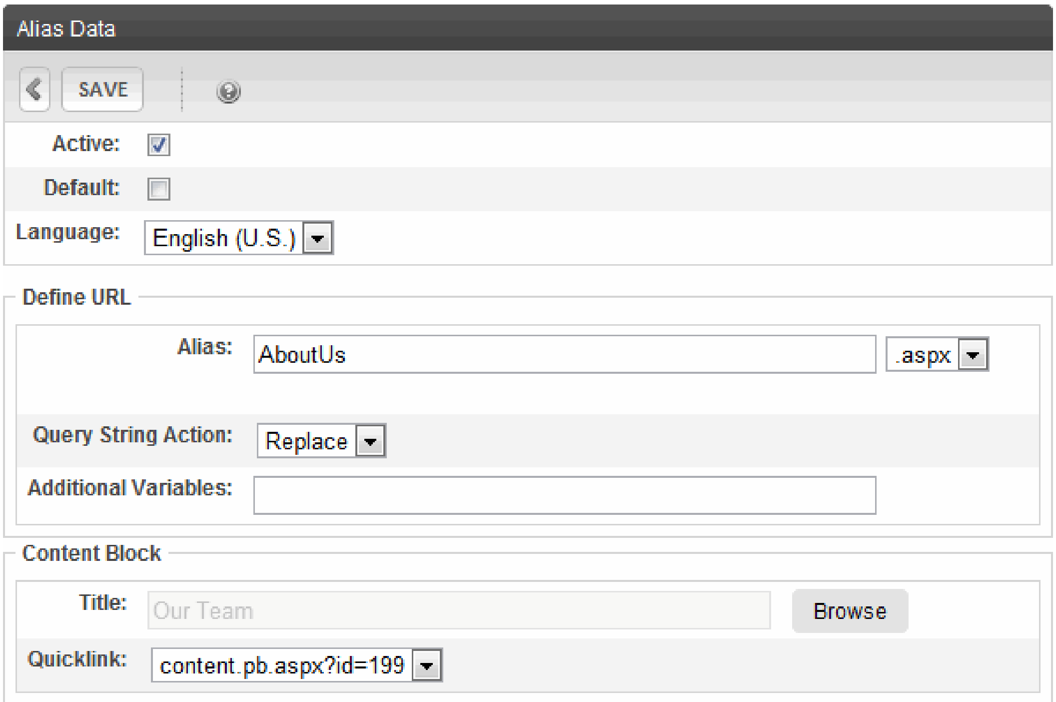
   

   b. Choose the language from the Language drop-down field.

   c. If your Ektron version supports multi-site configurations, use the **Site** drop-down to choose the site.

2. To create a new alias, click **Add Manual Alias**. (To edit a manual alias, click an alias then **Edit**.) The Alias Data screen appears.

   NOTE: After you enable manual aliasing, every content block includes an **Alias** tab. You can create a new alias by clicking **Add Manual Alias** from that **Alias** tab. However, if you insert/update an alias from the **Alias** tab, the alias is available only after you publish the content.
   Also, a folder may require its content to have a manual alias. In this case, you must add a manual alias before you can check in or submit content.



3. Check **Active** to activate the alias when you save it.
4. Optionally, check **Default** if you want this alias to be the primary alias. Even if the content already has a primary alias, this alias will become primary.
5. Optionally select another language for this alias.
6. Enter a name in the **Alias** field. It must be unique within the site and language, and cannot include the following characters: `(comma), (space), \, <, >, “, :, |.`
7. To the right of **Alias** is a pull-down menu of valid extensions. Select an extension to apply to this alias. Extensions are defined on the URL Aliasing Settings screen.
8. Use the **Query String Action** field to set up a rule to handle an alias's query string parameters. You can set one rule for your entire site (via this field), and separate ones that override the system-wide rule for specific manual aliases. 4 options are available.
   - **None**—If an aliased URL has a query string, it is ignored. Any query string on the target URL is used.
   - **Append**—Ektron appends the alias's parameters to the target URL. Example:

     ```
     Alias: http://www.ektron.com/Contact.aspx?id=84&lang=1033
     Target: http://www.ektron.com/aboutus.aspx?id=35&Userid=1
     Result: http://www.ektron.com/aboutus.aspx?id=35&Userid=1 |
       & id=84&lang=1033
     ```

     (The parameter from the alias is appended to the target)
   - **Replace**—Ektron replaces a target's query parameters with the alias' s query parameter. Example:

     ```
     Query string parameter: http://www.ektron.com/Contact.aspx?id=84
     Target: http://www.ektron.com/aboutus.aspx?id=35&Userid=1
     Result: http://www.ektron.com/aboutus.aspx?id=84
     ```

     (The target parameters id=35&Userid=1 are replaced by the alias parameter id=84)

- **Resolve**—Ektron tries to resolve matching parameters (it is case sensitive). If a match is found, the alias's query string parameter takes precedence. Example:

```
Query string parameter: http://www.example.com/Contact.aspx?id=84
Target: http://www.example.com/aboutus.aspx?id=35&UserId=10
Result: http://www.example.com/aboutus.aspx?id=84&UserId=10
```

  (`id=35` is replaced by `id=84` because it matched the query string parameter. `UserId=10` was not affected because it did not match the alias query string parameter.)

9. Enter the **Additional Variables**. These are used as query string parameters that can track how visitors arrived at the aliased page. You might use these in marketing campaigns to analyze the source of an aliased page's visitors. For example, the **Additional Variables** field has `?gclid=CO7gs_L0_ZICFRkTIgodBgV9CQ`. Your website's analytics software can track the source of the query through the variable.

   NOTE: Within the page load event that returns the query string parameters, use the `Request.RawURL()` property instead of `request.querystring`.

10. In the Content Block section, click **Browse**. The QuickLink Select window appears.

    NOTE: Content choices are affected by value of the Language field on the Add Manual Alias screen. Only content in the language of the selected alias appears. Also, only approved content appears.

11. Browse through the folder structure and click on the content to which you are assigning the alias. The Title and Quicklink fields are filled.

    NOTE: A folder's content appears below its subfolder list. You may have to scroll down to see the content.

12. Click **Save**.

Activating/Deactivating a Manual URL Alias

1. Go to **Workarea > Settings > Configuration > URL Aliasing > Aliases**. The Aliases screen appears.
2. Click **Edit**.
3. In the Active column, check the box next to any alias to activate it; uncheck the box to deactivate it. Check the box next to the Active heading to activate all aliases in the list; uncheck to deactivate.
4. Click **Save**.

Removing a Manual URL Alias

1. Choose **Workarea > Settings > Configuration > URL Aliasing > Aliases**. The Aliases screen appears.
2. Select **Manual** from the Type drop down to display only manual aliases.
3. Click **Edit**.
4. In the **Delete** column, check the box next to any alias that you want to remove. Check the box next to the **Delete** heading to select all aliases in the list; uncheck to clear the check boxes.
5. Click **Save**.

Creating Automatic URL Alias Rules

Automatic aliasing lets you create rules for several types of CMS entities, based on taxonomy, folder, user, or group designations. You can select additional elements of the alias pattern and save all information as a *configuration*. Because you can assign a single content block to several taxonomies, that content block can have many automatic aliases. When you activate an automatic alias configuration, any content added to the taxonomy, folder, user, or group in the future is assigned that alias (as long as the configuration is active).

To enable automatic aliasing, choose **Settings > Configuration > URL Aliasing > Settings**. The screen indicates if automatic aliasing for taxonomy, folder, community user, and community group is on or off. To change the state for any of these, click **Edit**, then check or uncheck the box, and click **Save**.

To view an automatic URL alias assigned to a content item, go to a content item and view the content, then click the **Alias** tab. Manual aliases appear near the top, followed by any automatic aliases.

Automatic URL Alias Pattern

Automatic URL alias pattern combines the following elements—separated by a slash (/)—in the following order.

1. *site root*
2. *taxonomy*, *folder*, *group*, or *user* path.
   - Spaces are replaced by the replacement character; the default is underscore (_). When you create a new rule, you can specify replacement characters in the **Replacement Character Map** field on the Add Aliasing Rule screen.
   - A *taxonomy* path has taxonomy nodes from the top to the level at which content is assigned. For example: `www.example.com/Medical_Conditions/Kidney_Disease/`.
   - A *folder* path has folders from the top-level to the folder that contains the content. For example: `www.example.com/CMS400Developer/CMS400Demo/About_Us/Company_Profile/Board_of_Directors.aspx`. You can determine which path components appear in the **Customize Alias Path** field on the Add Aliasing Rule screen.
   - A *group* path may identify the Marketing group: `http://www.example.com/Marketing/`.
   - A *user* path may identify a community profile for a user: `http://<website>/John/`
3. *content name source*

   Spaces are replaced by the replacement character.
4. *extension*

NOTE: Aliases must be unique. If you try to create a duplicate alias, a value is appended to the alias to make it unique.

Examples:

Folder-based automatic alias

Suppose that you assign an automatic folder alias called "History" to the `MainSite/Content/Company/Company_News/` folder and you specify the additional rule that excludes some of the folder path from the URL. When you create `NewHistoryEvent.aspx` and put it in the `Company_News` folder, it has the following URL automatically generated:

```
www.example.com/Company_News/New_History_Event.aspx
```

Taxonomy-based automatic alias

Suppose that you create a new job posting called *SalesAdministrator* and give it the *Administration* and *Sales* taxonomy categories.

```
SiteNavigation
  Company
    Jobs
      [x] Administration
      [x] Sales
      [ ] Marketing
      [ ] Engineering
      [ ] Support
```

A taxonomy-based alias automatically generates the following URLs based on the taxonomy selections:

```
www.example.com/Jobs/Sales/SalesAdministrator
www.example.com/Jobs/Administration/SalesAdministrator
```

User-based automatic alias

A user alias can simplify a reference to someone's profile page.

```
www.example.com/member/steve
```

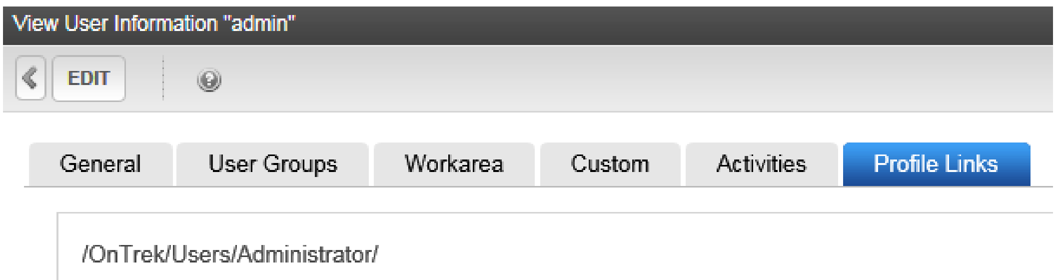
Group-based automatic alias

A group alias can simplify a reference to a group page.

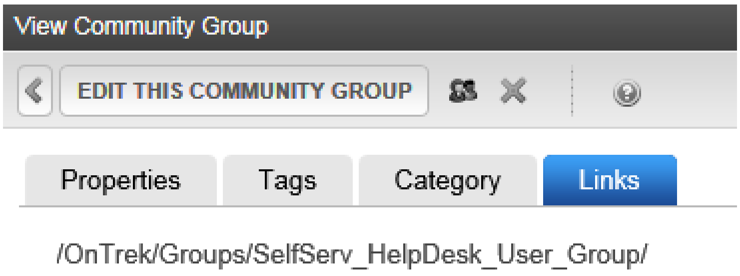
```
www.example.com/group_interest/sports_cars
```

NOTE: Activity streams, SMS, and email notification messages that include links to users or community groups use the community URL alias in their links. If you want to show the template alias, use the proper token in the message. For example, to use the alias for the SubjectUser, use the `@SubjectUser.TemplateAlias@` token in your message. See Also: *Working with Tokens* on page 1213.

If you enable a user-based community alias, community users display their alias name on their profile's **Profile Links** tab.



Similarly, if you enable a group-based community alias, community groups display their alias name on the profile's **Links** tab.



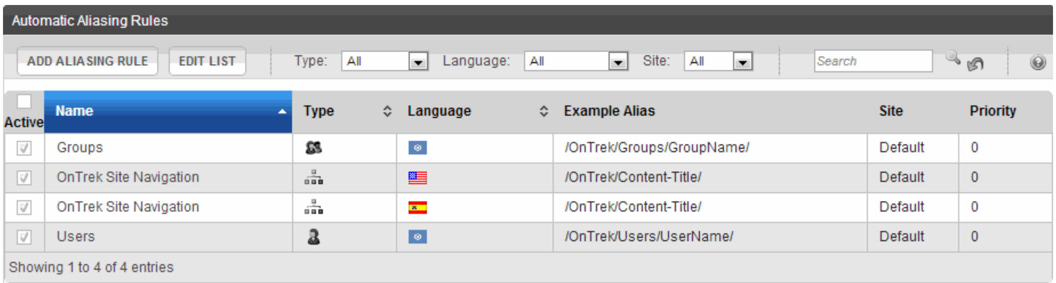
Creating/Editing Automatic URL Aliasing Rules

After enabling automatic URL aliasing, you can create rules in a *configuration*, which lets you

- identify the content source (that is, a taxonomy, folder, user, or group)
- choose elements of the aliasing pattern
- preview sample original and aliased URLs

NOTE: You cannot create a configuration whose values match an existing one.

1. Choose **Settings > Configuration > URL Aliasing > Aliasing Rules > Automatic**. The Automatic Aliasing Rules screen appears.



2. Click on an existing rule, or click **Add Aliasing Rule**. A rules screen appears.
   a. Specify a unique name for the new automatic rule.
   b. Check the **Active** field if you want the rule to apply immediately after it is created.

   WARNING! If you uncheck this box, automatic aliases set up using this configuration are deleted from the associated content.

   c. If you have more than 1 site, choose the site to which the rule applies.
   d. Select the Source Type (Taxonomy, Folder, User, Group).
   e. Click **Next**. The rules screen appears. (The following image shows a sample Taxonomy rules screen.)
3. Specify the following rules:
   - **Alias Root** (Taxonomy, Folder)—Navigate to and choose a taxonomy or folder to which you want to assign an automatic alias.
     - If you choose a **taxonomy**, the automatic alias is applied to all content assigned to it and its child nodes. Furthermore, if your Ektron supports multi-site configurations, the automatic alias applies to content in all sites. This is because taxonomy is site independent.
     - If you choose **folder**, the automatic alias applies to content in that folder and its subfolders. The taxonomy or folder is part of the automatic alias pattern.

- **Exclude from Path** (Taxonomy, Folder)—The automatic alias pattern displays folders or taxonomy levels from the top to the level you select. You can use this field to control which folders or taxonomy levels appear in the pattern. For example, if your Alias Root is based on the following folder path: `/CMS400Demo/About Us/Careers`, you can choose any option from the drop-down menu to indicate the folder or taxonomy path in the automatic alias pattern.
- **Alias Prefix** (User, Group)—Add a prefix to the alias.
- **Alias Format** (Taxonomy, Folder)—Use this field to help construct the automatic alias pattern. Choose 1 of the following items to identify the content within the alias.
  - **Content Title**—Example: `Sample Content Block`
  - **Content Id**—Example: `30`
  - **Content Id and Language**—Example: `30/1033`
- **Extension**—Use this field to help construct the automatic alias pattern. Choose an extension from the list to identify the end of the aliased URL. Extensions are defined in the **Extension** field of the URL Aliasing Settings screen.

  Do not add any extension entered into the Handler Mapping list. See *Restrictions on Extensions* on page 842
- **Template** (Taxonomy)—Choose **Taxonomy Template** or **Quicklink**. The alias target URL will be the template of the content item being aliased, along with any *querystring* parameters (for example, `content.aspx?id=123`). **Taxonomy Template** can have its own template assigned to the taxonomy node. When creating the automatic alias, this setting indicates which template to use for the target URL. **Quicklink** uses the behavior just described. **Taxonomy Template** uses the template assigned to the designated taxonomy along with the *querystring* parameters from the Quicklink. For example:
  - **Taxonomy Template**
    - Content ID 123, assigned to template `content.aspx`
    - Content assigned to Taxonomy X
    - Taxonomy X has a template `taxtemplate.aspx`
    - Taxonomy alias rule created targeting Taxonomy X
  - **Quicklink**
    - Quicklink = `/content.aspx?id=123`
    - Alias Target with Quicklink Template Field selected = `/content.aspx?id=123`
    - Alias Target with Taxonomy Template Field selected = `/taxtemp.aspx?id=123`
- **Query String Param** (Taxonomy, Folder)—Enter the query string parameter for this alias. For example, if the alias uses a taxonomy, you could enter`taxid`. Here is an example of the parameter in a URL: `http://localhost/eIntranetv2/Blogs.aspx?id=238&blogid=115&taxId=28`

  IMPORTANT: Do *not* enter `id` here because that will clash with the content id.

  Do not enter more than one parameter.

- **Example Preview**—shows what the alias will look like. To see any content item's fully aliased URL, view the content and click the **Alias** tab; the alias is in the **Automatic** section.
- **Replacement Character Map**—Accept the default values, or enter the character that replaces prohibited characters in content titles when they appear within an automatic alias. Examples of prohibited characters are a space and question mark (?). So, for example, if the content title is `About Us`, and you enter an underscore (_) here, the aliased version of the title is `About_Us`. Specify other replacement characters in the Replacement Character Map section.

  You cannot enter one of the following as the replacement character: `[, \ / < > (Space): |? '] # * &%`

  NOTE: If you're using IIS Admin, and specify a plus sign (+), you get this error: `HTTP Error 404.11 Not Found The request filtering module is configured to deny a request that contains a double escape sequence`. For a solution, see Error message when you visit a website that is hosted on IIS 7.0: "HTTP Error 404.11 – URL_DOUBLE_ESCAPED".

Deactivating an Automatic URL Aliasing Configuration

If you deactivate an automatic alias configuration, automatic aliases created by that configuration are removed from content to which they are applied. The configuration is saved, so you can reactivate it.

1. Choose **Settings > Configuration > URL Aliasing > Aliasing Rules > Automatic**.
2. Click the alias that you want to deactivate.
3. Click **Edit**.
4. Uncheck the **Active** checkbox.
5. Click **Save**.

Deleting an Automatic URL Aliasing Configuration

If you delete an automatic aliasing configuration, automatic aliases are removed from content to which they are applied.

1. Choose **Settings > Configuration > URL Aliasing > Aliasing Rules > Automatic**.
2. Click **Edit List**.
3. Check each configuration that you want to delete.
4. Click **Save**.

WARNING! No confirmation message appears when you save the Automatic Aliasing Rules screen, so be deliberate when checking the **Delete** boxes.

Troubleshooting Group or User URL Aliases

If you do not see the community alias when you hover over or click a link to a community group or user, check the following.

- The alias is set to Active.
- The alias is the primary alias.
- The server control that displays the link does not use the `TemplateUserProfile` setting. If it does, that value takes precedence over the URL alias.
- If you are using eSync, refresh the cache after a database sync.

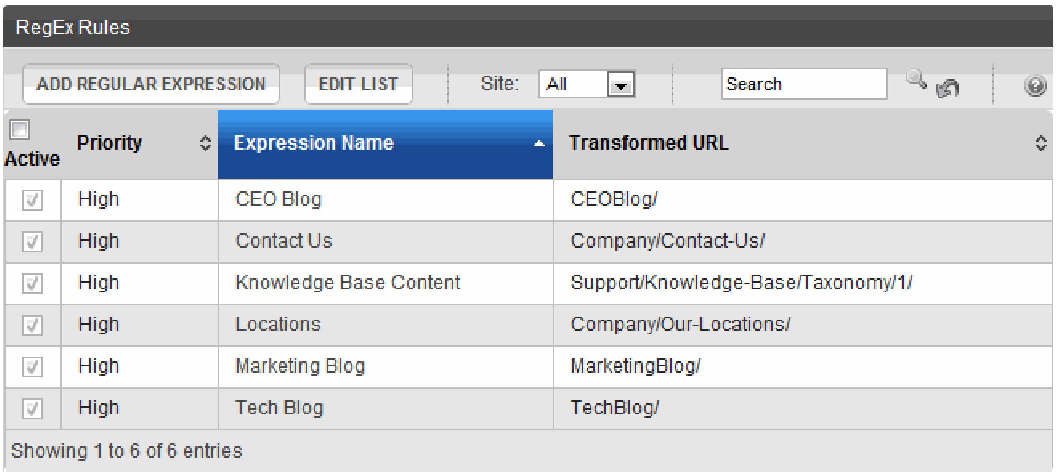
Creating RegEx Expressions

A RegEx (regular expression) lets site visitors enter a descriptive URL into the browser address field and transform that entry into the query string component of an Ektron page. This lets site visitors “guess” other pages based on a recognizable pattern. For example, a RegEx expression aliases `blogs.aspx?blogmonth=3&blogyear=2013&blogid=14` as `blogs/2013/03/14`. From that, a site visitor can infer that `blogs/2013/03/13` would display the previous post, and `blogs/2013/03` would display March 2013 posts, and so on.

To view a RegEx, choose **Workarea > Settings > Configuration > URL Aliasing > Aliasing Rules > RegEx**, then click the expression that you want to view.

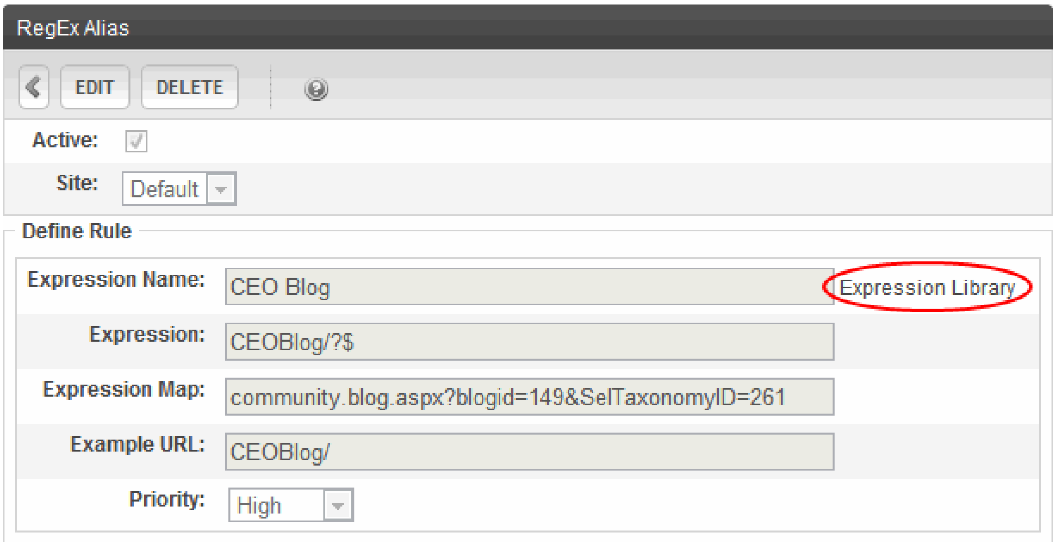
Creating/Editing a RegEx Expression

1. Find a site page (such as a blog) whose query string parameters let users guess similar pages using a pattern. For example:
```
http://ecmintranet/blogs.aspx?blogmonth=3&blogyear=2013
```
2. Choose **Workarea > Settings > Configuration > Url Aliasing > Aliasing Rules > RegEx**. The RegEx Rules screen appears.

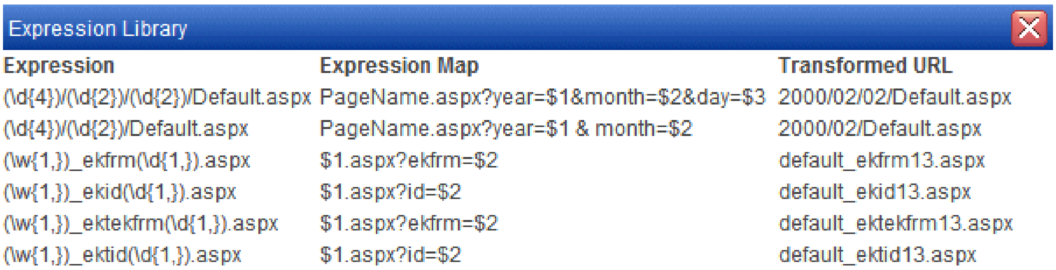


3. Do 1 of the following:
   - To create a new expression, click **Add a Regular Expression**. The RegEx Alias screen appears.
   - To edit an existing expression:
     a. Click **Edit List**.
     b. Click the expression you want to modify. The RegEx Rule screen appears.
     c. Click **Edit**.

4. Specify the following RegEx Alias parameters (example entries shown):



- **Active**—Check this box to activate the expression. If the expression is active, site visitors can enter an aliased URL to access a page on your site. For example, they can enter `www.example/com/blogs/2013/03/14 to access a blog page even though the actual URL is www.example/com/blogs/blogs.aspx?blogmonth=3&blogyear=2013&blogid=4`
- **Site**—If you have more than 1 site, choose the site to which this RegEx applies.
- **Expression Name—**Assign an easily recognizable name to this regular expression. It appears on the RegEx Rules screen to help users identify it.
- **Expression Library**—A link that displays sample expressions.



- **Expression**—Enter a RegEx expression that will replace the variables (for example, **$1, $2**, and so on.) in the Expression map. If you want to insert a question mark into the Expression, you must precede it with a backslash (\).
- **Expression Map**—Enter a map of original URL elements. The map lets you replace query string parameters with variables, such as **$1, $2**, and so on. As a result, a site visitor can identify other pages that use this pattern by changing the variable values. You can click **Expression Library** to view sample RegEx expression maps. To copy any map that resembles your page pattern, click it then modify it.

  As another example, you can create a pattern without knowing in advance what URL a user may type, using a `querystring` variable. When a user types:

  ```
  www.example.com/catalog/search/christmas
  ```

  The alias can use a `querystring` variable after `catalog/search/` to see if content is available in the catalog using the following aliased URL:

```
www.example.com/catalogsearch.aspx?term=christmas
```

- **Example URL—**Displays an example Web page that follows this pattern.
- **Priority—**Assign a priority to this expression from the following choices.
  - high (assign to the most frequently-used expressions)
  - medium
  - low
  - none

  This field enhances the aliasing feature's response time—it first tries to match a site visitor's entry with high priority expressions, then medium, then low.

Deleting a RegEx Expression

1. Choose **Workarea > Settings > Configuration > URL Aliasing > Aliasing Rules > RegEx**.
2. Click **Edit List**.
3. Check the box in the **Delete** column next to any RegEx you want to delete.
4. Click **Save**.

Creating a URL Alias for a Site

If your site supports the multi-site feature, you can enter aliases for any site. For example, suppose that your company changed its name from *Bionics* to *NewGen*, but the content of your site remains essentially the same. By adding a site alias, along with appropriate DNS mappings and domain registration, customers can still get to your site with the `bionics.com` URL and now also with the new company URL `newgen.com`.

Note the following conditions for creating a site alias:

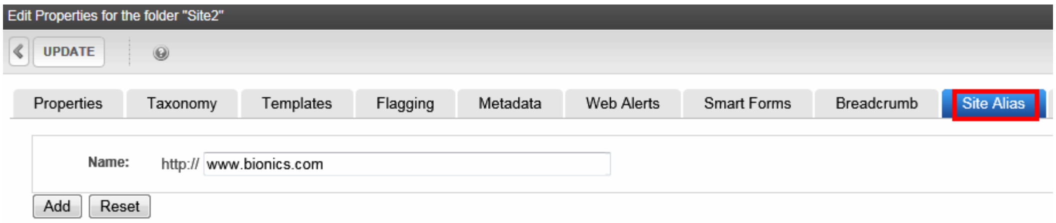
- If your Ektron supports multi-site configurations, an automatic alias assigned to a taxonomy will apply to content in all sites. This is because taxonomy is site independent.
- If the site being aliased resides in a folder under your server's Web root folder (for example, `ser4325/min`), you must add the subfolder to the alias. For example, you could not enter `http://www.myalias.com` as an alias for that site. Instead, enter `http://www.myalias.com/min/`.
- You cannot apply an alias to the root website. For example, you cannot alias `www.example.com` with `www.example2.com`. However, you can alias anything below the root folder. On multi-site environments, you can apply an alias to a folder on the root site, or to a folder on other sites, but not both. For example, you can have the alias `content.aspx` applied to a *root-folder*, but then the `content.aspx` alias cannot be used on a *site-folder* at the same time. However, if you apply `content.aspx` to *site1-folder*, you can also apply `content.aspx` to *site2-folder*.

To create a site alias:

1. Open the site folder for which you want to create aliases. (Site folders have a globe icon, like this: 

).
2. Click **View > Properties**.
3. Click **Edit Properties**.

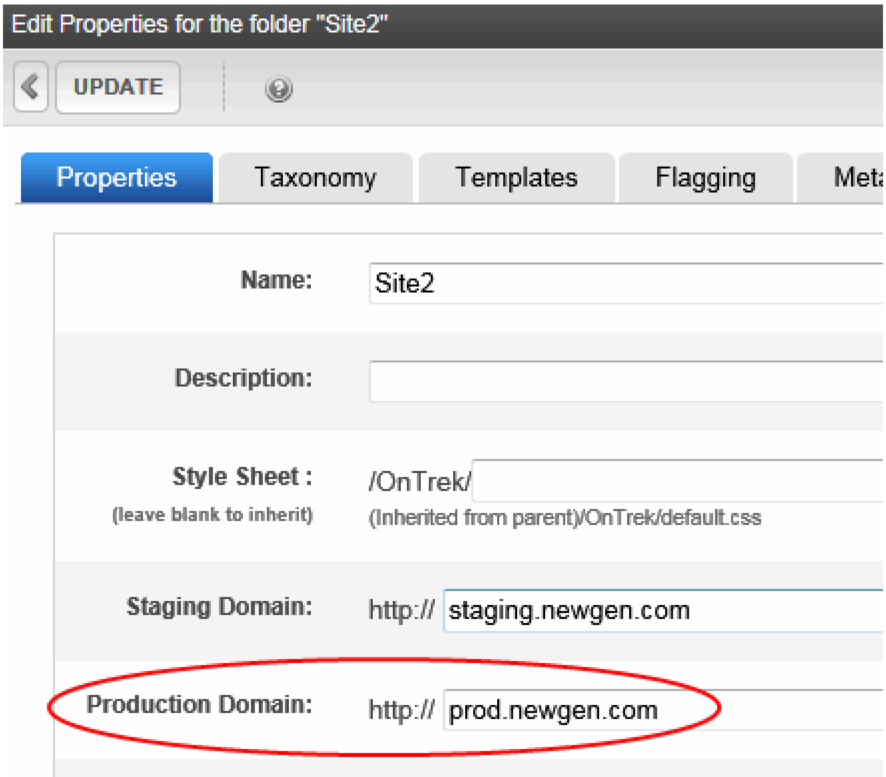
4. Click the **Site Alias** tab.



5. Enter the alias into the **Alias Name** field.

NOTE: The alias cannot end with a slash (/).

From now on, if a site visitor enters the alias into a browser address field, he is redirected to the site URL (set on the folder properties tab's **Production Domain** field).



6. Add each site alias as an IIS host. To learn how do this for your server, please consult IIS help.

Editing a Site Alias

1. Open the site folder for which you want to create aliases. (Site folders have an icon, like this: ).
2. Click **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Site Alias** tab.
5. Click the alias that you want to edit. When you do, it is highlighted and appears in the **Name** field.

6. Change the alias text.
7. Click **Save**.
8. Click **Update**.

Deleting a Site Alias

1. Open the site folder for which you want to create aliases. (Site folders have a globe icon, like this: newgen).
2. Click **View > Properties**.
3. Click **Edit Properties**.
4. Click the **Site Alias** tab.
5. Click the alias that you want to edit. When you do, it is highlighted and appears in the **Name** field.
6. Click **Delete** ( ). The alias is deleted.

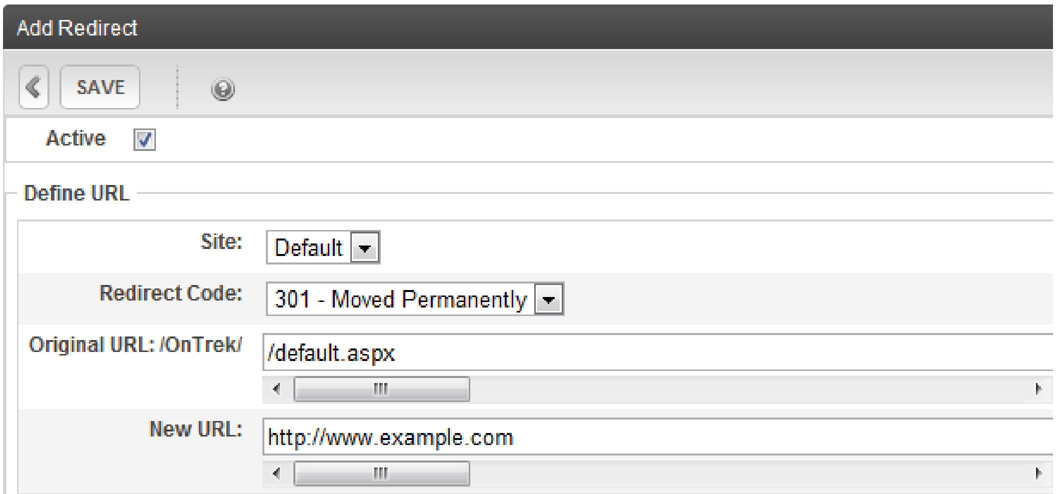
Creating a URL Redirect

You may have an old or original URL that you want to continue to work after you have moved the content to a new URL. So, you create a URL redirect from an original URL to a new URL, essentially leaving a "forwarding address" to a new URL. For example, you can redirect an previously known link (`/OnTrek/default.aspx`) to a new one (`http://www.example.com/home/`).

NOTE: When adding a redirect, the 404 target URL field is optional. If you do not provide a target URL,a 404 error is handled by the configuration in either the `web.config` or IIS.

1. Go to **Workarea > Settings > Configuration > URL Aliasing > Settings**. The URL Aliasing Settings screen appears.
2. Ensure that **Enable URL Redirects** is checked. If it is not:
   a. Click **Edit**.
   b. Check the box
   c. Click **Save**. Redirects appears in the URL Aliasing folder.
3. Go to **Workarea > Settings > Configuration > URL Aliasing > Redirects**. The Redirects screen appears.

4. Click **Add Redirect**. The Add Redirect screen appears.

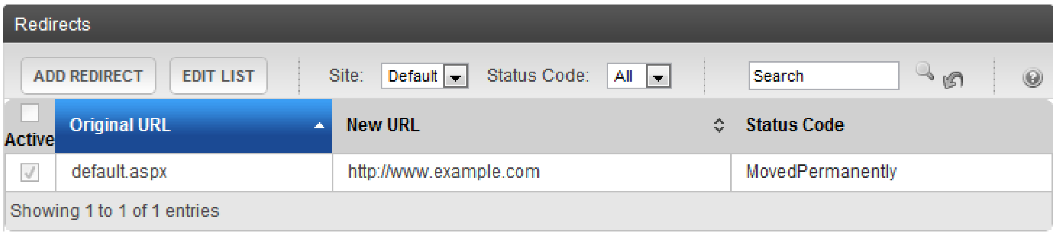


- **Active**—Check the box to activate the redirect.
- **Site**—If you have a multi-site environment, choose the site on which the redirect is active.
- **Redirect Code**—Choose the desired redirect code.
  - **200 - OK**—The original URL and new URL must be relative path URLs; returns a success status when a person accesses the original URL.
  - **301 - Moved Permanently**—Use this code to change from one URL to another. If a person tries to access the original URL, it is replaced with the new URL. The Original URL must be relative; the new URL can be a relative or absolute (fully qualified) path.

    IMPORTANT: Create separate 301 redirects for your http:// and http://www versions of your website. They are considered separate URLs.

  - **302 - Temporary Redirect**—Use this code to change from one URL to another URL, but some information is not passed to servers and Search engines. (This could affect SEO.) For example, if your website sold seasonal items, you can redirect each seasonal site to 1 URL, keeping each season separate, but having 1 branded face to your customer. The original URL must be relative; the new URL can be a relative or absolute (fully qualified) path.
  - **404 - File Not Found**—Use this code for a Web page that no longer exists, or to force the expiration of a page that may exist. Specify only the **Original URL**. If a person tries to access the page in Original URL, a 404 Not Found message is returned.
- **Original URL**—Enter the URL of the Web page that will be redirected to the new URL.
- **New URL**—Enter the URL of the Web page to which people will be redirected.

5. Click **Save**. The new URL redirect appears on the Redirects screen.



23

Setting Up Search for Your Website

Ektron Web search finds relevant results within several parts of the CMS structure and offers massive scalability, scaling to tens of millions of items and beyond. Search capability is based on Microsoft Search Server 2010 technology, which provides superior search capability with performance and extensibility currently demanded by enterprises world wide. There are specific search functions for the visitor using the website and the administrator using the Workarea. You can search content, documents, metadata, keywords, descriptions, titles, community content, users, groups,and activity streams.

For more information about Search, see the **Ektron Framework API > Ektron.Cms.Framework.Search** and the **Framework UI > Templated Server Controls > Search** in the Ektron Online Developer's Reference.

Online Search webinar: V8.6 Enterprise Search - What's New and Best Practices Video

Best Practices

- The server hosting your search provider needs at least 120 GB free space.
- Install SQL Server on a standalone server
- The optimal operating system is Microsoft Windows Server 2008 R2 or 2012

You can choose from the following search providers. Use the following guidelines to determine which search server is best for you. For a more details, see Search Technologies for SharePoint 2010 Products.

- Microsoft Search Server Express 2010
  - A free enterprise search solution that is simple and flexible to configure, and powerful enough to meet your needs. Also, you are using Windows 7; Search Server Express is its only supported search provider.
  - Requirements: Hardware and software requirements (Search Server 2010)
  - Installation: *Setting Up Microsoft Search Server 2010 Express* on page 864
- Microsoft Search Server 2010
  - You are indexing more than 10 million items.
  - Requirements: Hardware and software requirements (Search Server 2010)
  - Installation: *Setting Up Microsoft Search Server 2010* on page 871
- Microsoft FAST Search Server 2010
  - You are indexing more than 100 million items.
  - Requirements: Hardware and software requirements (FAST Search Server 2010 for SharePoint)
  - Installation: *Setting Up a Microsoft FAST Search* on page 899

Search Provider Comparison Table

The following table compares functionality available with search providers.

Deciding between Microsoft Search Server 2010 or FAST

1. Decide if you will install Microsoft Search Server 2010 on the server that hosts Ektron, or on a separate server. Ektron *strongly* recommends a separate server for Microsoft Search Server 2010. If you must install both on the same server, use the configuration for testing purposes only.
2. Install Microsoft Search Server 2010. If you will use Microsoft FAST Search Server 2010, see *Setting Up a Microsoft FAST Search* on page 899. If your server has Windows 7, see *Setting Up Microsoft Search Server 2010* on page 871.

3. Install or upgrade to Ektron Release 8.6 or higher.
4. When the installation finishes, Microsoft Search Server 2010 kicks off a crawl of your entire website. During this process, Search Server builds the indexes that return search results. As you add and edit Ektron content, crawls run in the background to give Microsoft Search Server 2010 the latest information. To learn more about this topic, see *Managing the Search Crawl* on page 931.
5. When the crawl has finished, Ektron authors and site visitors can begin using the search.
6. *Searching a Microsoft Search Server Website* on page 938—explains the site visitor experience of finding content on your website
7. *Searching the Workarea* on page 966—explains the Ektron user experience of finding content on your website
8. You can extend the search's functionality by working with *Providing Suggested Results* on page 952, *Using Synonym Sets* on page 945, and the *Including External Files in Your Search* on page 946.
9. While the pre-8.5 Web Search server control is supported for customers upgrading from a previous version, Ektron*strongly* recommends using the 8.5 and higher search controls or API to deploy search functionality on your website.

Function	Microsoft FAST Search Server	Microsoft Search Server	Microsoft Search Server Express
Providing Suggested Results on page 952	✓	✓	✓
Synonym sets	✓	✓	✓
Integrated search	✓	✓	✓
Load balanced search		✓	
Profile ranking	✓		
Faceted search	✓		
Document promotion	✓		
High degree of relevant results/Similar Results	✓		
Autosuggest	✓	✓	✓

This chapter also contains the following topics.

See Also: Why Site Search Matters

Setting Up Microsoft Search Server 2010 Express

IMPORTANT: If your server uses Windows 7, Microsoft Search Server Express 2010 is the only supported search provider.

PREREQUISITES

- An understanding of Microsoft Search Server 2010 Express; See Also: http://technet.microsoft.com/en-us/sharepoint/ee263912.aspx
- Both servers can browse to each other across the network
- On your Ektron server
  - Open ports 6080 and 6081 (used by the CMS File Helper Service to communicate Ektron services and copy files between the Web and Search servers)
  - Set SQL Security to **SQL Server and Windows Authentication mode**
  - Create a SQL user login with the sysadmin role. Microsoft Search Server 2010 uses that login to access the Ektron database.

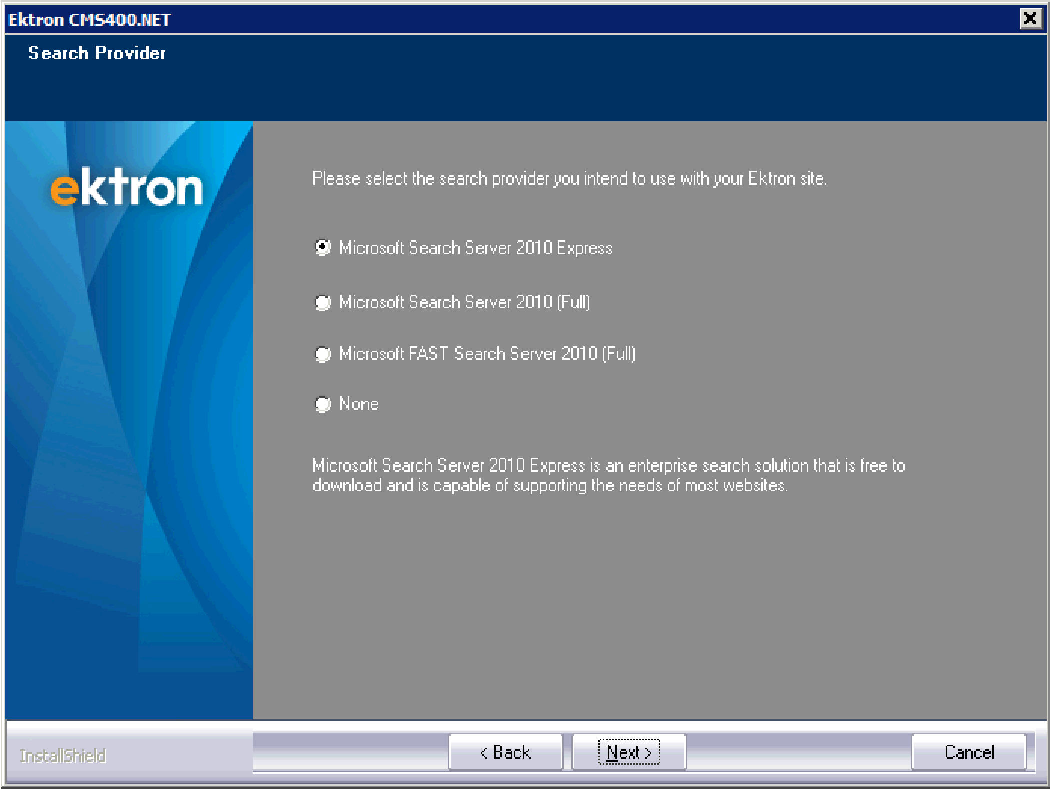
    BEST PRACTICE

    You should update your Ektron site's `web.config` file's `<connectionstrings>` tag with the username and password of that SQL user. Set `Integrated Security` to `False`. Then, log into Ektron to verify that the connection string is valid. See Also: *Managing the web.config File* on page 67
- On your Microsoft Search Server Express 2010
  - Obtain the username and password of a user with Windows administrator privileges
  - Verify that the server meets the *Optimizing Microsoft Search Server 2010 with Ektron* on page 880
  - Open port 6080 (used by the Protocol Handler Service)
- On your database server
  - Open Port 1433

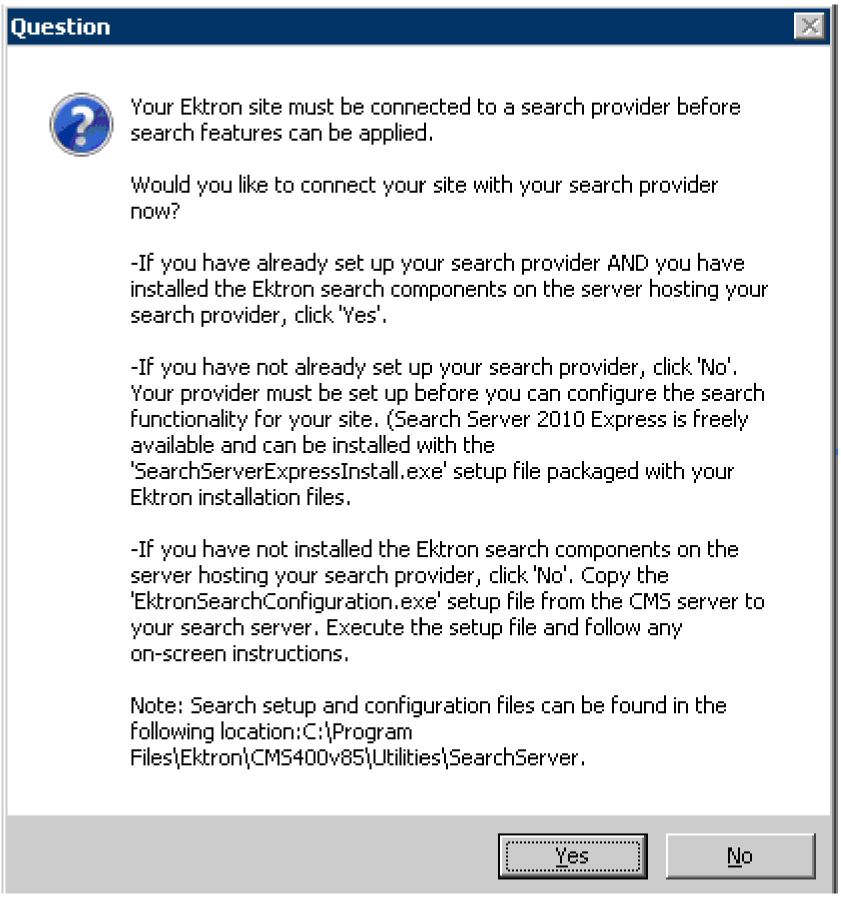
Installing Microsoft Search Server 2010 Express

Prerequisite:

1. Install or upgrade Ektron on its server, using the normal procedure. See Also: *Installing Ektron* on page 9, *Upgrading to Version 8.7* on page 35.
2. When prompted to choose a search provider, choose Microsoft Search Server 2010 Express.

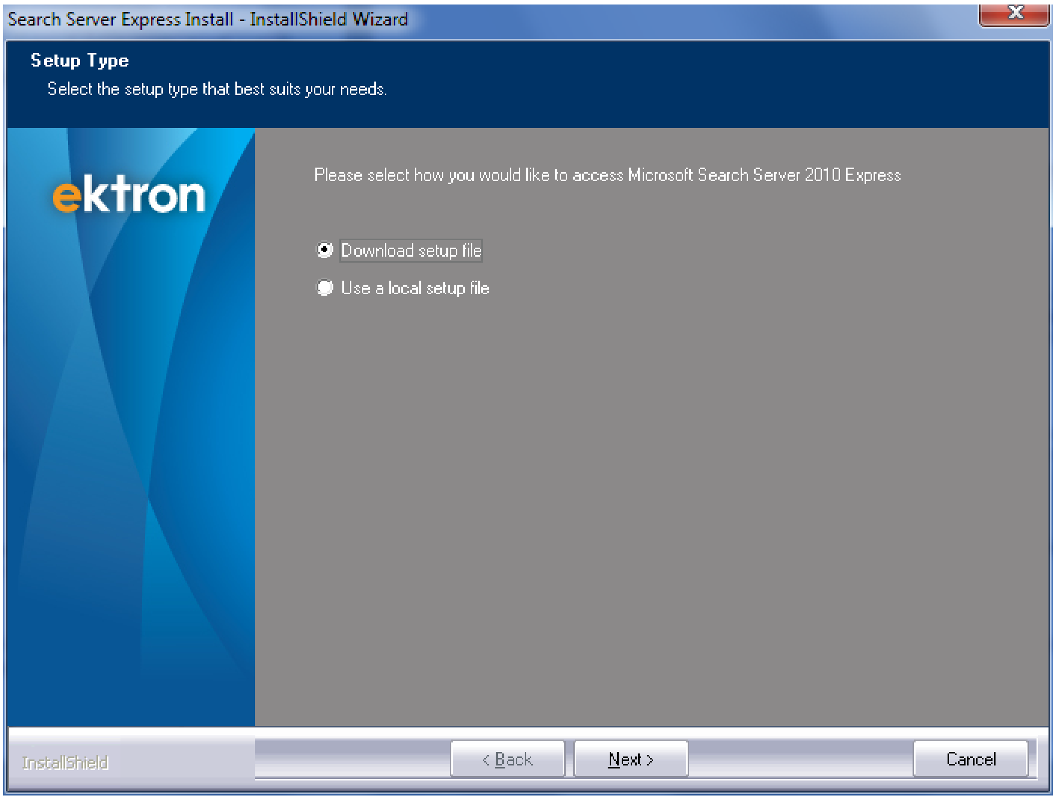


3. After the Ektron database setup, the following dialog appears. Click **No**.



The Ektron installation completes.

4. On the Ektron server, copy `C:\Program Files\Ektron\CMS400` *`versionnumber`*`\Utilities\SearchServer\SearchServerExpressInstall.exe`.
5. On the server that will host Search Server Express, paste and run `SearchServerExpressInstall.exe`.
6. The following dialog appears. Choose **Download Setup File** (unless you previously downloaded the Search Server Express setup file). Click **Next**.

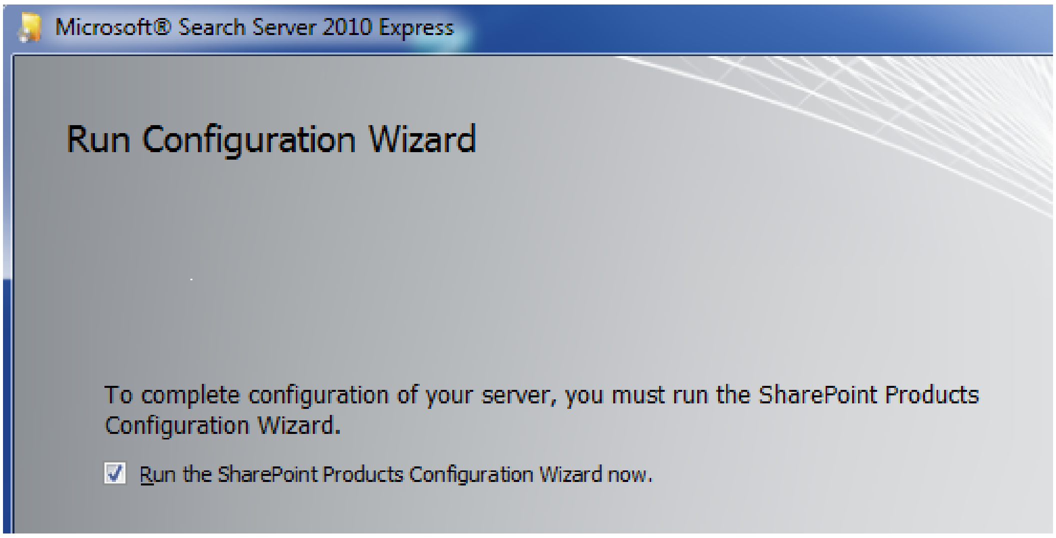


The Search Server Express installation file is downloaded. If your server uses Windows 7:

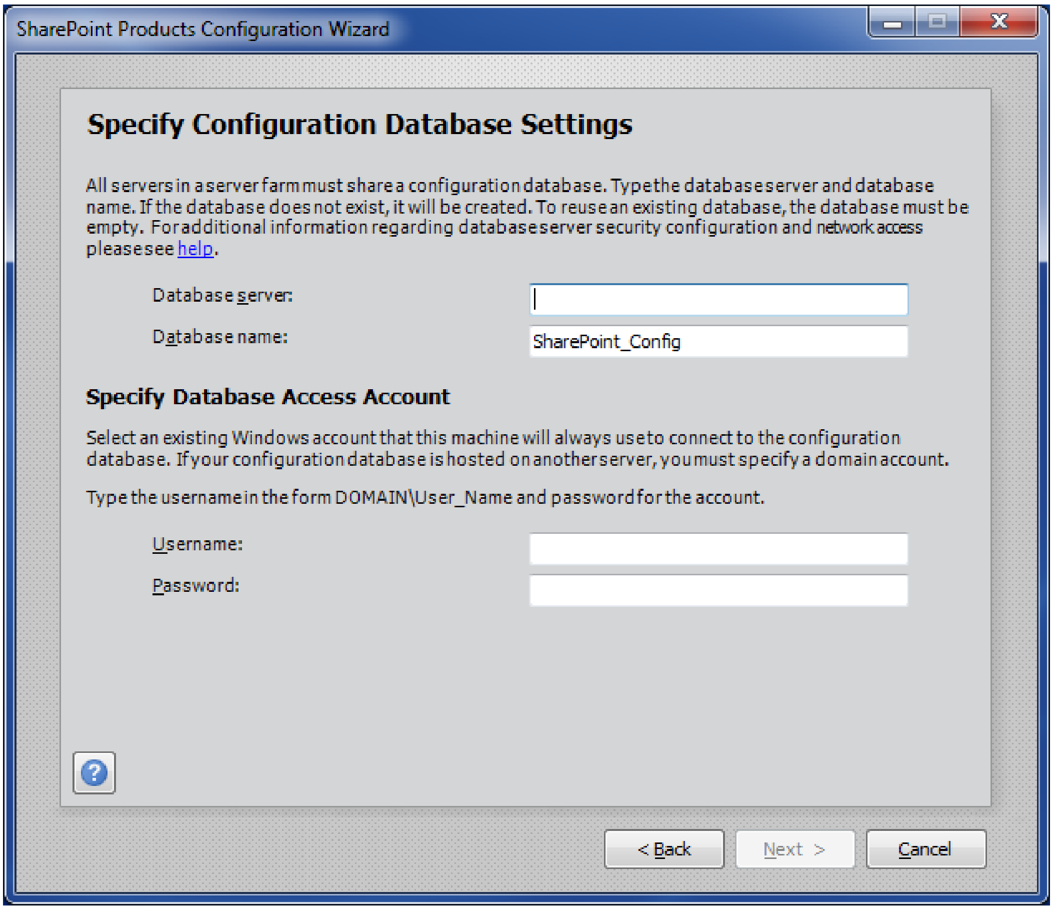
- an Ektron program installs the Search Server Express prerequisites
- a dialog provides helpful links and notifies you that the server will be rebooted. Click **OK**. Restart the server.

The Microsoft Search Server Express 2010 installation begins.

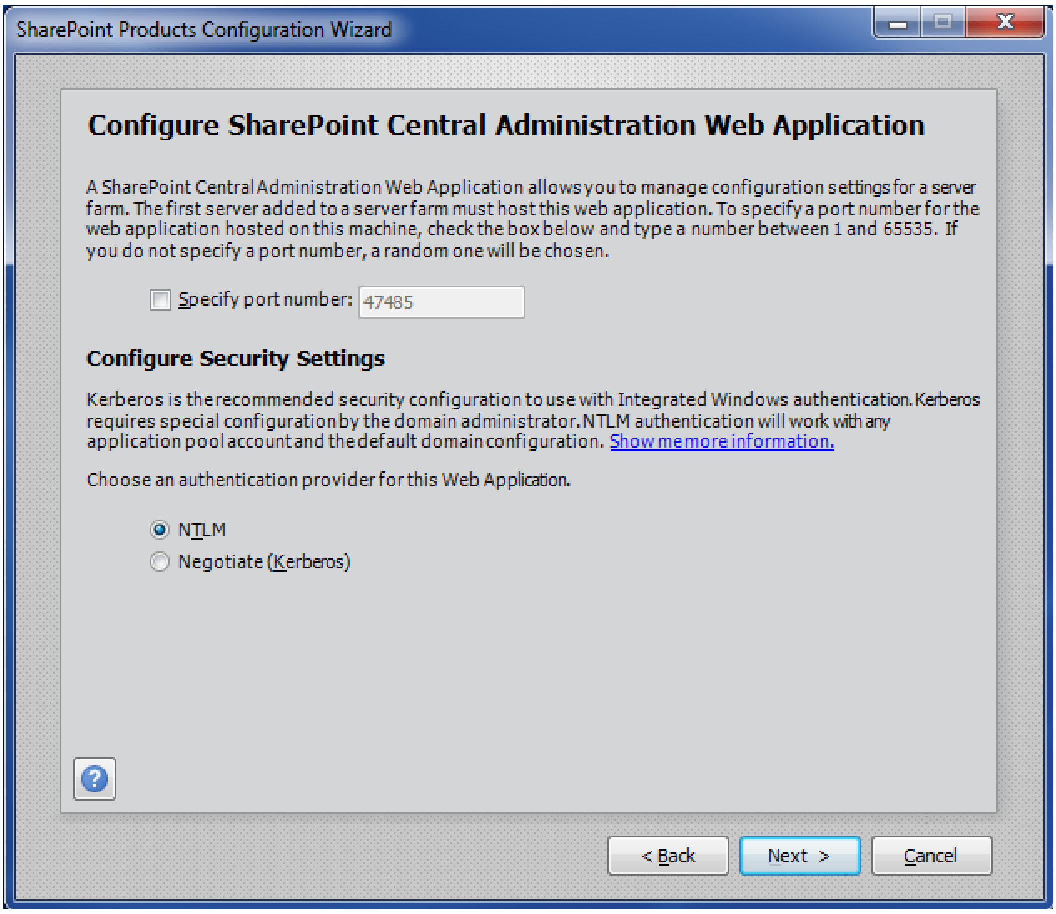
7. Accept the Microsoft Software License Terms. Click **Continue**.
8. When asked to install as a **Standalone** or **ServerFarm**, choose **ServerFarm**.
9. On the **Server Type** dialog, choose **Complete** then click **Install Now**. The Installation Progress screen appears.
10. The following screen appears. Click **Run the SharePoint Products Configuration Wizard now** then **Close**.



11. The SharePoint Products Configuration Wizard appears. Click **Next**.
12. If you are installing on Windows 7, a warning appears. Click **OK**.
13. A notice about services that may be affected during the configuration appears. Click **Yes**.
14. The **Connect to a server farm** dialog appears. Select **Createa new server farm** then click **Next**.
15. Enter the database server and name along with account information. Then click **Next**.

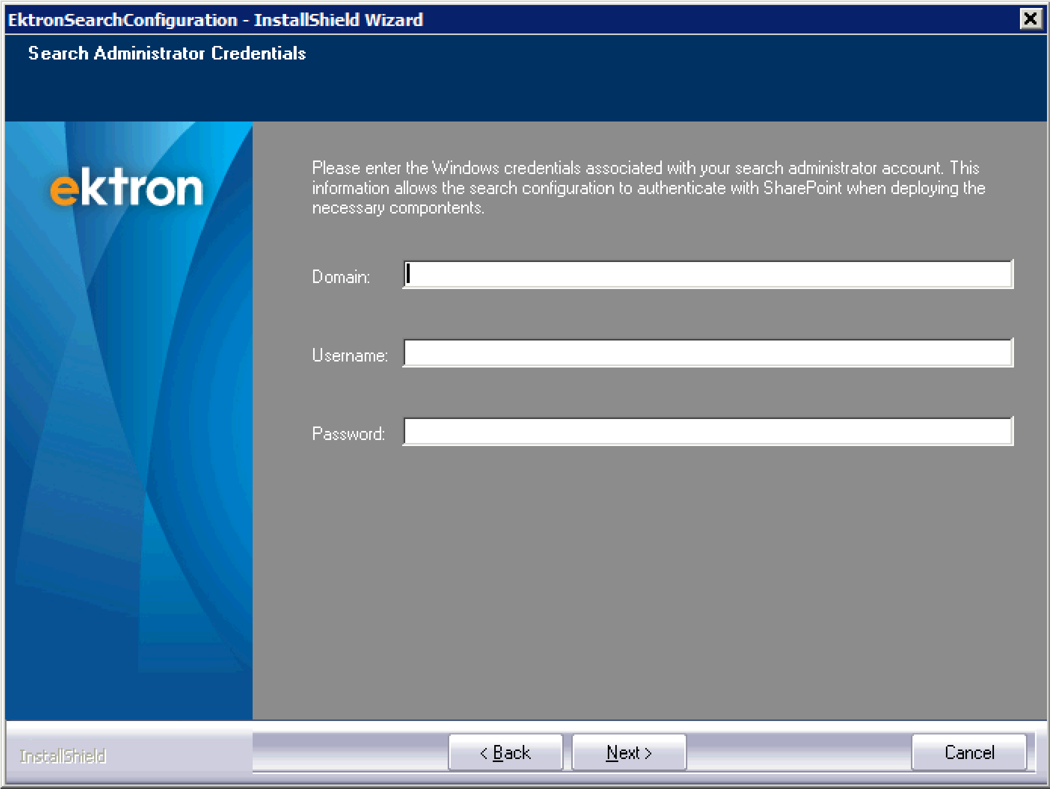


16. The Specify Farm Security Settings screen appears. Enter any password. You will need this to work with the SharePoint Products farm.
17. The Configure SharePoint Central Administration Web Application screen appears. Accept the default port number or enter a different one.

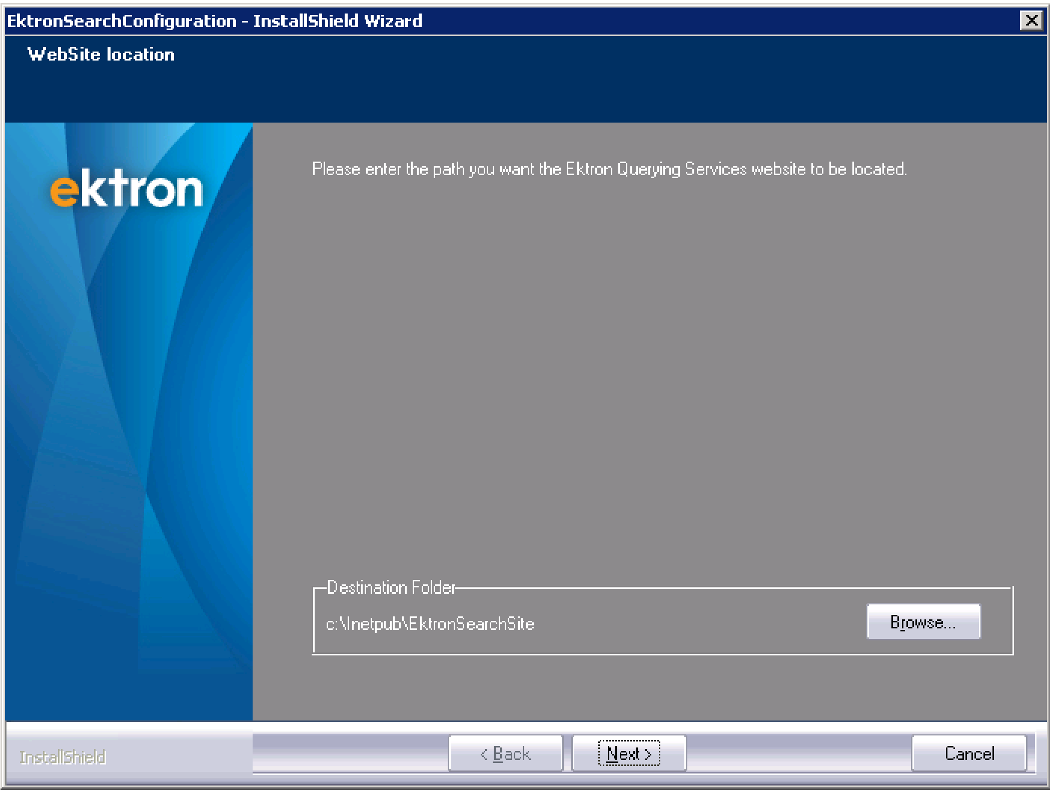


18. Under **Configure Security Settings**, choose **NTLM**. Click **Next**.
19. The final configuration wizard screen appears, summarizing all details that the wizard collected. If the information is acceptable, click **Next**.
20. The **Configuration Successful** message appears. Click **Finish**.
21. The SharePoint Central Administration opens with dialog about Customer Experience Improvement. Select No (or Yes) then click **OK**.
22. Click the **Start the Wizard** button on the Central Administration > Configure your SharePoint farm page.
23. Select **Use existing managed account** then click **Next**.
24. The page to create a top-level website displays. Click **Skip**.
25. The **Farm Configuration Wizard complete** page appears. Click **Finish**.
26. On the Ektron server, copy `C:\Program Files\Ektron\CMS400` *`versionnumber`*`\Utilities\SearchServer\EktronSearchConfiguration.exe`.
27. On the Search Server Express server, paste and run `EktronSearchConfiguration.exe` as an administrator. The **Search Administrator Credentials** screen appears.

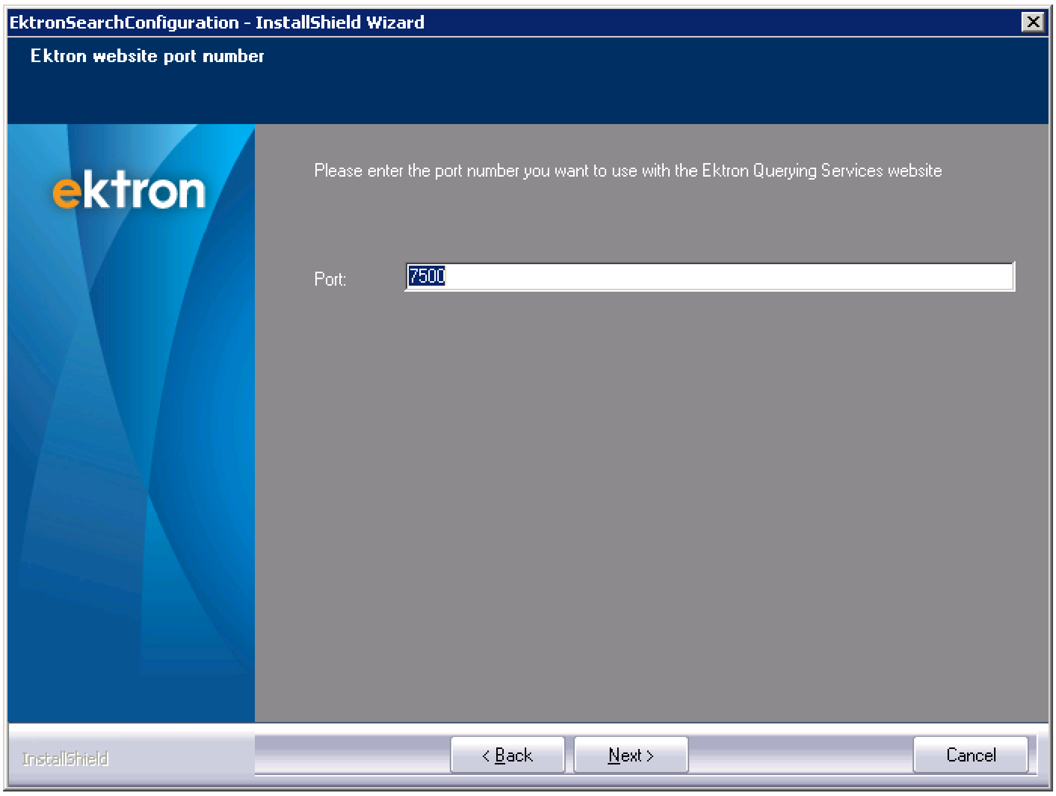
28. Enter the domain, username, and password of a user who is a member of the Windows Administrator group on the Search Server Express server. Click **Next**.



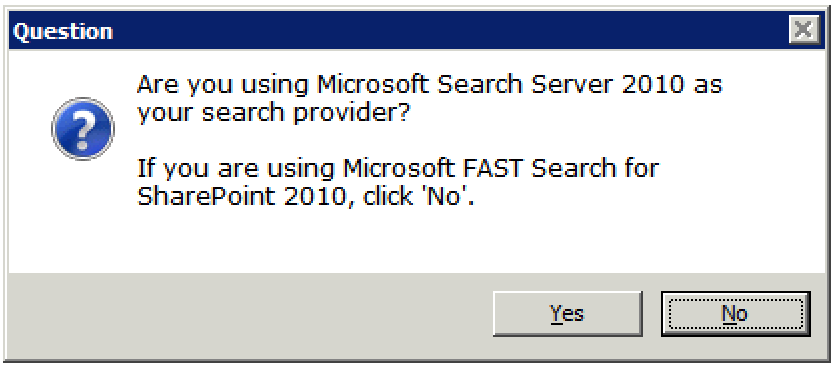
29. Determine the location of the folder that maintains the Ektron query service files.



30. Select the port number to use with the Ektron query service website.



31. The following screen appears. Click **Yes** even though you are using Search Server Express.



32. The Ektron Search Configuration files are installed and configured.
33. You are prompted to run the Ektron Search Configuration Utility. Click **OK**.
34. The InstallShield Wizard Complete dialog appears. Click **Finish**.
35. Run the Search Configuration utility on the Ektron server. For documentation of that process, see *Managing a Microsoft Search Server* on page 925.

Setting Up Microsoft Search Server 2010

BEST PRACTICE

In general, do not install Microsoft Search Server 2010 on a server that also hosts

Ektron. Only install both programs on the same server in a development environment.

Prerequisites

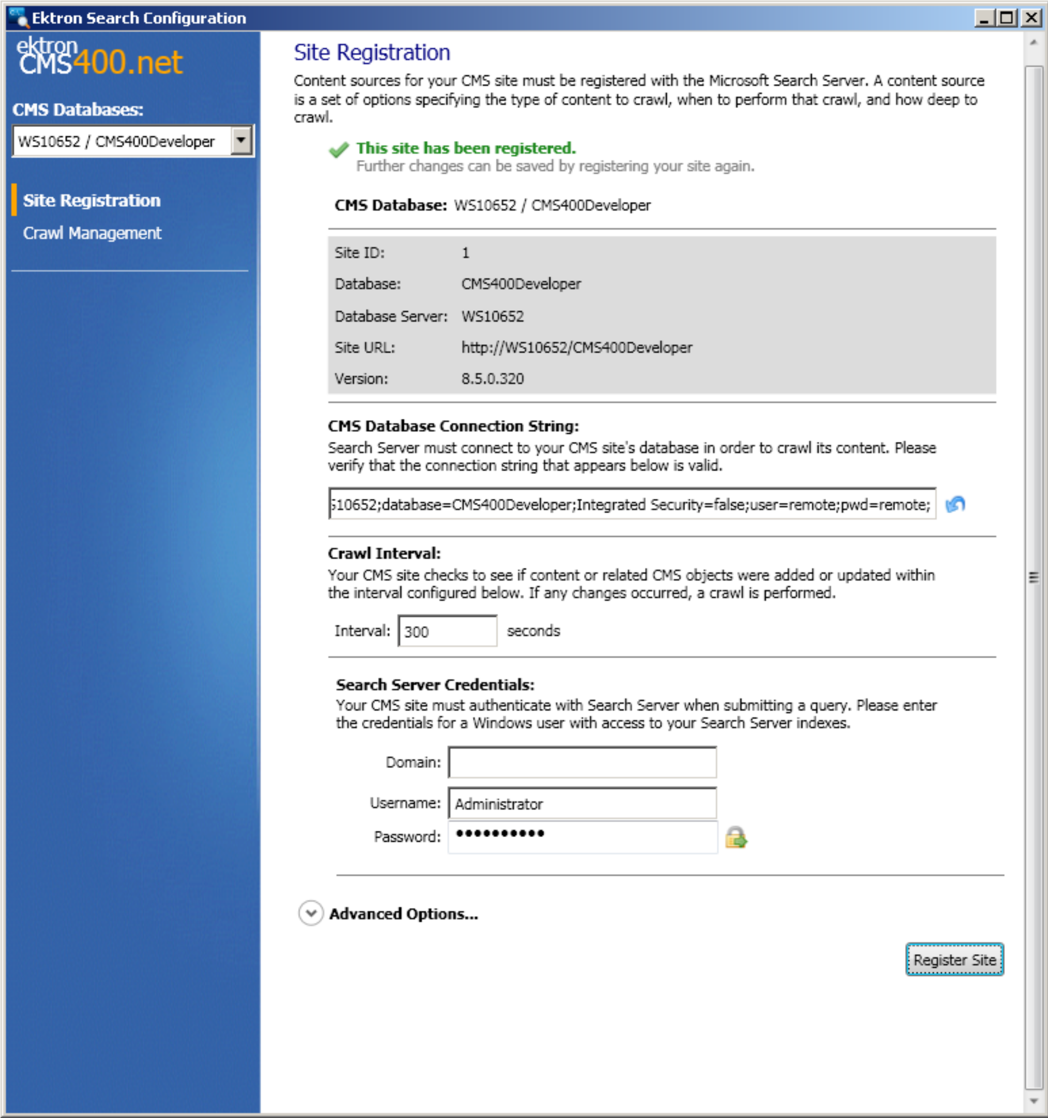
- You have purchased and deployed Microsoft Search Server 2010. See also: Product Licensing Search.
- An understanding of Microsoft Search Server 2010, Best practices for Search Server 2010
  Before beginning the installation, review these Microsoft documents.
  - Hardware and software requirements: https://technet.microsoft.com/en-us/library/bb905370(v=office.14).aspx#BKMK_hw_reqs
  - User requirements: https://technet.microsoft.com/en-us/library/ff717834(v=office.14).aspx
  - Installation of Microsoft Search Server 2010: https://technet.microsoft.com/en-us/library/ee808898(v=office.14).aspx
- Both servers can browse to each other across the network.
- The search, SQL, and CMS servers must be on the same domain.
- On your Microsoft Search Server 2010 server
  - Create a Windows user for search purposes. The user should be
    - a domain user
    - assigned the "log-on as a service" role
    - a member of the administrators group. That user must be logged in when Microsoft Search Server 2010 is being installed.
  - Verify that the server meets the *Optimizing Microsoft Search Server 2010 with Ektron* on page 880
  - Open port 6080 (used by the Protocol Handler Service)
- On your Ektron server
  - Open ports 6080 and 6081 (used by the CMS File Helper Service to communicate Ektron services and copy files between the Web and Search servers)
  - Set SQL Security to **SQL Server and Windows Authentication mode**
  - Through SQL Management Studio, add the Windows login that you created on your Microsoft Search Server 2010 server. Assign to that user
    - db_creator role
    - securityadmin SQL role

    Microsoft Search Server 2010 uses that login to access the Ektron database.

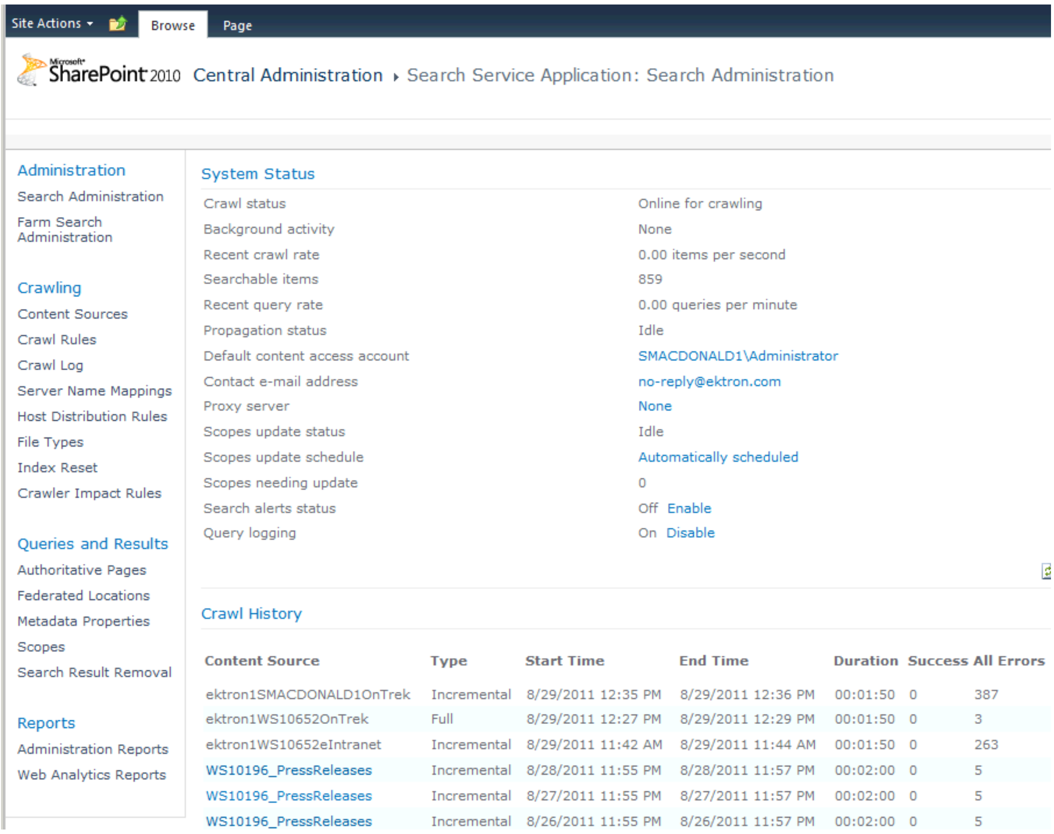
    You should update your Ektron site's `web.config` file's `<connectionstrings>` tag with the username and password of that SQL user. Set `Integrated Security` to `False`. Then, log into Ektron to verify that the connection string is valid. See also: *Managing the web.config File* on page 67.
- On your database server
  - Open Port 1433

Microsoft Search Server 2010 Features

- A configuration screen for connecting Ektron server with the server hosting Microsoft Search Server 2010. That screen also monitors the status of search crawls.



- You can also manage search via SharePoint 2010's Central Administration console.



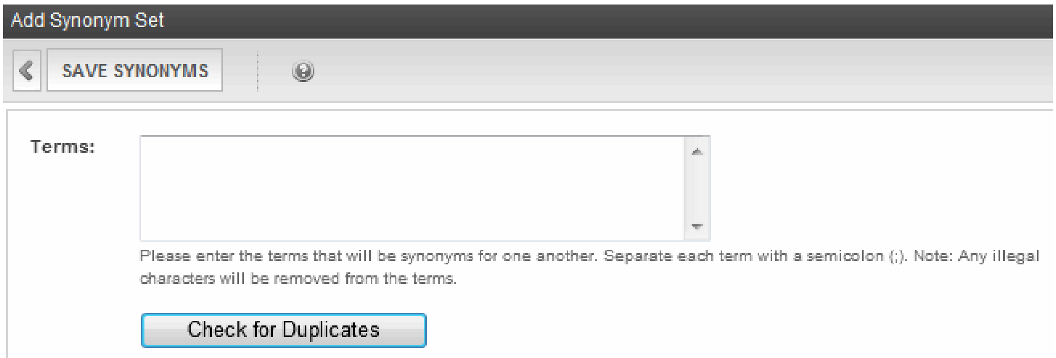
Crawl status	Online for crawling
Background activity	None
Recent crawl rate	0.00 items per second
Searchable items	859
Recent query rate	0.00 queries per minute
Propagation status	Idle
Default content access account	SMACDONALD1\Administrator
Contact e-mail address	no-reply@ektron.com
Proxy server	None
Scopes update status	Idle
Scopes update schedule	Automatically scheduled
Scopes needing update	0
Search alerts status	Off Enable
Query logging	On Disable

Content Source	Type	Start Time	End Time	Duration	Success	All Errors
ektron1SMACDONALD1OnTrek	Incremental	8/29/2011 12:35 PM	8/29/2011 12:36 PM	00:01:50	0	387
ektron1WS10652OnTrek	Full	8/29/2011 12:27 PM	8/29/2011 12:29 PM	00:01:50	0	3
ektron1WS10652eIntranet	Incremental	8/29/2011 11:42 AM	8/29/2011 11:44 AM	00:01:50	0	263
WS10196_PressReleases	Incremental	8/28/2011 11:55 PM	8/28/2011 11:57 PM	00:02:00	0	5
WS10196_PressReleases	Incremental	8/27/2011 11:55 PM	8/27/2011 11:57 PM	00:02:00	0	5
WS10196_PressReleases	Incremental	8/26/2011 11:55 PM	8/26/2011 11:57 PM	00:02:00	0	5

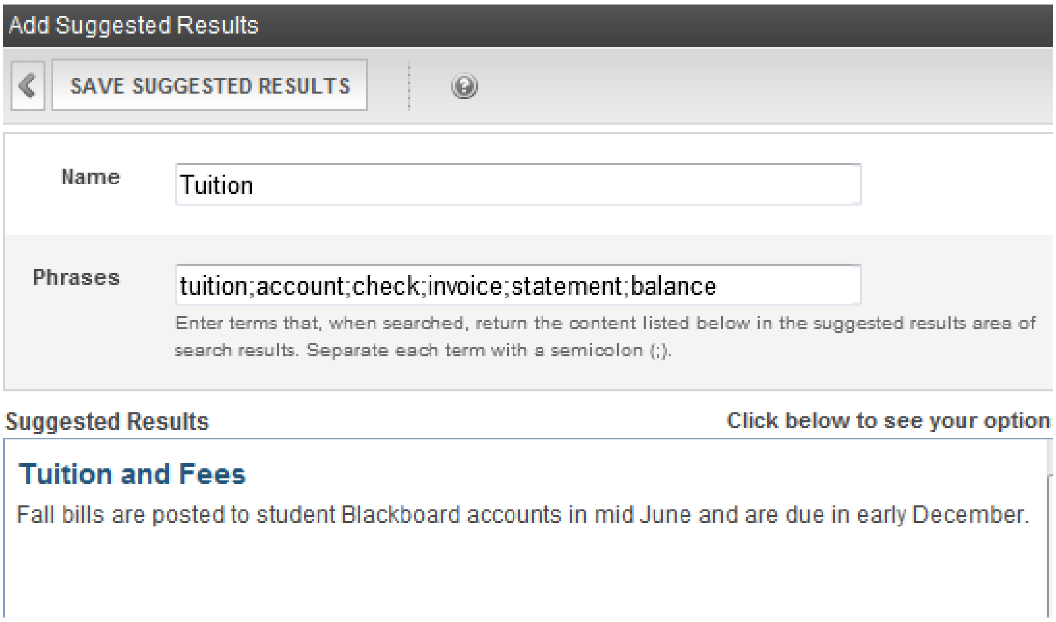
- Workarea screens that let you
  - view the status of search crawls
  - begin new ones if needed

Status Item	Value	Description
Content Source Name	ektron1WS10652CMS400Developer	The index associated with your site.
Query Credentials	Administrator	The Windows user authorized to communicate with the query service.
Crawl Request Pending	No	Indicates whether or not the site has a request for a crawl to submit.
Current Action	Idle	The indexing activity that is currently in progress.
Pending Action	None	The indexing activity that will execute upon completion of the current activity.
Crawl Start Time	5/2/2011 2:02:36 PM	The start time of the most recent crawl.
Crawl End Time	5/2/2011 2:05:16 PM	The end time of the most recent crawl.
Crawl Duration	00:02:40	The duration of the most recent crawl.
Crawl Interval	00:05:00	Indicates how often the site will submit crawl requests.

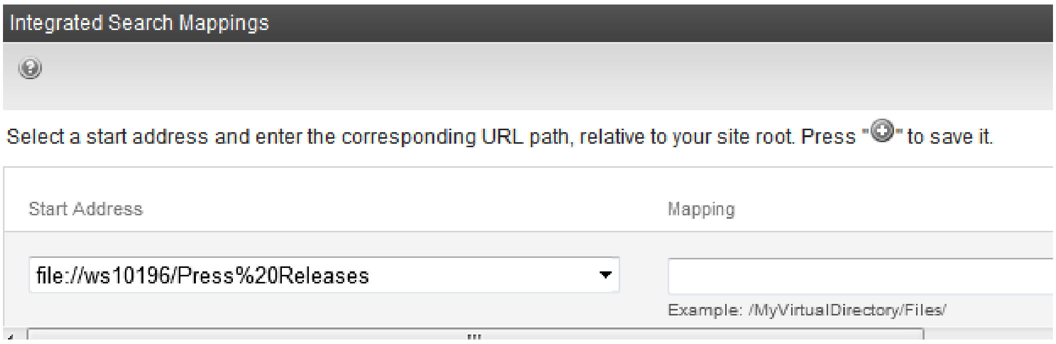
- Create and maintain synonym sets



- Create and maintain suggested results

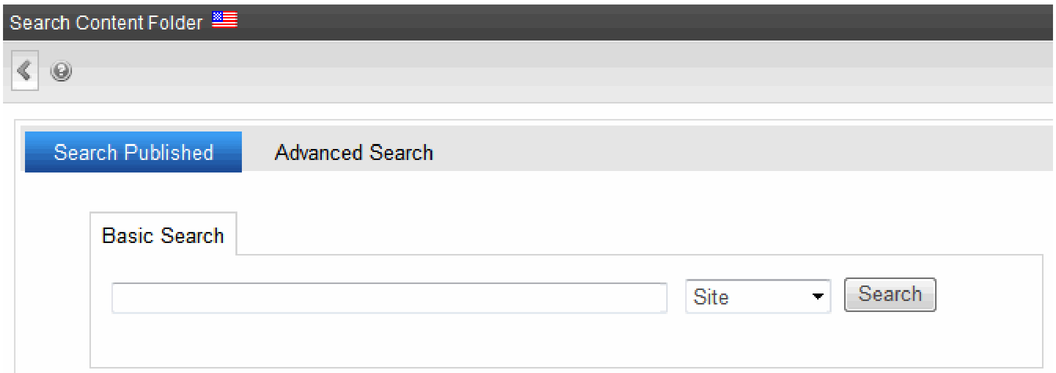


- Manage the Integrated Search



- Templated controls let developers deploy search functionality to the website

- Workarea search, which lets Ektron administrators and editors find content within the Workarea



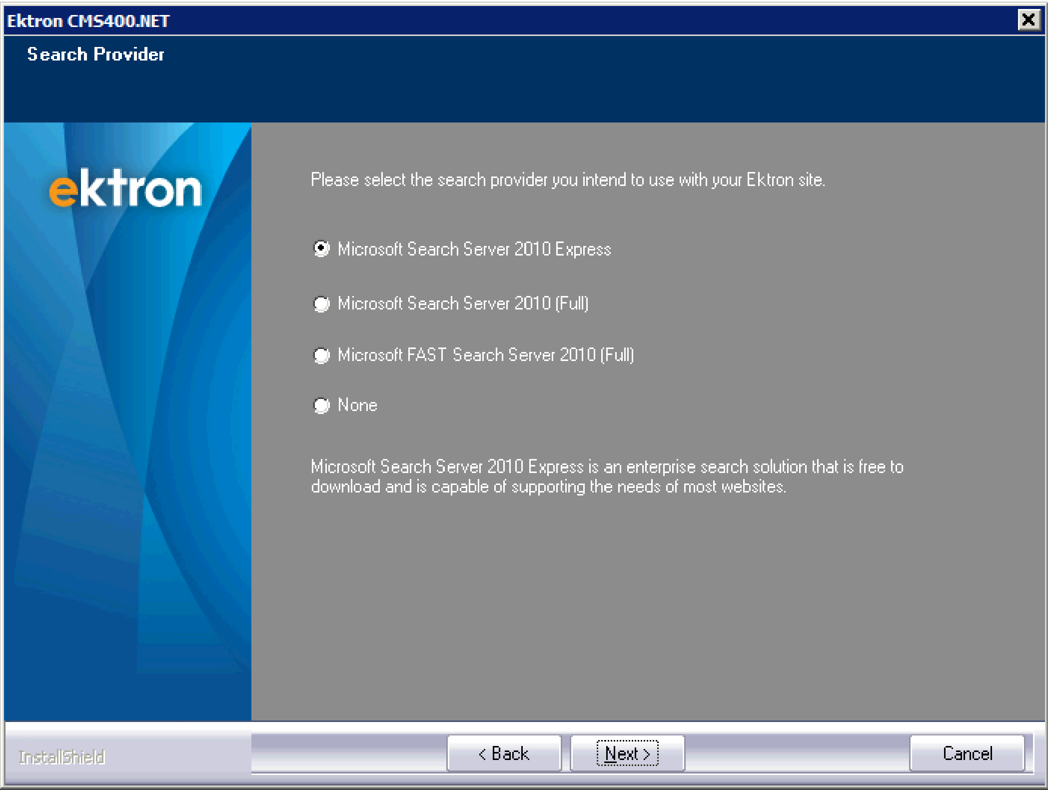
Installing Microsoft Search Server 2010

1. Log into the search server as the user created for search purposes. As explained in *Prerequisites* on page 872, the user must be
   - a domain user
   - assigned the "log-on as a service" role
   - a member of the administrators group. That user must be logged in when Microsoft Search Server 2010 is being installed.
2. Install Microsoft Search Server 2010.

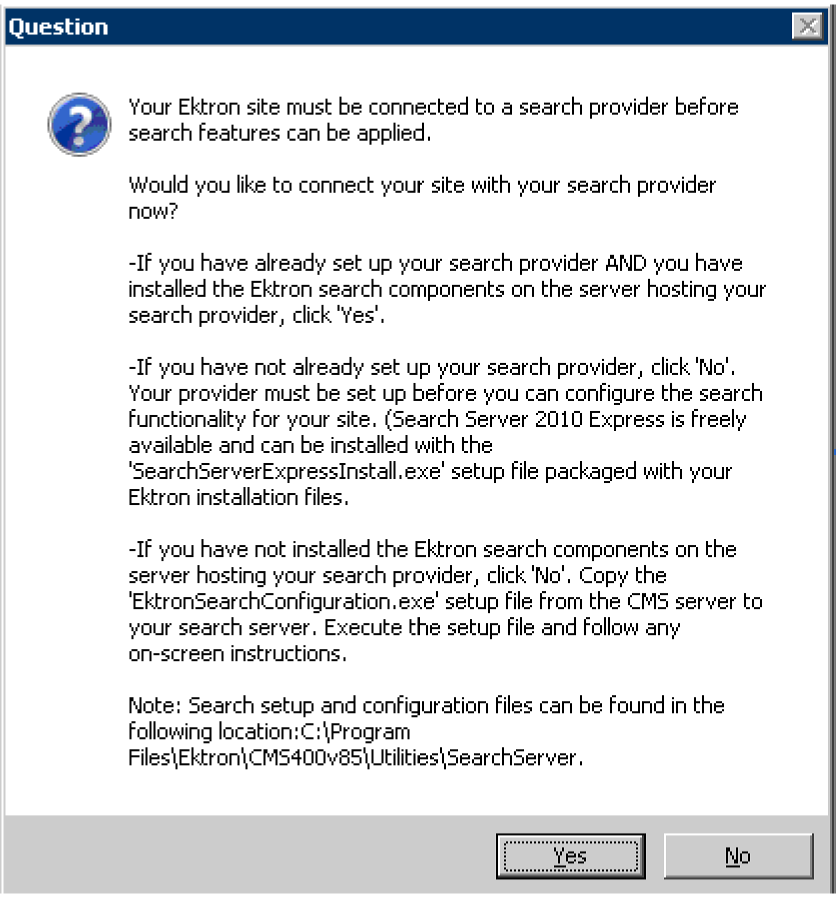
   NOTE: If your server has Windows 7, you must use Microsoft Search Server Express 2010. See *Setting Up Microsoft Search Server 2010 Express* on page 864.

3. Install or upgrade Ektron on its server, using the normal procedure. See *Installing Ektron* on page 9, *Upgrading to Version 8.7* on page 35. If you already installed Ektron, skip to Step 6.

4. During the Ektron installation, choose Microsoft Search Server 2010 (Full).

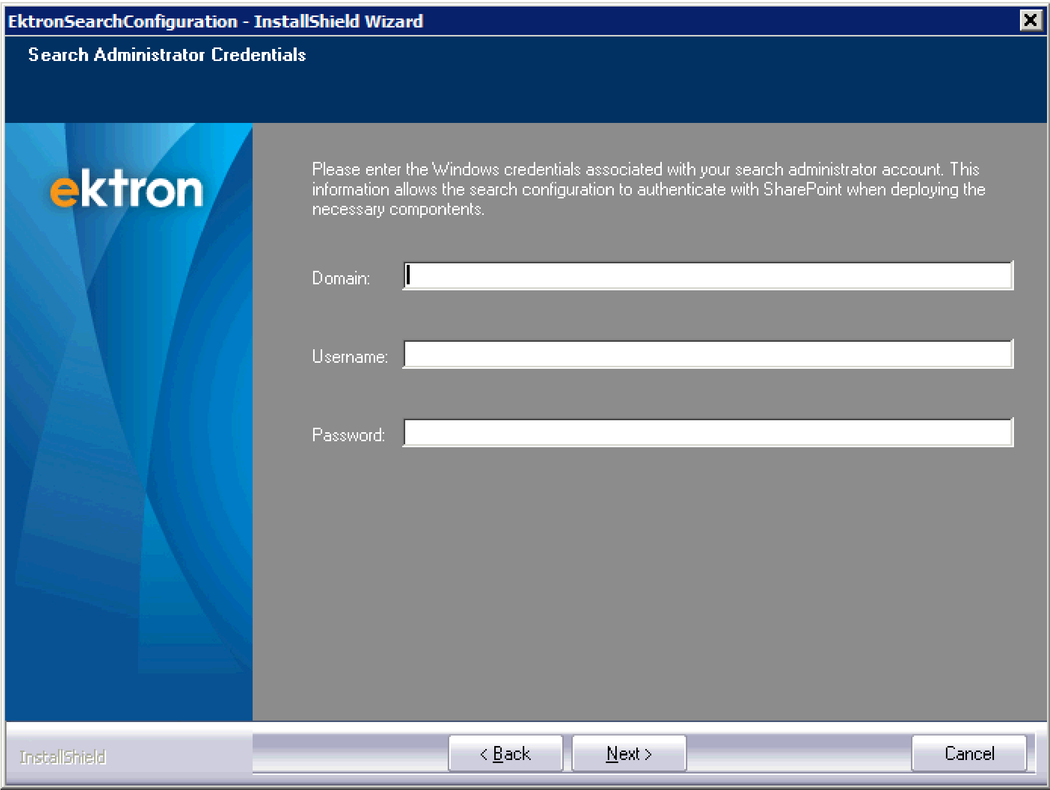


5. After the Ektron database setup, the following dialog appears. Click **No**.

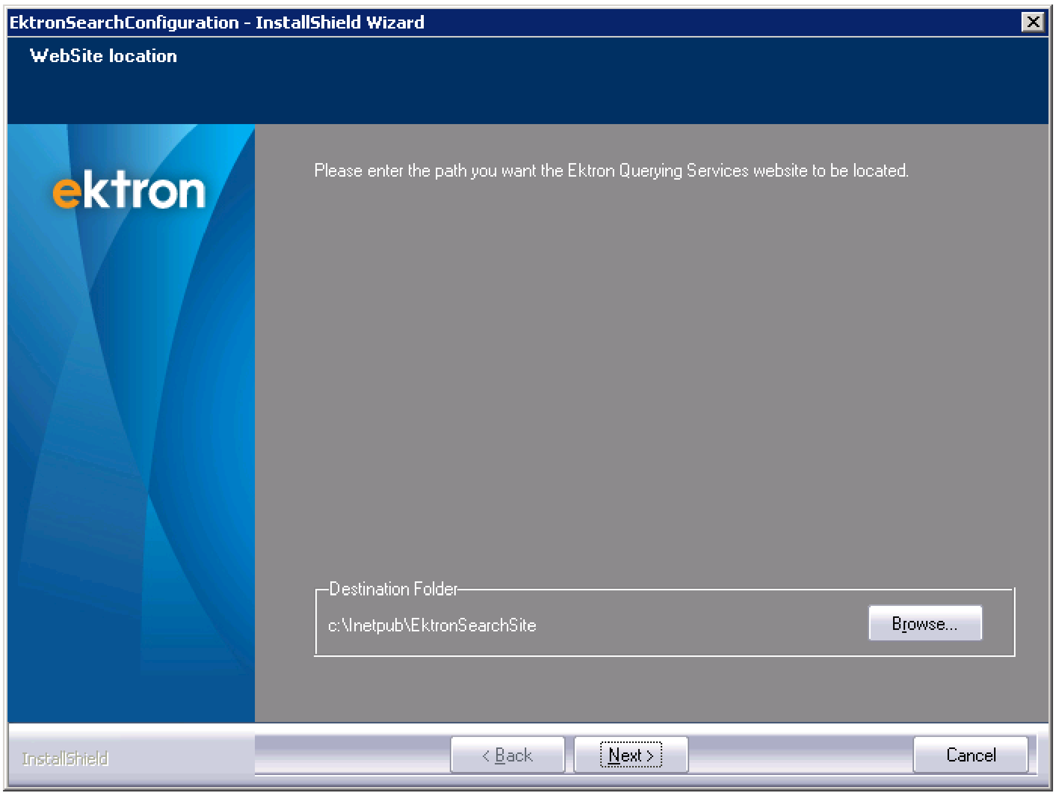


The Ektron installation completes.

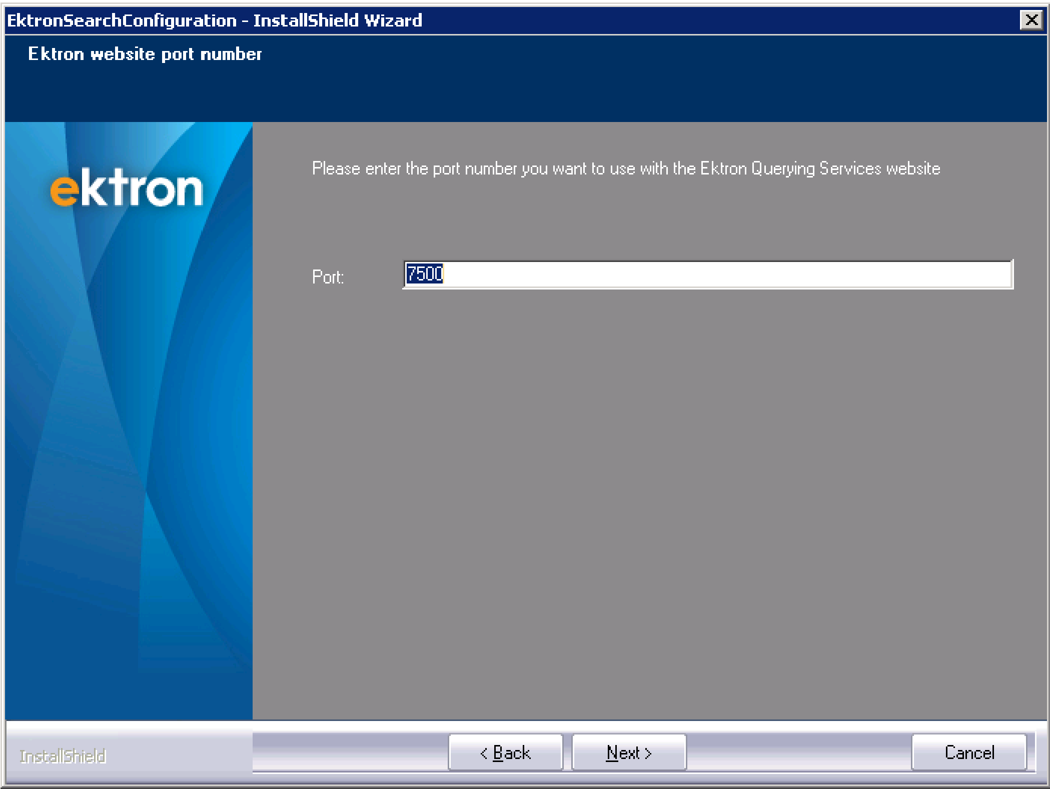
6. On the Ektron server, copy `C:\Program Files\Ektron\CMS400 `*`versionnumber`*`\Utilities\SearchServer\EktronSearchConfiguration.exe`.
7. Log onto the Microsoft Search Server 2010 server as the same user who ran the Search Server 2010 Install.
8. On the Microsoft Search Server 2010 server, paste and run `EktronSearchConfiguration.exe`. The **Search Administrator Credentials** screen appears.
9. Enter the domain, username, and password of a user with Windows Administrator privileges on the server you will use for Microsoft Search Server 2010.



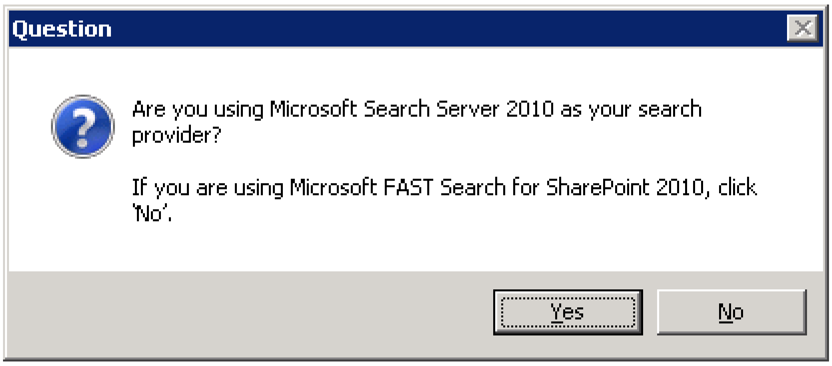
10. Determine the location of the folder that maintains the Ektron query service files.



11. Select the port number to use with the Ektron query service website.

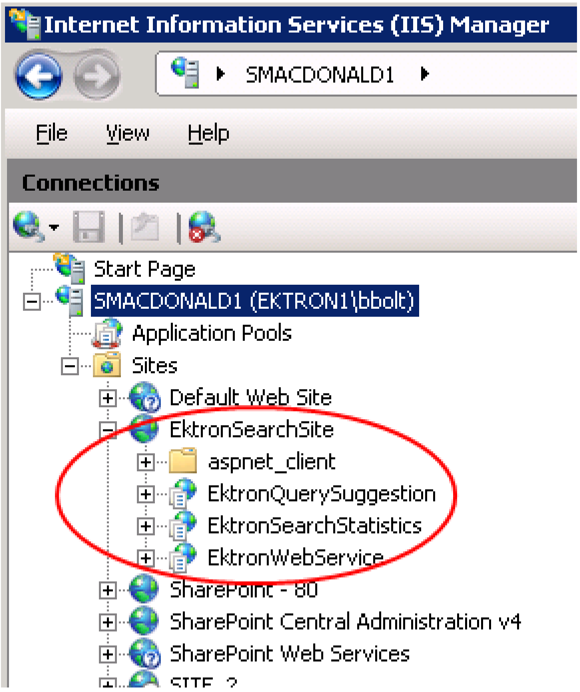


12. The following screen appears. Click **Yes** if you are using Microsoft Search Server 2010. Click **No** if you are using Microsoft FAST Search Server 2010



13. The Ektron files are installed and configured. A message instructs you to run the Search Configuration utility on the Ektron server. For documentation of that process, see *Managing a Microsoft Search Server* on page 925.

During installation, Ektron creates a new website in IIS to host the search services.



Optimizing Microsoft Search Server 2010 with Ektron

After installing Microsoft Search Server 2010, you can do several things to optimize Ektron's use of that technology. These actions ensure you are doing everything possible to help site visitors find Ektron content.

- You want Ektron to search text within Visio files. See *Installing the Visio IFilter* on page 943.
- You want Ektron to search aliased pages, and their extension is not one of Search Server's standard file types. See *Defining Unusual File Extensions Used in Aliasing* on the facing page.
- The crawl is taking a long time and your website has over 1 gigabyte of assets, and over 100 PDFs. Install Foxit PDF Filter from Foxit® PDF IFilter - Server.

  After installing, update the registry:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office
Server\14.0\Search\Setup\Filters\.pdf] "Extension"=".pdf"
"FileTypeBucket"=dword:00000001
"MimeTypes"="application/pdf"
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\
Office Server\14.0\Search\Setup\ContentIndexCommon\Filters\Extension\.pdf]
@="{987f8d1a-26e6-4554-b007-6b20e2680632}"
```

See Also: Index and Search PDF Files in SharePoint Server 2010

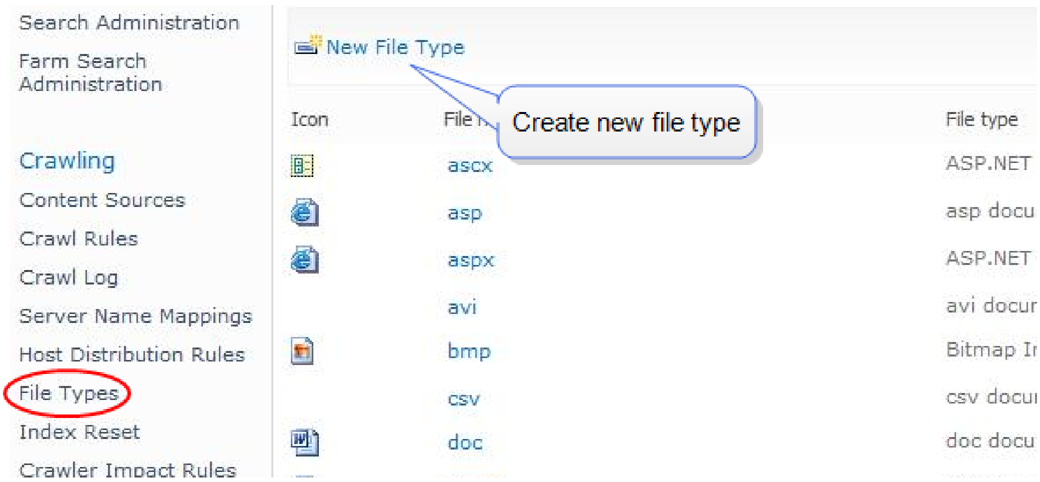
- Either the crawl or the response time for search queries is too slow. See *Setting Up Microsoft Search Server 2010* on page 871.

Defining Unusual File Extensions Used in Aliasing

Ektron's Aliasing feature lets you create human-readable URLs, such as `www.ektron.com/support`. The URL Aliasing Configuration screen lets you define file types that may be applied to aliased pages. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

If you define an aliasing file type that is not on Search Server's file type list, you must add the missing type to Search Server. Follow these steps to accomplish that.

1. Go to Windows **Start** button **> All Programs > Microsoft Search Server > Search Administration**.
2. Click **File Types** (as illustrated in the following figure).



3. Review the Search Server's file type list.
4. If you do not see all extensions defined on the URL Aliasing Configuration screen, click **New File Type** (shown in the previous image), then add the missing file types.

Windows Services Used by Microsoft Search Server 2010

Ektron's search feature uses several Windows services to monitor database updates, determine if a new crawl needs to be launched, and perform the database crawl. This section explains the operation of these services.

- **Ektron Search Server Service**
  - Runs on search server and Ektron site server.
  - Responsible for communicating between servers. It triggers search tasks such as crawling, synonym sets, and so on.
  - Whenever content is added, updated or deleted, this service changes the Search Status screen's **Incremental Crawl Request Pending** flag to **Yes**. As a result, the next time the crawl interval is reached, this service launches the Ektron CMS File Helper Service. See Also: *Managing a Microsoft Search Server* on page 925
- **Ektron ProtocolHandler File Helper Service**
  - Uses `protocolhandler.dll` file
  - Runs on Ektron server during a crawl
  - Gets content updates from database server and feeds them to Search Server
- **Ektron CMSFileHelper Service**
  - Runs on Ektron site server
  - Indexes assets and sends them to Ektron ProtocolHandler File Helper Service
- **Ektron Query Service**—Passes search term from Ektron server to Microsoft Search Server 2010 and returns results

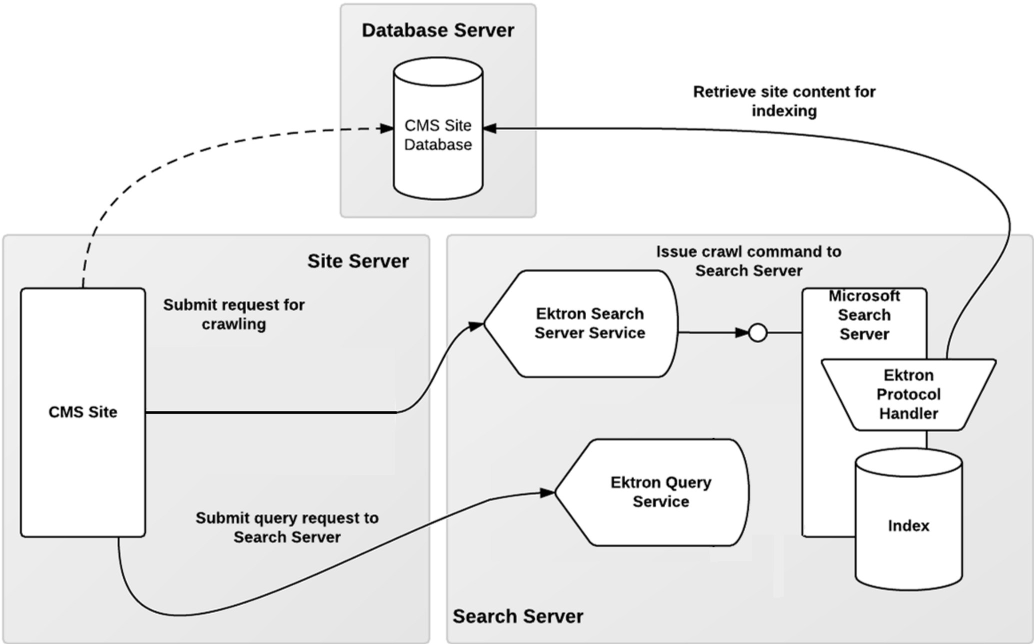
How Services Process Content Updates

1. As Ektron content is added, changed or deleted, the Ektron database is updated.

   NOTE: To learn about which events trigger a crawl, see *Full vs. Incremental Crawls* on page 931.

2. If the change warrants a full crawl, it is launched immediately.
3. If the change warrants an incremental crawl, the *Ektron Search Server Service* updates the flag that determines if a crawl needs to be started to **Yes**. You can view this flag on the Search Status screen's **Incremental Crawl Request Pending** field. When the crawl interval expires, the *Ektron CMS File Helper Service* sends content updates to the *Ektron Protocol Handler Service.*

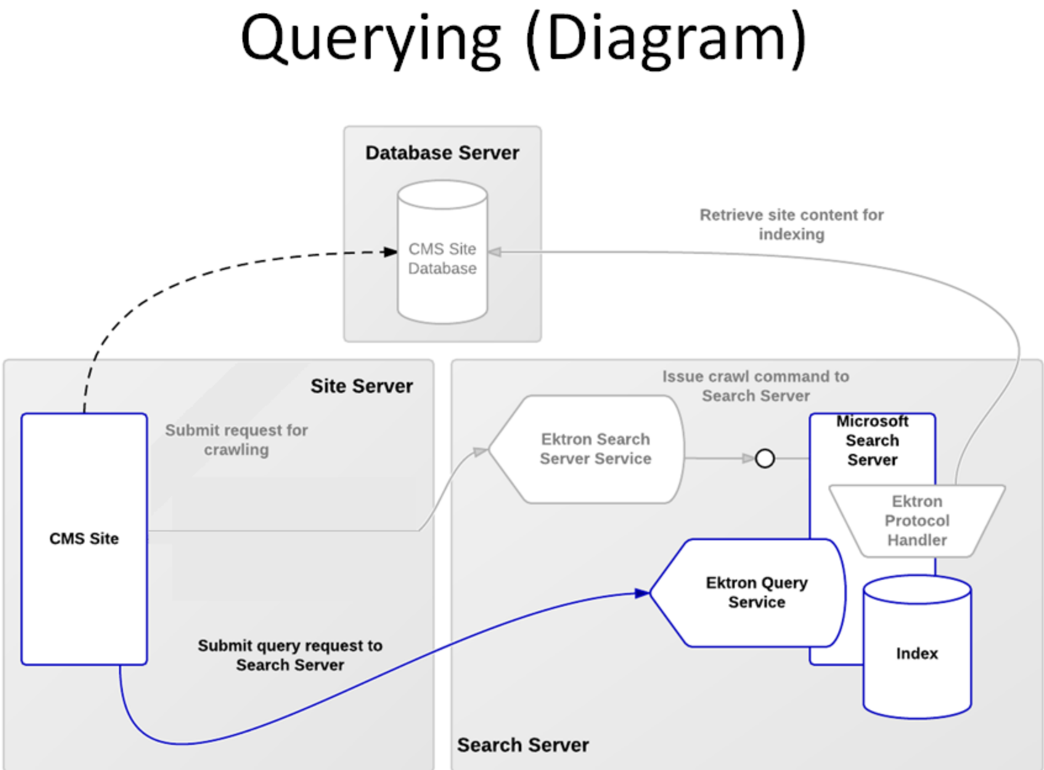
4. The *Ektron Protocol Handler Service* feeds the content updates to Search Server.



How Queries are Processed

Querying is the process by which Ektron retrieves content from the search index.

The Ektron site uses Ektron's Query Service to connect to Microsoft Search Server 2010.



Default Settings for Managed Properties Created by Ektron

When Ektron content is crawled by Microsoft Search Server 2010, the following default values are set for these metadata properties. You can edit the values using the Microsoft Search Server 2010 Central Administration console.

- Queryable—True
- StemmingEnabled—False
- RefinementEnabled—False
- MergeCrawledProperties—True
- SubstringEnabled—False
- DeleteDisallowed—False
- MappingDisallowed—False
- MaxIndexSize—1024
- MaxResultSize—64
- DecimalPlaces—10
- SortableType—SortableEnabled
- SummaryType—Static

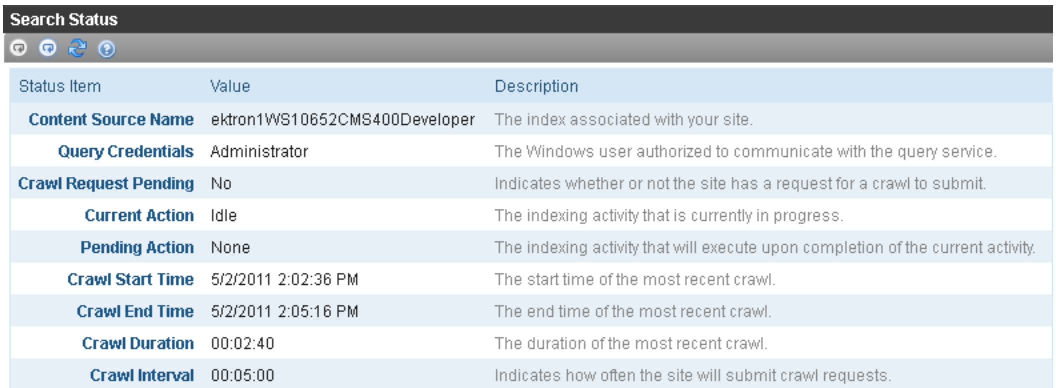
Monitoring Microsoft Search Server 2010 from the Workarea

Use the Search Status screen to monitor information about search crawls. You can also launch an incremental or full crawl from the screen. See Also: *Managing the Search Crawl* on page 931

PREREQUISITE

You are a member of the Administrators group or assigned to the Search Admin role.

1. Choose **Workarea > Settings >Configuration > Search > Status**. The Search Status screen appears.


Search Status

Status Item	Value	Description
Content Source Name	ektron1WS10652CMS400Developer	The index associated with your site.
Query Credentials	Administrator	The Windows user authorized to communicate with the query service.
Crawl Request Pending	No	Indicates whether or not the site has a request for a crawl to submit.
Current Action	Idle	The indexing activity that is currently in progress.
Pending Action	None	The indexing activity that will execute upon completion of the current activity.
Crawl Start Time	5/2/2011 2:02:36 PM	The start time of the most recent crawl.
Crawl End Time	5/2/2011 2:05:16 PM	The end time of the most recent crawl.
Crawl Duration	00:02:40	The duration of the most recent crawl.
Crawl Interval	00:05:00	Indicates how often the site will submit crawl requests.

- **Search server**—The Search Server instance that hosts your search index.
- **Content source name**—The Search Server content source that identifies your website.
- **Query credentials**—The Windows user authorized to communicate with the query service.

- **Incremental Crawl Request Pending**—**Yes** appears if there is a pending request to begin an incremental crawl. See Also: *Managing a Microsoft Search Server* on page 925. Otherwise, **No**.
- **Current and Next scheduled search action**—at any time, there may be an action that will start when the current one completes. There is never more than one.
  - **Idle**—Search Server is taking no action.
  - **None**—(appears for **Next Action** only) Nothing is scheduled to occur when the current action completes.
  - **Incremental Crawl**—Search Server is performing a crawl of content that changed since the last crawl.See Also: *Full vs. Incremental Crawls* on page 931
  - **Full Crawl** (Property Discovery)—Search Server is performing a crawl of Ektron content, looking for new searchable properties.
  - **Full Crawl**—Search Server is performing a crawl of all content.
  - **Property Mapping**—Search Server is mapping searchable properties that were found.
- **Most recent start and end times**—When the most recent crawl began and ended.
- **Duration** (**last** if no crawl currently running; **current** if crawl currently running)—If **last**, the length of time (in seconds) required to complete the most recent crawl. If **current**, the length of time (in seconds) since the current crawl began. Click the Refresh button ( ) to get the latest information.
- **incremental crawl interval**—See Also: *Setting the Incremental Crawl Interval* on page 931
- **Crawl filters**—See *Managing the Search Crawl* on page 931.

2. If you want to launch a crawl from the toolbar:
   - click ( ) to launch an incremental crawl (note black color)
   - click ( ) to launch a full crawl (note blue color)

Setting Up a Load-Balanced Search with Microsoft Search Server 2010

You can use load balancing to distribute your search's workload across multiple servers. Load balancing improves search's performance by significantly decreasing the time to complete search crawls and process search queries (especially when the site is under a heavy load).

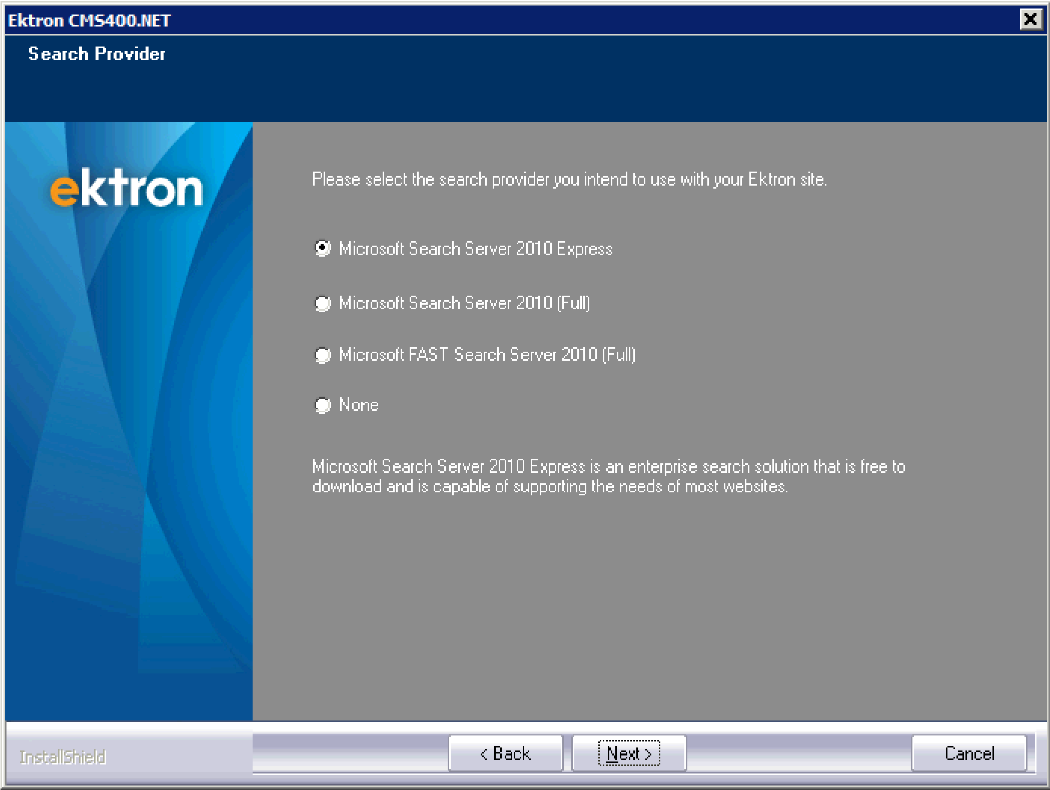
This section describes 2 scenarios for setting up Load Balanced search.

- You already installed Microsoft Search Server 2010 on one server, and now want to bring additional servers into the cluster—see *Adding a Site to a Server that Hosts Microsoft Search Server 2010 and Ektron* below
- You have not yet installed Microsoft Search Server 2010—see *Installing Microsoft Search Server 2010 to a Primary Server in a Load Balance Cluster* on page 887

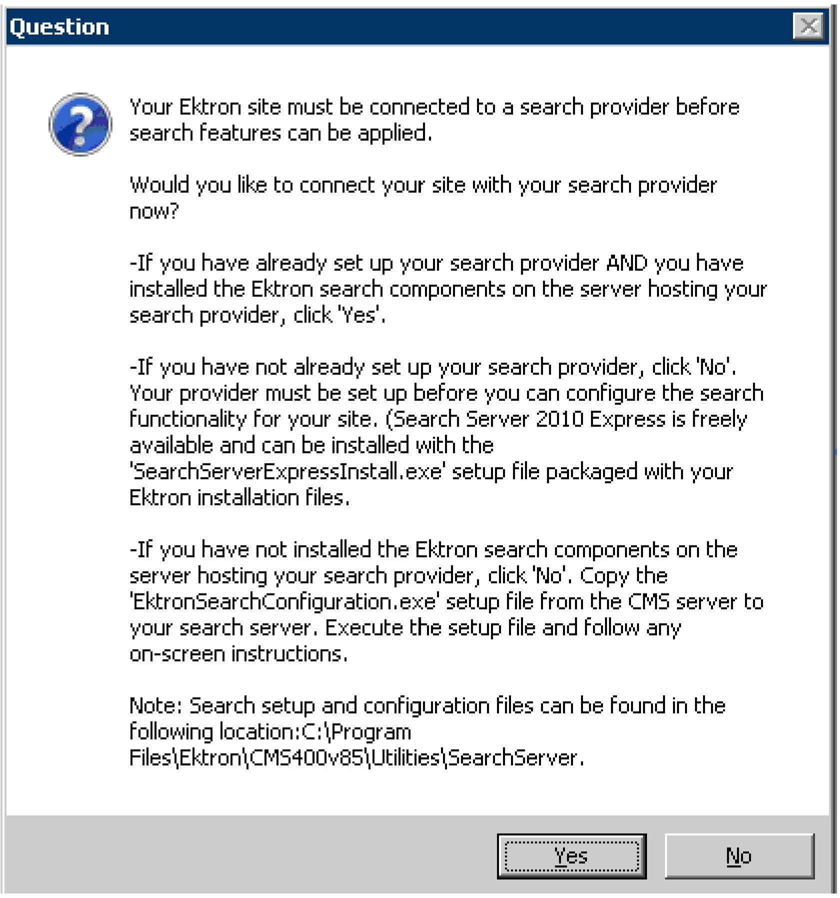
Adding a Site to a Server that Hosts Microsoft Search

Server 2010 and Ektron

1. On the Ektron server, run the Site Setup utility: Windows **Start** button **> Programs > Ektron >*version*> Utilities > CMS400 Site Setup**. See Also: *Installing a Site* on page 17
2. During the Ektron installation, you are prompted to choose a search provider. Choose Microsoft Search Server 2010 Full.



3. The setup continues as normal. After the installation is complete, the following dialog appears. Click **Yes**.



The Search Configuration screen appears. For documentation of that process, see *Managing a Microsoft Search Server* on page 925

Installing Microsoft Search Server 2010 to a Primary Server in a Load Balance Cluster

Use this procedure if you have not installed Microsoft Search Server 2010 on the *primary* server in a Load Balance cluster.

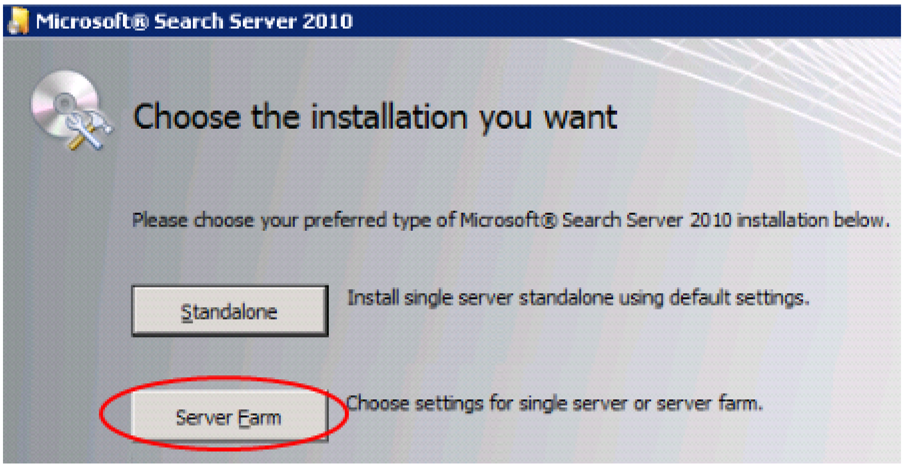
PREREQUISITE

See Hardware and software requirements (Search Server 2010).

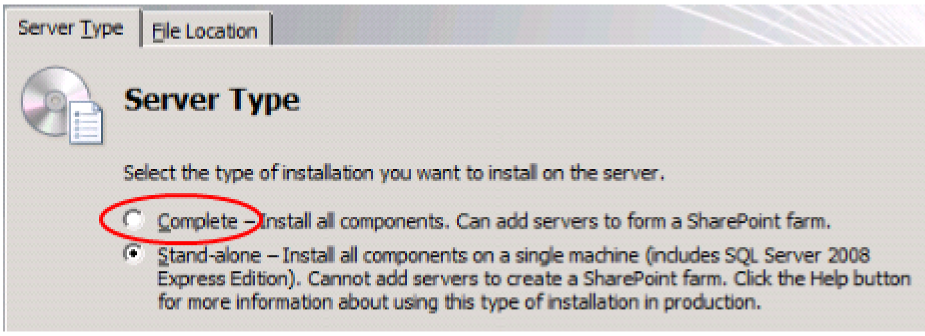
1. Obtain, download, and install Microsoft Search Server 2010.

   NOTE: You may be informed that you need to run the Products Preparation Tool before beginning the installation.

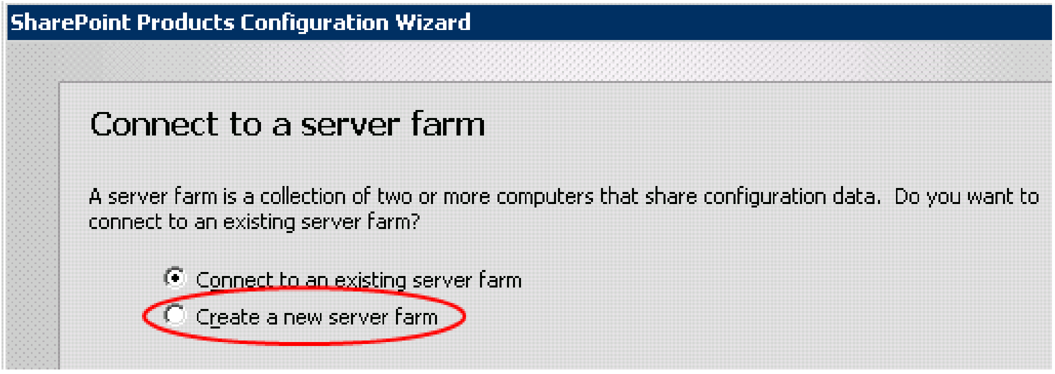
2. Choose **Server Farm** when you are prompted for an installation type.



3. On the **Server Type** tab, select **Complete** then click **Install Now**. Search server is installed.

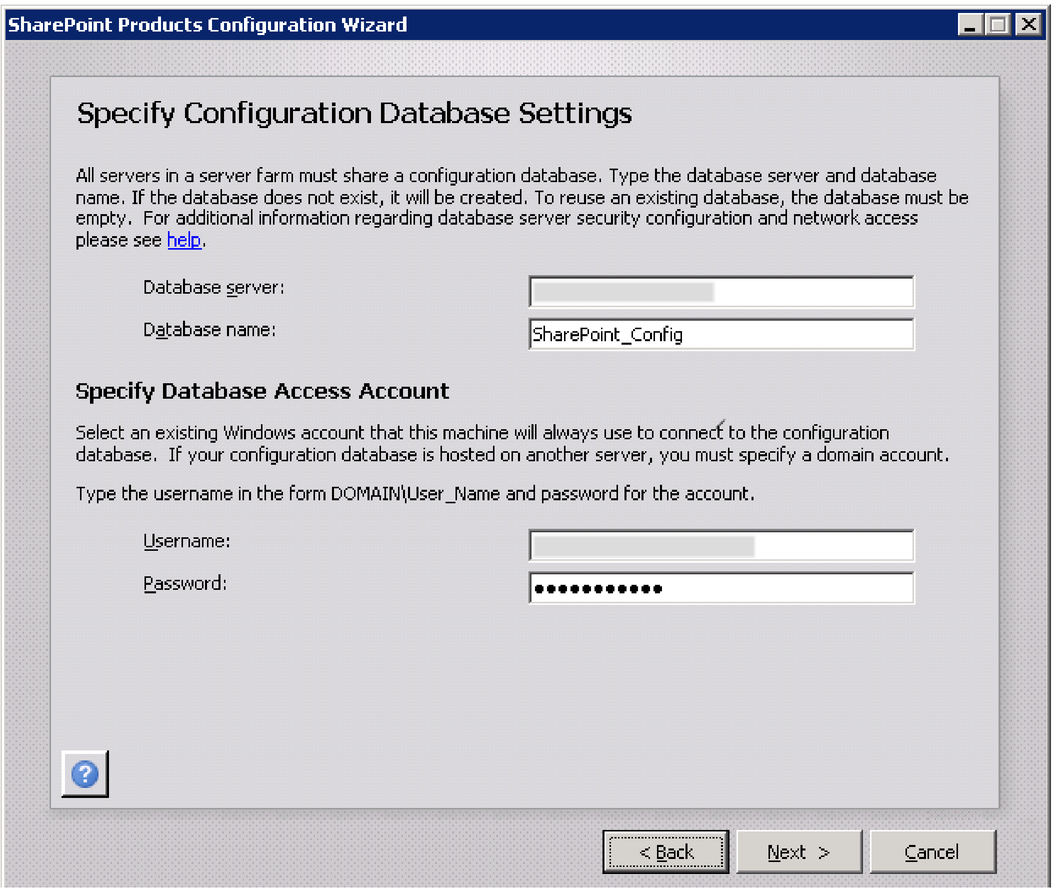


4. Run the Configuration Wizard, which lets you set up Microsoft Search Server 2010. The SharePoint Configuration Wizard is launched.
5. Choose **Create a new server farm** on the Connect to a server farm screen.



6. Specify a database server, name, and user name and password for access to the account.
   a. For **Database name**, accept the default of **SharePoint_Config**.
   b. Enter a **Username** and **Password** of a SQL user with the sysadmin role. Microsoft

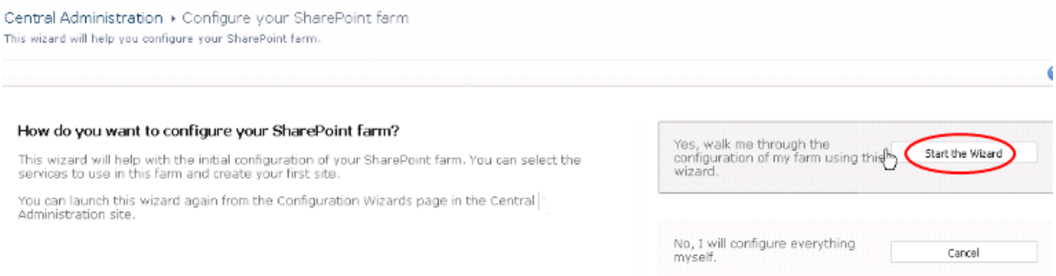
Search Server 2010 uses them to access your Ektron database. Click **Next**.



7. Enter a password for access to the server farm.

8. Enter a port number and Security settings. You may enter any open http port. For Security Settings, choose **NTLM**.

9. Click **OK** to confirm the information you entered.
10. Click **Finish** to launch the SharePoint Central Administration site to allow for additional configuration and provisioning. Noted that the first installation in a farm does not create a Web application or provision a site. See Also: [SharePoint 2010 Central Administration]().
    The following screen appears within SharePoint.



11. Click **Start the Wizard** and complete the wizard.

Adding Servers to a Load Balance Cluster

PREREQUISITE

You need 2 servers running Microsoft Search Server 2010; the servers *cannot* use Search Server Express.

See [Hardware and software requirements (Search Server 2010)]()

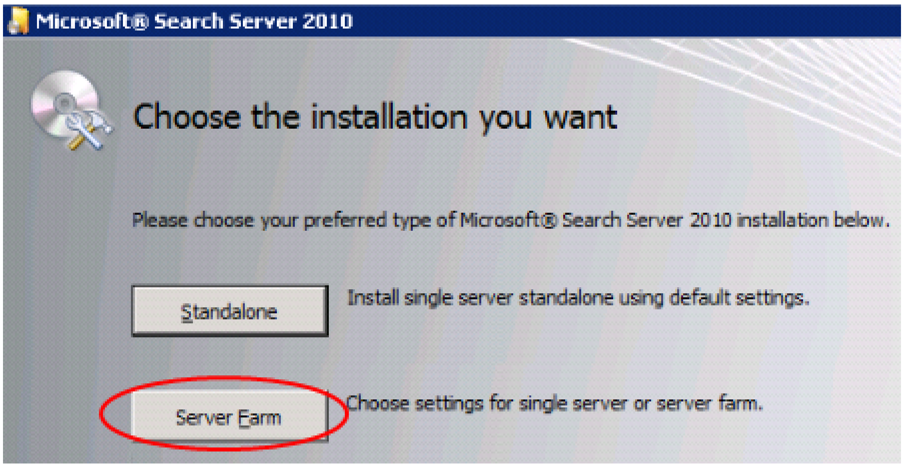
When setting up search load balancing, you need to decide which server is the primary one, and which is/are the secondary one(s). This procedure describes how to set up a single secondary server in a load balanced cluster. To set up additional secondary servers, follow these instructions for each secondary server. See Also: *Installing Microsoft Search Server 2010 to a Primary Server in a Load Balance Cluster* on page 887

Part 1: Install Microsoft Search Server 2010

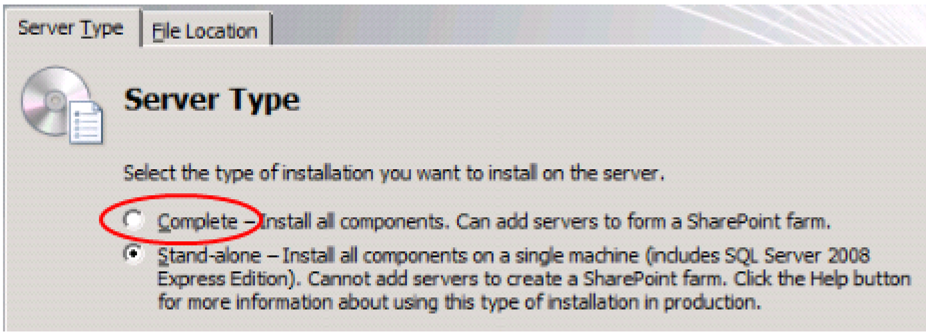
1. Obtain, download, and begin to install Microsoft Search Server 2010.

   NOTE: You may be informed that you need to run the Products Preparation Tool before beginning the installation.

2. For an installation type, choose **Server Farm**.



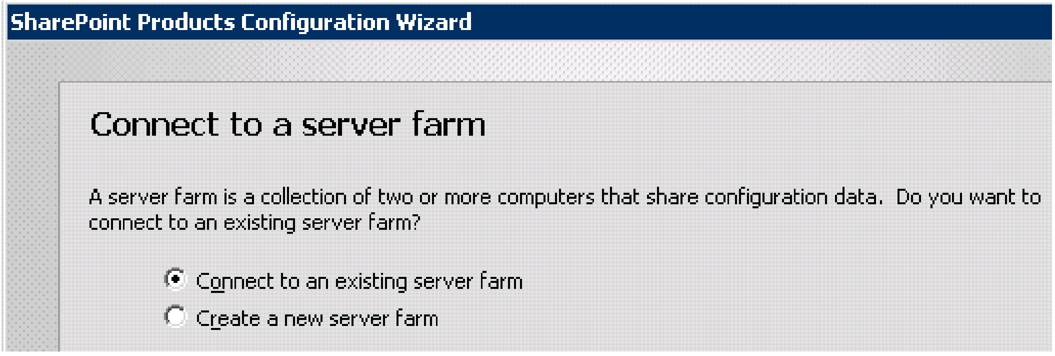
3. On the **Server Type** tab, select **Complete** then click **Install Now**.



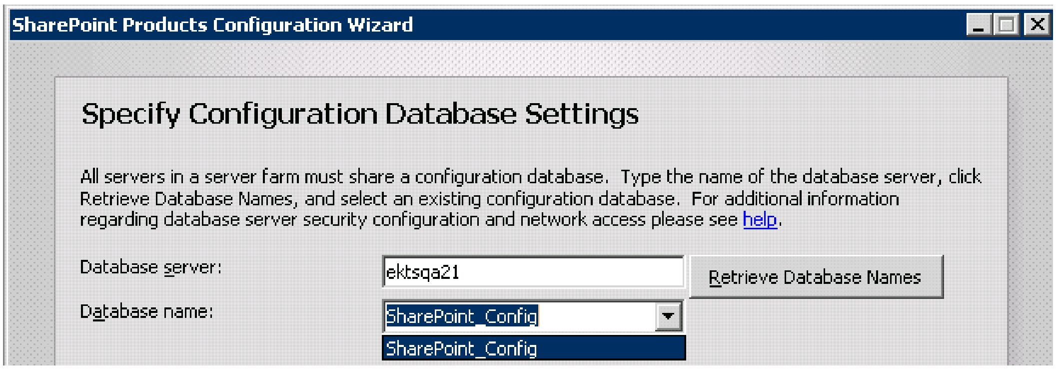
   Search server is installed.

4. Run the Configuration Wizard, which lets you set up Microsoft Search Server 2010. The SharePoint Configuration Wizard is launched.

5. On the Connect to a server farm screen, choose **Connect to an existing server farm**.



6. On the Specify Configuration Database Settings screen, in the **Database server** field, enter the primary server in the load balance cluster.
7. Click **Retrieve Database Names**. The primary server's database appears in the **Database name** field.

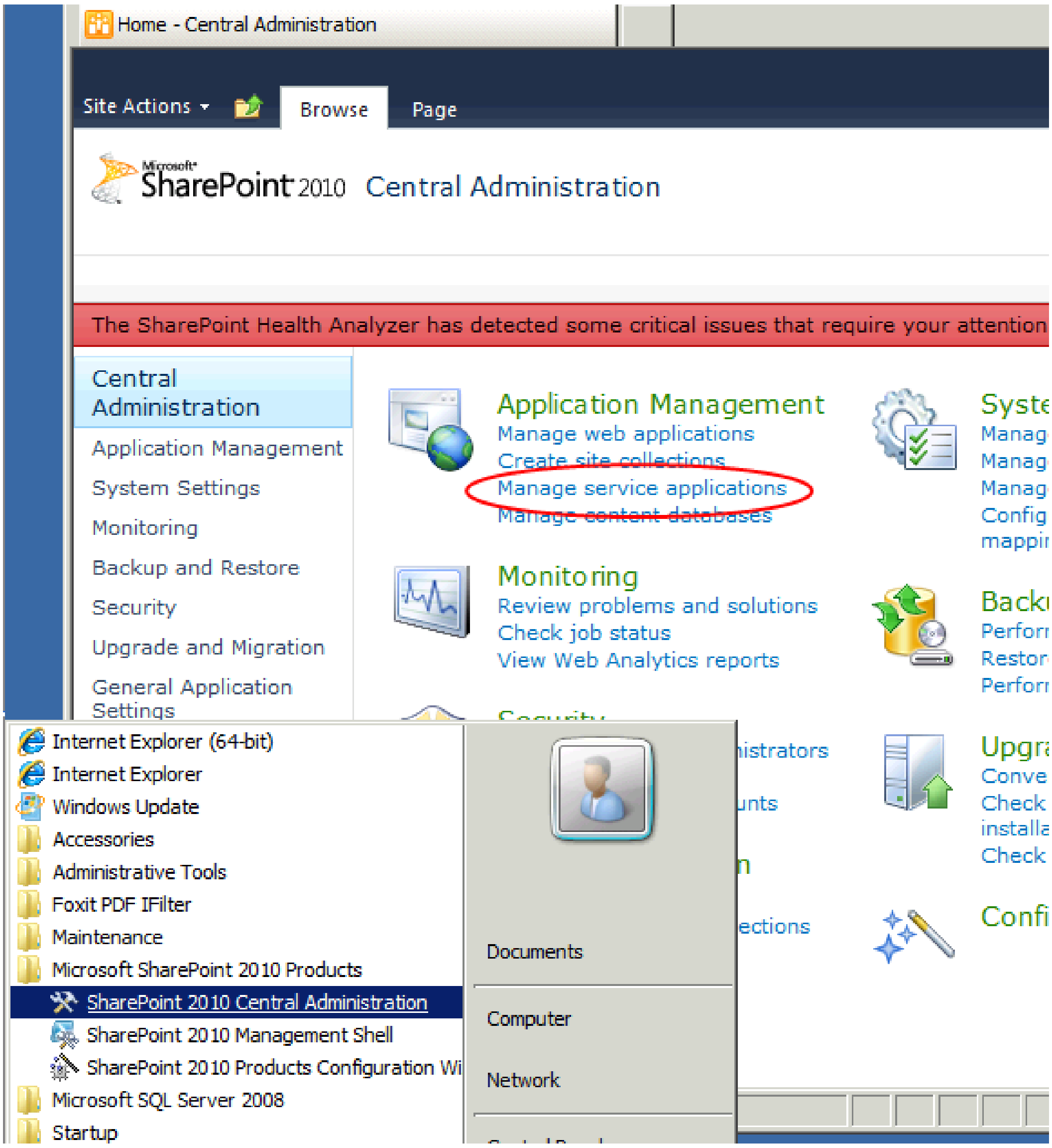


8. Enter the same passphrase that you entered when setting up the primary server. See Also: *Installing Microsoft Search Server 2010 to a Primary Server in a Load Balance Cluster* on page 887
9. Complete the remaining prompts; the wizard uses information to configure Microsoft Search Server 2010.

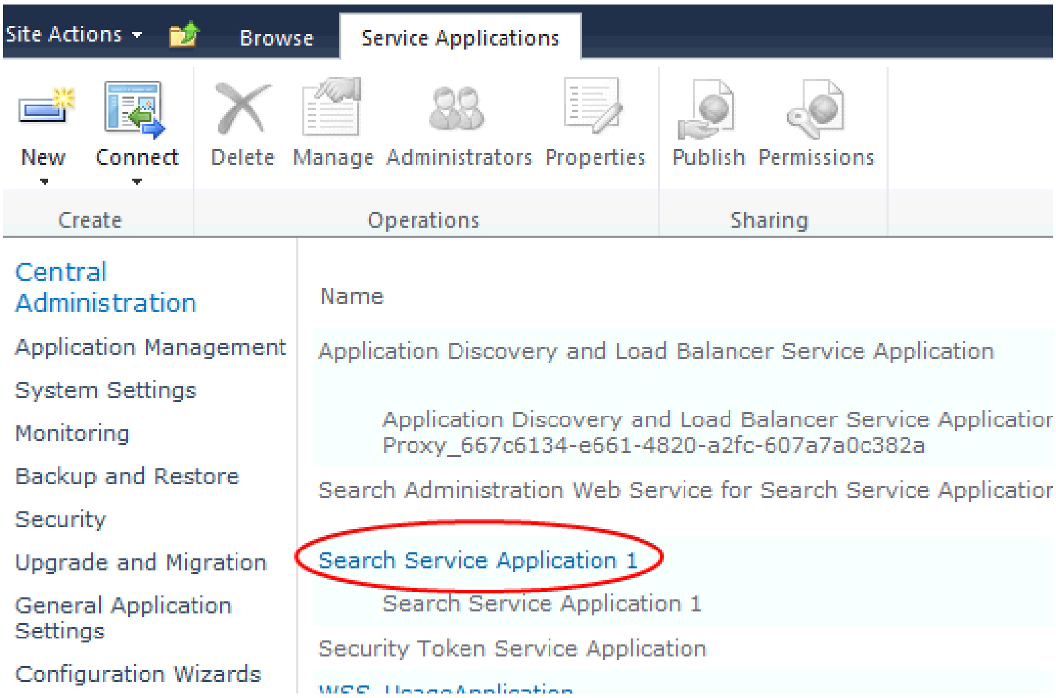
Part 2: Set up Query Components

In this procedure, you create 2 query components. One defines this secondary server as a failover server, which takes over processing if the primary server goes offline. The second query component distributes the processing of search queries among search servers.

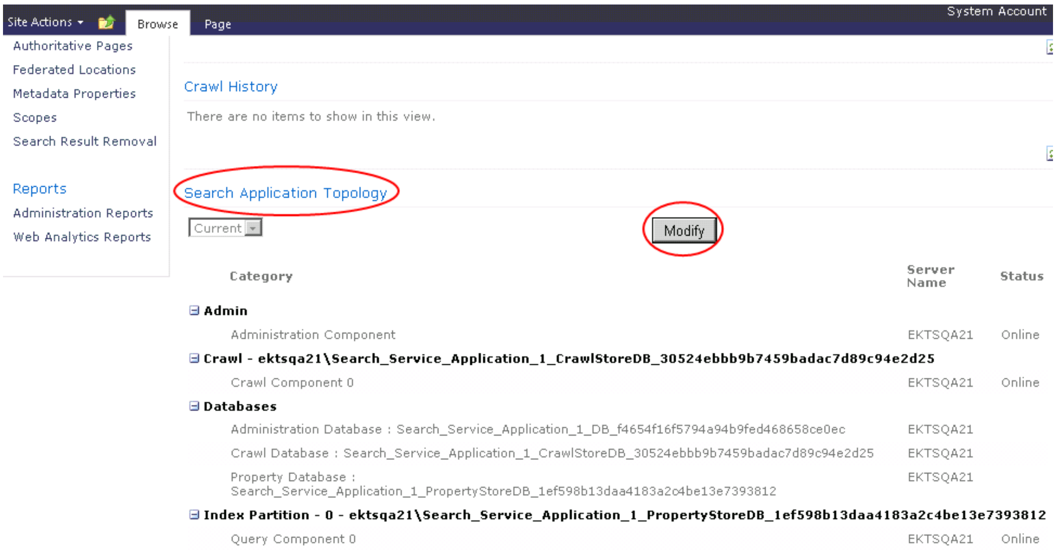
1. Open Microsoft Search Server 2010's Central Administration screen.



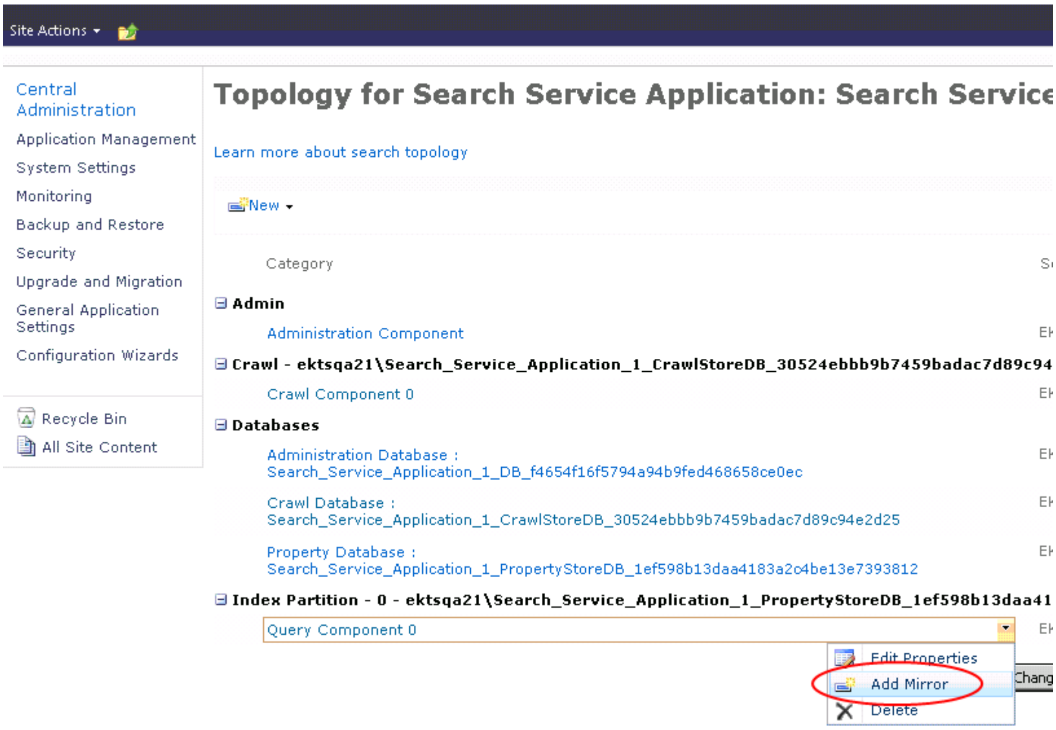
2. Click **Manage service applications** (highlighted). The Service Applications screen appears.
3. Click **Search Service Application 1**. The Search Service Application 1: Search Administration screen appears.



4. Scroll down to **Search Application Topology** and click **Modify** (highlighted).



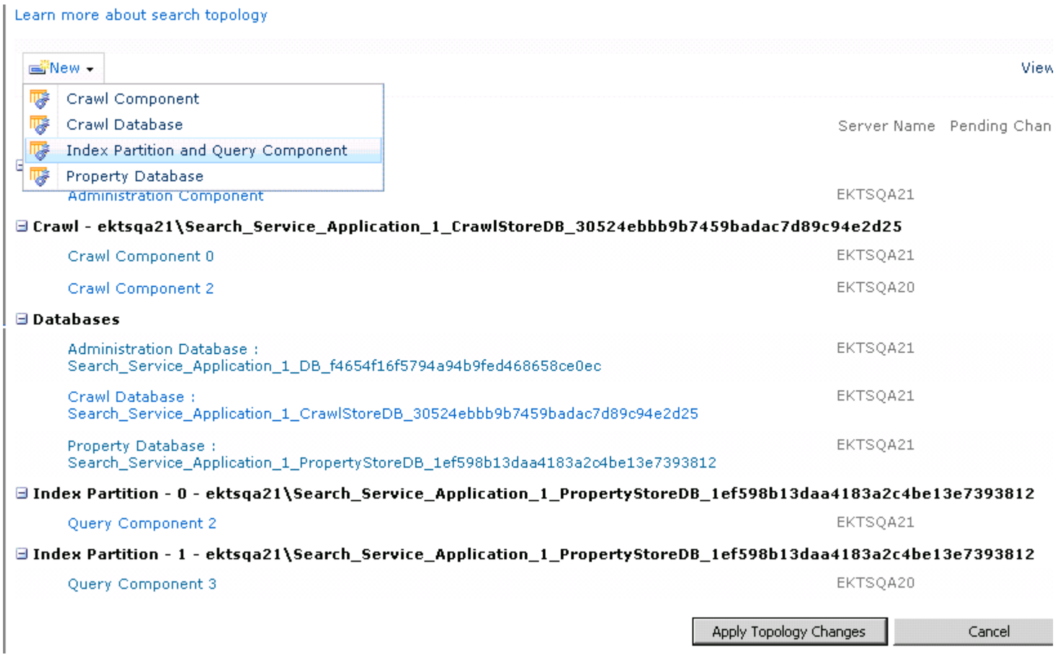
5. To set up the failover server, under **Index partition 0**, click **Query Component**, then **Add Mirror**.



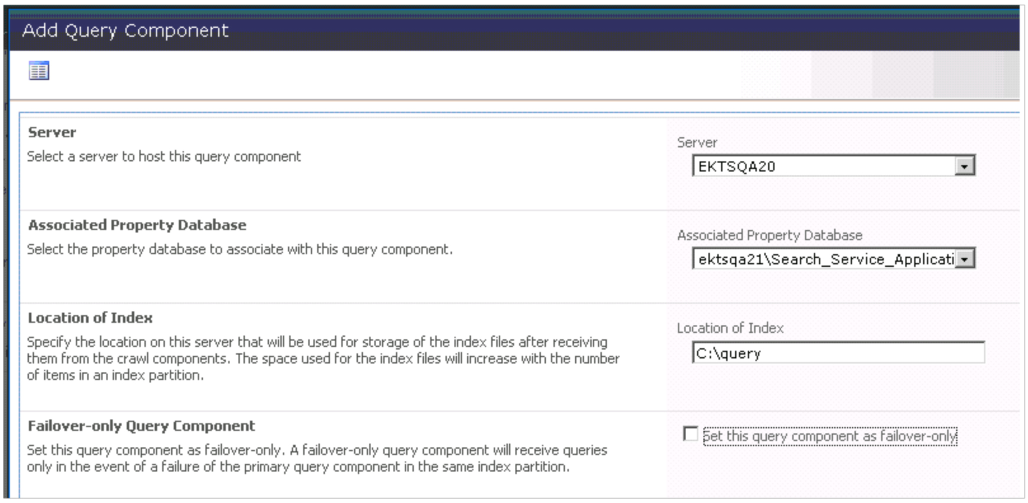
6. Use the following information to complete the Add Mirror Query Component screen.
   - **Server**—Enter the server to which you are currently signed on.
   - **Associated Property database**—Select the primary server and the database you specified in Step 4.
   - **Location of Index**—Accept the default.
   - **Failover-only Query Component**—Ektron recommends checking this box. If you do, when the primary search server goes offline, the secondary server processes all search queries until the primary server returns.
7. The Search Service Application 1: Search Administration screen reappears. Click **Apply Topology Changes**.

   The secondary server now appears under **Index Partition** (highlighted).

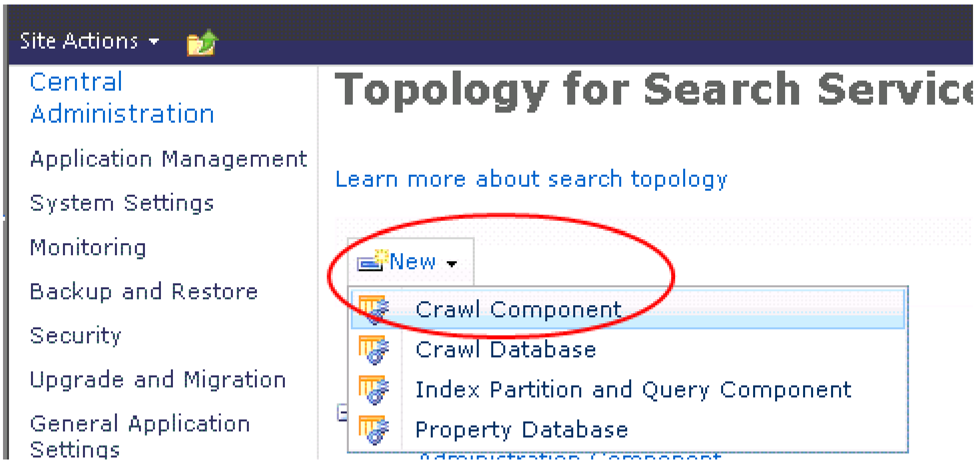
8. Set up a query component to distribute the workload of handling search queries. To do that, from the Search Application Topology area, click **New > Index Partition and Query Component**.



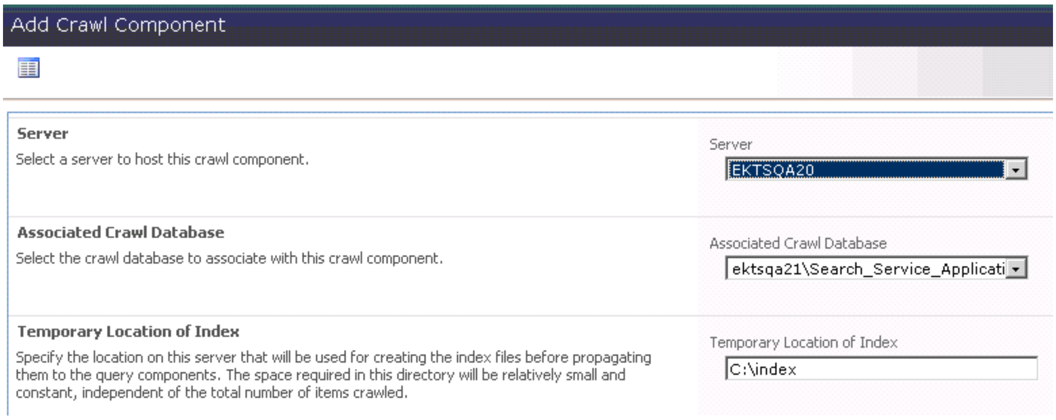
9. The Add Query Component Screen appears. Complete *Setting Up Microsoft Search Server 2010* on page 871, but this time do not check the **Failover-only Query Component** box.



10. The Search Service Application 1: Search Administration screen reappears. Click **Apply Topology Changes**.
11. To do that, from the Search Application Topology area, click **New > Crawl Component**.

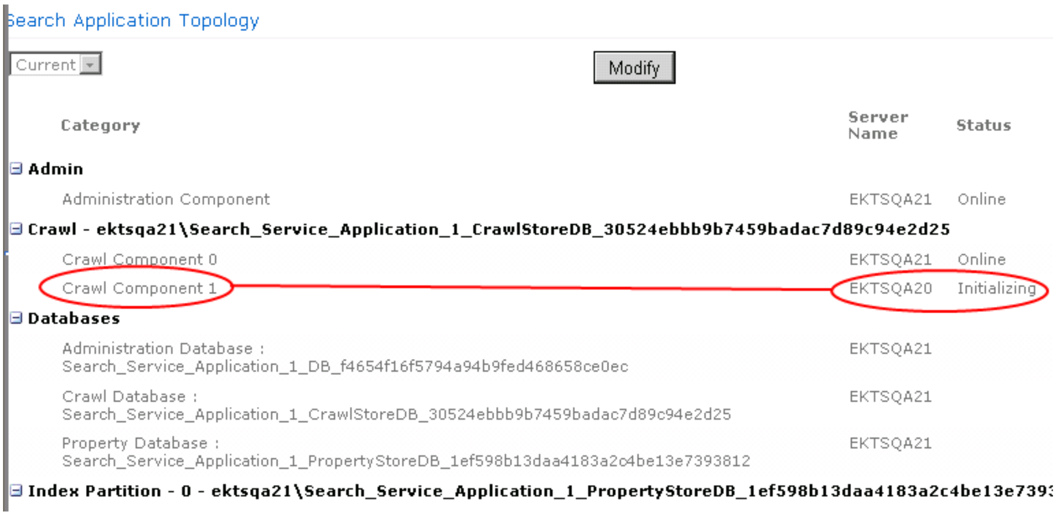


12. Specify the fields when the Add Crawl Component screen appears.



- **Server**—Enter the server to which you are currently signed on.
- **Associated Crawl database**—Select the primary server and the database you specified in Step 4.
- **Temporary Location of Index**—Accept the default.

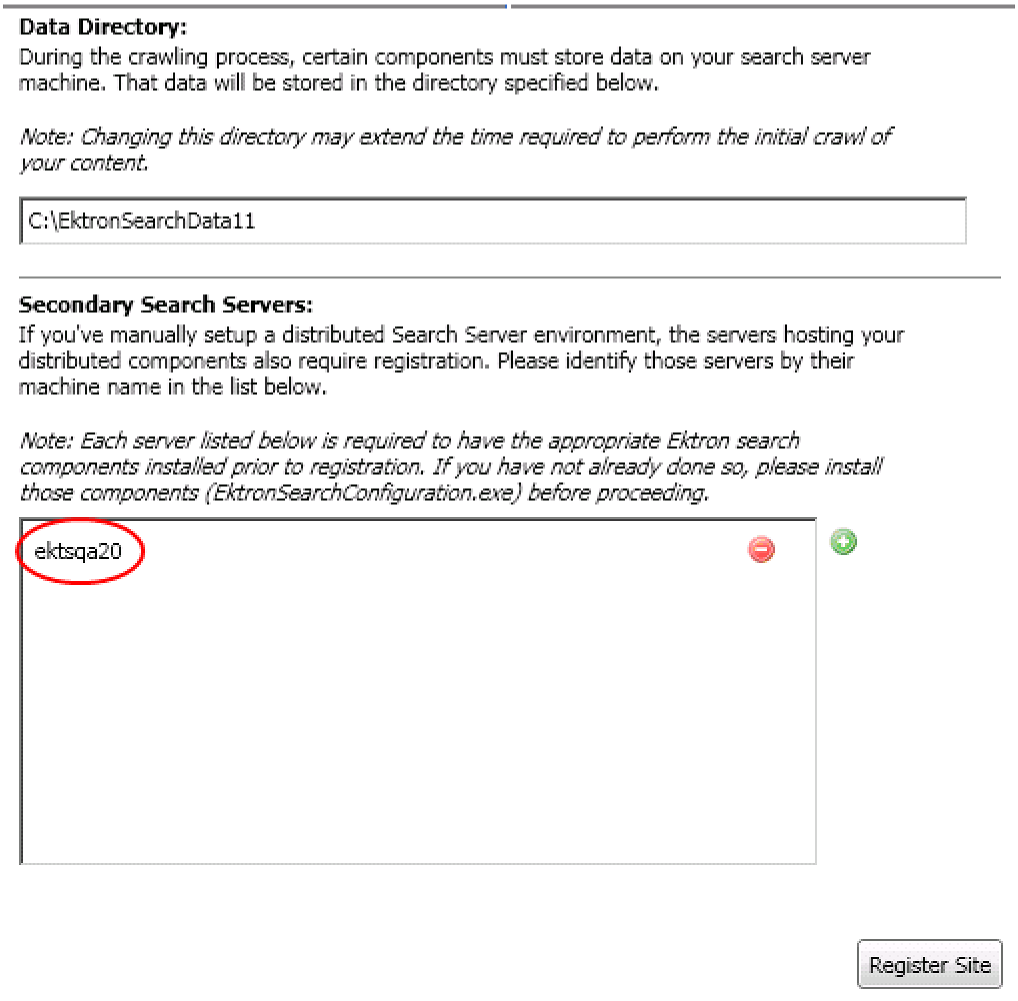
13. The secondary server appears under **Crawl** (highlighted).



14. Close Search Server Administration.

NOTE: You only need to follow the next 2 steps once. So, if you are setting up multiple secondary servers, you can skip these 2 steps after setting up the first one.

15. On the Ektron server, copy `C:\Program Files\Ektron\CMS400` *`versionnumber`*`\Utilities\SearchServer\EktronSearchConfiguration.exe`.
16. On both search servers, paste `EktronSearchConfiguration.exe` and run it.
17. On your Ektron Web server, open the Search Configuration screen, available from `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SearchServer\Ektron.Cms.Search.Config.UI.exe`.
18. Click **Advanced Options**.
19. In the **Secondary Search Servers** section, click **Add** ( ) then insert the name of the secondary server(s).



20. Click **Register Site**.

Setting Up a Microsoft FAST Search

You have the following advantages with Microsoft FAST Search:

- **Profile ranking**, which forces topics to the top of search results—See *Managing Rank Profiles* on page 920
- **Faceted searching**—See *Using Faceted Search* on page 916
- **Documentation promotion**—See Add, remove and display document promotions for a keyword by using Windows PowerShell (FAST Search Server 2010 for SharePoint) and Add document promotions.
    - Supported for CMS content
    - Entirely configured within SharePoint/FAST
    - No explicit API or templated control support required
- High degree of **relevant results/Similar Results**—See Improving Relevance for FAST Search Server 2010 for SharePoint and Find Similar (FAST Search Server 2010 for SharePoint)
    - Supported for CMS content
    - No configuration required
    - Support exists within the API and templated controls to add this to search criteria.

PREREQUISITES

You purchased and deployed Microsoft FAST Search Server 2010 and SharePoint Server 2010. See Also: Licensing Q&A: Determining Your Licensing Needs, Product Licensing Search

Configuring Ektron to work with Microsoft FAST Search Server 2010 and SharePoint Server 2010 involves the following major tasks.

- *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* below
- *Part 2: Set up Microsoft FAST Search Server 2010 for SharePoint 2010 Search* on the next page
- *Part 3: Enable Querying from SharePoint to Microsoft FAST Search Server 2010* on page 906
- *Part 4: Enable Indexing of Additional Formats* on page 908
- *Part 5: Verify that Microsoft FAST Search Server 2010 can Communicate with SharePoint 2010* on page 909
- *Part 6: Set up Ektron to Work with Microsoft FAST Search Server 2010* on page 911
- *Part 7: Make FAST SharePoint's Query Search Application* on page 914

After you complete the tasks...

- the FAST service is configured to crawl the Ektron site.
- Ektron events that affect content trigger a FAST crawl.
- Ektron templated search controls can execute FAST queries to retrieve search results.

Part 1: Install SharePoint 2010 and Microsoft FAST

Search Server 2010

1. Install SharePoint 2010 and Microsoft FAST Search Server 2010, each on its own server, on the same domain. Please refer to Microsoft's installation documentation for details.

> **NOTE:** When installing Microsoft FAST Search Server 2010, you are prompted to enter a certificate password. Note this password, because you need it in *Part 2c: Set up SSL-Enabled Communication* on page 903.

2. Create 2 domain user accounts: one for Microsoft FAST Search Server 2010 and one for SharePoint 2010.
3. Add the SharePoint site administrator to the Microsoft FAST Search Server 2010 administrators group (located on the Microsoft FAST Search Server 2010 server).

Part 2: Set up Microsoft FAST Search Server 2010 for SharePoint 2010 Search

Follow the steps below to set up Microsoft FAST Search Server 2010. You need to create 2 Search Service Applications.

- **FAST Search Connector**—for crawling content.
- **FAST Search Query**—for accepting search terms, querying the database, and returning results.

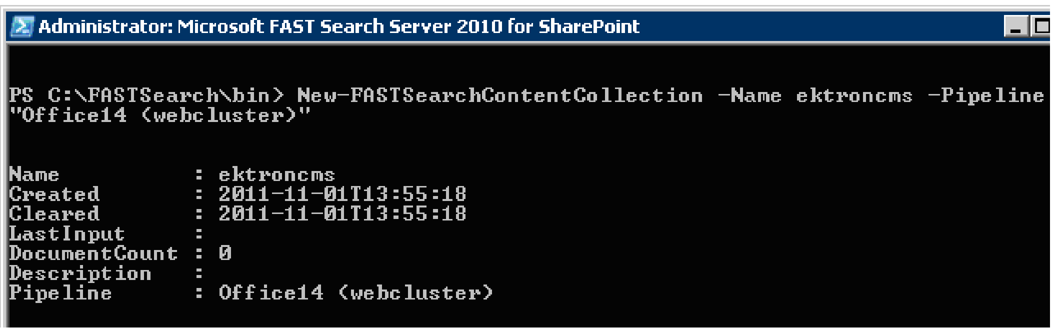
In this section, you complete these tasks.

- *Part 2a: Create a Collection for the Content Source* below
- *Part 2b: Create a FAST Search Connector Service Application for Crawling Content* on the facing page
- *Part 2c: Set up SSL-Enabled Communication* on page 903
- *Part 2d: Create a Search Service Application for Querying* on page 904

Part 2a: Create a Collection for the Content Source

Before creating the FAST Search Connector, create a collection for the Ektron content source. The collection lets you clear only Ektron content from the index. To learn more, see [Manage content collections (FAST Search Server 2010 for SharePoint)].

1. On the Microsoft FAST Search Server 2010 server, go to **Start > All Programs**.
2. Right click **Microsoft FAST Search Server 2010 for SharePoint** and click **Run as Administrator**. A PowerShell window for managing Microsoft FAST Search Server 2010 appears.

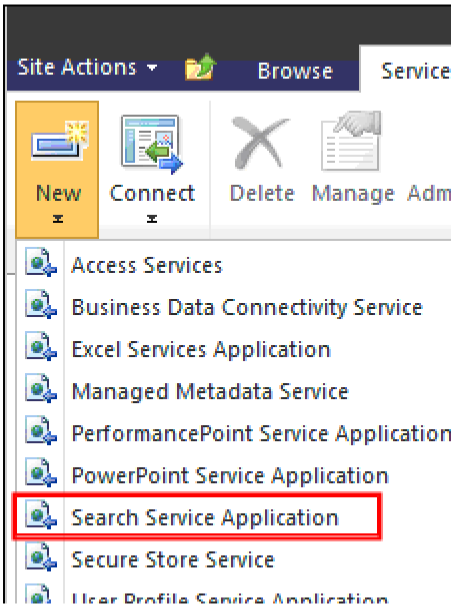


3. Enter the following command:
`New-FastSearchContentCollection –Name ektroncms –Pipeline ”Office14 (webcluster)”`

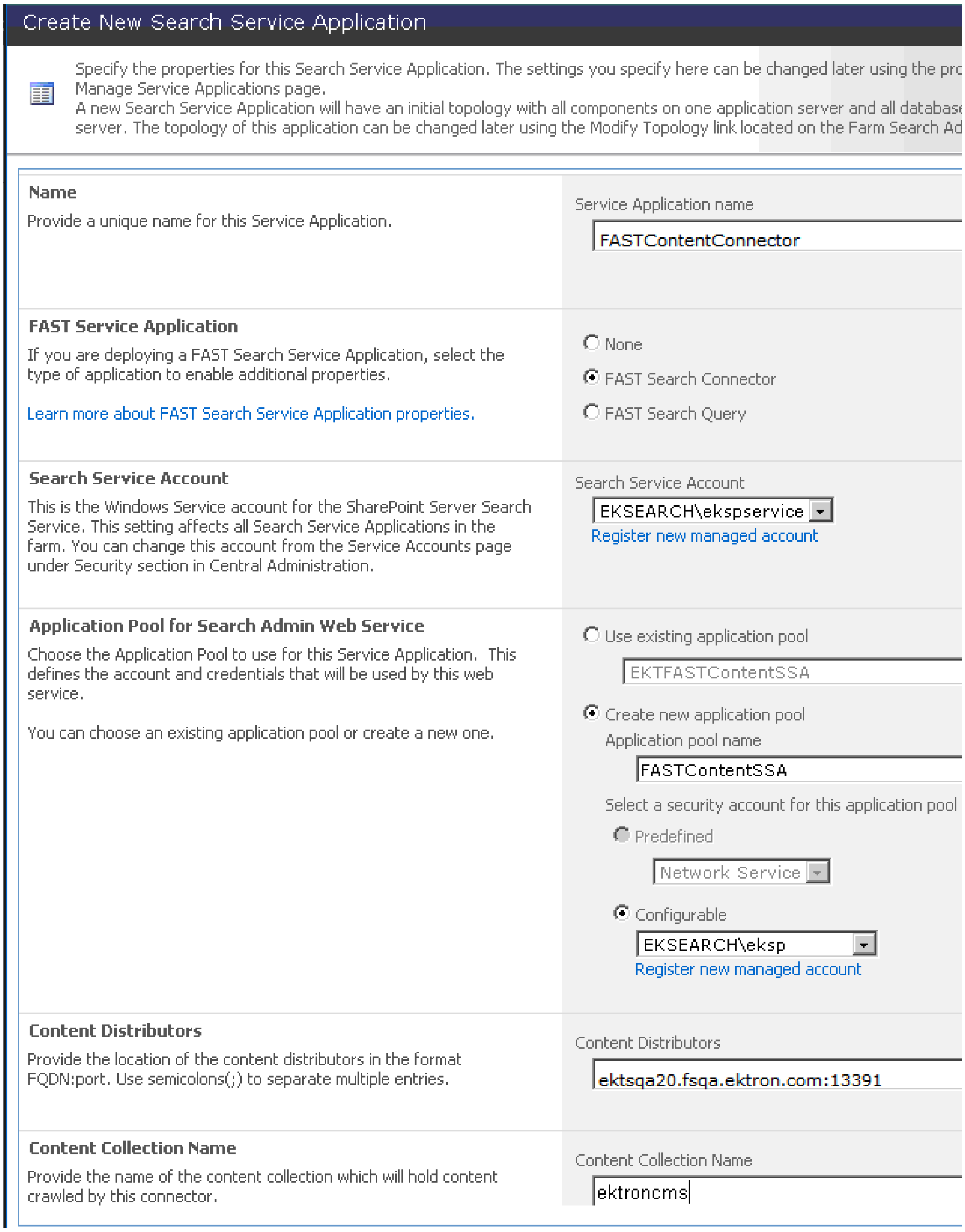
> **NOTE:** * The `Name` is the new collection name.
> * Surround the `Pipeline` name in quotes (as shown above).
> * Surround `webcluster` with curly brackets ().
> * See Also: New-FASTSearchContentCollection

Part 2b: Create a FAST Search Connector Service Application for Crawling Content

1. Open SharePoint 2010 Central Administration home page.
2. Under **Application Management**, click **Manage Service Applications**.
3. On the Manage Service Applications page, click **New > Search Service Application**.



4. Complete the screen.



- **Name**—Enter a unique name for this application.
- **Fast Service Application**—Select **Fast Search Connector**.
- **Search Service Account**—Click **Register new managed account** to create a new account for this search service.
- **Application Pool for Search Admin Web Service**—Select **Create new application pool** and enter a name. Under **Select a security account**, select **Configurable** and select the account under which the SharePoint search service is running. You created this account in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.
- **Content Distributors**—On the Microsoft FAST Search Server 2010 server, open the `%FASTSEARCH%\Install_Info.txt` file. Copy the value of **Content**

Distributors (for GUI SSA creation) to this field.

```
===============================================================
FASTSearch: Installation Details
===============================================================
---------------------------------------------------------------
FAST Search Query Search Service Application configuration
---------------------------------------------------------------
Query Service Location HTTP (default):
  http://ektsqa20.fsqa.ektron.com:13287
Query Service Location HTTPS:
  https://ektsqa20.fsqa.ektron.com:13286
Administration Service Location HTTP (default):
  http://ektsqa20.fsqa.ektron.com:13257
Administration Service Location HTTPS:
  https://ektsqa20.fsqa.ektron.com:1325
8Resource Store Location:
  http://ektsqa20.fsqa.ektron.com:13255
Account for Administration Service:
  fsqa\fsuser
---------------------------------------------------------------
FAST Search Content Search Service Application configuration
---------------------------------------------------------------
Content Distributors (for PowerShell SSA creation):
  ektsqa20.fsqa.ektron.com:13391
Content Distributors (for GUI SSA creation):
  ektsqa20.fsqa.ektron.com:13391
Default Content Collection Name: sp
---------------------------------------------------------------
Other services.....
```

NOTE: Keep the **`Install_Info.txt`** file open—you need it in *Part 2d: Create a Search Service Application for Querying* on the next page.

- **Content Collection Name**—Enter the name you entered for the **Name** parameter in *Part 2a: Create a Collection for the Content Source* on page 900.

Part 2c: Set up SSL-Enabled Communication

To authorize SSL communication between SharePoint 2010 and Microsoft FAST Search Server 2010: Source: Create and set up the Content Search Service Application (FAST Search Server 2010 for SharePoint)

PREREQUISITE

You will need the password you supplied when setting up Microsoft FAST Search Server 2010.

1. Log on to the Microsoft FAST Search Server 2010 server.
2. Open `\FASTSearch\installer\scripts`.
3. Copy securefastsearchconnector.ps1 to any folder on the SharePoint server.
4. Open `\FASTSearch\data\data_security\cert`.
5. Copy `FASTSearchCert.pfx` to any folder on the SharePoint server.
6. Log onto the SharePoint server.

7. Open a Microsoft SharePoint 2010 Management Shell using **Start >All Programs > Microsoft SharePoint 2010 Products.**
8. Right click **SharePoint 2010 Management Shell** and click **Run as Administrator**.
9. Navigate to the directory to which you copied the securefastsearchconnector.ps1 script in Step 3.
10. Run the script, replacing parameters with your environment's values. For example:

```
.\SecureFASTSearchConnector.ps1
  -certPath "path of the certificate\FASTSearchCert.pfx"
  -ssaName "name of your content SSA"
  -username “domain\username”
```

Replace the following parameter values:

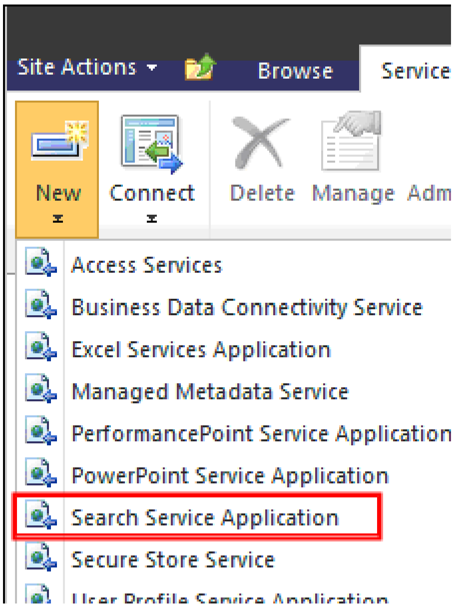
- **certPath**—the folder path to which you copied the certificate in Step 5.
- **ssaName—**enter the **Name** you assigned to your FAST Search Connector service application in *Part 2b: Create a FAST Search Connector Service Application for Crawling Content* on page 901.
- **username—**enter the domain and username under which the SharePoint 2010 service runs. You set up this account in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.

11. When prompted to enter a certificate password, enter the password you supplied when you ran the post-setup configuration of Microsoft FAST Search Server 2010.

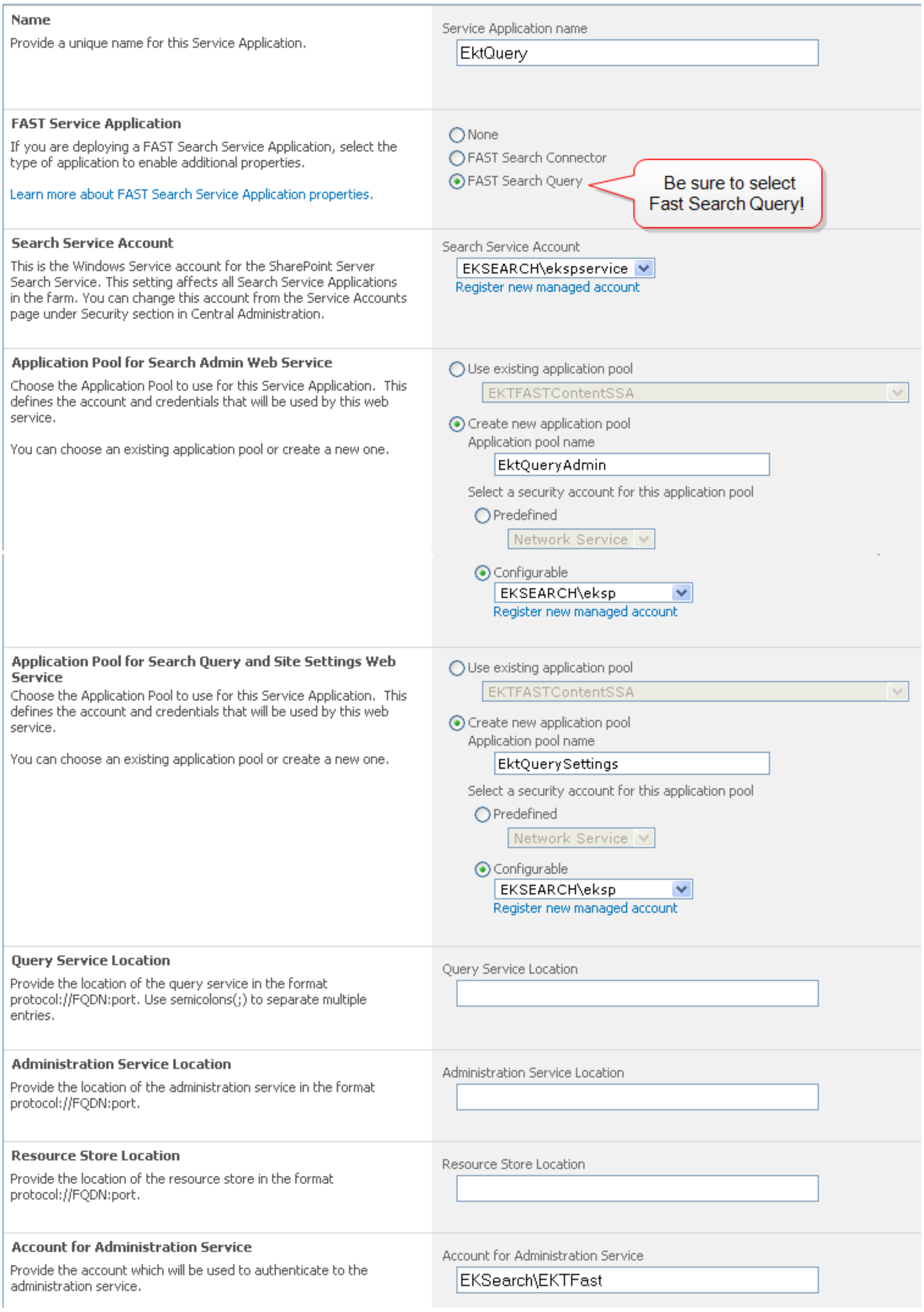
Part 2d: Create a Search Service Application for Querying

(Source: Create and set up the Query Search Service Application (FAST Search Server 2010 for SharePoint))

1. Open the SharePoint 2010 Central Administration home page.
2. Under **Application Management**, click **Manage Service Applications**.
3. On the Manage Service Applications page, click **New > Search Service Application**.



4. Complete the screen.



- **Name**—Enter a unique name for this application.
- **Fast Service Application**—Select **Fast Search Query**.
- **Search Service Account**—Click **Register new managed account** to create a new account for this search service.
- **Application Pool for Search Admin Web Service**—Select **Create new application pool** and enter a name, such as EktQueryAdmin. Under **Select a**

security account, select **Configurable** and select the account under which the SharePoint search service is running. The application pool must run in the context of a FAST Search administrator.

- **Application Pool for Search Query and Site Settings Web Service**—Select **Create new application pool** and enter a name, such as EktQuerySettings. Under **Select a security account**, select **Configurable** and select the account under which the SharePoint search service is running.The application pool must run in the context of a FAST Search administrator.
- **Query Service Location**—Open the **`%FASTSEARCH%\Install_Info.txt`** file to obtain the value for this field. (See example below.) Use the HTTPS value if you want to use secure communications between the SharePoint 2011 and Microsoft FAST Search Server 2010 servers.

```
===============================================================
FASTSearch: Installation Details
===============================================================
---------------------------------------------------------------
FAST Search Query Search Service Application configuration
---------------------------------------------------------------
Query Service Location HTTP (default):
  http://ektsqa20.fsqa.ektron.com:13287
Query Service Location HTTPS:
  https://ektsqa20.fsqa.ektron.com:13286
Administration Service Location HTTP (default):
  http://ektsqa20.fsqa.ektron.com:13257
Administration Service Location HTTPS:
  https://ektsqa20.fsqa.ektron.com:13258
Resource Store Location:
  http://ektsqa20.fsqa.ektron.com:13255
Account for Administration Service:
  fsqa\fsuser
---------------------------------------------------------------
FAST Search Content Search Service Application configuration
---------------------------------------------------------------
Content Distri.......
---------------------------------------------------------------
```

- **Administration Service Location**—Obtain the value for this field from **`%FASTSEARCH%\Install_Info.txt`**. (See example above.) Use the HTTPS value if you want to use secure communications between the SharePoint 2011 and Microsoft FAST Search Server 2010 servers.
- **Resource Store Location**—Obtain the value for this field from **`%FASTSEARCH%\Install_Info.txt`**. (See example above.)
- **Account for Administration Service**—specify a domain account for a user who is a member of the FAST Search Administrators group on the Microsoft FAST Search Server 2010 server.

5. You see a confirmation that a new Query Search service application is created.

Part 3: Enable Querying from SharePoint to Microsoft FAST Search Server 2010

Part 3 describes how to transfer a Microsoft FAST Search Server 2010 STS certificate (MOSS_STS) from SharePoint Server 2010 to FAST servers. This certificate enables SharePoint query servers to provide security-trimmed queries. See Also: [Enable queries from Microsoft SharePoint Server (FAST Search Server 2010 for SharePoint)]

PREREQUISITE

You will need a SharePoint Server 2010 directory that is accessible to Microsoft FAST Search Server 2010 servers.

1. On the Microsoft FAST Search Server 2010 server, go to **Start > All Programs**.
2. Right click **Microsoft FAST Search Server 2010 for SharePoint** and click **Run as Administrator**. A PowerShell window for managing Microsoft FAST Search Server 2010 appears.
3. At the Windows PowerShell command prompt, enter the following commands.

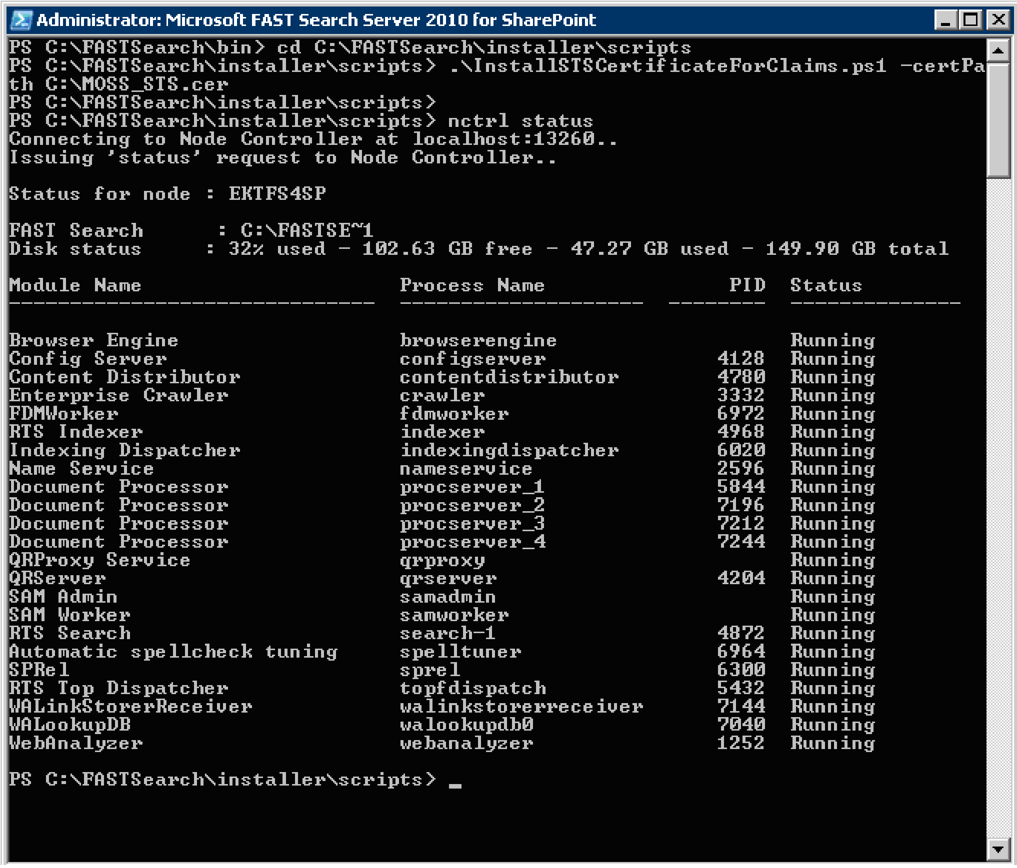
```
$stsCert = (Get-SPSecurityTokenServiceConfig)
  .LocalLoginProvider.SigningCertificate
$stsCert.Export("cert") | Set-Content -encoding byte MOSS_STS.cer
```

4. The `MOSS_STS.cer` file is created in the directory in which you run the commands.
5. Copy `MOSS_STS.cer` to a directory accessible to the Microsoft FAST Search Server 2010 server(s).
6. Import the SharePoint STS certificate to each Microsoft FAST Search Server 2010 server. To do that:
   a. On the Microsoft FAST Search Server 2010 server, click **Start >All Programs > Microsoft FAST Search Server 2010 for SharePoint**.
   b. Right click **Microsoft FAST Search Server 2010 for SharePoint** and select **Run as administrator.**
   c. At the Windows PowerShell command prompt, browse to `<FASTSearchFolder>\installer\scripts\`, where `<FASTSearchFolder>` is the path to the Microsoft FAST Search Server 2010 folder. For example, `C:\FASTSearch\installer\scripts\`.
   d. Enter the following command:

   ```
   .\InstallSTSCertificateForClaims.ps1
   -certPath <"full path of MOSS STS certificate">
   ```

   Where *full path of MOSS STS certificate* is the path to the location to which you copied the MOSS_STS.cer file in Step 5.
7. Repeat steps 6a through 6d for all query servers (if you have more than one).
8. Within the PowerShell window, check the status of FAST services by entering the

following command: **nctrlstatus**. The results should look something like this.



Part 4: Enable Indexing of Additional Formats

Advanced Filter Pack is a Microsoft FAST Search Server 2010 feature that enables text and metadata extraction from several hundred file formats (such as PDF), complementing the document formats supported by the Microsoft Filter Pack.

PREREQUISITE

Install 1 of the following PDF filters on the Microsoft FAST Search Server 2010 server:

- Foxit PDF filter (Foxit® PDF IFilter - Server—recommended if you will index a large number of PDF files)
- Adobe 64-bit PDF iFilter (installed on Ektron server `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\iFilterPack`)

1. On the Microsoft FAST Search Server 2010 server, go to **Start > All Programs**.
2. Right click **Microsoft FAST Search Server 2010 for SharePoint** and click **Run as Administrator**. A PowerShell window for managing Microsoft FAST Search Server 2010 appears.
3. Navigate to the [FASTSEARCH] folder (represented by the environment variable %FASTSEARCH%).
4. Move to the `installer\scripts` folder using this command: `cd .\installer\scripts`.
5. Insert the command `.\AdvancedFilterPack.ps1 -enable`.

6. When you see **Are you sure you want to continue**, enter **Y.**

```
Administrator: SharePoint 2010 Management Shell
PS C:\FASTSearch> cd .\installer\scripts
PS C:\FASTSearch\installer\scripts> .\AdvancedFilterPack.ps1 -enable
WARNING: You are about to enable text and metadata extraction support for
several hundred additional file formats. Please see the product documentation
for details about which file formats are enabled by default and which ones are
enabled by the Advanced Filter Pack. For security reasons, it is recommended to
 only enable these additional filters if you have content using these file
formats.
Are you sure you want to continue (y/n): Y
Advanced Filter Pack is successfully enabled.
PS C:\FASTSearch\installer\scripts> _
```

7. Open the file `%FASTSEARCH%\etc\config_data\DocumentProcessor\formatdetector\user_converter_rules.xml`.
8. Enable PDF format detection by adding the text in red below.

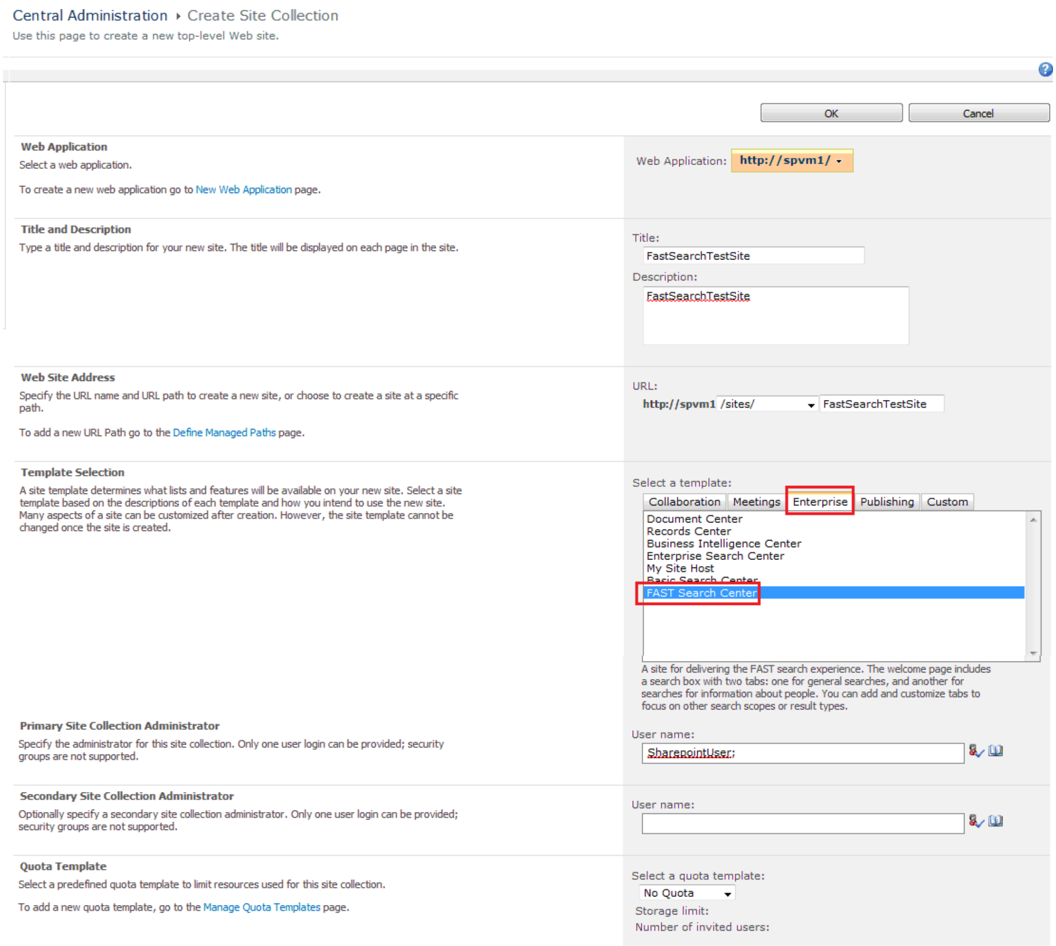
```
<ConverterRules>
<IFilter>
<trust>
<!-- A list of extensions that bypasses the builtin format detection.
  Any extension that is not supported out-of-the-box, need to be
  added here along with the mimetype if you have installed an IFilter
  for that type and want to use it. A mime element should also be
  added to the MimeMapping element with a human-friendly description
  of the type.
  <ext name=".xxx" mimetype="application/xxx" />
  <ext name=".yyy" mimetype="image/yyy" /> -->
  <ext name=".pdf" mimetype="application/pdf" />
</trust>
</IFilter>
<MimeMapping>
<!-- A mapping between mime types and the description of them.
<mime type="application/xxx">XXX Document</mime>
<mime type="application/postscript">YYY Image</mime> -->
  <mime type="application/pdf">PDF Document</mime>
</MimeMapping>
</ConverterRules>
```

IMPORTANT: Back this file up in a safe location, so that you can re-enter these changes if you later need to apply a FAST service pack, patch, or hotfix.

9. Stop the FAST service by going to Windows Services, find **FAST Search for SharePoint**, and click **Stop**.
10. Restart the Microsoft FAST Search Server 2010 server.

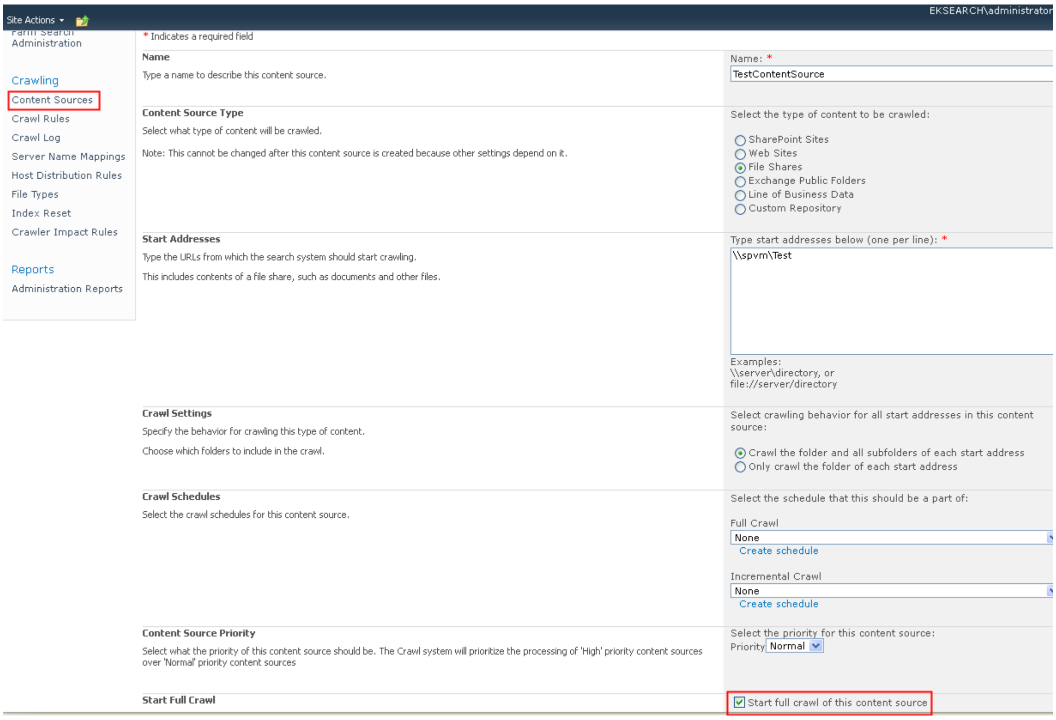
Part 5: Verify that Microsoft FAST Search Server 2010 can Communicate with SharePoint 2010

1. On the SharePoint 2010 Central Administration Screen, go to **Application Management>Create Site Collections**. The Create Site Collection screen appears.



2. Enter a **Title**, **Description**, and **URL**, assigning any name.
3. In the **Template Selection** area, click the **Enterprise** tab then select **FAST Search Center**.
4. In the **User name** field, enter the name of the SharePoint user you created in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.
5. Click **OK** to create a site collection.
6. On the SharePoint 2010 server, create a new folder and share it with the Microsoft FAST Search Server 2010 user that you created in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.
7. On the folder's **Security** tab, grant the Microsoft FAST Search Server 2010 user full control.
8. Drag and drop a few text files into that folder. If you enabled PDF support (as explained in *Part 4: Enable Indexing of Additional Formats* on page 908), drop some PDFs.
9. Create a Content Source for the folder. To do this:
    a. On the SharePoint 2010 Central Administration screen, click **Manage service applications**.
    b. Click the Ektron content service application you created in *Part 2b: Create a FAST Search Connector Service Application for Crawling Content* on page 901.

c. On the Search Administration screen, under **Crawling**, click **Content Sources**.



d. On the New Content Source screen:

- Enter a **Name**.
- For **Content Source Type**, select **File Shares**.
- For **Start Addresses**, enter the folder that you created in Step 6.
- For **Crawl Settings**, select **Crawl the folder and all subfolders of each start address**.
- Check the **Start full crawl of this content source** box.
- Click **OK**.

10. Verify that the search works by navigating to the FAST search site and searching for content in the test folder you indexed. If correct results are returned, Microsoft FAST Search Server 2010is configured correctly. If not, or if you see errors in the Crawl Log, there is a configuration issue with your setup.

Part 6: Set up Ektron to Work with Microsoft FAST Search Server 2010

Install Ektron, setting it up for your environment. When prompted to select a search provider, choose Microsoft FAST Search Server 2010. When prompted to connect the site to a Microsoft Search Server 2010 instance, click **No**. Complete the Ektron installation. See Also: *Installing Ektron* on page 9

In this section, you complete these additional tasks.

- *Part 6a: Set up the Ektron Search Connection on the SharePoint Server* on the next page
- *Part 6b: Set Credentials for the Ektron Search Server Service* on the next page
- *Part 6c: Run the Ektron Search Configuration Utility* on page 913

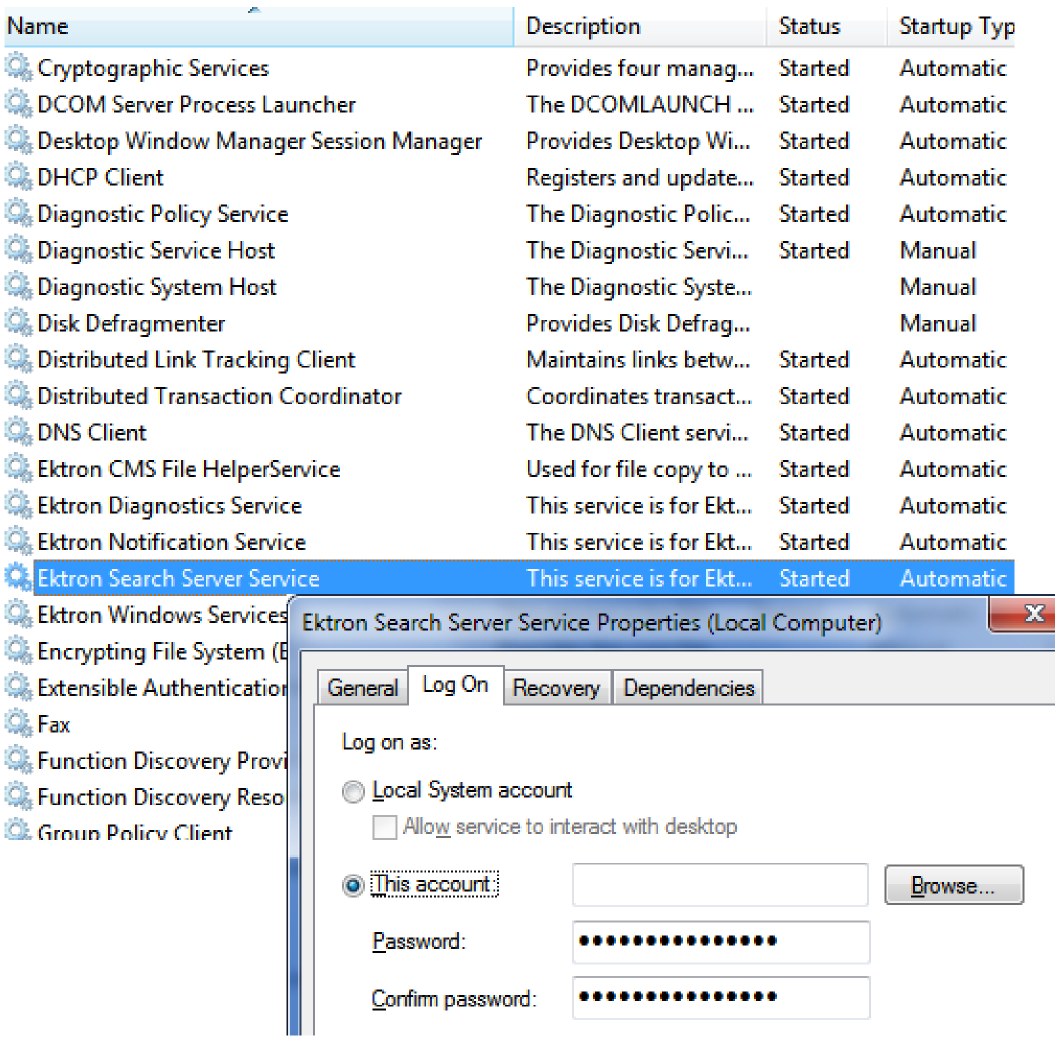
Part 6a: Set up the Ektron Search Connection on the SharePoint Server

`EktronSearchConfiguration.exe` enables communications between your site and the FAST search service.

1. From the Ektron server, copy the following file to any folder on the SharePoint server.
```
%SystemDrive%\Program Files (x86)\Ektron\Utilities\SearchServer
  \EktronSearchConfiguration.exe
```
2. From the SharePoint folder, run the file.

Part 6b: Set Credentials for the Ektron Search Server Service

1. On the SharePoint server, open the Windows Services control panel.
2. Right click **Ektron Search Server Service**.
3. Click **Properties**.
4. Select the **Log On** tab.

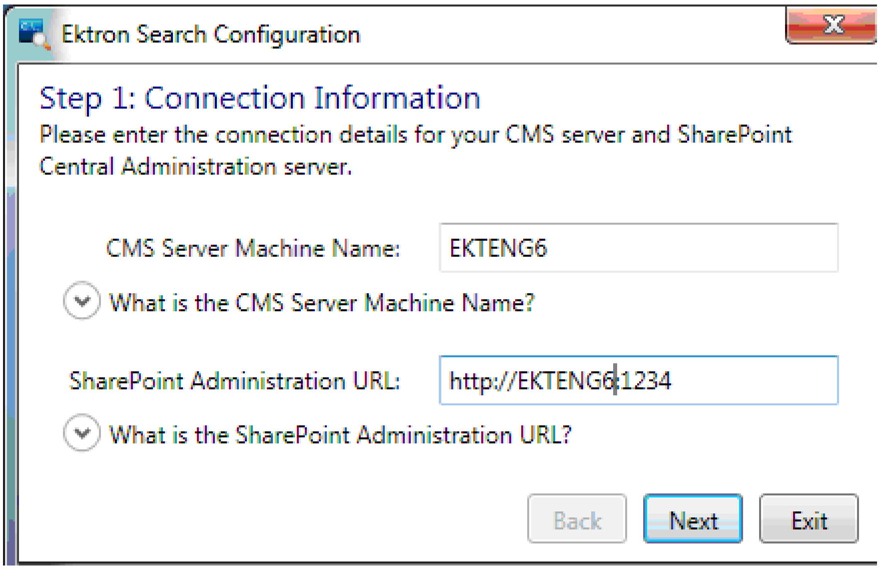


5. Select **This account**.

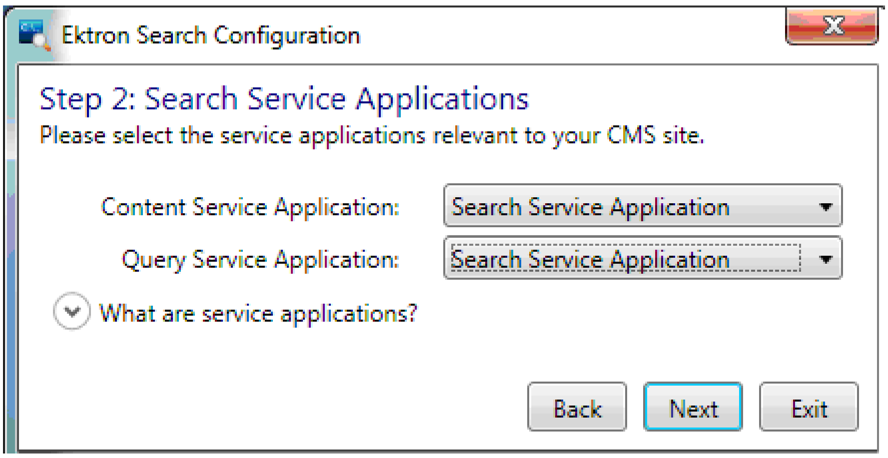
6. Enter the credentials of the user under whom the SharePoint Server Search service runs. You created this user in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.
7. Click **OK**.
8. Restart the Ektron Search Server Service.

Part 6c: Run the Ektron Search Configuration Utility

1. Log on to the Ektron server as an administrator.
2. Click the Windows **Start** menu > **All Programs > Ektron > CMS400v*releasenumber* > Utilities > Search Config**. The Step 1 configuration screen appears.

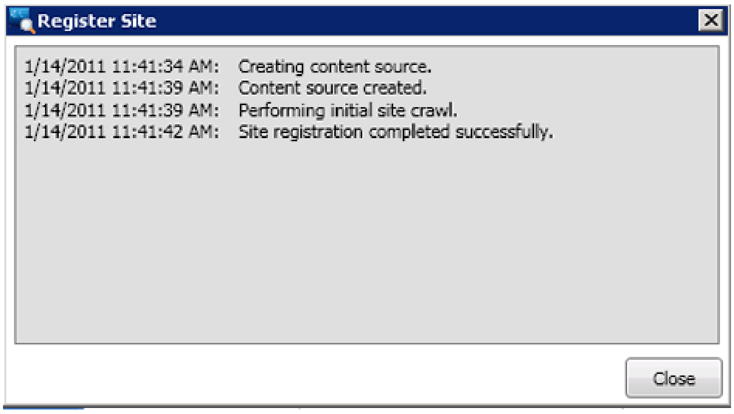


3. Enter the Ektron server name.
4. Enter the SharePoint Administration URL. See Also: *Managing a Microsoft Search Server* on page 925
5. Click **Next**. The Step 2 configuration screen appears.



6. At the **Content Service Application** field, select the application you created in *Part 2b: Create a FAST Search Connector Service Application for Crawling Content* on page 901.

7. At the **Query Service Application** field, select the application you created in *Part 2d: Create a Search Service Application for Querying* on page 904.
8. Click **Next**. The Ektron Search Configuration screen appears. For documentation, see *Managing the Search Configuration* on page 927.
9. When you complete the screen, click **Register Site**. Progress appears in a window.



During this process, the FAST search index is populated with your data, and the schema is modified to include your site's searchable properties. This process can be lengthy when registering a site for the first time. You can monitor these activities in the Workarea. See Also: *Monitoring Microsoft Search Server 2010 from the Workarea* on page 884

Part 7: Make FAST SharePoint's Query Search Application

In this section, you complete these tasks.

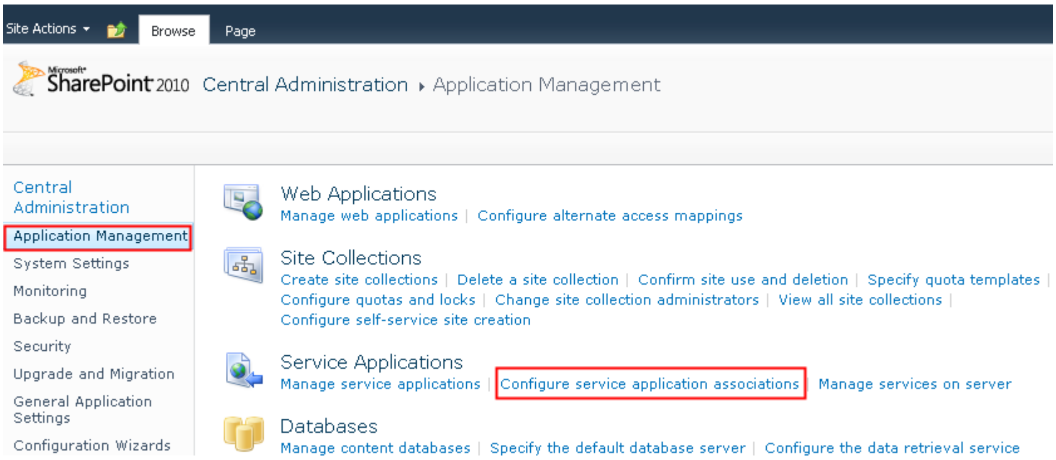
- *Part 7a: Update web.config with Query Service Application* below
- *Part 7b: Set FAST Search Query as Default Search Service Application* below

Part 7a: Update web.config with Query Service Application

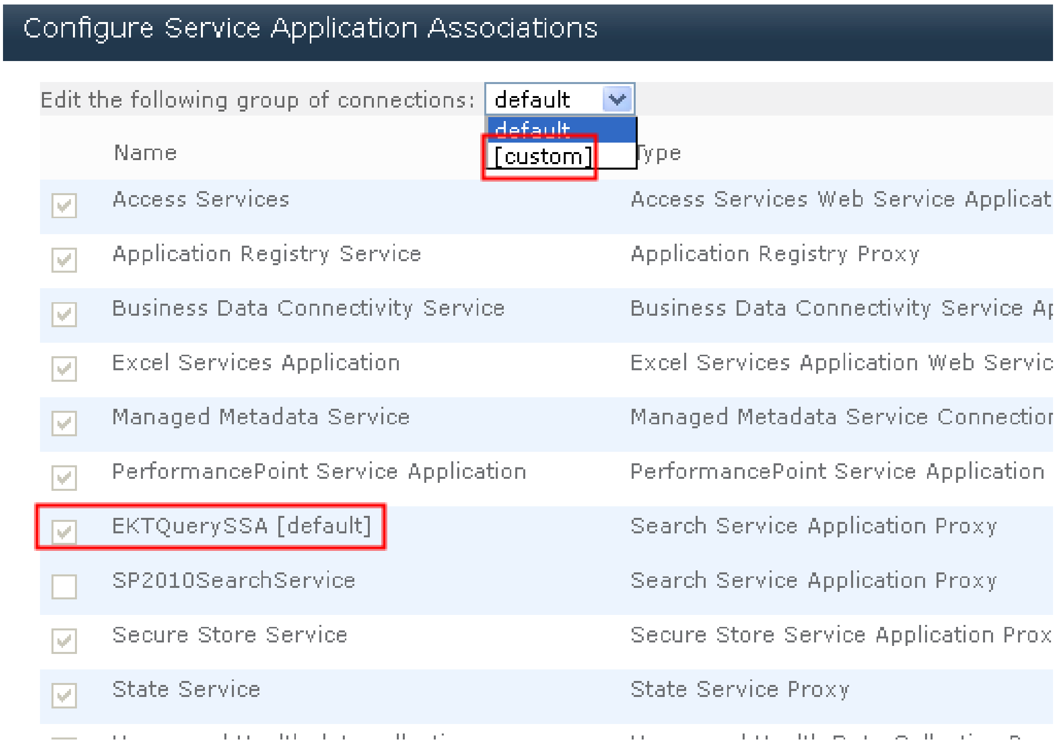
1. On the SharePoint server, navigate to `%CommonProgramFiles%\Microsoft Shared\Web Server Extensions\14\ISAPI\EktronWebService`.
2. Open the `web.config` file.
3. Find the following entry: `<add key="QuerySSA" value="FAST Query SSA" />`
4. Replace the `value` property with the name of the Query Service application you entered in *Part 2d: Create a Search Service Application for Querying* on page 904. To continue that example, the line would look like this: `<add key="QuerySSA" value="EktQuery" />`
5. Restart the Ektron search site application pool. See Also: Start or Stop an Application Pool (IIS 7)

Part 7b: Set FAST Search Query as Default Search Service Application

1. Open the SharePoint 2010 Central Administration Page.
2. Navigate to **Application Management >Service Applications > Configure service application associations**.



3. Under **Web Application**, click **SharePoint-80**. The Configure Service Application screen appears.
4. If **EKTQUERYSSA** is the default, exit the screen. Otherwise, click the **Edit the following group of connections** pulldown and choose **[custom]**. The screen refreshes and the check boxes are active.

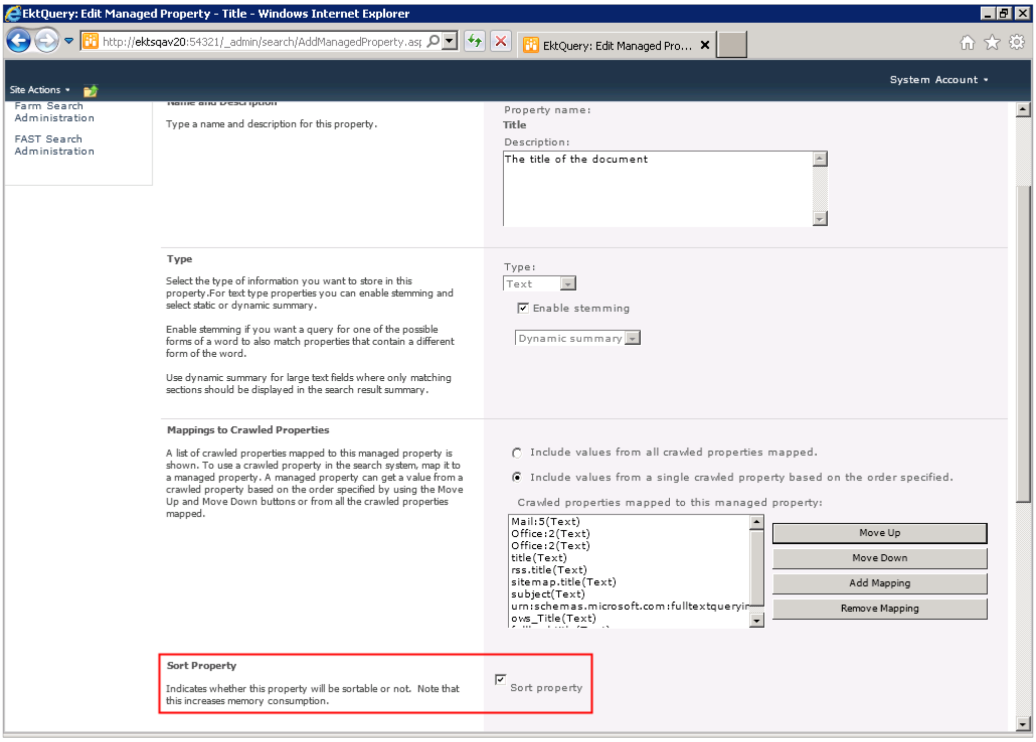


5. Check **EKTQUERYSSA[default]** then click **OK**.

Making the Title Property Sortable

By default, the **Title** property is not sortable. To change it so that it is sortable, follow these steps.

1. Log into the Fast Central Administrator console.
2. Choose **Manage Service App > Query Service Application > Fast Search Administrator > Managed Properties**.
3. Find the **Title** Managed Property.
4. Edit it and check the **Sort property** box.



IMPORTANT: When used to sort, the Title property follows an ASCII sort pattern. As a result, titles that begin with a capital letter precede ones that begin with a lower case letter. For example:

```
Better Business Bureau
Tiramisu recipe
american foreign policy
```

See Also:

- Enable a managed property as sort option by using Windows PowerShell
- Make a managed property sort option available in the web front-end by using the graphical user interface

Using Faceted Search

Facets are content properties that allow site visitors to filter search results. For example, your site lists job postings. So, your search results page offers a **Region** facet, which visitors use to select jobs within regions of interest.

Faceted search has these limitations:

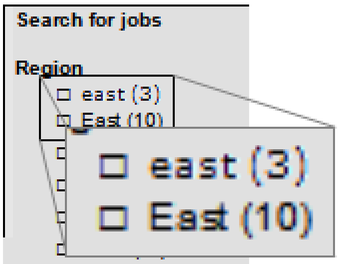
- If the metadata definition type is integer or date, facet categories only appear if a metadata value is assigned to 2 or more content items. For example, if the South region was assigned to only one content item's metadata, **South** would not appear on the facets list. However, the content would be returned in search results.
- If the same metadata value is applied to all content, no facet categories appear. To continue the above example, if all content to which the **Regions** metadata definition may be applied have **South** for their value, no facets list appears.
- The refiner count may be inaccurate if you are using duplicate removal. For more information, see Refiner count is wrong when using duplicate removal.

This section explains how to implement faceted searching using Ektron and Microsoft FAST Search Server 2010.

Creating Facets

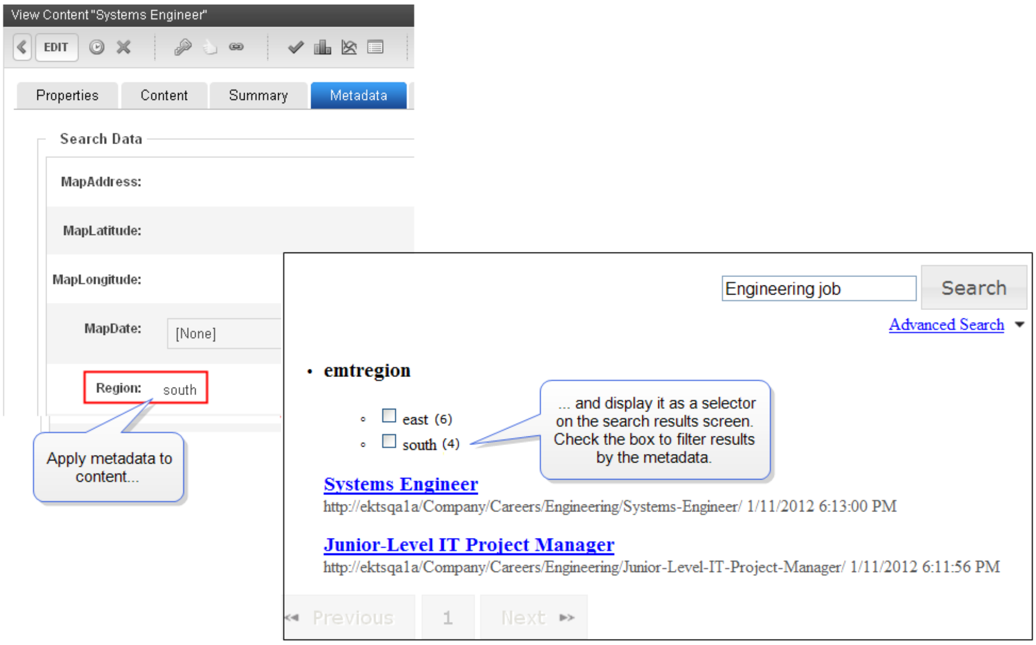
1. Create searchable Ektron metadata definitions. See Also: *Creating and Deploying a Search Tag Definition* on page 374.

   IMPORTANT: Carefully plan capitalization, spelling, spacing, and so on of metadata definitions for Faceted Search. Minor inconsistencies can result in duplicate entries, as shown below.

2. Apply metadata values to appropriate content.
3. Run a full crawl. The metadata become managed properties within Microsoft FAST Search Server 2010.
4. Update search server controls to look for the metadata/managed property. They appear

as selectors on your search results page.



Creating a Faceted Search

1. Create a metadata definition in the Workarea. See *Working with Metadata* on page 369. This example uses a text metadata definition called **region**.
2. Apply the new metadata definition to a folder. See *Assigning Metadata to a Folder* on page 377.
3. Within that folder, apply the new metadata definition to appropriate content. See *Adding Metadata to Content* on page 379
4. Sign on to Microsoft FAST Search Server 2010.
5. Navigate to **Search Central Administrator > Manage Service Applications > click the query content source > Fast Search Administration > Managed Properties**.
6. In the **Search** field, enter **emt** followed by the metadata definition you created in Step 1. To continue the example, enter **emtregion**.

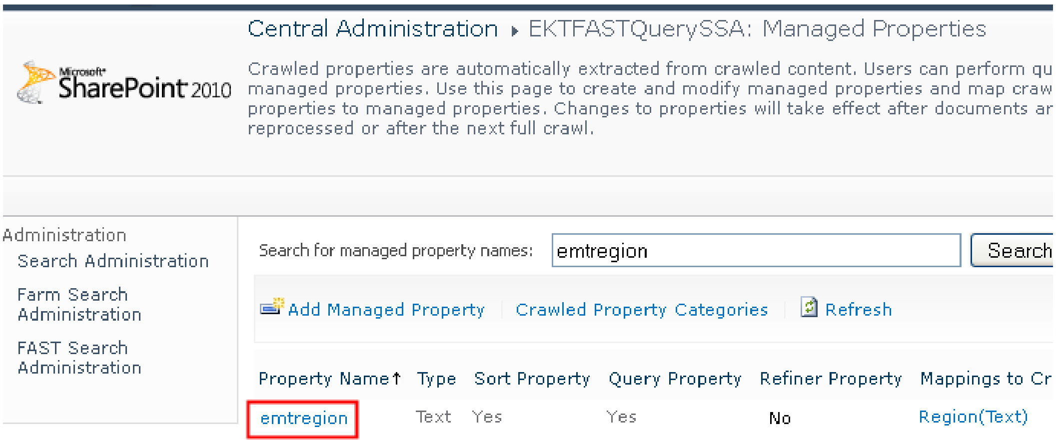
NOTE: You enter **emt** because this is a text-style metadata definition. Use these prefixes for other styles.

Microsoft FAST Search Server 2010 prefixes for Ektron metadata definition styles:

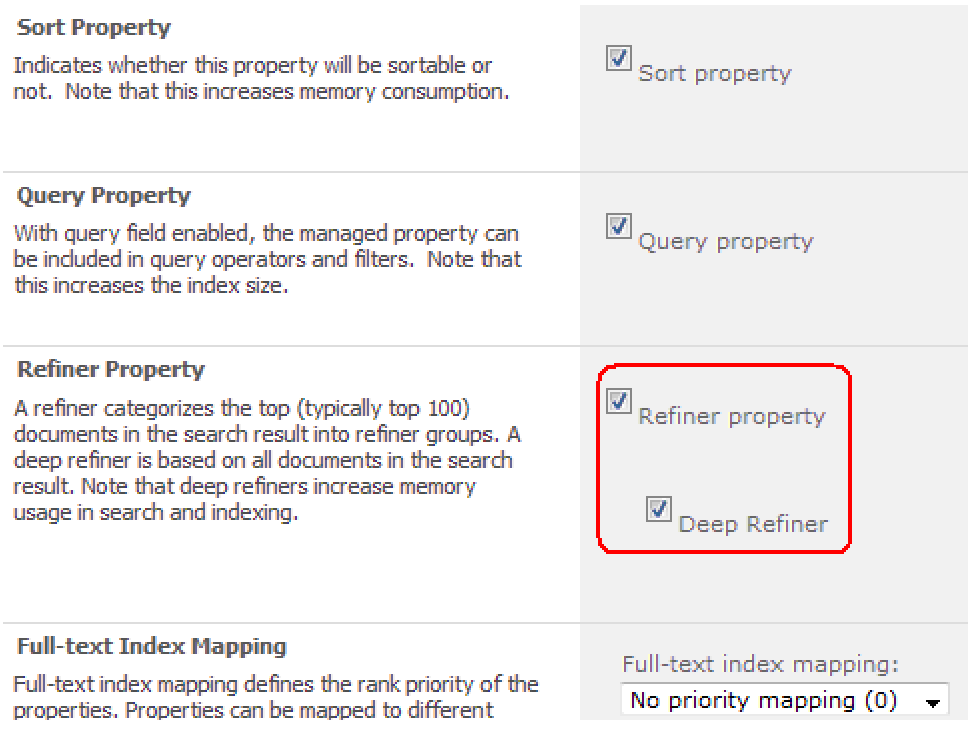
- **Text, select from list, multiple selections**—emt
- **Integer and number**—emi
- **Boolean**—emb
- **Date**—emd
- **Double**— emf
- If the content is an XML Smart Form, use these prefixes instead:
  - **Text, select from list, multiple selections**—est
  - **Integer and number**—esi

- **Boolean**—esb
- **Date**—esd
- **Double**—esf

7. Click the metadata definition/managed property.



8. Scroll down to **Refiner Property**.
9. Check it and the **Deep Refiner** box.



10. Complete Steps 1 through 9 for all metadata definitions that you want to add.
11. Run a full crawl. See *Managing a Microsoft Search Server* on page 925.
12. To enable a search server control to display a metadata selector, modify the SearchController control using a `<Refiners>` tag as shown. The tag references the managed property name, `emtregion` in our example.

```
<ektron:SiteSearchController ID="controller" runat="server">
  <Refiners>
```

```
    <ektron:Refiner Name="emtregion"/>
  </Refiners>
</ektron:SiteSearchController>
<ektronUI:Pager runat="server" ResultsPerPage="50"
  PageableControlID="controller" >
</ektronUI:Pager>
```

Here are sample search results. If you click a checkbox next to a region, the page refreshes and displays only content to which that metadata property is applied.

Managing Rank Profiles

Microsoft FAST Search Server 2010 lets you adjust the rank of search results, enabling you to control which content appears near the top. This feature is sometimes called "Advanced Sorting." You typically use the Rank Profile feature when site visitors are not getting expected search results. For example, your manage a university website and, when people enter **Admissions**, the Admissions department page is not among the top search results. To fix that, use a Rank Profile to force search results to the top.

See Also: Tune relevance factors (FAST Search Server 2010 for SharePoint), Manage rank profiles (FAST Search Server 2010 for SharePoint), Ranking and Sorting (FAST Search Server 2010 for SharePoint)

Increasing the Search Rank of a Content Item

Here is an overview of how to increase the search rank for selected content.

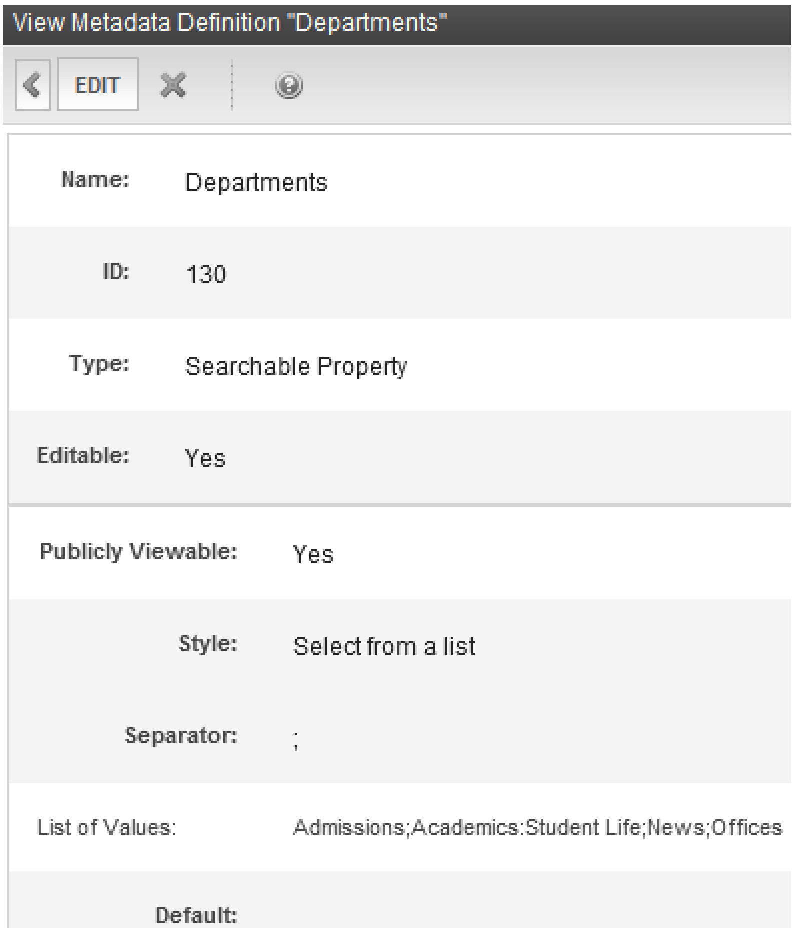
1. Create a metadata definition to define searchable properties.
2. Apply metadata values to selected content. When the content is crawled, the metadata values become managed properties in Microsoft FAST Search Server 2010.
3. Use Microsoft FAST Search Server 2010 to create a Rank Profile. While defining the profile, you
   - list the metadata values/managed properties
   - modify the search rank of the managed properties, which in turn, modifies the search rank of content to which they are applied
4. Update a search server control or the API to use the rank in the search results algorithm.

Part 1: Create Metadata Definitions

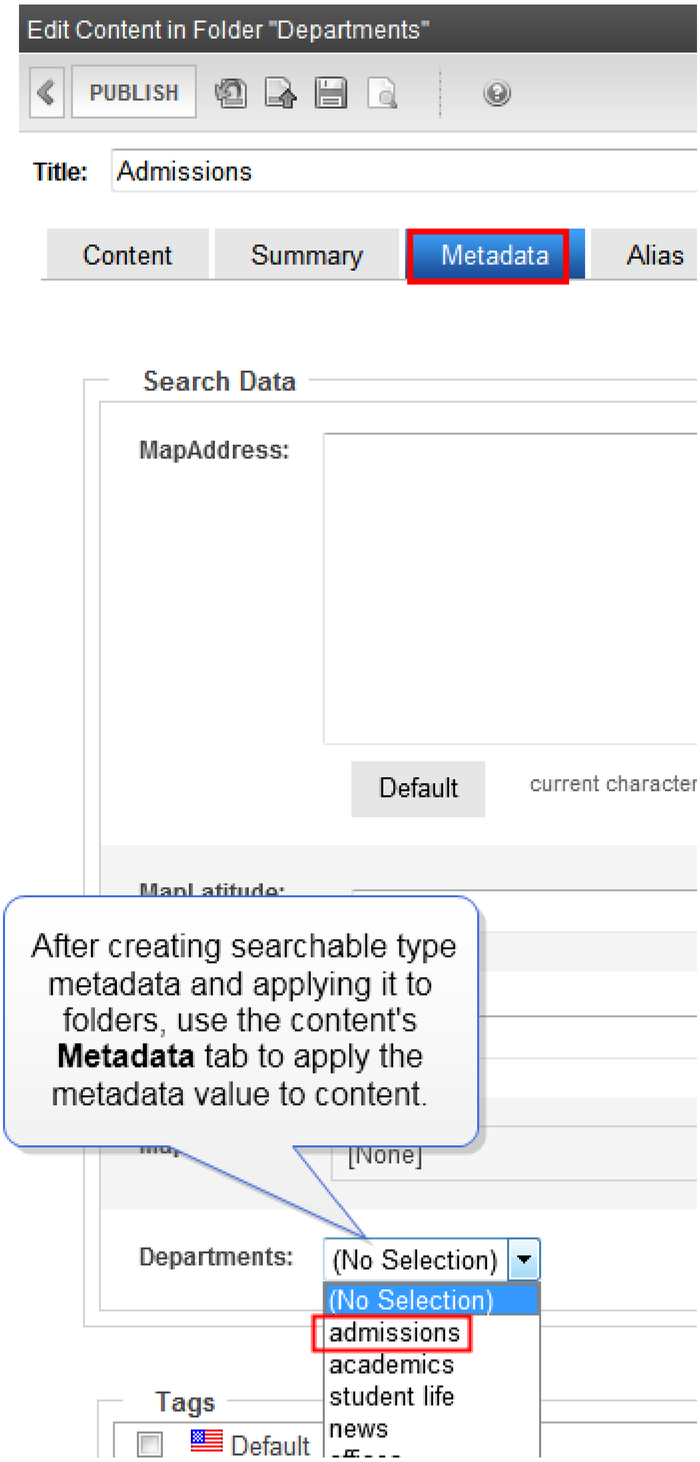
To increase a content item's search rank, first create searchable Ektron metadata definitions. They contain the content attribute by which site visitors will search. Then, apply those metadata definitions to relevant folders and content.

NOTE: The process of creating and applying metadata is abbreviated here. For full details, see *Creating and Deploying a Search Tag Definition* on page 374.

To continue the above example, create a searchable metadata definition named Departments, of the type **Select from a List**. Add **Admissions** to the list of values. Then, apply that metadata to all folders that contain relevant content.



Next, find Ektron content that describes your Admissions department. Edit that content, click the **Metadata** tab, and apply the Admissions metadata to the content.



Part 2: Create a Rank Profile

PREREQUISITE

The Microsoft FAST Search Server 2010 *type* and metadata value name you use to increase the search rank. To continue the above example, use **emtadmissions**. For a list of types, see *Using Faceted Search* on page 916.

NOTE: For more information on Index schema cmdlets, see Index schema cmdlets (FAST Search Server 2010 for SharePoint).

To create a Rank Profile:

1. On the Microsoft FAST Search Server 2010 server, go to **Start > All Programs**.
2. Right click **Microsoft FAST Search Server 2010 for SharePoint** and click **Run as Administrator**. A PowerShell window for managing Microsoft FAST Search Server 2010 appears.
3. Create and enter a name for the Rank Profile.

```
New-FASTSearchMetadataRankProfile
-name (your profile name)
```

4. Define the Microsoft FAST Search Server 2010 type and name of the metadata value used to increase search rank.

```
$mp = Get-FASTSearchMetadataManagedProperty
-Name (your managed property)
```

5. Set a variable to your profile. This is typically the same as the name you entered in Step 3.

```
$rp = Get-FASTSearchMetadataRankProfile
-name (your profile name)
```

6. Add a managed property boost to your profile. The `$mp` command has 2 parameters:
   - **string,int**—the Microsoft FAST Search Server 2010 type and name of metadata value whose search rank you want to increase
   - **boost number**—a relative value by which you want to increase the profile's search rank. See Also: Change the managed property field boost weight by using Windows PowerShell

   ```
   $rp.CreateManagedPropertyBoostComponent($mp,
     "<string/integer managed property value>,<boost number>)”)
   ```

   Replace values within angle brackets (< >) with actual values.

7. Update your profile

```
$rp.Update()
```

Here’s an example:

```
New-FASTSearchMetadataRankProfile -name departments
$mp = Get-FASTSearchMetadataManagedProperty -Name emtadmissions
$rp = Get-FASTSearchMetadataRankProfile -name departments
$rp.CreateManagedPropertyBoostComponent($mp, "admissions,20000")
$rp.Update()
```

Part 3: Incorporate the Rank Profile into the Search Result Display

This section explains how to use a Rank Profile to modify search results, using either the SiteSearchInputView server control or the API.

1. Add the rank to a Search server control:

   Modify all SiteSearchInputView server controls that you want the ranking to modify. See Also: *Using Search Server Controls* on page 971. To achieve that, use `<SortProperties>` tags as shown below. Inside the tags, set these parameters.

- **DisplayName**—Enter any unique name to identify this profile.
- **RankId**—Your profile name that you created on the FAST server.

```
<ektron:SiteSearchInputView ID="SiteSearchInputView1"
  runat="server" ControllerID="SiteSearchController1">
  <SortProperties>
    <ektron:RankSearchProperty DisplayName="Custom Relevance"
      RankId="departments" />
  </SortProperties>
</ektron:SiteSearchInputView>
```

2. Add the rank using the API:

   The following illustrates how to modify search results via the Rank Profile using the API.

```
criteria.OrderBy = new List<OrderData>()
{ new OrderData(new RankPropertyExpression("rank profile name"),
  OrderDirection.Ascending) };
```

   For example:

```
criteria.OrderBy = new List<OrderData>()
  { new OrderData(new RankPropertyExpression("departments"),
  OrderDirection.Ascending) };
```

Removing a Boost

1. Set a variable to the profile. Use the same profile name that you used in *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.

```
$rp = Get-FASTSearchMetadataRankProfile -name (your profile name)
```

2. Set to a variable the Microsoft FAST Search Server 2010 type and name of the metadata value used to increase search rank.

```
$mp = Get-FASTSearchMetadataManagedProperty
-name Name (your managed property)
```

3. Set a variable for the boost you want to delete.

   The `$_.BoostValue` command has 2 parameters: **string,int** and **boost number**. Use the same values you used when creating the Rank Profile. See *Part 1: Install SharePoint 2010 and Microsoft FAST Search Server 2010* on page 899.

```
$boost1 = $rp.GetManagedPropertyBoosts()
  | Where-Object{$_.BoostValue -like '*(string/int),(boost number)*'}
```

4. Delete the boost.

```
$boost1.Delete()
```

5. Update your profile.

```
$rp.Update()
```

   Here’s an example:

```
$rp = Get-FASTSearchMetadataRankProfile -name departments
$mp = Get-FASTSearchMetadataManagedProperty -name emtadmissions
$boost1 = $rp.GetManagedPropertyBoosts()
  | Where-Object{$_.BoostValue -like '*admissions,20000*'}
$boost1.Delete()
$rp.Update()
```

Viewing all Boosts

Run this query: `$rp.GetManagedPropertyBoosts()`

Troubleshooting Boosts

- **Problem:** The boost does not affect search results
- **Solution:** Verify that the `FreshnessResolution` is set to `second`. See Also: Change the freshness resolution and weight by using Windows PowerShell

Troubleshooting FAST

Problem: Documents are not being indexed.

Solution: Provide full control rights on the `%FASTSEARCH%\bin` and `%FASTSEARCH%\tmp` folders for the user running Microsoft FAST Search Server 2010

More information: Crawling and processing Office documents with FAST for Sharepoint 2010 results in document conversion errors in the crawl log

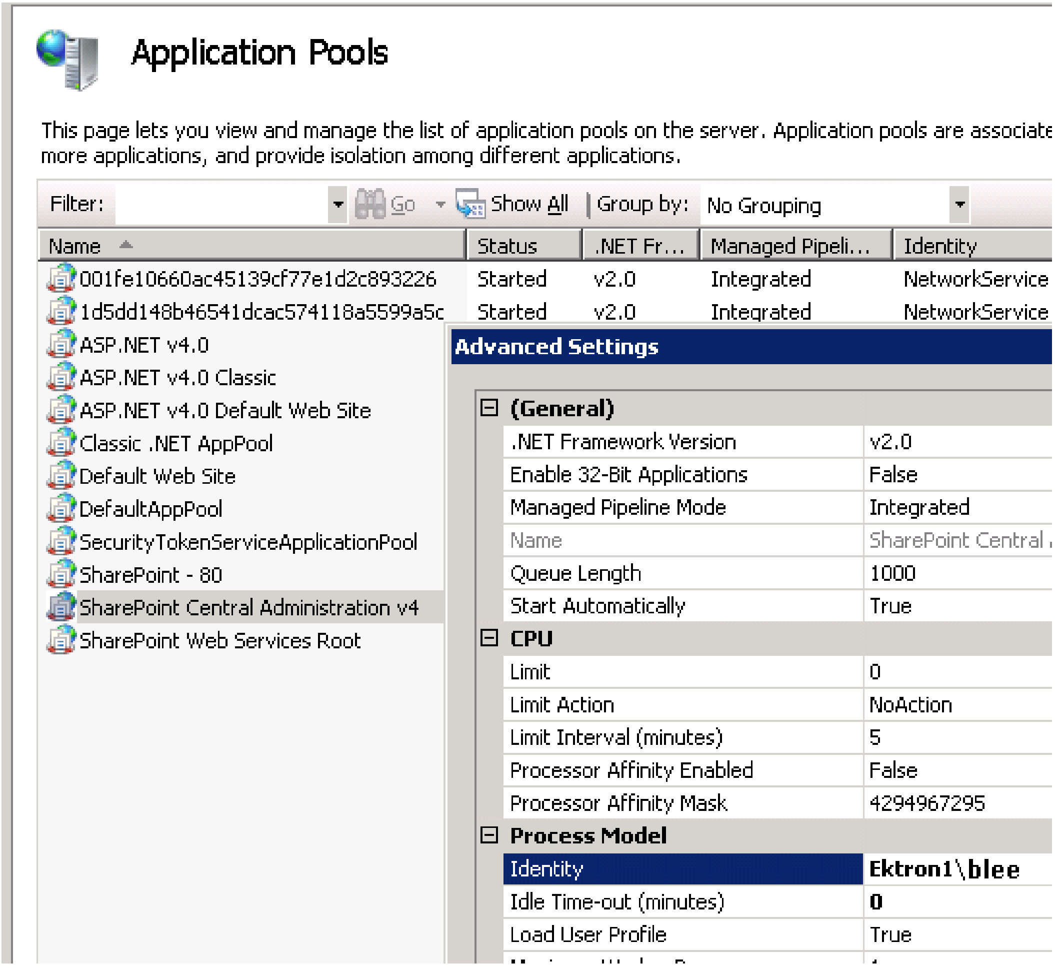
Managing a Microsoft Search Server

The Search Configuration screen lets you manage the Ektron's implementation of a search server.

IMPORTANT: Ektron's Search Configuration screen provides access to a few commonly-used features of Microsoft's Search Server. To fully use Search Server's capabilities, use the SharePoint 2010 Central Administration utility. Also, if you remove or edit Ektron website information using IIS, you must restart the Ektron Windows Service before using the Search Server Configuration screen.

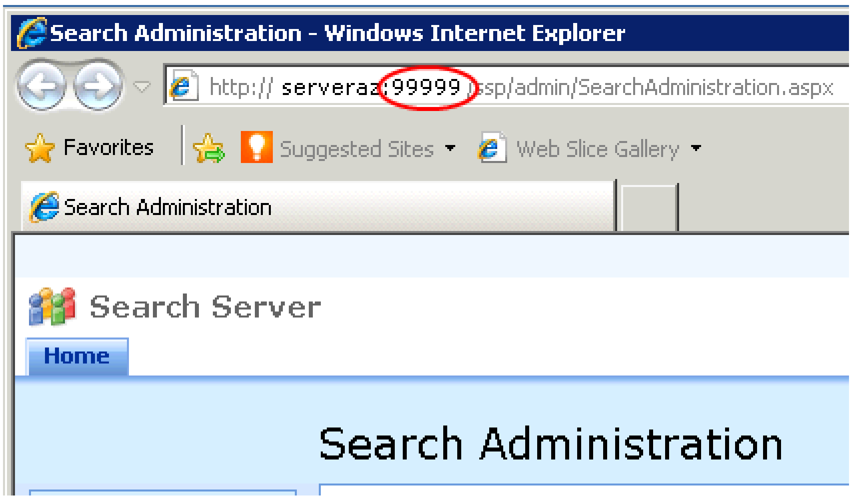
Before You Log into the Search Configuration Screen

- Is the Ektron Search Server Service started?
- For ports opened between the Ektronserver and the search server, are firewalls off?
- Verify that the user entered during the Search Server installation is also the user running these Windows services:
  - SharePoint 2010 Timer
  - SharePoint Server Search 14
- Verify that the user entered during the Search Server installation is also the user set in the **Advanced Settings** > **Identity** field running these Application Pools:
  - <GUID> (there may be more than one)
  - SecurityTokenServiceApplicationPool
  - SharePoint Central Administration v4

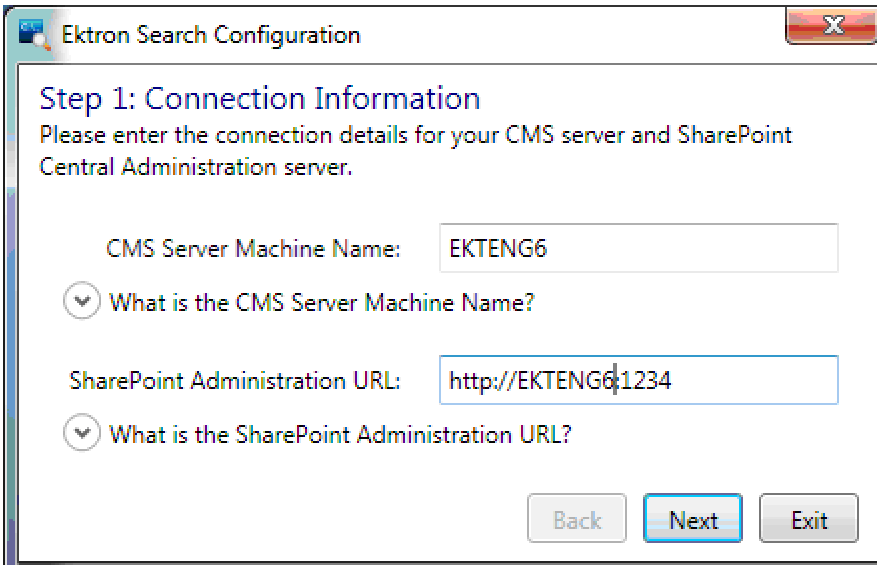


Logging into Ektron's Search Server Configuration Screen

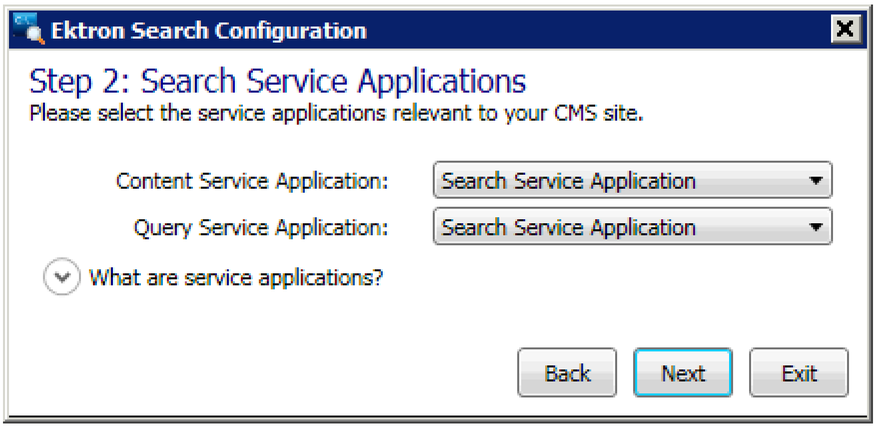
1. Log on to Microsoft Search Server 2010 as an administrator.
2. Click the Windows **Start** menu > **All Programs** > **Microsoft SharePoint 2010 Products > SharePoint 2010 Central Administration**. The port number appears in the browser address bar, following `http://server name`



3. Log onto the Ektron server as an administrator.
4. Click the Windows **Start** menu > **All Programs > Ektron > CMS400v*releasenumber*> Utilities > Search Config**. The Connection Information screen appears.



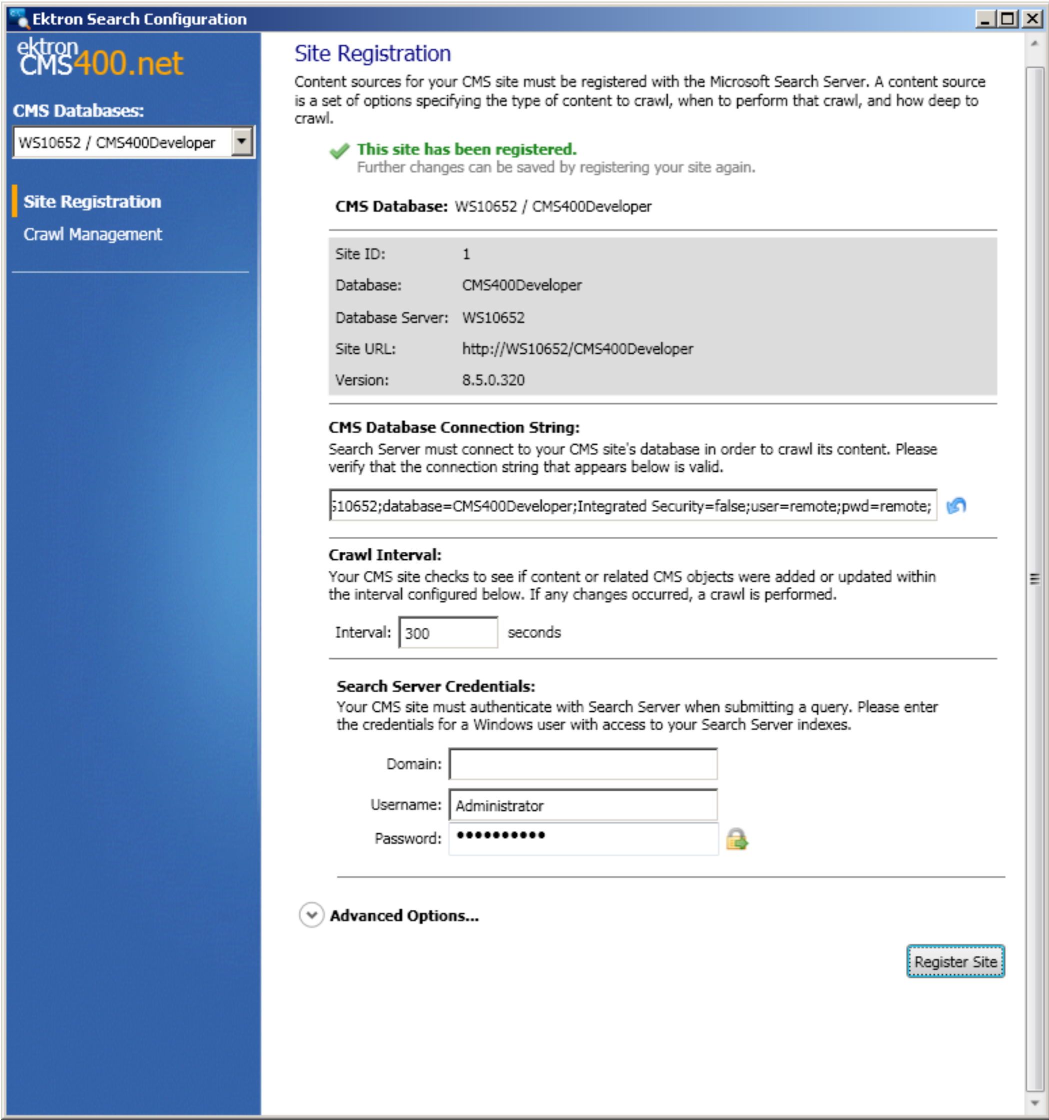
5. In the **CMS ServerMachine Name** field, enter the Ektron server.
6. In the **Search Server Administration URL** field, enter **http://** , your search server name, colon(**:**), and port number (see *Managing a Microsoft Search Server* on page 925) For example, `http://MySearchServer:12345`.
7. The Search Service Application screen appears. Select appropriate Content and Query Service applications.



Ektron's Search Server Configuration screen appears.

Managing the Search Configuration

This section explains how to use the Search Configuration screen.

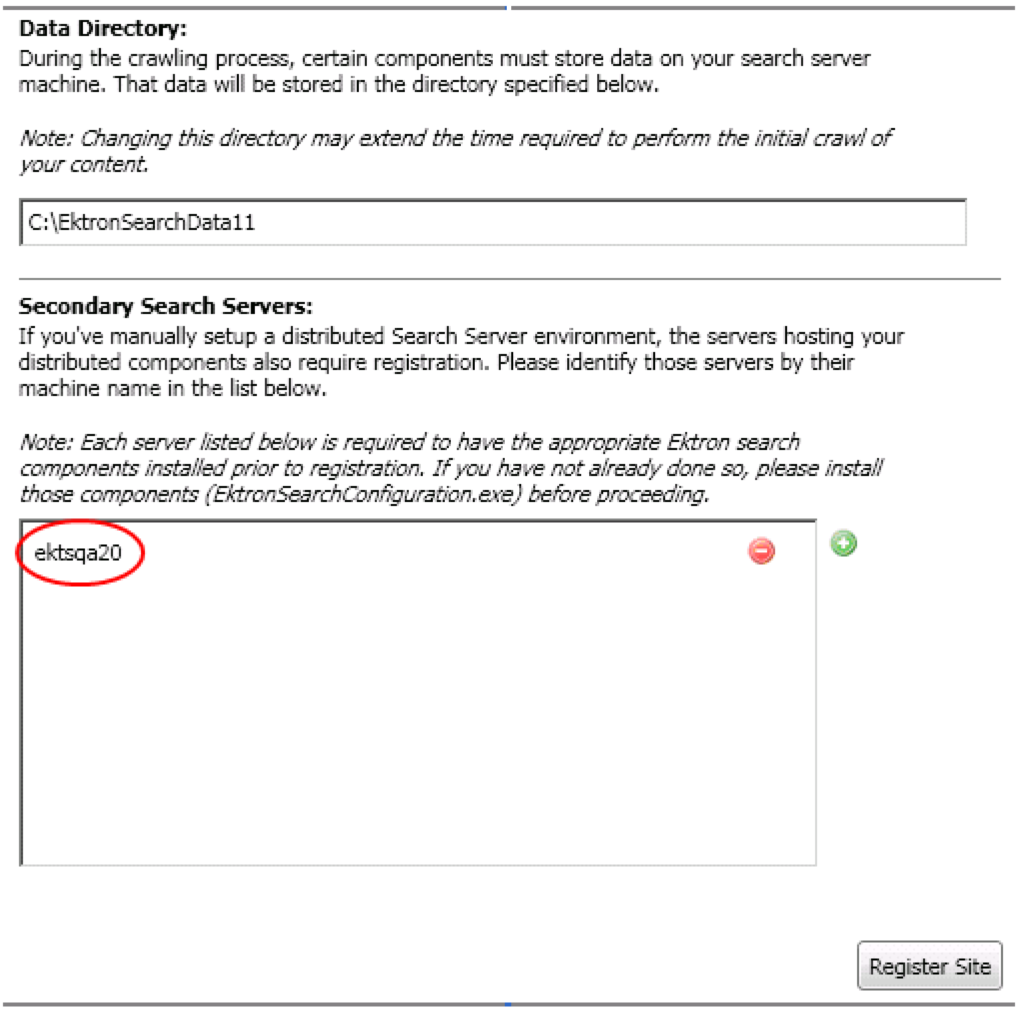


When your Search Server configuration is properly set to connect to your Web server, the following appears on the Search Configuration screen.

This site has been registered.
Further changes can be saved by registering your site again.

- **CMS Database**—shows information about Search Server's connections to your website.
  - **Site ID**—The IIS site ID found on the Web server.
  - **Database**—The database that Search Server crawls.
  - **Database Server**—The name or IP address of the site's Web server.
  - **Site URL**—The URL that visitors use to view the website.
  - **Version**—The website's Ektron version.
- **CMS Database Connection String**—Microsoft Search Server 2010 uses the CMS Database Connection string to connect to your Ektron site's database. If the database is on the same domain as your search server, set **Integrated Security** to true. Otherwise, set **Integrated Security** to false and enter a SQL username and password.
- **Crawl Interval**—Set the incremental crawl interval.

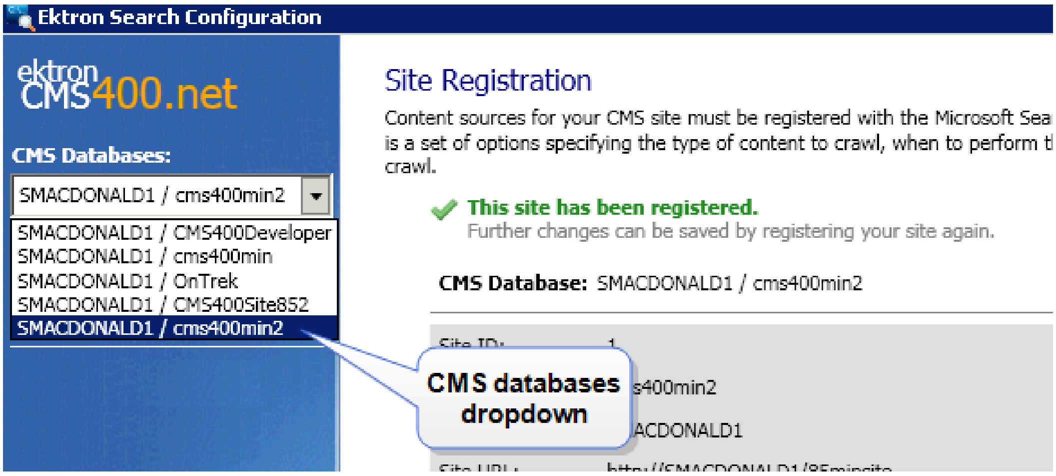
- **Search Server Credentials**—Enter the domain, username, and password of a user with privileges to connect to the Microsoft Search Server 2010 server.
- **Advanced Options**—See the following sections:
    - **Crawl Tracing**—Use the drop-down to specify a level of detail collected by the crawl log. A separate log is created for each crawl, and is saved to the Data Directory.
    - **Data Directory**—Identify the folder on your Search Server that stores a copy of Ektron content needed by Microsoft Search Server 2010. The directory also stores protocol logs, which track crawl activity. The default value is `C:\EktronSearchData`.
    - **Secondary Search Servers**—Use this area to add secondary search servers to a load-balanced cluster. You would only do this on a primary server, to identify its secondary servers. See Also: *Setting Up a Load-Balanced Search with Microsoft Search Server 2010* on page 885.
        1. In the **Secondary Search Servers** section, click **Add** ( ).
        2. Insert the name of the secondary servers.
        3. Click **Register Site**.



Updating the Site Registration Panel

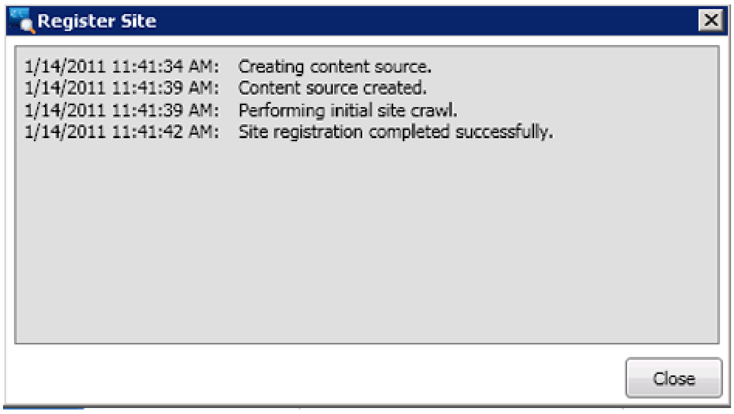
If you make changes to the Site Registration panel, you need to register the site again.

1. Start the Search Configuration Utility. See Also: *Logging into Ektron's Search Server Configuration Screen* on page 926
2. If the Ektron server has several databases, select one from the drop-down.



NOTE: If your Ektron version supports multi-site, the **CMS Databases** drop-down lists the multi-site database only once. The site Url may correspond to the main site or any sub-site (depending on their order in IIS).

3. In the **Search Server Credentials** area, enter the **Domain**, **Username**, and **Password** for your Search Server.
4. Click **Register Site**. A confirmation window appears.
5. Click **Yes**. Progress appears in a window.



6. When finished, click **Close**.

Troubleshooting Site Registration

Error: Failed to connect to specified Search Server. Please verify that your Search Server URL and port number are valid and try again.

Possible solution:

1. Open the Windows Services control panel.
2. Right-click Ektron Search Server Service.
3. Choose **Properties** from the context menu.
4. Select the **Log On** tab from the properties dialog window.
5. Select the radio button labeled **This account**.

6. Enter the credentials to match those of the SharePoint Server Search 14 (OSearch14) service.
7. Commit your changes.

Managing the Search Crawl

Crawling is the process of preparing index files for searching. When Ektron content is added, deleted, or updated, a crawl makes that content available (or no longer available) to the search. In general, Ektron manages the crawl automatically—you do not need to do anything.

This section explains the automatic crawl: what starts one, how to monitor its status, and so on. In addition, if your search has a problem, you can run a manual crawl to troubleshoot it.

Full vs. Incremental Crawls

Microsoft Search Server 2010 supports 2 types of crawls.

- **Full**—occurs immediately after events that significantly change data structure
- **Incremental**—occurs after incremental crawl interval passes for less significant events that still require a crawl

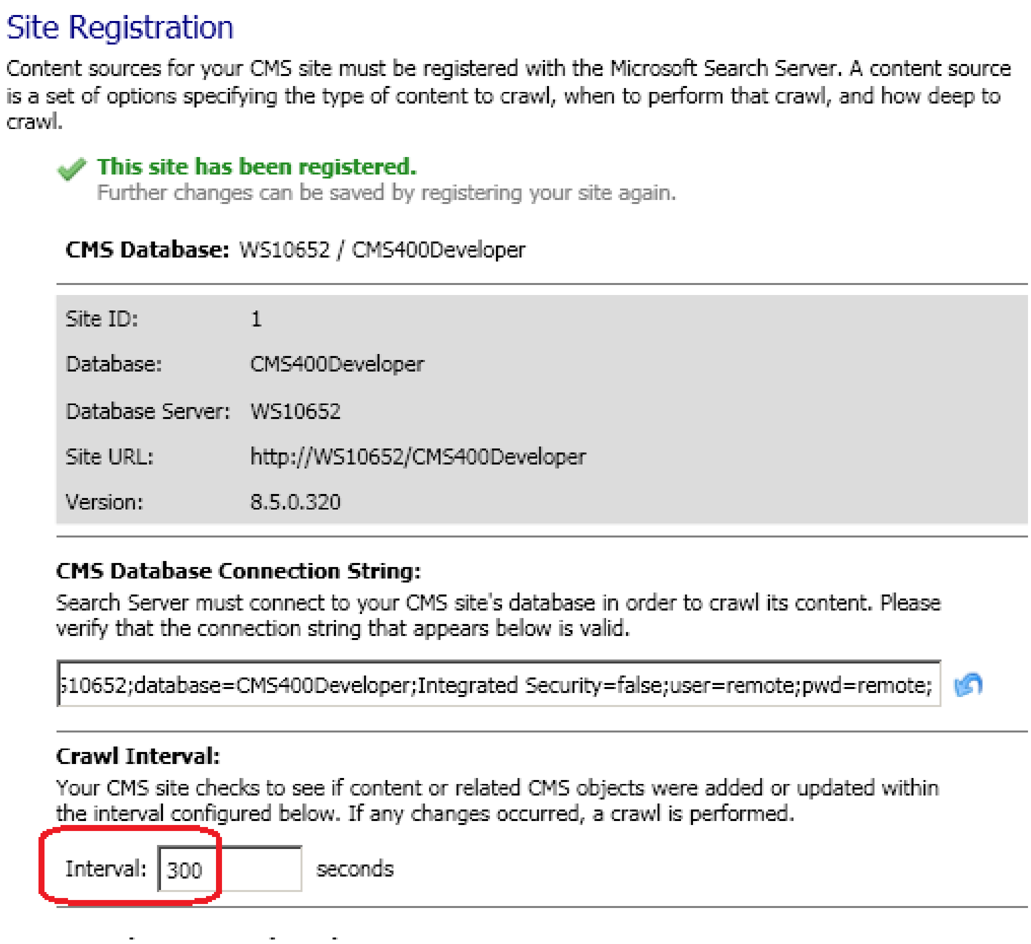
A *full* crawl registers searchable Ektron properties with the search provider and ensures that search results reflect the latest information for all Ektron content. An example of a full-crawl triggering event is the registration of a new site.

Other Ektron events trigger an *incremental* crawl, which is run when the specified time interval passes. See *Setting the Incremental Crawl Interval* below. Typical incremental-crawl triggering events include the creation of new content and the editing of existing content.

If you are using eSync, a sync can trigger a full or incremental crawl, depending on the data being synched and the profile selected.

Setting the Incremental Crawl Interval

Use the Search Configuration Screen **Site Registration** panel's **Interval** field to define the incremental crawl interval in seconds.



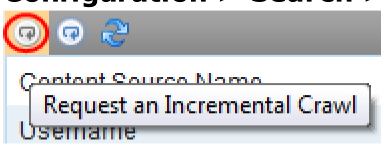
Starting Crawls Manually

You should not need to start a crawl. Ektron initiates crawls as necessary. You would typically begin a manual crawl for troubleshooting purposes.

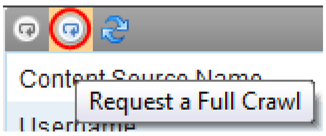
PREREQUISITE

You are a member of the Administrators group or assigned to the Search-Adminrole.

- To start an incremental crawl immediately, go to **Workarea > Settings > Configuration > Search > Status**. Click **Request Incremental Crawl**.

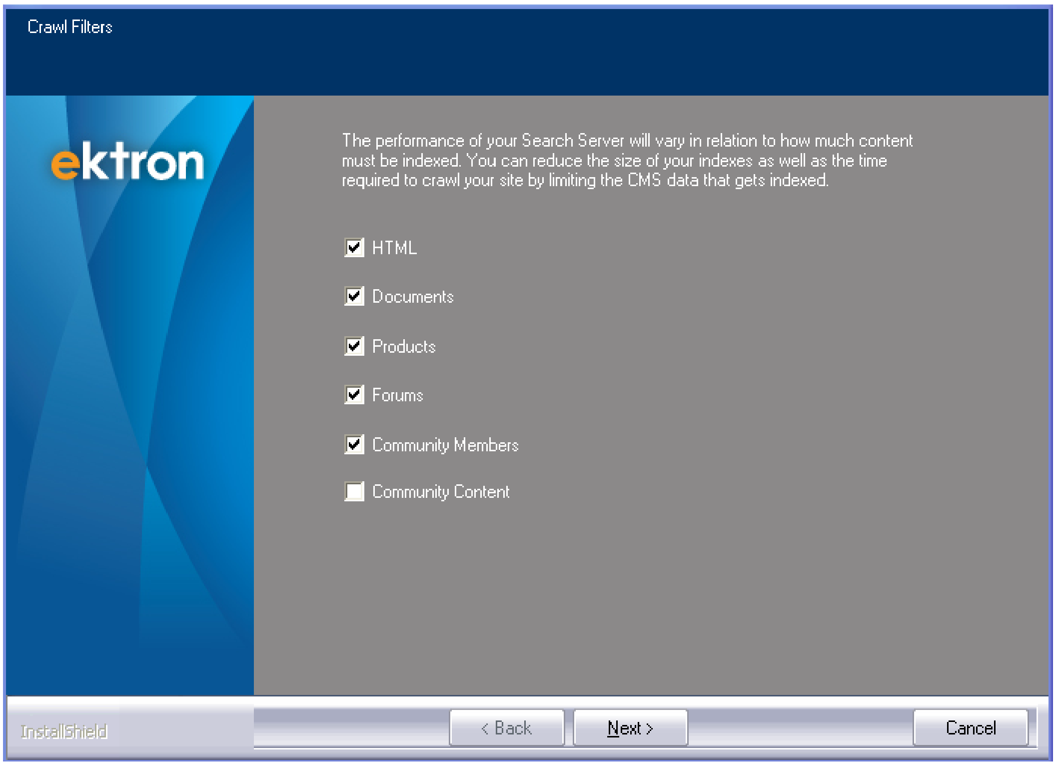


- To start a full crawl immediately, go to **Workarea > Settings > Configuration > Search > Status**. Click **Request Full Crawl**.

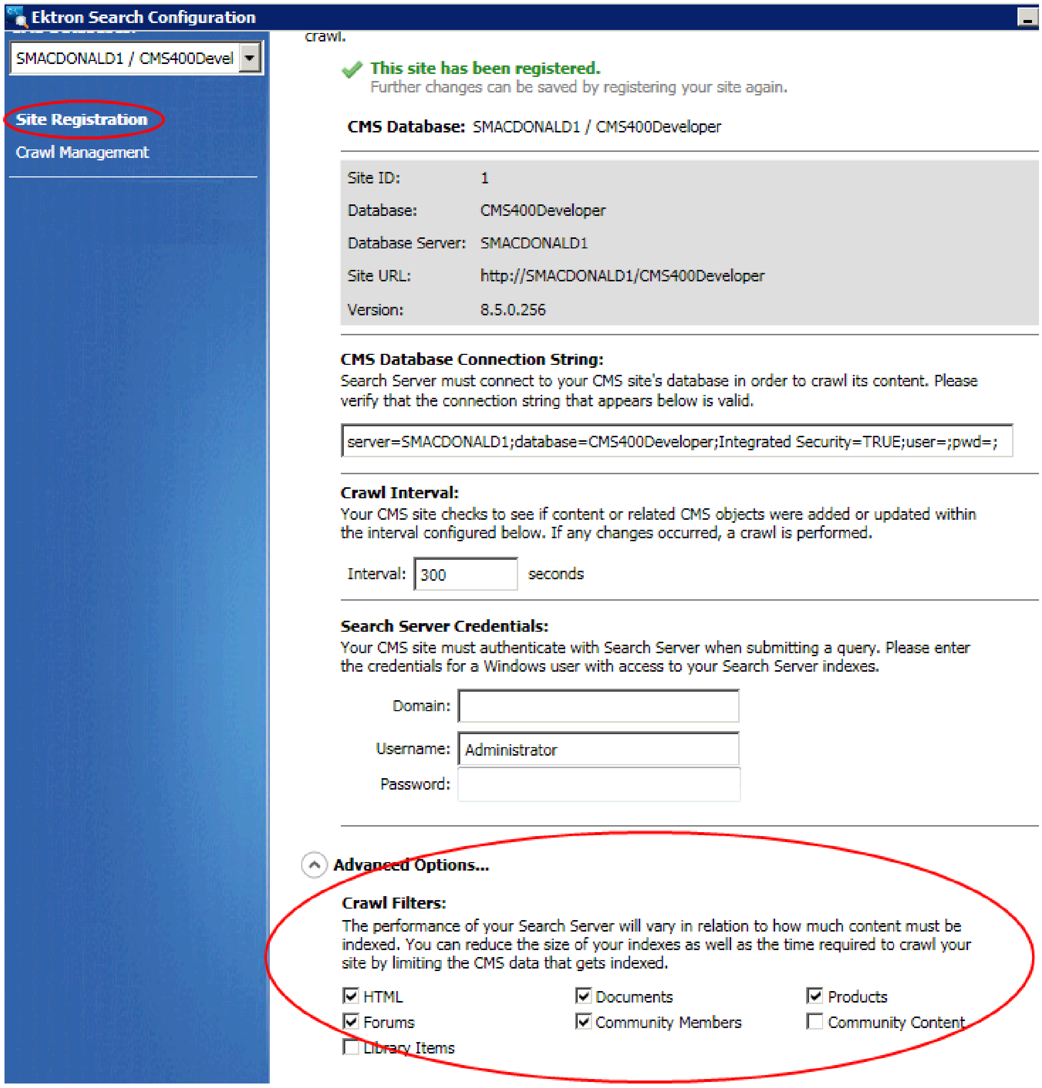


Improving Search Performance with Crawl Filters

When you set up the connection to Microsoft Search Server, you determine the types of content that will be crawled using the following screen.



If your crawl is taking too long, you might consider removing content types, especially those you do not use. To update the list of crawled content types, use the Search Configuration Screen's **Site Registration** panel **> Advanced Options > Crawl Filters** fields.



The following list describes the content covered by each type of crawl filter.

- **HTML**—Content blocks, forms, blogs, content-associated library items, completed Smart Forms, calendar events.
- **Documents**—Uploaded Office documents, PDFs, images, and so on. See *Working with Assets in the Document Management System* on page 310
- **Products**—eCommerce catalog entries. See *Conducting eCommerce* on page 1279
- **Forums**—Discussion topics, replies, and so on. See *Working with Discussion Boards* on page 536.
- **Community members**—Community user and groups. See *Managing Community Groups* on page 1181. Also, Ektron users and groups.
- **Community content**—Community user and group photos, blogs, and so on.

NOTE: Metadata and tags are crawled regardless of the crawl filter settings. Also, changes to other Ektron data objects result in the appropriate crawl, regardless of these settings. See Also: *Full vs. Incremental Crawls* on page 931

Monitoring Crawls

The Data Directory stores a log of information about each crawl. The logs are stored in the *Managing a Microsoft Search Server* on page 925. The Search Configuration screen's *Managing a Microsoft Search Server* on page 925 field lets you determine the amount of detail you want the log to collect.

The following errors may appear in the crawl log.

- **Error**—<url_path_to_asset>: The filtering was stopped because of a user action, such as stopping the crawl
- **Problem**—An asset is referenced in the Ektron database, but the physical file was deleted from the file system.

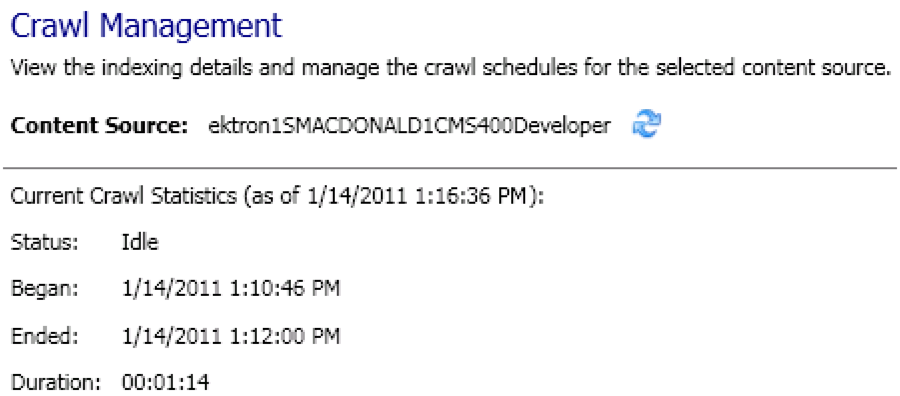
The following screens also let you monitor and manage crawls.

- Search Status screen in the Workarea. See Also: *Monitoring Microsoft Search Server 2010 from the Workarea* on page 884

Search Status

Status Item	Value	Description
Content Source Name	ektron1WS10652CMS400Developer	The index associated with your site.
Query Credentials	Administrator	The Windows user authorized to communicate with the query service.
Crawl Request Pending	No	Indicates whether or not the site has a request for a crawl to submit.
Current Action	Idle	The indexing activity that is currently in progress.
Pending Action	None	The indexing activity that will execute upon completion of the current activity.
Crawl Start Time	5/2/2011 2:02:36 PM	The start time of the most recent crawl.
Crawl End Time	5/2/2011 2:05:16 PM	The end time of the most recent crawl.
Crawl Duration	00:02:40	The duration of the most recent crawl.
Crawl Interval	00:05:00	Indicates how often the site will submit crawl requests.

- Search Configuration Screen's Crawl Management panel



Crawl Management

View the indexing details and manage the crawl schedules for the selected content source.

Content Source: ektron1SMACDONALD1CMS400Developer

Current Crawl Statistics (as of 1/14/2011 1:16:36 PM):

Status: Idle

Began: 1/14/2011 1:10:46 PM

Ended: 1/14/2011 1:12:00 PM

Duration: 00:01:14

The following table compares the screens.

Options	Workarea's Search Status screen	Search Configuration Screen
How to access	**Workarea** > **Settings** > **Configuration** > **Search** > **Status**	On server that hosts Search Server: **Windows Start > All Programs > Ektron > CMS400v***releasenumber***> Utilities > Search Config**

Options	Workarea's Search Status screen	Search Configuration Screen
View crawl information	• search server • content source name • query credentials • if there is a pending request to begin incremental search • current and next scheduled search action See Also: *Monitoring Microsoft Search Server 2010 from the Workarea* on page 884 • most recent start and end times • duration (**last** if no crawl currently running; **current** if crawl currently running) • interval See Also: *Setting the Incremental Crawl Interval* on page 931 • crawl filters	On **Site Registration** panel • **Crawl Interval**See Also: *Setting the Incremental Crawl Interval* on page 931 • **Crawl Filters** • **Crawl Tracing Level** On **Crawl Management** panel • content source name • crawl status (same as **Current Action** on Search Status screen) • most recent start and end times • duration
Start full crawl See Also: *Managing a Microsoft Search Server* on page 925	✓	Not available
Start incremental crawl See Also: *Managing a Microsoft Search Server* on page 925	✓	Not available
Set incremental crawl interval	View only	✓ **Site Registration** panel **> Crawl Interval** field See Also: *Setting the Incremental Crawl Interval* on page 931

Options	Workarea's Search Status screen	Search Configuration Screen
Set the type of data that is searched	View only	✓ **Site Registration** panel **> Advanced Options > Crawl Filters**

Troubleshooting Crawl Errors

The following information lists errors that may appears during a crawl, and how to resolve them. Errors appear in Microsoft Search Server 2010's administration portal. They do not appear in Ektron.

Condition—What happens if a crawl is running when a new one is scheduled to start?

- If a crawl request is issued while a crawl is running, the new crawl will start only after the current crawl completes.
- A pending *full* crawl starts before any pending *incremental* crawls.

Problem—A content block based on a Smart Form has a blank content_html field. An error occurs: Exception from HRESULT: 0xC00CEE2D

Solution—Remove the field or insert content into it.

Problem—The crawl is taking a long time, your website has over 1 gigabyte of assets, and over 100 PDFs.

Solutions

- **Install Foxit PDF Filter**
- Install Foxit PDF filter from [Foxit® PDF IFilter - Server]

  After installing, update the registry as shown below:

  ```
  [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office Server\14.0
  \Search\Setup\Filters\.pdf]
  "Extension"=".pdf"
  "FileTypeBucket"=dword:00000001
  "MimeTypes"="application/pdf"

  [HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office Server\14.0
  \Search\Setup\ContentIndexCommon\Filters\Extension\.pdf]
  @="{987f8d1a-26e6-4554-b007-6b20e2680632}"
  ```

  See Also: Index and Search PDF Files in SharePoint Server 2010

- **Use the Filters Screen**

  The Crawl Filters screen lets you decide which file types are crawled. You can exclude non-critical file types to speed up the crawl. See Also: *Managing a Microsoft Search Server* on page 925

Searching a Microsoft Search Server Website

Visitors choose search to navigate your website more frequently than any other navigation option. Search usage often exceeds links, menus, or site maps. This is especially true when visitors have a term or phrase in mind. Advanced visitors may narrow down search results by adding special terms or query strings.

As an administrator or developer, you want to provide the optimum search results quickly, with the most relevant results near the top. To accomplish this, adjust the search engine results by setting *Using Synonym Sets* on page 945, Suggested Results, and keywords.

In some cases, you can anticipate what the visitor is looking for and provide a convenient way to display results with the click of a button or image. To do this, developers can create automated queries that provide the unique combination of keywords and terms that provide results that are highly targeted to the visitor's quest. These queries are found in the code-behind and use the search API.

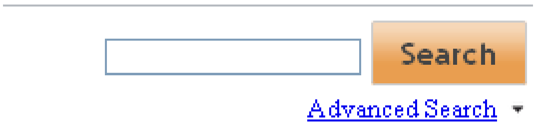
The website search should provide a simple user interface and relevant results.

This section also contains the following topics.

Basic versus Advanced Website Search

To provide your website with search capabilities, your developer places Site Search server controls on a page. See Also: *Site Search Server Controls* on page 1836

The search may look like the image below, although your developer has total control over its "look and feel".



Basic Search

NOTE: You can designate a folder outside of Ektron to be searched. For more information, see *Including External Files in Your Search* on page 946.

The Basic Search finds content that satisfies these criteria.

- Published. Changes checked in but not published are not accessible.

  NOTE: New and updated content is available only after the next crawl completes. See Also: *Managing the Search Crawl* on page 931

- Active. Also, expired content appears if the archive option is **Archive and remain on Site.**
- Content's **Content Searchable** box is checked.
- Public. Private content is only available to those with permission to view it, such as membership users after logging in. See Also: *Making Content Private* on page 294

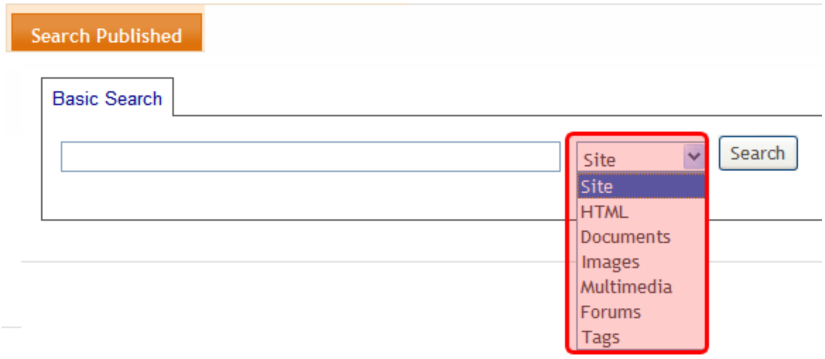
  IMPORTANT: Private content is hidden from search results if your search provider is Microsoft Search Server 2010. It is not hidden if you are using another search provider.

- Library items are searchable by title and file name. To make the content of non-image files (for example Word documents) searchable, add them as assets. See Also: *Working with Assets in the Document Management System* on page 310
- Language:
  - website search: Content in selected site language appears unless the developer sets the language via Advanced Query Text or API
  - Workarea search: Content in the Workarea's current language appears (user selects Workarea language via the **View > Language** menu option)
- Search text is contained in title or content
- If the search text is more than one term, all terms must be found. So, multiple terms have an AND relationship.

NOTE: A user may force an OR relationship by entering OR between search terms, or using the Advanced Search's **any of these words** option. Developers may create an OR-based search using the API property `ImplicitAnd`.

IMPORTANT: If you have a multi-site configuration and a search is conducted from *any* site, results from *all* sites appear. To limit a search to single site, use a syntax like this:
`AdvancedQueryText=' AND ( "parentsiteid"=0 OR "parentsiteid"=161 ) '`

- Satisfies content type criterion selected on screen, if chosen (see below)



NOTE: The search does not find documents inside compressed files, such as *.zip, *.cab, and so on.

The following list explains the values in the **Advanced Search** tab's **Content Type** field.

- **Site**
  - Content from all options listed below.
  - Any document file type defined in the Asset Server Setup screen

    NOTE: You can find these files using **Site** as the content type criterion, but not using **Documents**.

- **HTML**
  - HTML
  - HTML form (but not data submitted on form)
  - XML Smart Form (field values but not field labels)
  - Blog entries (not comments)
  - Web calendar events
- **Documents**
  - MS Office documents (includes Powerpoint, Excel)

    NOTE: To search Visio documents, you must install the Visio IFilter. See Also: *Installing the Visio IFilter* on page 943

    - Document properties (categories, comments, and so on)
  - PDF file

  IMPORTANT: The search only finds text in the first 16 MB of any PDF document. So, for example, if the file is 32 MB, only the first half of the text is searchable.

  - .txt file

- **Images added as assets and through the library**
  - Search text in file name (including file type extension) and summary.

    NOTE: If you assign several images to an eCommerce catalog entry, and want to allow searching for that catalog entry by image file name, the search only works with the *first* image assigned to the catalog entry.

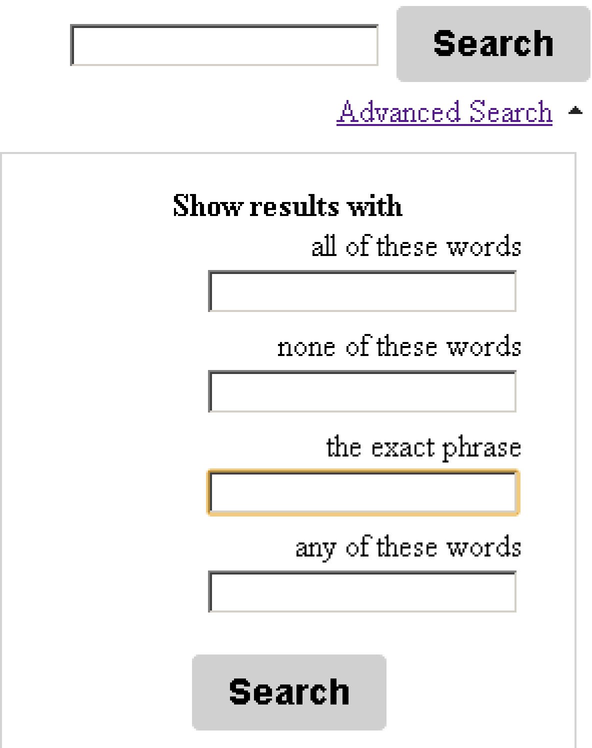
- **Multimedia** (Flash, .mp3, and so on)
  - Search text in file name (including file type extension) or summary
- **Forums**
  - Forum posts and replies
- **Tags**
  - Tags applied to content and library items See Also: *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245
- **PageBuilder Pages**
  - PageBuilder page: properties (summary, metadata, and so on) and content within the page's widgets.

    IMPORTANT: If a content block is added to a PageBuilder page, the search only returns its appearance on the PageBuilder page. The search does not find such content on a non-PageBuilder page.

Advanced Search

The Advanced Search uses the same search criteria as the Basic Search. (See *Basic Search* on page 939). The differences are additional options and the fact that you cannot use queries.

NOTE: The advanced search screen may look like the following image, although your developer has total control over its appearance." See Also: *Modifying Templated Server Controls* on page 972



- **all of these words**—Web page includes all submitted terms; their position on the page does not matter.
- **none of these words**—Web page does not contain the submitted term
- **the exact phrase**—Web page must include the exact phrase. For example, if you enter **Ektron healthcare**, a page with the term **Ektron provides healthcare** is not found because it is not an exact match.
- **any of these words**—Web page includes any submitted term

Search Result Ranking

NOTE: This topic describes search rank using Microsoft Search Server 2010. To learn about search rank using Microsoft FAST Search Server 2010, see *Setting Up Microsoft Search Server 2010* on page 871.

Each content item found by search is given a numerical rank. Search results are sorted by rank. Criteria used to calculate rank include the

- number of occurrences of the search term
- proximity of search term to beginning of file
- proximity of search term to other occurrences of the term
- whether the term is in the title

If you need to ensure that certain content appears at the top of search results when certain terms are entered, use suggested results. See Also: *Providing Suggested Results* on page 952

To learn about customizing ranking for Microsoft Search Server 2010, see

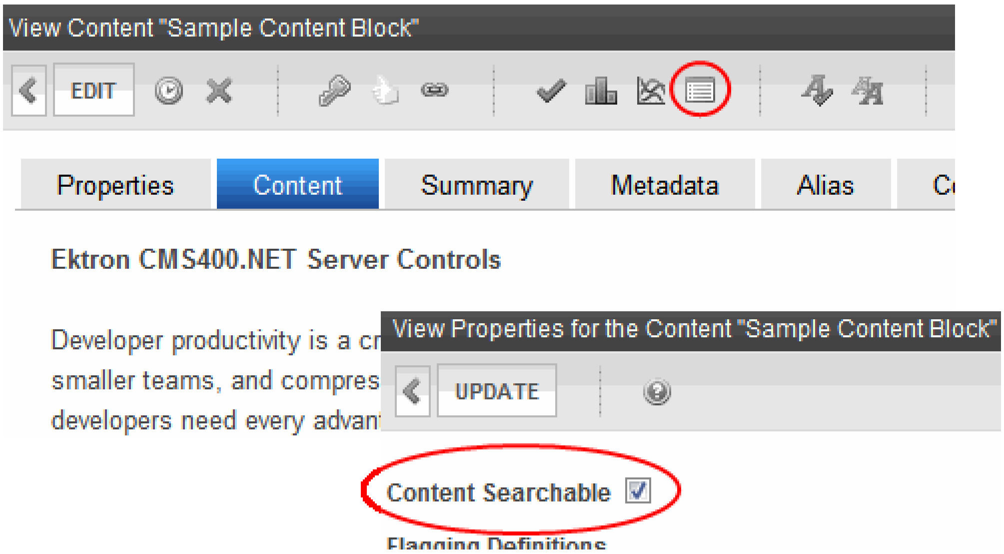
- Custom Ranking Models with SharePoint 2010: Background, Value and Administrative Overview
- Creating Custom Ranking Models
- SharePoint 2010 enterprise search developer training

Ensuring Your Content is Searchable

Search only accesses data about the content if the **Content Searchable** field is checked.

NOTE: Despite the value of this checkbox, if an Ektron user places this content item in a Suggested Results list, it appears in the **Suggested Results** area of the Search Results screen. See Also: *Providing Suggested Results* on page 952.
Also, even if **Content Searchable** is unchecked, the Advanced Workarea search can find the content.

The default value of this field is determined by the **ContentSearchable** folder property.



Installing the Visio IFilter

The search finds text within Visio documents if the Visio IFilter is installed to the Microsoft Search Server used by the Ektron Web server. Use the following links to download and install the Visio IFilter.

Microsoft Office 2010 Filter Packs

Searching for Metadata

The following rules apply when searching for values inside metadata.

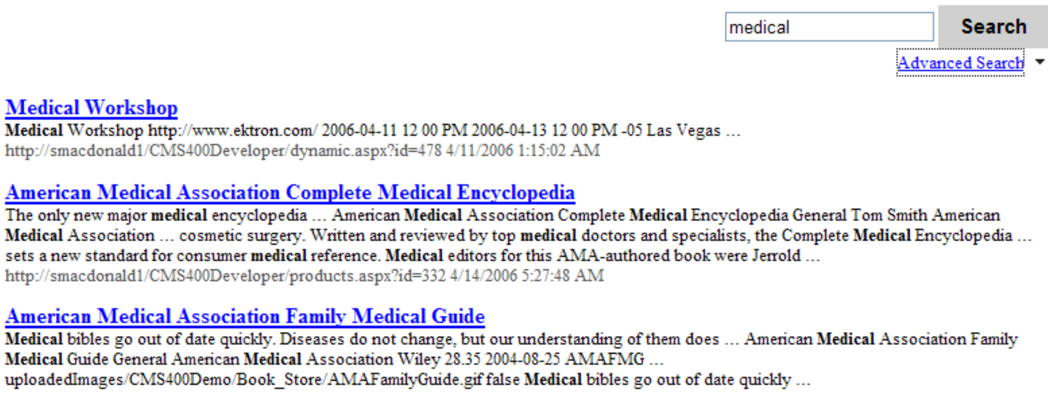
- The search finds text within Searchable type and Content Tag metadata fields. For example, a content block has a searchable type metadata field, **MapAddress**, that contains **131 Amherst St**. Searching for **131** returns that content.
- To find content with searchable metadata whose style is **yes or no**, enter `true` or `false`.

See Also: *Working with Metadata* on page 369

Displaying Search Results

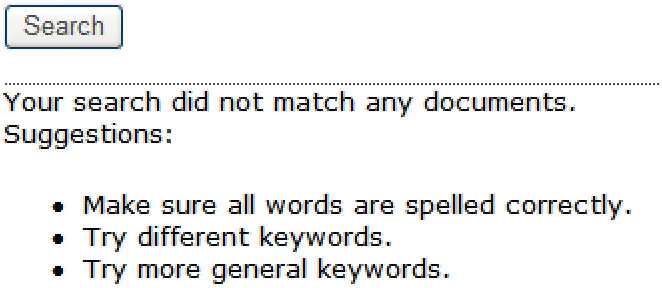
See Also: *Search Result Ranking* on the previous page

The following example shows the website search results screen. Your developer can customize it using the appropriate ResultsView server control. For example, to display eCommerce catalog entry results, the developer uses the *Using Search Server Controls* on page 971.



Customizing the Postback Message

By default, if a search term yields no results, a message appears.



To customize this message:

1. In your site root folder, find the `workarea/resources` folder.
2. Open the resource file that corresponds to your site's language. For example, if your site is in American English, open `EkResource.en-US.resources`. To learn how to work with a resource file, see *Translating the Workarea* on page 1086.
3. If your site supports multiple languages, follow these steps for each corresponding resource file.
   a. Within the resource file, find the key `lbl search no results`.
   b. The default text (shown above) follows this key. Modify the text as needed.
   c. Save the file.

The "Did you mean?" Feature

If a site visitor enters a word that is similar to a crawled term, the "Did you mean?" feature often suggests close alternatives. If you click a suggested term, a search is performed on it.

The "Did you mean?" feature works only with single word queries.

NOTE: If your search provider is Solr, the "Did you mean?" feature only works with words in the content title.

Using Synonym Sets

PREREQUISITE

You must be a member of the Administrators Group or assigned the Search-Admin role to access Synonym Sets. See Also: *Defining Roles* on page 1120

IMPORTANT:
*Changes to a Synonym Set reset Search Server. To minimize impact on your visitors, make such changes during off-peak hours.
* Synonym Sets apply to all Ektron sites associated with a Search Server instance. For example, if Site A, Site B, and Site C use the same Search Server instance, they share Synonym Sets. This means that a Synonym Sets created in Site A may affect Site B's search results.

You can create sets of synonyms to work with the search. If a site visitor enters into the search field any term in a synonym set, the search returns results for that term plus all other terms in the set.

For example:

- **Synonym Set**: Tuition
- **Terms**: tuition, bill, payment, pay, fee, charge, price, amount, cost, balance

If a site visitor inserts **bill** into the search field, Ektron uses **bill** or **tuition** or **payment** or **pay** or **fee** or **charge**, and so on., to determine search results.

The Synonym feature typically produces more “hits.” So, while visitors do no more work, their chances of finding the right information are greatly increased.

NOTE: Previous to version 8.5, you could use Synonym sets in Suggested Results. This is no longer provided in versions 8.5 and higher.

BEST PRACTICES

A search term can consist of several words as long as the term is entered the same way in the Synonym Set. For example, **love seat** is part of a Synonym Set that includes sofa. As long as both love and seat are in a content item, the search finds it even if the words are separated. But, entering a single term, like **love**, will not find that Synonym Set. So, if you think people may search using **loveseat** or **love seat**, enter both terms into the Synonym Set.

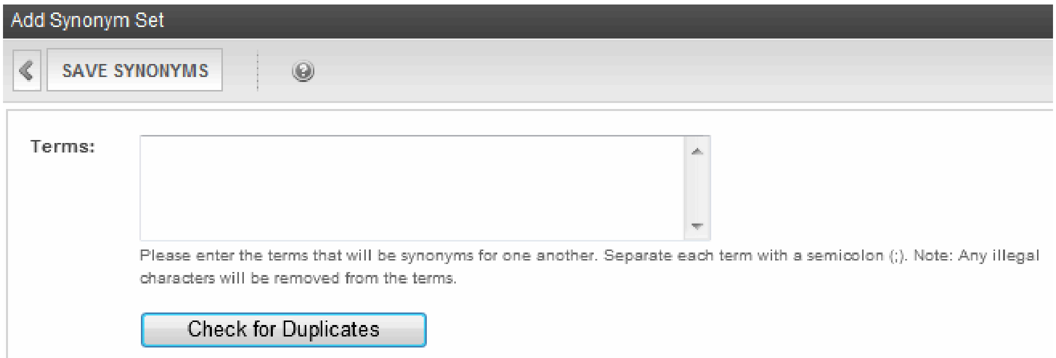
The metadata search does not use or support Synonyms Sets.

If a search term consists of several words, it does not return synonym match results. For example, you create a synonym set that contains `{cms; content management system}`. If a site visitor enters **CMS**, the search results include matches for **cms** and **content management system**. But, if the site visitor enters **content management system**, the results do *not* include matches for **cms**.

Creating a Synonym Set

IMPORTANT: A term can only appear in one Synonym set.

1. Choose **Workarea > Settings > Configuration > Search > Synonyms**.
2. Select a language for the Synonym Set from the language drop-down menu. (The search is language-specific. When site visitors begin using your site, they select a language. Only synonyms sets in that language are considered.)
3. Click **Add Synonym**. The following screen appears.



4. Enter all terms in the set. Separate each with a semicolon (;). You cannot enter a comma (,) or parenthesis character (().
5. Click **Check for Duplicates**. Ektron compares these terms against other Synonym Sets in this language. If the same term is found in another set, you are notified and must remove it.
6. Click **Save Synonyms**.

Editing a Synonym Set

1. Choose **Workarea > Settings > Configuration > Search > Synonyms**.
2. Select a language for the Synonym Set from the language drop-down menu.
3. Click the Synonym Set that you want to edit.
4. Click **Edit**. The Edit Synonym Set screen appears.
5. Add or remove terms. Be sure to separate each term with a semicolon (;).
6. Click **Check for Duplicates**. Ektron compares these terms against other Synonym Sets in this language. If the same term is found in another set, you are notified and must remove it.
7. Click **Save Synonyms**.

Deleting a Synonym Set

1. Choose **Workarea > Settings > Configuration > Search > Synonyms**.
2. Select a language for the Synonym Set from the language drop-down menu.
3. Click the Synonym Set that you want to delete.
4. Click **Delete** ().
5. Confirm your action.

Including External Files in Your Search

Use integrated search when you want the search to find files outside of Ektron but located on your Web server. For example, you want a folder full of press releases to be searchable but do not want to add them to Ektron. Instead, you follow the steps below to make the folder searchable, and search results include the press releases.

NOTE: The descriptions below refer to the folder with content that is *not* part of Ektron as the *external folder*.

You can search all non-Ektron content by file title. For example, you can find Ektron.gif by inserting **Ektron** into the search field. In addition, you can search a variety of file types like .doc, .pdf, and .txt by searching their text. Finally, Microsoft Search Server 2010 searches file metadata for media files.

Follow these steps to include external files in search results.

Step 1–Place Content in an External Folder

External folders must reside in the website so IIS has permission to access their content. Best practice is to create the external folder under the Webroot. Then, place content in th folder for the integrated search. Next, follow the steps below to set permissions and configure Search Server.

Set Permissions for the External Folder

The top-level folder that contains the external files must be accessible to the website, and the user account used by search server must have permission to read it.

The following example creates a user called *IntegratedSearchUser* and shares the external folder. Search Server uses the *IntegratedSearchUser* account to access the external folder's content.

1. On the Web Server, start **Control Panel > Administrative Tools > Computer Management** and create a new user called **IntegratedSearchUser**.
2. Using Windows Explorer, right click the external folder and choose **Share**.
3. Enter the **IntegratedSearchUser** user.
4. Click **Add**.

IntegratedSearchUser now has read permission for the external folder.

Step 2–Create a New Content Source for the External Folder

1. On your *search server*, open the SharePoint 2010 Central Administration screen.
2. Go to **Manage service applications > Search Service Application > Content Sources > New Content Source**.

   If you are using Microsoft FAST Search Server 2010, go to **Manage service applications > FastContent Connector > Manage Content Sources > New Content Source**
3. Enter the following values.
   - Enter a **Name** for the content source.
   - In the **Content Source Type field**, choose **File Shares**.
   - In the **Start Addresses** field, enter the external folder as a UNC path (`\\server\directory`) or full file URI (`file://server/directory`).

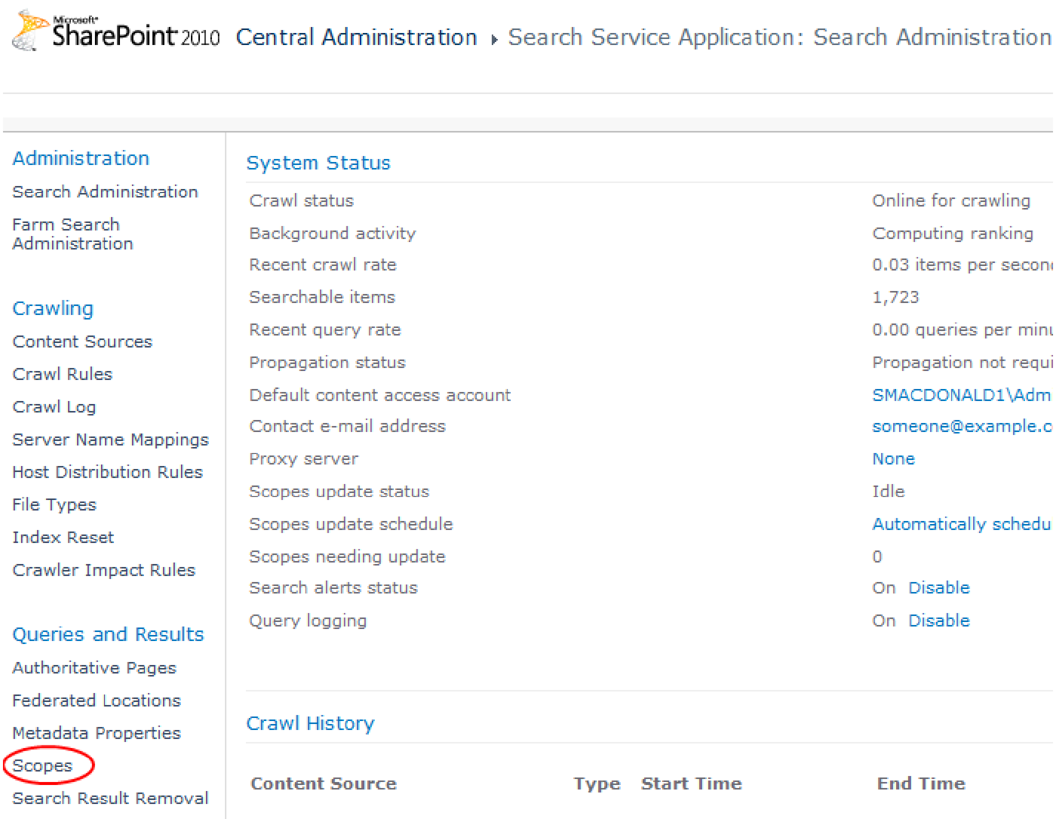
  - To make sure the search can access the external folder, you may want to use `C$` in the path, like this: `\\server1\c$\integratedsearch`.
- Set up **Crawl Schedules** for your integrated search folder contents to automatically refresh search indexes as frequently as you need to keep search results reliable. (This schedule is different than the crawl schedule for Ektron content.)
- Begin a crawl by checking **Start full crawl of this content source**.
- Click **OK** to save your changes.

If you successfully set this up, you see your new content source, and the status shows "starting".

Step 3—Create Scope for New Content Source

NOTE: If you are using Microsoft FAST Search Server 2010, you can ignore Steps 3 and 4 proceed to Step 5.

1. On your Search Server, open the SharePoint 2010 Central Administration screen.
2. Go to **Manage service applications > Search Service Application > Queries and Results > Scopes**.



3. Click **New Scope**.
4. Give it a **Name** (no spaces) and **Description**.
5. Leave **Use the Default Search Results Page** checked.
6. Click **Ok**. The View Scopes screen reappears.

7. Use the pull-down next to the new scope name and select **Edit Properties and Rules**.

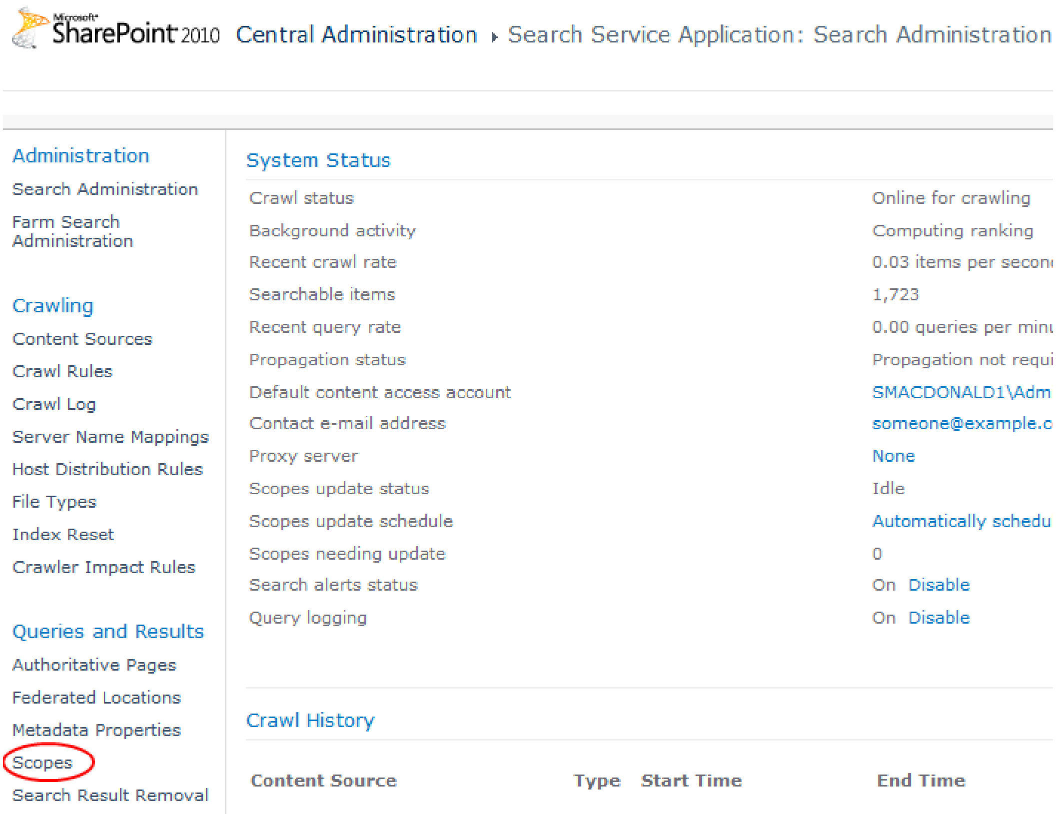
8. Add a **New Rule**.
9. In the **Scope Rule Type** field, select **Content Source**.
10. In the **Content Source** field, select the content source you created in *Step 2—Create a New Content Source for the External Folder* on page 947.
11. Set **Behavior** to **Include**.
12. Click **Ok**.

Step 4—Add External Folder to Ektron Website Scopes

NOTE: If you are using Microsoft FAST Search Server 2010, you can ignore Step 4 proceed to Step 5.

This step assures that your external folder content is included in Ektron search results.

1. Open the SharePoint 2010 Central Administration screen.
2. Go to **Manage service applications > Search Service Application > Queries and Results > Scopes**.



3. Use the pulldown next to your Ektron website's content source and select **Edit Properties and Rules**.
4. Click **New Rule**.

5. In the **Scope Rule Type** field, select **Content Source**.
6. In the **Content Source** field, select the external folder that you created in *Step 2—Create a New Content Source for the External Folder* on page 947.
7. In the Behavior field, select **Include**.
8. Click **OK**.

Step 5—Add a New Crawl Rule for the Integrated Search User

This step sets the permission for the search server to access the external folder.

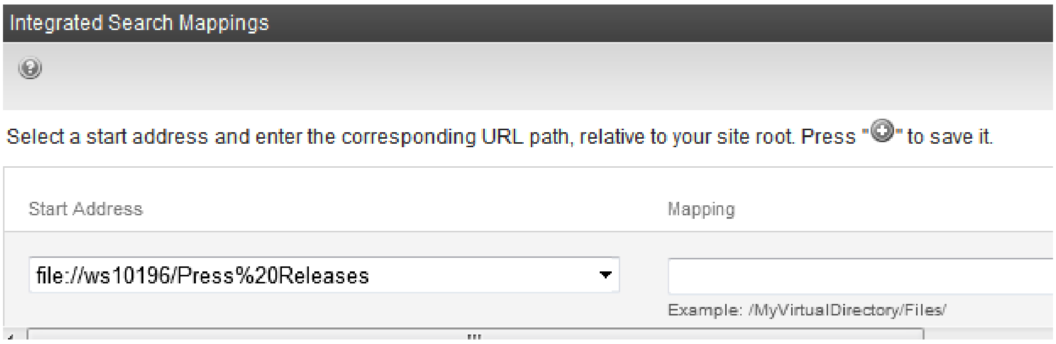
1. On your Search Server, open the SharePoint 2010 Central Administration screen.
2. Go to **Manage service applications > Search Service Application > Crawling > Crawl Rules**.
3. Click **New Crawl Rule**.
4. Set the **path** to the external folder. (For example: `\\ws10196\PressReleases\*`.)
5. Set the Crawl Configuration to **Include all items in this path**.
6. Set Specify Authentication to **Specify a different content access account**.
7. Enter the **Account**. (For example: `IntegratedSearchUser`.)
8. Enter the **Password** and **Confirm the Password**.
9. Uncheck **Do not allow Basic Authentication**.
10. Click **Ok**.

Step 6—Complete the Integrated Search Mappings Screen

PREREQUISITE

You are a member of the Administrators Group or assigned the Search-Admin role See Also: *Defining Roles* on page 1120

1. Choose **Workarea > Settings > Configuration > Search > Integrated Search Mappings**.



2. In the **Start Address** field, find the external folder.
3. In the **Mapping** field, enter the path to the external folder relative to your site root.
4. Click ( ) to save.

Troubleshooting Integrated Search

- **Problem**—The protocol handler cannot be found. Check that the handler has been installed

  The protocol handler is normally installed in this folder.

  ```
  c:\windows\system32\DatabaseProtocolHandler.dll
  ```

  Solution—If the handler is in the correct place, check that all folder names and paths are correctly entered in the Content Sources, Crawl Rules and Scopes in the Search Service Application settings.

- **Problem**—Item was not crawled because of a password change. Update password and retry crawling.

  Solution—Verify that the Search Server user account has permission to read and write to the content database. You may have to create a unique user on the content server for this purpose.

Formulating Queries

NOTE: Following text extracted from Free-Text Keyword Queries.

To search for any word or phrase on a website, enter the word into the field and click **Search** to begin.

The following rules apply to formulating queries:

- By default, multiple words have an "and" relationship. So, the search term **calendar server** returns pages that have both words.
  - To find pages with *either* term, use the OR operator. For example, **calendar OR server** returns pages that have either word.

    IMPORTANT: You must capitalize boolean operators, such as **AND**.

  - To find pages with several terms *in exact order* with no intervening words, use quotes. For example, “**calendar server**” returns pages that have both terms in that order.
  - To find pages that have one term without another, use the NOT operator. For example, For example, **calendar NOT server** returns pages that have **calendar** and do not have **server**.
  - To find several terms close together, use NEAR. For example, **treatment NEAR immunoglobulin** finds pages with the word “treatment” near the word “immunoglobulin.”

    The NEAR operator is like AND because it finds pages that include both search words. However, the rank assigned by NEAR depends on the proximity of the search words. A page with search terms closer together has a higher rank than a page where they are farther apart.

    NOTE: The NEAR operator can be applied only to words or phrases.

- Search terms are case-*in*sensitive.
- Punctuation marks, such as period (.) and comma (,), are ignored by the search.
- Operators (<, >, and &) are ignored by a search. Also, the search does not find text within angle brackets, for example `<Ektron>`.
- To include in a query special characters that are not operators, such as +, |, ^, #, @, $, (,), enclose the query in quotation marks (").
- Use the wildcard character (*) to find words that start with a certain letter sequence. For example, **esc*** returns Web pages with "ESC," "escape," and so on.
- To nest expressions within a query, add parentheses. Expressions within parentheses are evaluated before the rest of the query.
- Use double quotes (") to ignore a boolean or NEAR operator keyword. For example, "Abbott and Costello" finds pages with the entire phrase, not pages that match the Boolean expression.
- The AND operator has a higher precedence than OR. For example, the first 3 queries are equal, but the fourth is not:
  - a AND b OR c
  - c OR a AND b
  - c OR (a AND b)
  - (c OR a) AND b

Providing Suggested Results

PREREQUISITE

You are a member of the Administrators Group or assigned the Search-Admin role See Also: *Defining Roles* on page 1120

Your website may contain thousands of content items. Sometimes, depending on the search phrase, you want to focus the visitor's attention on a few topics. The Suggested Results feature lets you create a set of search terms, then specify content to appear at the top of the results when someone searches on a term.

Suggested Result links can jump to your website or an external website.

IMPORTANT:
* Prior to Ektron version 8.5, Suggested Results could be language-specific. Beginning with version 8.5, Suggested Results do not filter based on language.
* As of version 8.5, Suggested Results do not use terms from the Synonyms Set feature.

This section also contains the following topics.

Using Suggested Results to Enhance Business Opportunities

You can use Suggested Results to direct site visitors to business partners' websites. One example is a smoking cessation clinic near your hospital. When someone visits your website and searches for smoking, you can set the clinic to be the top Suggested Result.

As another example, your organization creates widgets but does not implement or customize them. Over time, several agencies develop experience at deploying and customizing your widgets. Therefore, you want to promote the supporting businesses on your site. The following steps describe how this works.

1. Create a phrase with synonyms—*deploy, install, implement, customize, modify, adapt*.
2. Assign the websites of approved agencies to the Suggested Results list.
3. When a site visitor searches for the word *implement*, he gets links to those agencies' websites.

Suggested Results can also be used to advertise products, as used in the sponsored results section of search engines like Google® search and Yahoo!®.

Using Suggested Results to Direct Site Visitors

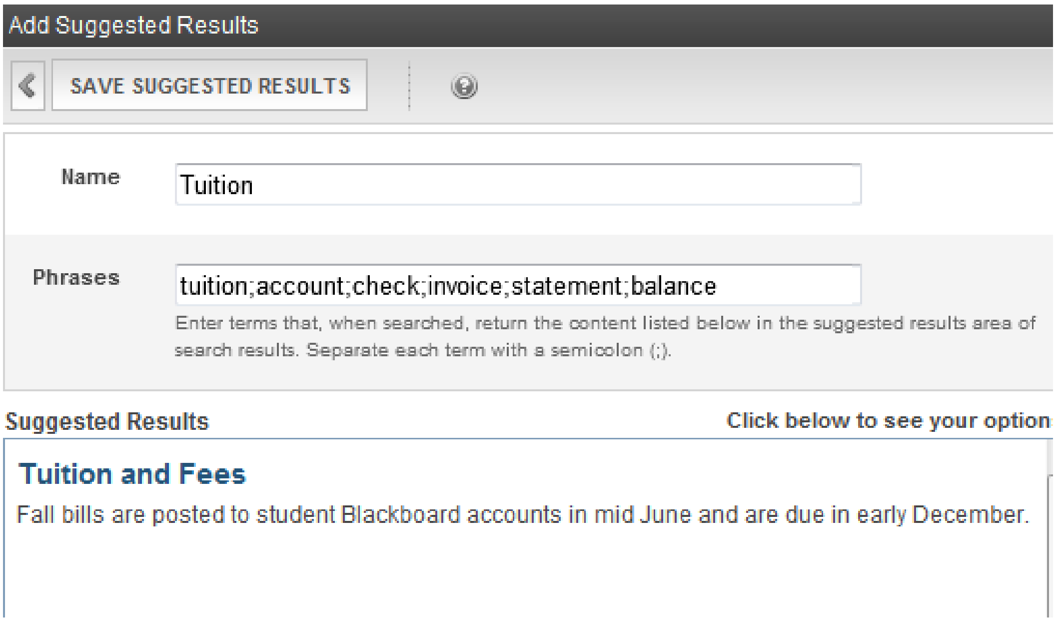
Use this feature to provide search results that do not naturally appear at the top of the page. For example, you manage a university's website. When a site visitor wants to know where to mail a tuition payment, he enters **bill** into the search field and gets these results.

- **Faculty member Bill McDermott**
- **The Student Bill of Rights**
- **How a Bill Becomes Law**

Frustrated, many people call the business office to get information that exists on the website but is difficult to find.

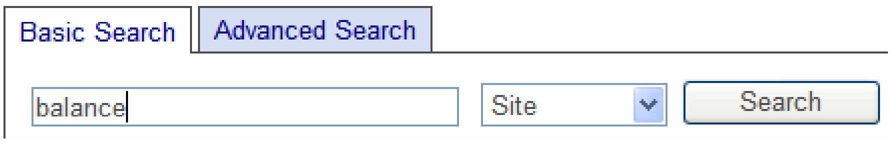
Using Ektron, you create Suggested Results to direct site visitors to the correct Web pages. To continue this example, you could create

- a title (such as **Tuition**) that describes a set of terms and links
- a list of synonyms that visitors might enter when searching for the tuition page on your site
- a Suggested Results list, where you assign the content "Tuition & Fees"

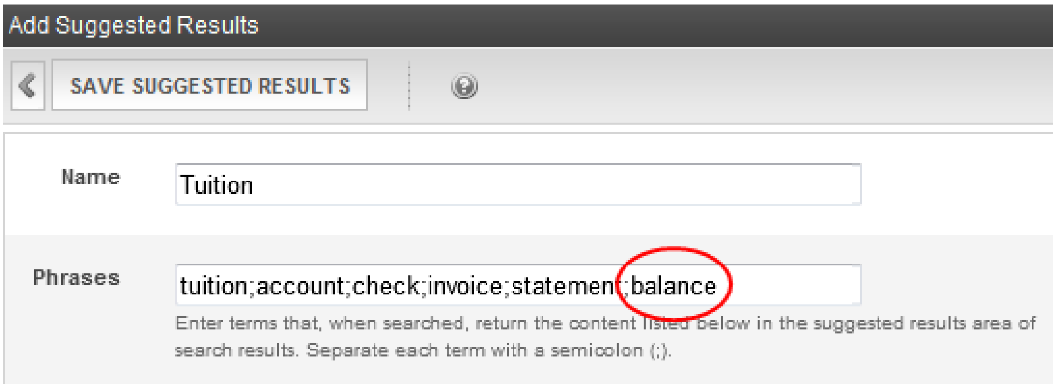


After you set up Suggested Results, this is a typical sequence of events.

1. A site visitor enters text on your **Search** page.

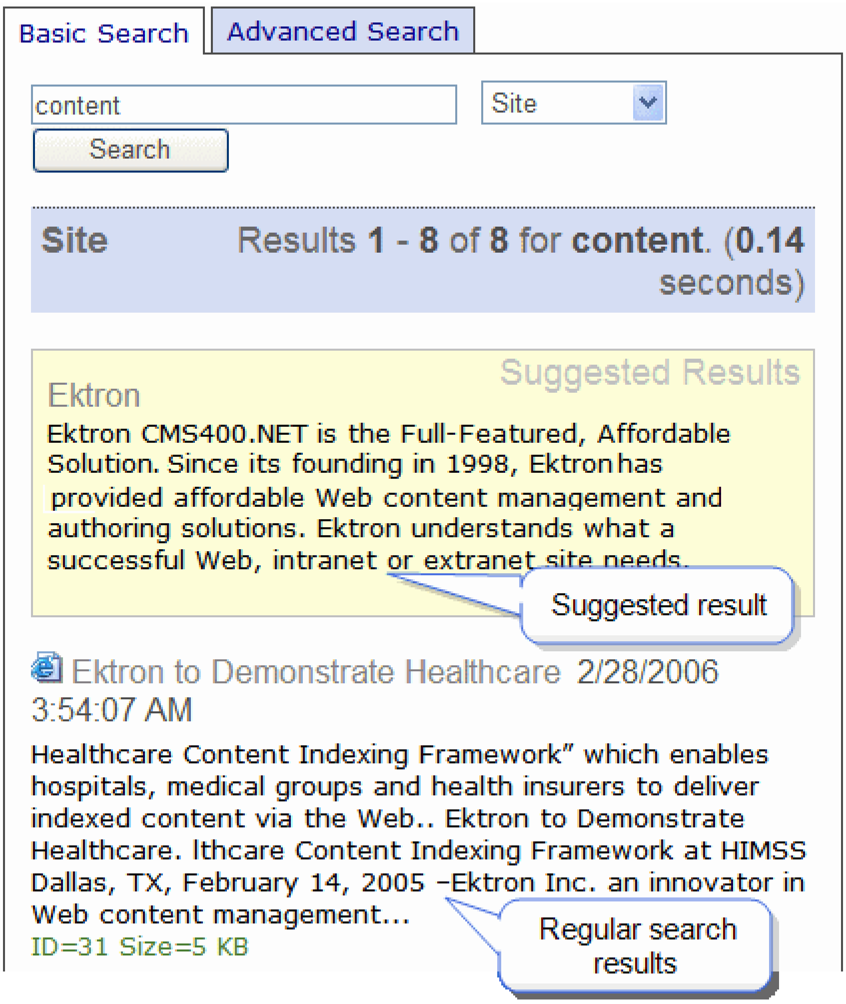


2. The text matches a term in the **Phrases** list of a Suggested Results set.



3. Suggested Result links assigned to the phrase appear in a special area of the results page. They appear in the same order that you created in the Suggested Results set.

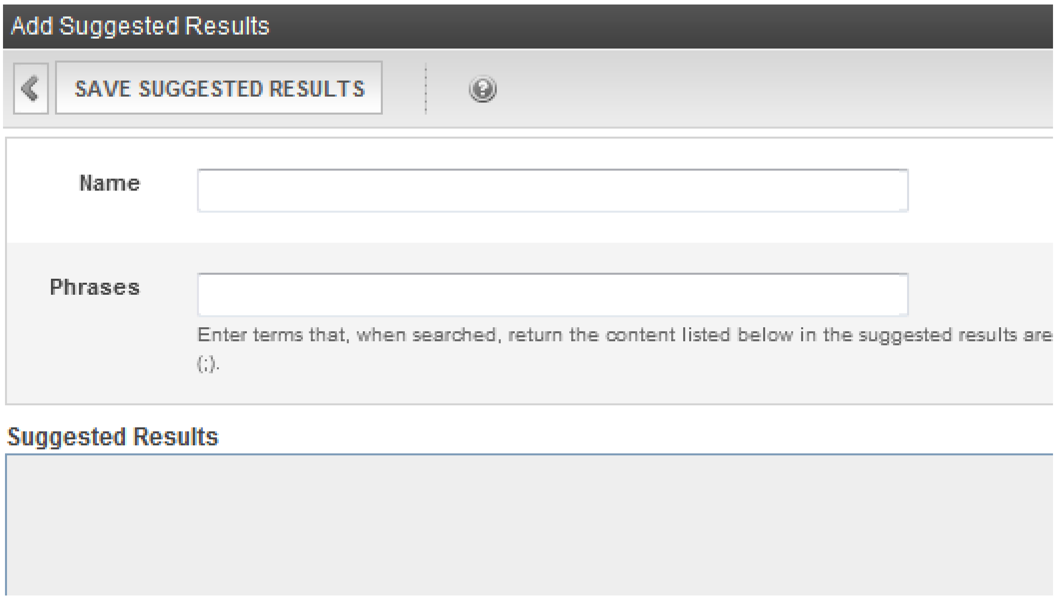
NOTE: The illustration below is an example of how suggested results may appear. Your developer styles suggested results in the ResultsView server control.



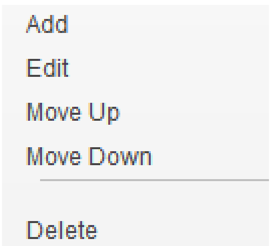
4. The search term's regular results may also appear. Your developer determines their location on the results page.

Creating a Set of Suggested Results

1. **Workarea >Settings > Configuration > Search > Suggested Results**.
2. Click **Add New Suggested Result Set**. The following screen appears.



3. Complete the fields.
   - **Name—**A word that names the Suggested Results set and is the first synonym. (You cannot repeat the phrase in the Synonyms.)
   - **Phrases—**The list of words that triggers the Suggested Results you will create below. That is, if a user enters a search phrase that matches any term in the Synonyms, the Suggested Results appear.
   - **Suggested Results—**The links to appear when a phrase or synonym is found. To define them, place the cursor in this field and click. A menu appears.



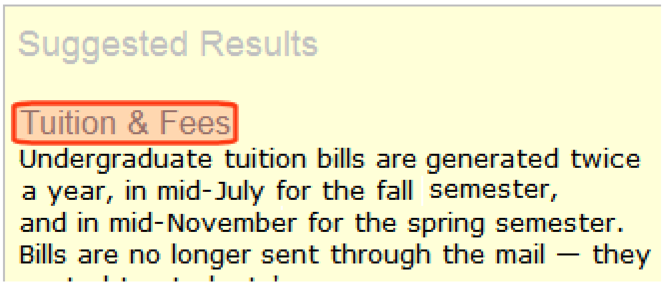
4. Click **Add**. A screen appears.
5. Add the URL, title, and summary for each suggested result.
   - **Link—**To create a link to...
     - *content on your website*, click the **Browse to CMS content** button. Then, navigate to the folder that contains the content, select it, and click **Save**.

       NOTE: Only content in the Workarea language appears. To change the language, exit this screen, go to the root folder, and click **View > Language**.

     - *an external website*, enter its full address, starting with its protocol, such as `http://`.
   - **Title—**If you created a link to...
     - *content on your website*, its title is retrieved and displayed here. You may edit it as needed.

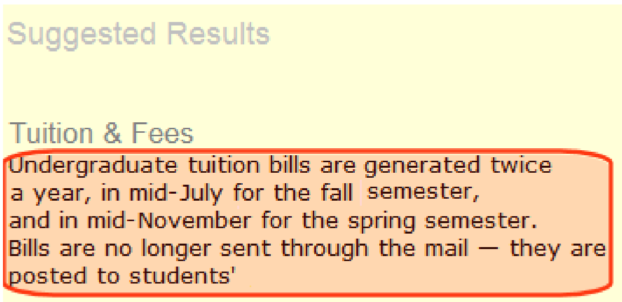
- *an external website*, enter the text of the link that will appear on the Suggested Results display.

  Site visitors use this text (circled in the example below) to select the linked Web page.



- **Summary—**If you created a link to...
  - *content on your website*, its summary appears here. You may edit it as needed.
  - *an external website*, nothing appears. Enter text to further describe this link on the search results page.

    The summary cannot exceed 320 characters (including HTML tags). For example:



6. Click **Add New Suggested Result Set**. The Add Suggested Results screen reappears. You can add more links, edit existing ones, and so on.
7. Click **Save Suggested Results**.

Displaying Suggested Results

To display suggested results using templated server controls, set up a SiteSearchResultsView control whose `Eval` statement refers to `SuggestedResults`.

```
<ektron:SiteSearchResultsView ID="r" runat="server" ControllerID="c">
  <ItemTemplate>
    <h3>Suggested Results</h3>
      <asp:ListView ID="suggestedResults" runat="server"
        DataSource='<%# Eval("SuggestedResults") %>'>
        <ItemTemplate>
          <span class="highlight">
            <a href="<%# Eval("Url") %>"><%# Eval("Title") %></a>
            <%# Eval("Summary") %>
          </span>
          </br>
        </ItemTemplate>
    </asp:ListView>
```

```
  </ItemTemplate>
</ektron:SiteSearchResultsView>
```

The suggested results class displays only 3 fields: title, URL, and summary.

If you want regular search results to appear below suggested results (as shown in *Providing Suggested Results* on page 952), your developer may want to style the suggested results to stand out. Some styling is shown above.

To display regular search results below suggested results and customize the standard result template, make the following modifications.

```
<ektron:SiteSearchResultsView ID="r" runat="server" ControllerID="c">
  <ItemTemplate>
    <h3>Suggested Results</h3>
      <asp:ListView ID="suggestedResults" runat="server"
        DataSource='<%# Eval("SuggestedResults") %>'>
        <ItemTemplate>
          <span class="highlight">
          <a href="<%# Eval("Url") %>"><%# Eval("Title") %></a>
          <%# Eval("Summary") %>
          </span>
          </br>
        </ItemTemplate>
      </asp:ListView>
      <asp:ListView ID="suggestedResults" runat="server"
        DataSource='<%# Eval("Results") %>'>
        <ItemTemplate>
          . . .
        </ItemTemplate>
      </asp:ListView>
  </ItemTemplate>
</ektron:SiteSearchResultsView>
```

However, if you want to display standard results and use the default template, insert a separate SiteSearchResultsView control below the suggested results control. See Also: *Using Search Server Controls* on page 971

Adding a Link to a Suggested Result Set

1. Choose **Workarea > Settings > Configuration > Search > Suggested Results**.
2. Select the suggested results set to which you want to add a link.
3. Click **Edit**.
4. Place the cursor over the first result in the Suggested Results area of the screen.
5. Click once and a menu appears.
6. Click **Add**. The Add New Suggested Results screen appears.
7. See *Click Add New Suggested Result Set. The Add Suggested Results screen reappears. You can add more links, edit existing ones, and so on.* on the previous page
8. Click **Add New Suggested Result Set**.
9. Click **SaveSuggested Results**.

Editing a Link in a Suggested Result Set

1. Choose **Workarea > Settings > Configuration > Search > Suggested Results**.
2. Select the suggested results set that you want to edit.
3. Click **Edit**.
4. Place the cursor in the suggested results area of the screen.
5. Place the cursor on the result that you want to edit.
6. Click once and a menu appears.
7. Click **Edit**.
8. See *Click Add New Suggested Result Set. The Add Suggested Results screen reappears. You can add more links, edit existing ones, and so on.* on page 958
9. Click **Add New Suggested Result Set**.
10. Click **SaveSuggested Results**.

Removing a Link from a Suggested Result Set

1. Choose **Workarea > Settings > Configuration > Search > Suggested Results**.
2. Select the suggested results set from which you want to remove a link.
3. Click **Edit**.
4. Place the cursor in the suggested results area of the screen.
5. Place the cursor over the result that you want to delete.
6. Click once and a menu appears.
7. Click **Delete**. A confirmation message appears.
8. Click **OK**.
9. Click **SaveSuggested Results**.

Rearranging the Sequence of a Suggested Result Set

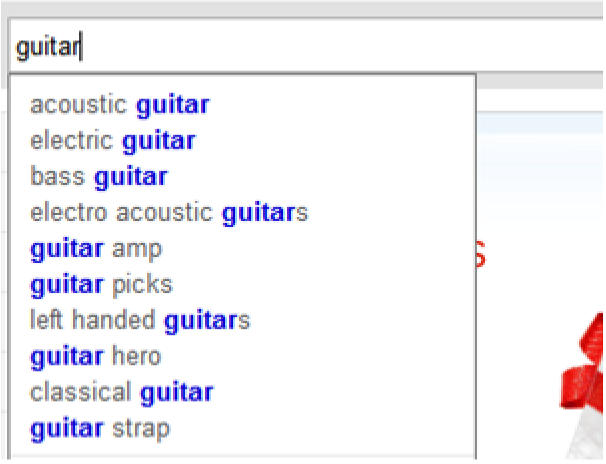
1. Choose **Workarea > Settings > Configuration > Search > Suggested Results**.
2. Select the Suggested Results set from which you want to remove a link.
3. Click **Edit**.
4. Place the cursor in the suggested results area of the screen.
5. Place the cursor over the result that you want to move up or down.
6. Click once. A menu appears.
7. Click **Move Up** or **Move Down**.
8. Click **SaveSuggested Results**.

Deleting a Suggested Result Set

1. Choose **Workarea > Settings > Configuration > Search > Suggested Results**.
2. Select the suggested results set that you want to delete.
3. Click **Delete** ( ).
4. Click **OK** to the confirmation message.

Using Autosuggest

Autosuggest is a search feature that suggests similar terms or common refinements that searchers have used in the past which are related to the search term. As a user enters text, possible matches appear. This immediate feedback may preclude the user from typing an entire search phrase, and instead choose a term with which to launch the search.



Terms appear on the list if they

- include the submitted letters, and
- were previously submitted by site visitors, and
- have resulted in the viewing of a search result

Autosuggest only works with the Site Search Control.

Enabling Autosuggest

1. Every Web page that retrieves search results requires a SiteSearchController server control. See Also: *XMLSearchController* on page 1862
   In Visual Studio, add the following properties and values to each SiteSearchController control that will use Autosuggest.
   - `EnableQueryStatistics="true”`
   - `EnableAutoSuggest="true"`
   - `AutoSuggestMaxCount`—the maximum number of entries in the autosuggest list
2. On your search server machine:
   a. Go to IIS Manager and expand the **EktronSearchSite** IIS Site.
   b. Right click **EktronSearchStatistics** and choose **Explore**.
   c. Under EktronSearchStatistics, open `web.config`.
   d. Within that file, set `NumberOfClicksToTrigger` to 1, 2 or 3. This key defines the number of times a user chooses an autosuggest search term and then clicks on a search results page before the term is added to the suggested results list.

      For example, you decide that a term is added to the list only after it is selected and users click on the results page 3 times.

Adding a Term to Autosuggest

Normally, you would not add autosuggest terms, because the terms list is built from previous successful searches. However, there may be times when you want to add autosuggest terms that direct searches to specific content. To manually add terms to the autosuggest list, follow these steps.

PREREQUISITE

Knowledge of SharePoint Powershell cmdlets

1. Log on to your search server.
2. Open the SharePoint 2010 Management Shell.
3. Add a term to the autosuggest list by inserting this command.

```
New-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication <Search Service Application>
-Name <Name of the term>
-Language <en-US>
-Type QuerySuggestionAlwaysSuggest
```

Command Parameters

- If you are using a Microsoft FAST search server, for `<Search Service Application>`, enter the Search Service Application you created for **FAST Query** in *Searching a Microsoft Search Server Website* on page 938.
- If the search term has more than one word, surround it with double quotes. For example, "Phrase Term."
- For `Language`, enter a language code followed by the locale code (as examples: en-US, en-UK).

4. Remove the term from the block list (if it exists there) by inserting this command.

```
Remove-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication <Search Service Application>
-Identity <Name of the term>
-Language <en-US>
-Type QuerySuggestionBlockList
```

5. Run the timer job.

```
Get-SPTimerJob
-Identity "Prepare Query Suggestions" | Start-SPTimerJob
```

6. Check the Last Run time against the current time.
7. When the Timer Job shows the Last Run Time as the current time, the operation has succeeded, and the term is added to the suggested terms list.

Example of Adding a Term to Autosuggest

To manually add a suggestion for **ektron**:

```
$app = Get-SPEnterpriseSearchServiceapplication "FASTQuery"
```

```
New-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication $app
-Language en-us
-Type QuerySuggestionAlwaysSuggest
-Name “ektron”
```

If **ektron** was added to the Block list, it must be removed. (If it does not exist and you run these commands, you get an error: **Given key not present in the dictionary**.)

```
Remove-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication $app
-Identity ektron
-Language en-us
-Type QuerySuggestionBlockList
```

```
(Get-SPTimerJob –Identity "Prepare Query Suggestions").RunNow()
```

Wait 3 minutes to see results.

Removing a Term from Autosuggest

You may need to remove inappropriate or derogatory terms from the autosuggest list. To do that, a term to the block list by following these steps.

PREREQUISITE

Knowledge of SharePoint Powershell cmdlets

1. Log on to your search server.
2. Open the SharePoint 2010 Management Shell.
3. Add a term to the block list by inserting this command. See Also: *Command Parameters* on the previous page

   ```
   New-SPEnterpriseSearchLanguageResourcePhrase
   -SearchApplication <The Search Service Application>
   -Name <Name of the term>
   -Language <en-US>
   -Type QuerySuggestionBlockList
   ```

4. Run the timer job.

   ```
   Get-SPTimerJob
   -Identity "Prepare Query Suggestions" | Start-SPTimerJob
   ```

5. Check the Last Run time against the current time.
6. When the Timer Job shows the Last Run Time as the current time, the operation has succeeded, and the term is blocked from the autosuggest list.

   If you later decide to remove a term from the block list, use this command.

   ```
   Remove-SPEnterpriseSearchLanguageResourcePhrase
   -SearchApplication <The Search Service Application>
   -Identity <Name of the term>
   -Language <en-US>
   -Type QuerySuggestionAlwaysSuggest
   ```

Example of Removing a Term from Autosuggest

To block the term **ontrek**

```
$app = Get-SPEnterpriseSearchServiceApplication "FASTQuery"
```

```
New-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication $app
-Language en-us
-Type QuerySuggestionBlockList
-Name ontrek
```

Remove the term from the suggestion list, if it exists. (If it does not exist and you run these commands, you get an error: **Given key not present in the dictionary**.)

```
Remove-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication $app
-Identity ontrek
-Language en-us
-Type QuerySuggestionAlwaysSuggest
```

```
(Get-SPTimerJob –Identity "Prepare Query Suggestions").RunNow()
```

Wait 3 minutes to see results.

Viewing the Blocked Words List

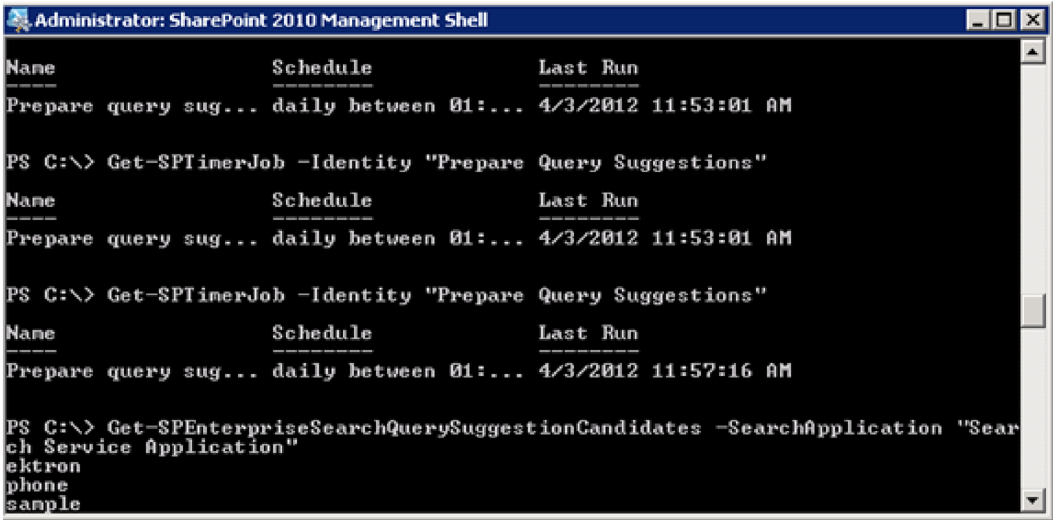
To view the blocked words list, enter

```
Get-SPEnterpriseSearchLanguageResourcePhrase
-SearchApplication <Search Service Application>
-Language en-US
-Type QuerySuggestionBlockList
```

Troubleshooting Autosuggest

If you don’t see the autosuggest drop-down, try the following.

1. Open all (3) web.configs and verify that they contain the same values for the `QuerySSA` and `ProviderAdmin` keys.
2. Open `C:\Program Files (x86)\Ektron\EktronSearchServerService\EktronSearchServerHelperService.exe.config` and verify that the following keys have correct paths.
   - QueryServiceEndpoint
   - QueryStatisticsEndpoint
   - QuerySuggestionEndpoint
3. In the SharePoint Management Shell, enter `Get-SPEnterpriseSearchQuerySuggestionCandidates -SearchApplication "<Search Service Application Name>"`. Inspect the command for your autosuggest word.

   - If the command returns a blank screen, check the `C:\inetpub\EktronSearchSite\EktronSearchStatistics` directory for a logs folder. If this folder is empty, verify that the SiteSearchController contains `EnableQueryStatistics="true”` and `EnableAutoSuggest="true”`.
   - If your list appears but the autosuggest drop-down does not, verify that your SiteSearchController contains `EnableAutoSuggest="true"`.
4. Manually test that autosuggest words are returned to your site by entering the URL on the Ektron server.

```
http://<Your EktronSearchSite website:Port # >
  /EktronQuerySuggestion/SPQuerySuggestion.svc
  /QuerySuggestionForCulture?keywordPrefix=sa&culture=en-US
```

NOTE: 'sa' is the prefix you used to return autosuggest entries.

After submitting this url, download and open QuerySuggestionForCulture file in Notepad to see autosuggest results. To continue the above example, you might see `{"QuerySuggestionForCultureResult":{"Suggestions":["sample"]}}`

EktronQuerySuggestion Logs

This log shows the number of entries for the query prefix. For the example below, the user entered `'samp'` and Autosuggest found one entry (sample). To access the log, sign on to the Search Server machine > EktronSearchSite Web root > click EktronQuerySuggestion folder.

```
PID:7900 TID:5168       MTID:   2012-04-04T08:51:18
Verbose  QueryContext.Create: Creating QueryContext /
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  QueryContext.Create: Created QueryContext /
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  QueryServiceInfoProcessor.GetSearchApp for
  QuerySSA:Search Service Application
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  QueryServiceInfoProcessor.GetSearchAppProxy for
  QuerySSA:Search Service Application
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  SPQuerySuggestionReporter.GetQuerySuggestions:
  Q:[samp] Profile:[]
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  SPQuerySuggestionReporter.GetQuerySuggestions:
  Response for Q:[samp] : [1]
PID:7900 TID:5168      MTID:   2012-04-04T08:51:18
Verbose  SPQuerySuggestionFeed.QuerySuggestionForProfileFeed:
  completed feed request: Q:samp Culture:en-US
```

EktronSearchStatistics Logs

This log shows submission of the query statistics. It is updated only after a site visitor inserts a search term, clicks the search button, and clicks a result. To access the log, sign on to the Search Server machine > EktronSearchSite Web root > click EktronSearchStatistics folder.

```
PID:7284 TID:7056       MTID:   2012-04-03T14:55:15
Verbose   Publishing Search Statistics : Begin
PID:7284 TID:7056      MTID:   2012-04-03T14:55:1
Verbose  QueryContext.Create: Creating QueryContext /
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  QueryContext.Create: Created QueryContext /
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  QueryServiceInfoProcessor.GetSearchApp for
  QuerySSA:Search Service Application
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  QueryServiceInfoProcessor.GetSearchAppProxy
  for QuerySSA:Search Service Application
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  MSStatsRecorderProxy.Record: Recording
```

```
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  MSSearchStatsHelper.SubmitStatistics:
  Beginning statistics recording to SharePoint!
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  MSSearchStatsHelper.FetchClicksToRegisterValue:
  Will be using 2 click(s) to complete
statistics recording to SharePoint!
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  MSSearchStatsHelper.SubmitStatistics:
  Ending statistics recording to SharePoint!
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose  MSStatsRecorderProxy.Record: Recorded!
PID:7284 TID:7056      MTID:   2012-04-03T14:55:15
Verbose   Publishing Search Statistics :
  Ends with Status SUCCESSFUL: 0
```

Searching the Workarea

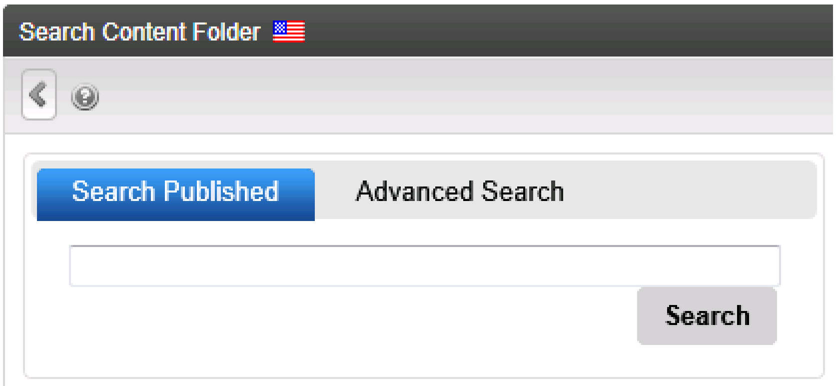
You can search any folder to quickly locate content within it. The following sections explain how to use the Workarea search.

Searching a Folder Hierarchy

1. Navigate to the folder from which you want to begin the search.

   NOTE: To search the entire site, search from the top-level (Root) folder. To limit the search to a folder (and its subfolders), select it then enter search criteria.

2. Click **Action > Search**. The Search Content Folder screen appears.



- **Search Published** is the same as the Site Search, except your results are only retrieved from the current folder and its subfolders. You must have read-only or greater permission for the folder.
- **Advanced Search** lets you expand search to include internal properties, such as last editor, date created/modified, status, and comments. See Also: *Using Advanced Search in the Workarea* below

Using Advanced Search in the Workarea

The Workarea Advanced Search lets you find content using information that content authors and publishers would typically know. For example, you can search for content edited by a particular author within a date range.

When performing a search, enter one or more words into the text box, select search preferences, then click **Search**.

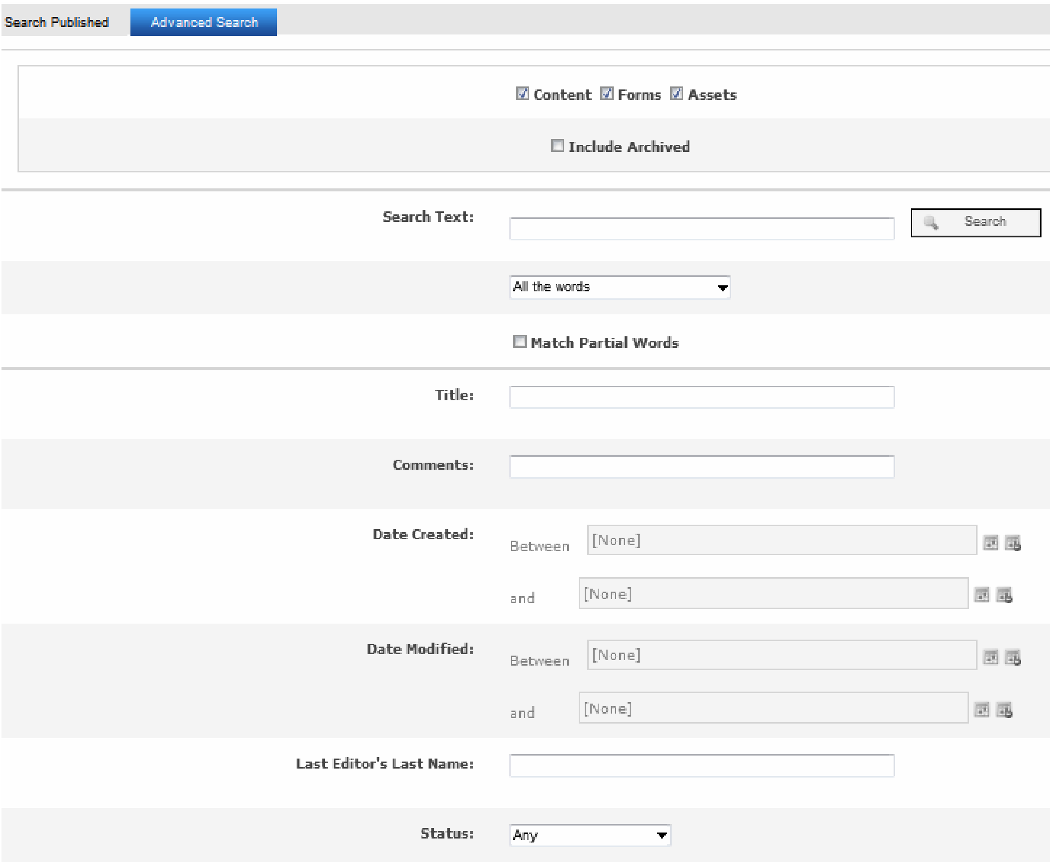
You can use an asterisk as a *wildcard* character to stand for any character. For example, the phrase **CMS*00** returns topics that include the following text: CMS400, CMS300, CMS200 and CMS100.

Your system administrator can add custom search fields that only appear if a user is logged in. For more information, see *Working with Metadata* on page 369.

IMPORTANT: The Advanced search finds content whether or not it is marked **Searchable**.

The Workarea Advanced Search finds content that satisfies these criteria.

- user has read-only or greater permission for content’s folder
- matches selected language, if site is multilingual
- satisfies criteria entered on the screen



The Advanced Search screen lets you find Ektron content by specifying the following criteria. While the fields are optional, the search only returns content that satisfies *all* criteria.

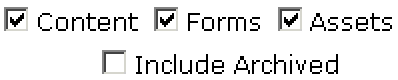
- content type (for example, HTML content, forms, assets)
- one or more search terms. Unlike the **Search Published** screen, you cannot use a query.
- to search title only, enter search text into the **Title** field

- to search comments, enter search text into the **Comments** field
- a range of created or modified dates
- the editor who created or most recently updated the content
- the content’s status
- any searchable metadata assigned to the folder

This section also contains the following topics.

Specifying Content Type to Search

Near the top of the screen, check boxes let you determine the types of content to search.

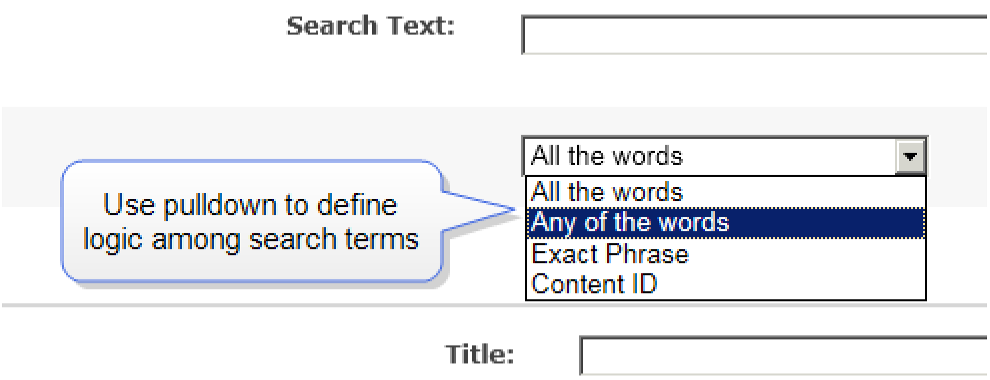


- **Content**—HTML content, blogs entries, and XML Smart Form field values
- **Forms**—HTML forms
- **Assets**—Content that is neither HTML nor XML, such as Office documents and managed files. See Also: *Working with Assets in the Document Management System* on page 310
- **Include Archived**—Content, forms and assets that were archived using the **Archive and remove from site** or **Archive and remain on Site** option

Specifying a Search Word or Phrase

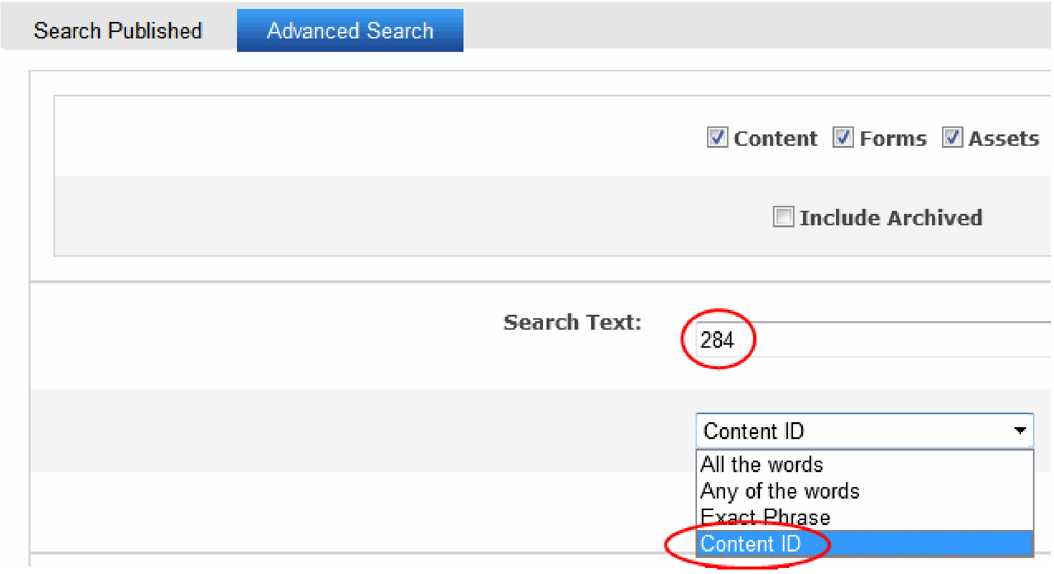
In the **Search Text** field, enter one or more words that you want to find within content, forms, and assets. Entering text here is optional. That is, you can use the other fields to find content.

If you enter several terms, specify a logical relationship among them in the pulldown below the **Search Text** field.



- **All the words**—all words in the **Search Text** field. **All Words** is an “and” function. The search returns only content that has the words content *and* management *and* system. The words can be in any order within the content.

- **Any of the words**—any word in the **Search Text** field. This is an "or" function. It returns content that has *at least one* of the words in the **Search Text** field; it returns content with the word content *or* management *or* system.
- **Exact Phrase**—all words in the order specified in the **Search Text** field.
- **Content ID**—To find content by ID number
  1. In the **Search Text** field, enter the ID number.
  2. From the pulldown below **Search Text**, select **Content ID**.
  3. Click **Search**.



Specifying Additional Search Criteria

- **Title—**The title of the content. You can enter a partial word. For example, entering **Part** yields the following results.
  - Multi-Hospital Nurse Executive Participation
  - Ektron Partners and Customers

  You can enter more than one word or phrase as long as they are in the correct sequence. The **Search Text** field also searches content title.
- **Comments—**The content's comments, which can be inserted via the **Comment** tab.

NOTE: If you enter multiple terms into the **Comments** field, they must be in the order in which they appear in the content's comments.

- **Date Created—**The file's creation date. You can enter a single date or a range of dates. The search returns content with that creation date that satisfy the other criteria.
- **Date Modified—**The last date when the file was modified. You can enter a single date or a range of dates. The search returns items with that edit date that satisfy the other criteria.
- **Last Editor's Last Name—**The last name (surname) of the user who most recently changed the content. This is taken from the **Last Name** field on the User Information screen. The search returns items last edited by that user that satisfy the other criteria.

- **Status—**The content status. See Also: *Content Statuses* on page 307

NOTE: Search results display only the most recently-published version. Also,content that has never been approved does not appear.

Printing a Search Phrase Report

The Search Phrase Report displays terms that were entered into a Search field within a selected range of dates. You can use it to discover terms being submitted to the search.

The report is gathered from the query text of keyword-based queries. The queries include those submitted through the search field of search server controls, the keyword search API, and the Workarea's **Search Published** tab.

You can narrow down the search by selecting any combination of these criteria.

- language—the language of the *search page* (either Workarea or website search). The user performing the search can choose a language before inserting the search text. If he does not explicitly choose a language, the search uses the default one. This report shows results from all languages or one that you select.
- a *minimum number of occurrences* of the word or phrase to return. For example, you only want words or phrases searched for 10 times or more during the last month.
- range of dates when searches were conducted

After entering search criteria, click **Get Result**.

The search results show the number of times each word or phrase that satisfies the selection criteria appears. They are arranged in this order.

- words or phrases with the most occurrences appear first
- if several words or phrases have the same number of occurrences, they are arranged alphabetically

NOTE: Search terms are added to the Search Phrase Report according to rules explained in *Specifying the Frequency of Writing to the Database* on page 602.

Using Search Server Controls

Beginning with Ektron version 8.5, search capabilities are enhanced with several new server controls.

- **Site Search**—Content, documents, file created or imported to the Workarea. See Also: *Site Search Server Controls* on page 1836
- **XML Search**—XML content created with Smart Forms. See Also: *XMLSearch Server Controls* on page 1861
- **User Search**—Ektron users, members, and membership groups. See Also: *User Search Server Controls* on page 1855
- **Product Search**—An eCommerce site for products in the eCommerce system. See Also: *Product Search Server Controls* on page 1822

NOTE: To apply paging to a search results page, use an EktronUI:Pager.

Alternatively, you may continue to use Ektron's legacy *Web Search Server Control* on page 981.

Templated server controls are more specialized than their predecessors, which typically used 1 control to retrieve and display results. To provide search functionality, use 3 templated controls.

- **SearchInputView**—accepts user input of search terms
- **SearchController**—takes input from InputView control and retrieves search results
- **SearchResultsView**—shows search results; you can modify the results' display, and so on.

The following example shows this relationship using site search controls.

Benefits of these controls include the ability to:

- exercise more granular control over each function
- customize display of input and results using standard CSS markup
- eliminate XSLTs. Use ASP.NET templates to control markup
- use several SearchInputView or SearchResultsView controls on a template

To replicate all of the previous search server controls' functionality, use a combination of templated controls. For example, use the Pager control to manage the paging of search results. Also, use the Advanced Query Text parameter to limit results to those in a selected folder, in a selected taxonomy category, and so on.

Search server controls have no Ektron-specific properties. In contrast, the pre-8.5 Search server control properties let you configure language, Display XSLT, folder ID, and so on.

References

- ASP.NET MVC Overview
- Building Web Apps without Web Forms
- ASP.NET Data-Bound Web Server Controls

Modifying Templated Server Controls

You modify the behavior of templated controls by editing their markup. You no longer use Ektron server control properties nor an XSLT to edit the control's behavior.

You can edit a control's default markup, as well as the markup on any page that contains it.

See Also: *Modifying the Text Displayed by Templated Server Controls* on page 974

Customizing a Single Instance of a Templated Search Server Control

1. Open a page in Visual Studio.
2. Drag an InputView or a ResultsView control onto the page. This section uses the SiteSearchResultsView server control as an example.
3. Insert `<ItemTemplate>` tags between the control's opening and closing tags. `<ItemTemplate>` tags instruct the server control to ignore the default properties.

```
<ektron:SiteSearchResultsView ID="SiteSearchInputView1"
  ControllerID="Scontroller" Visible="true" runat="server">
  <ItemTemplate> </ItemTemplate>
</ektron:SiteSearchResultsView>
```

4. Copy the default markup from the control's corresponding .ascx file. Here is a portion of that.

```
<ektron:SiteSearchResultsView ID="SiteSearchInputView1"
  ControllerID="Scontroller" Visible="true" runat="server">
  <ItemTemplate>
    <h1>Search Phrase:<%# Eval("QueryText") %></h1>
    <asp:ListView ID="aspResults" runat="server"
      DataSource='<%# Eval("Results") %>'
      ItemPlaceholderID="aspPlaceholder">
      <layouttemplate>
        <ul class="results">
          <asp:PlaceHolder ID="aspPlaceholder" runat="server"> |
          </asp:PlaceHolder>
        </ul>
      </layouttemplate>
      <itemtemplate>
        <li class="result ektron-ui-clearfix">
          <h3 class="title">
            <a href="<%# Eval("Url") %>"><%# Eval("Title") %></a>
          </h3>
          <div class="summary">
            <%# Eval("Summary") %>
          </div>
          <span class="url ektron-ui-quiet">
            <%# Eval("Url") %>
          </span>
          <span class="date ektron-ui-quiet">
            <%# Eval("Date") %>
          </span>
        </li>
      </itemTemplate>
    </asp:ListView>
```

```
  </Itemtemplate>
</ektron:SiteSearchResultsView>
```

5. Modify the markup to your specifications.

Modifying the Default Markup

InputView and ResultsView controls have a corresponding .ascx template that contains their default markup. To change a control's default markup, modify its template.

To find a control's template file, open the folder `siteroot\workarea\FrameworkUI\Templates\Search`, and locate the .ascx file that matches the control's name. For example, `siteroot\workarea\FrameworkUI\Templates\Search\SiteSearchResultsView.ascx`.

NOTE: "Controller"controls only process data. Because they have no UI component, they do not have a template file.

The default .ascx file affects *all* instances of a control on your website. However, you may customize single instances of a control. To do so, see *Customizing a Single Instance of a Templated Search Server Control* on the previous page.

Modifying a Templated Control's Markup

Within an `</ItemTemplate>` tag, use an eval statement `<%# Eval() >)` to access Ektron's Search API object and expose its properties to the data binder. For example, `<%# Eval ("QueryText")%>` displays the search term in the search results.

As an example, you can remove the summary from the search results by deleting this line.

```
<div class="summary"><%# Eval("Summary") %></div>
```

Data Fields Available to an Eval Statement

Use an `<%# Eval()>` statement to determine which field properties appear in search results. For example, `<%# Eval("Summary")%>` displays each content item's summary.

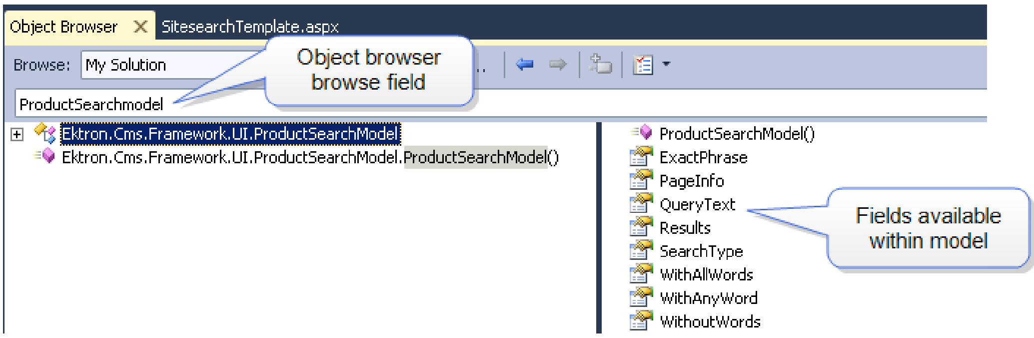
When you insert `<%# Eval()>` between a set of `</ItemTemplate>` tags, a *model* is passed to the statement. Each set of controls has a model that determines available fields and properties. For example, the SearchModel's `Results` property includes these fields:

- Date (late edited)
- Summary
- Title
- Type
- Url

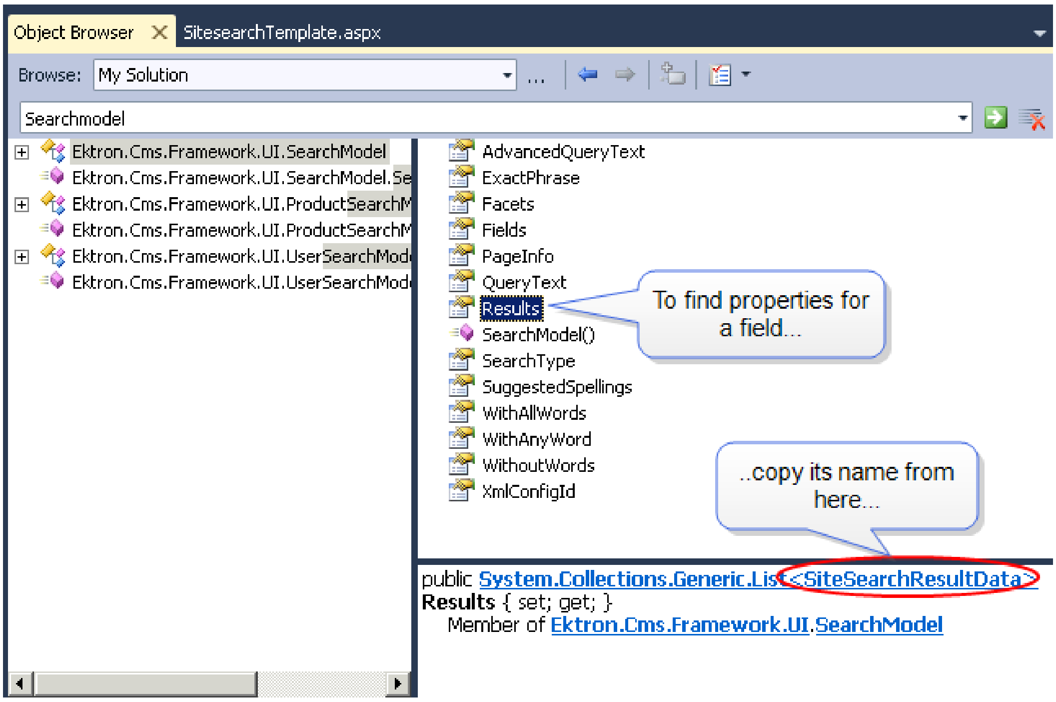
Discovering a Model's Fields Using the Object Browser

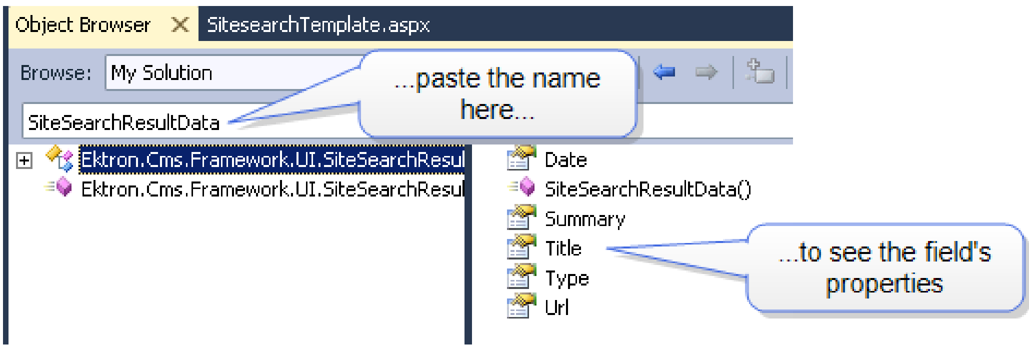
1. Open your Ektron website within Visual Studio.
2. Open the Object Browser.
3. In the **Browse** field, enter the set of controls whose model you want to view. For example, **ProductSearchModel**.

   Other models are **SearchModel** (covers content and XML Smart Forms) and **UserSearchModel**. The model's fields appear in the right pane.



4. To view any field's properties, enter its name into the object browser. Omit the angle brackets (<>).





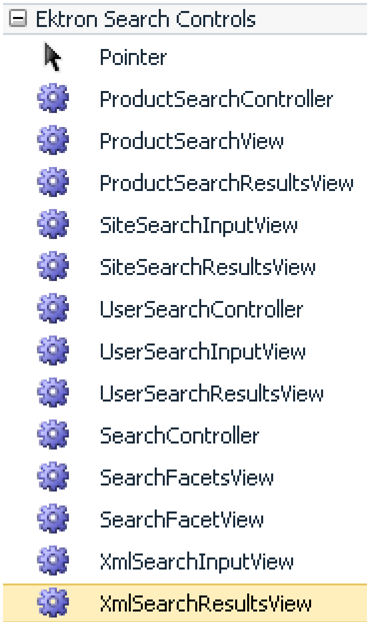
Modifying the Text Displayed by Templated Server Controls

To modify the text displayed by a templated control (for example, **no results found**), edit the corresponding .resx file in the `siteroot\workarea\FrameworkUI\Templates\Search\app_loclaresources` folder.

For example, to edit text supplied by the Site Search template, edit *siteroot*\workarea\FrameworkUI\Templates\Search\app_loclaresources\SiteSearchInputView.ascx.resx.

Adding Search Server Controls to Visual Studio

1. Open your Ektron project in Microsoft Visual Studio 2010.
2. Open the Visual Studio Toolbox.
3. Add a tab and give it a name like `Ektron Search`.
4. Click **Choose Items...**.
5. Click **Browse**.
6. Choose *siteroot*/bin/**Ektron.Cms.Framework.UI.Controls.dll**.
7. Click **OK**. The controls appear on the Toolbox tab



You should also add EktronUI controls to the Visual Studio toolbox at this time. See *Adding UI Server Controls into Visual Studio* on page 1602.

Customizing Templated Server Controls

Injecting Your Own Service

Ektron's templated server controls use an MVC architecture, which is a common design pattern for user interfaces. MVC consists of a

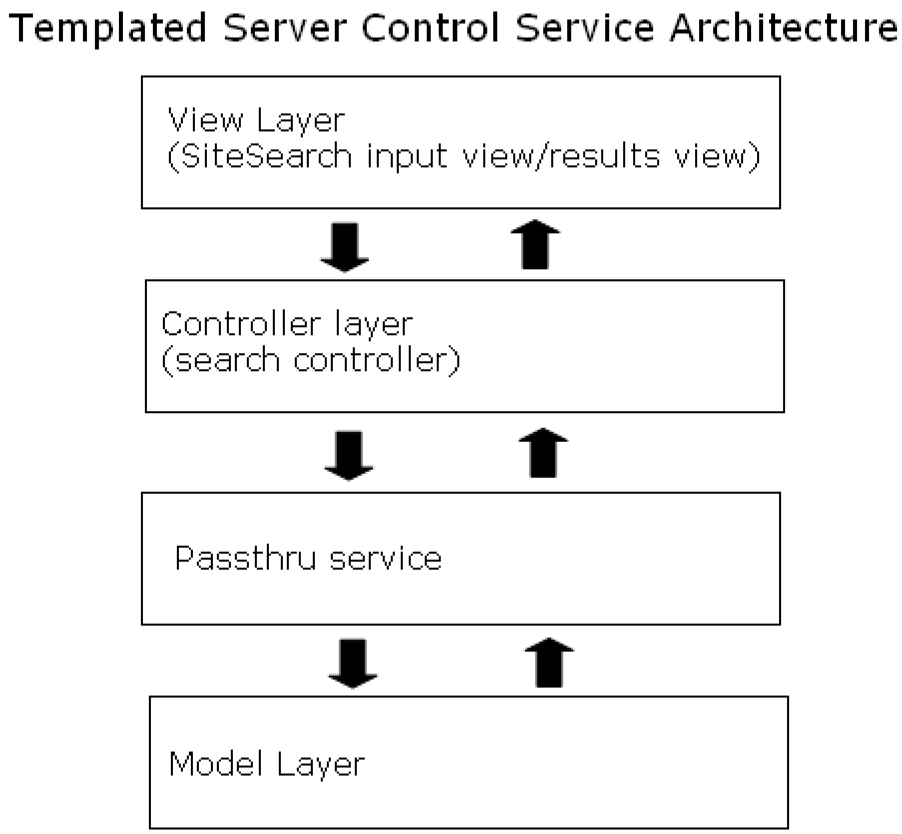
- **M**odel, which stores the state and accesses the application code used by the control; resides in the service layer
- **V**iew, which renders the data
- **C**ontroller, which maps action inputs to the model and elements view; also performs the business logic of the UI

Because MVC architecture separates the display layer from the data layer, a designer can work on the styling of the search results page, while a developer focuses on data being rendered.

Creating a Custom Service

You can extend the functionality of templated server controls by creating a custom service. For example, you can dynamically replace the content of the search results. You might want to do this to create a profanity filter, or to implement a "blacklist" of replacement terms in search results.

The following image illustrates the location of a custom (passthru) service within MVC architecture.



The passthru service completes these steps.

1. Takes user input from View and Controller Layers.
2. Modifies it.
3. Sends modified data to Model Layer.
4. On the way back, can modify results again.
5. Send results to Controller.
6. Controller pushes results to the View Layer.

Creating a Custom Service Procedure

Use the *siteroot*/`ektron.cms.framework.ui.unity.config` file to map each search type to a service. Below is the section of the file that accomplishes the mapping. By default, Ektron search controls use `ISearch.Service` to take in and return data.

Note separate register statements for regular searches, product searches, and user searches.

NOTE: The ISearchController service handles regular content and XML Smart Form searches.

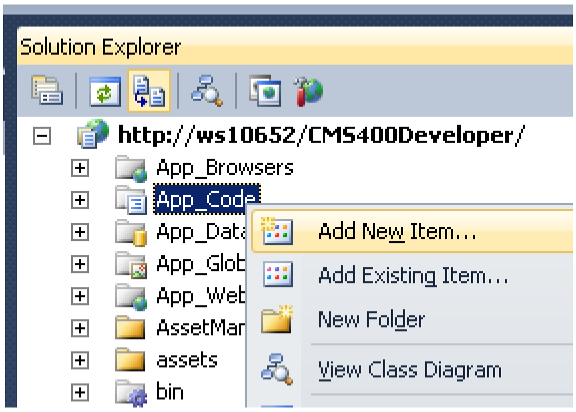
```
<register
  type="Ektron.Cms.Framework.UI.ISearchController, Ektron.Cms.Framework.UI"
  mapTo="Ektron.Cms.Framework.UI.Services.SearchController,
  Ektron.Cms.Framework.UI.Services"/>
<register
  type="Ektron.Cms.Framework.UI.IProductSearchController,
    Ektron.Cms.Framework.UI"
  mapTo="Ektron.Cms.Framework.UI.Services.ProductSearchController,
    Ektron.Cms.Framework.UI.Services"/>
<register
  type="Ektron.Cms.Framework.UI.IUserSearchController,
    Ektron.Cms.Framework.UI"
  mapTo="Ektron.Cms.Framework.UI.Services.UserSearchController,
    Ektron.Cms.Framework.UI.Services"/>
```

Follow these steps to create your own service and map it to a search type.

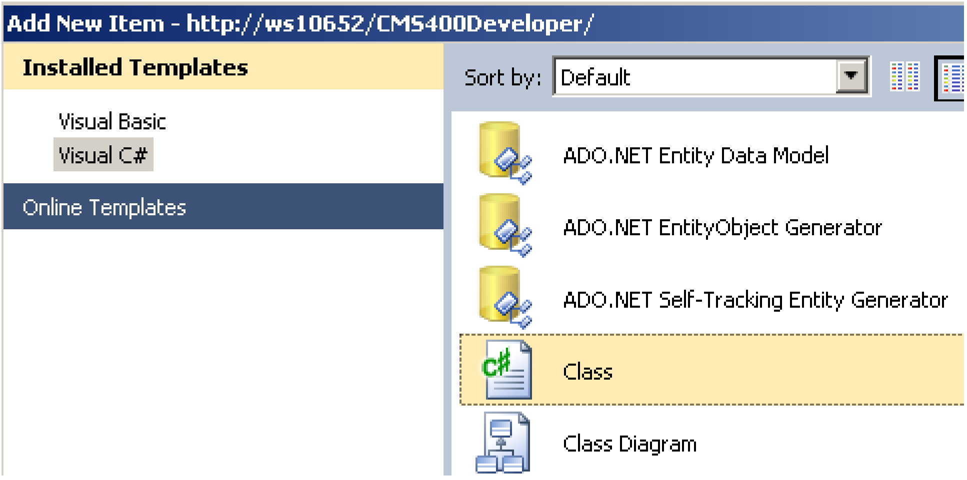
1. In Visual Studio, open *siteroot*/`unity.ui.services.config`.
2. Update the service registration with a new service name. This example assigns to ISearchService a service named DemoSearchService.

```
<register
  type="Ektron.Cms.Framework.UI.ISearchService,
    Ektron.Cms.Framework.UI"
  mapTo="Demo.DemoSearchService"/>
```

3. In Solution Explorer, right click the **AppCode** folder and select **Add New Item**.



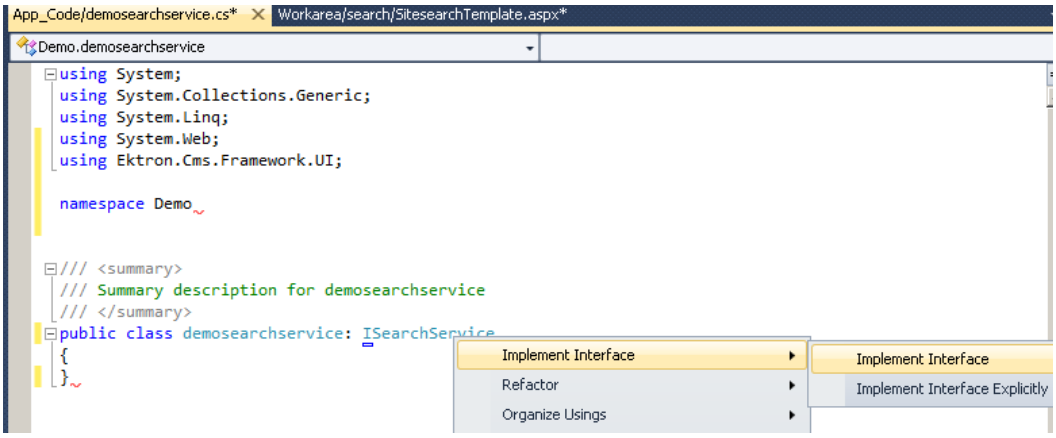
4. Select **C# Class** and give your new service a name.



5. Within the .cs file, insert this statement: `using Ektron.Cms.Framework.UI;`
6. Assign the name of the service that you are overriding. (Service names are listed in `unity.ui.services.config`.)

```
public class DemoSearchService: ISearchService
{
}
```

7. Right click the mouse and select **Implement Interface > Implement Interface**.



8. Several statements like the one below are inserted. They provide inputs to the search service.

```
public void AdvancedSearch(SearchModel model)
{
throw new NotImplementedException();
}
```

9. To create a passthru service, first instantiate the old mock search service. See Also: *Creating a Custom Service* on page 976

```
public class demosearchservice : ISearchService
ISearchService searchService;
public DemoSearchService()
{
this.searchService= new MockSearchService();
}
```

10. Inside the Advanced, Basic, GetXmlSearchFieldList and XmlSearch methods, call the old service and pass in the same data. For example

```
public void BasicSearch(SearchModel model)
{
this.searchService.BasicSearch(model);
}
```

Now, when you drop inputview and resultsview controls on a page...

- it instantiates the controller.
- it ties the input and results view controls to the controller.
- it instantiates the service, which ties the controller to the service.

Example 1: Any search returns “fifteen” for a result

1. Open the site search template page.
2. Within `SiteSearchResultsView` tags, insert a set of `<itemtemplate>` tags.
3. Within the `<itemtemplate>` tags, insert `<%# Eval(“QueryText”) %>`

```
<ektron:SiteSearchResultsView ID="SiteSearchResultsView1"
  ControllerID="Scontroller" runat="server">
<ItemTemplate> <%# Eval(“QueryText”) %> </ItemTemplate>
</ektron:SiteSearchResultsView \>
```

4. Within the new.cs file that you created in *Creating a Custom Service Procedure* on page 976, modify the value of `QueryText`. For this example, change the query text to "fifteen." To do this, edit the .cs file, like this.

```
‘Public void BasicSearch(SearchModel model)
{
model.Querytext = “fifteen”; }
```

Example 2: Replace “Summary” with “Ektron” in all Results

This example shows how search results may be modified after they are retrieved (that is, on the way back). To do this, edit the .cs file that you created in *Creating a Custom Service Procedure* on page 976 like this.

```
Public void BasicSearch(SearchModel model)
{
  model.Results.ForEach(result =>
   { result.Summary = result.Summary.Replace(“Summary”, “Ektron”); });
}
```

The above code loops through all results (`Results.ForEach`) and replaces "Summary" with "Ektron" in each one.

Example 3: Remove First Result

This example shows how to remove the first search result that is retrieved. To do this, edit the .cs file that you created in *Creating a Custom Service Procedure* on page 976 like this.

```
Public void BasicSearch(SearchModel model)
{
model.Results.RemoveAt(0);
}
```

Using the Advanced Query Text Parameter

The AdvancedQueryText parameter lets you customize the behavior of the search controller. As examples, you can restrict search results to

- content properties, such as
  - content in a folder, or a folder and all of its child folders
  - Spanish-language content
- user properties, such as
  - tags set to "Race Car Fans"
  - email address includes "widgets.com"
- eCommerce product properties, such as
  - catalog number is between 1 and 10,000
  - sale price is less than $50 US

Here is a sample AdvancedQueryText statement that restricts search results by language and folder.

(Assumes a SiteSearchController named `siteSearchController1` is defined on my page)

```
<ektron:SiteSearchController ID="siteSearchController1"></ektron:SiteSearchController>
```

Set the AdvancedQueryText property in the code-behind for that page:

```
protected void Page_Init(object sender, EventArgs e)
  {
    siteSearchController1.AdvancedQueryText = string.Format(
       "({0}:1033 AND {1}:10)",
       SearchContentProperty.Language.Name,
       SearchContentProperty.FolderId.Name);
  }
```

The value assigned to AdvancedQueryText is appended to the user’s input.

Retrieving Folder vs. FolderPath

- To reference a folder by id number, use `folderid:10`
- To reference a folder and all of its children, use `folderidpath:'10'`
- To exclude a folder but include all of its child folders, use `(folderidpath:'10' AND NOT folderid:10)`

NOTE: You cannot use the `root` folder as part of the foldernamepath.

Obtaining Searchable Properties

The following links go to Ektron's searchable properties from the API.

- http://reference.ektron.com/developer/framework/Search/SearchContentProperty/
- http://reference.ektron.com/developer/framework/Search/SearchCustomProperty/
- http://reference.ektron.com/developer/framework/Search/SearchECommerceProperty/
- http://reference.ektron.com/developer/framework/Search/SearchGroupProperty/
- http://reference.ektron.com/developer/framework/Search/SearchMetadataProperty/
- http://reference.ektron.com/developer/framework/Search/SearchSmartFormProperty/
- http://reference.ektron.com/developer/framework/Search/SearchUserProperty/

Allowed Operators in the AdvancedQueryText Parameter

- equals (=)
- greater than (>)
- less than (<)
- contains (:)

Web Search Server Control

The Web Search server control lets you customize the behavior of search. You place this control on any Web form from which a site visitor can search your site. For more information about the site visitor experience, see Setting Up Search for Your Website.

The Web Search server control is deprecated in Ektron version 8.5 and higher. So, pages created prior to 8.5 that use the Web Search server control should work with one important exception: the Solr search provider is incompatible with the Web Search server control.

For new pages, developers are encouraged to replace the Web Search server control with Templated Search server controls. See Also: *Modifying Templated Server Controls* on page 972.

Property usage table

Property Usage Table

Web Search server control properties generally affect the control in one of three ways.

- **Search Display**—the server control's appearance on a Web page
  - ButtonImgSrc
  - ButtonText
  - DisableForumSearch
  - EnableAdvanced Link
  - Hide
  - Language
  - MaxCharacters
  - ShowSearchOptions
  - Text Box Size
  - WrapTag
- **Search Criteria**
  - CustomSearch
  - FolderID
  - Language
  - Recursive
  - SearchFor
  - ShowCategories
  - ShowSearchOptions
  - ShowSuggested Results

- **Search Results Display**
  - CustomOrderBy
  - DynamicContentTemplate
  - DisplayXslt
  - Hide
  - Language
  - LinkTarget
  - MaxTeaserLength
  - OrderBy
  - OrderDirection
  - RemoveTeaserHtml
  - ResultsPageSize
  - ResultTagId
  - ShowCustomSummary
  - ShowSearchBoxAlways

WebSearch property description

WebSearch Property Descriptions

The following table describes the Web Search server control properties. See Also: *Property Usage Table* on the previous page.

The following are Ektron-specific server control properties. For information about native .NET properties such as font, height, width and border style, use Visual Studio® help.

- **Authenticated** (Boolean)Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **ButtonImgSrc**(String)

  If you want to display an image on the submit button, enter the server path to the image.
- **ButtonText**(String)

  The button text if no image source is identified in the `ButtonImgSrc` property. If an image source is identified, this is alternate text for the button.
- **CustomOrderBy**(String)

  Provide a property's Friendly Name defined in the Indexing Service to sort search results by that property. For example, if you define DocAuthor, results are sorted by the document's author. A property's Friendly Name can be found in **Computer Management > Services and Applications > Indexing Service > Your Index > Properties > Friendly Name** column.

  Results can be ascending or descending based on `OrderDirection`. If you enter an invalid property, no search results are returned.

  If you specify `CustomOrderBy` and `OrderBy`, the `OrderBy` property is ignored.
- **CustomSearch**(String)

If you want the search to include folders outside of Ektron, enter the folder names here. Separate multiple items with a comma. You do not need to enter the folder path, but it must reside within the site root folder. See Also: *Including External Files in Your Search* on page 946.

- **DisableForumSearch**(Boolean)

  Set to true if you want to remove Forums from the list of content types that appears on the Search server control. The default value is false. Regardless of this setting, if a user selects **Site** from the list, forum posts are searched.

- **DisplayXslt**(String)

  Determines the display of the search results page.

  - **None**—databind only
  - **ecmNavigation**—lists the title of every content item found by the search
  - **ecmTeaser**—lists the title and summary of every content item found by the search

    See Also: *ecmTeaser Display Example* on page 1682.

  - **ecmUnOrderedList**—sorts in no particular order. Shows the title and content summary.
  - **Path to Custom Xslt**—Enter the path to an Xslt that determines the display of the page.

  WARNING! If you specify an external Xslt file, it is strongly recommended that you do not store this file in your site's Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  WARNING! If you enter a valid EkML file at the MarkupLanguage property, this property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicContentTemplate**(String)

  Sets the template for dynamic content. This property overrides any quicklink template for the content.

- **EnableAdvancedLink** (Boolean)

  Set to **true** to display an additional tab (**Advanced**) on the Search control. See Also: *Advanced Search* on page 941.

- **FolderID**(String)

  The folder at which the search begins. The starting folder need not be the root folder. The `Recursive` property determines if the search examines this folder’s subfolders. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **Hide** (Boolean)

  Select **False** to display this server control on the page. Select **True** to suppress it.

- **Language** (Integer)

  If the template on which this server control resides includes a language selection control, and you want to let the site visitor select the language, enter zero (0). Otherwise, click the field, then the ellipsis button and a popup box appears. Select a language from the list.

  This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget**(String)Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage**(String)

  Enter the template markup file (`.ekml`) that controls the display of this server control. To use the default .ekml file, leave this field blank.

  The default file follows this pattern: `\`*`siteroot`*`\Workarea\template\`*`this object`*`\`*`objectname`*`.ekml`. For example, `\siteroot\Workarea\template\collection\collection.ekml`.

  To customize the default .ekml file, copy it to a folder outside the `siteroot\workarea` folder and edit it. Next, in this property, enter the path to that file relative to the site root folder.

  See Also: *Controlling Output with Ektron Markup Language* on page 1905, *websearch.ekml* on page 1916.

  NOTE: If you enter a valid EKML file at the **Markup Language** property, the **Dispay xslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

- **MaxCharacters**(Integer)

  The maximum number of characters the Search text box accepts. If you enter less than 50, set the `TextBoxSize` property to the same number.

- **MaxTeaserLength**(Integer)

  Limits the length of any returned content's abstract. To allow unlimited length, set to zero (0). This property is active only if both of these conditions are true.
  - You use the `DisplayXslt` property to identify an xslt and ecmteaser as a value of that property. If you enter an .ekml file at the MarkupLanguage property, this value is ignored.
  - the `ShowCustomSummary` property is set to `false`. If it is set to `true`, the entire summary appears in search results.

- **OrderBy**(String)

  The field that determines the sorting of search results.

NOTE: The `Order Direction` field determines the direction of the search results. For example, if you sort by ID and `Order Direction` is set to **Descending**, the results sort by ContentID with the highest ID number at the top of the list.

   - Title—The content title (alphabetical)
   - ID—The content ID number
   - Date Created—The date the content was created
   - Date Modified—The date the content was most recently modified
   - Editor—The user who last edited the content (alphabetical)
   - Rank—The content's rank. See Also: Search Result Ranking.

- **OrderDirection**(String)

  The direction in which search results are sorted. The default is Ascending.

  Ascending—Alphabetical results from A to Z; numeric values low to high; dates from oldest to most recent

  Descending—Alphabetical results from Z to A; numeric values high to low; dates from most recent to oldest

- **Recursive**(Boolean)

  Determines whether to search sub-folders of the starting folder. The `FolderID` property determines the starting folder.

- **RemoveTeaserHTML**(Boolean)

  Set to true if you want to remove HTML tags from the content summary within search results.

- **ResultsPageSize** (Integer)

  Set the maximum number of search results on a page. If a search returns more than this many results, the following text appears below the last one:

  Result Page: 1 2 3 Next

  The user can click **Next** or a number to view additional results.

  This property defaults to the value set at the `ek_PageSize` element in the *siteroot*\\`web.config` file.

  Property's Effect on Suggested Results

  Only the number of Suggested Results up to this maximum appear. If more than this number should display, they do not. This is unlike natural search results, whose additional links are available via numbers below the maximum page size.

  See Also: *Providing Suggested Results* on page 952.

- **ResultTagId**(String)

  Lets you designate where search results appear. You can place search criteria in one area of a Web form and results in another. For example, you have the following tag.

```
<span id=”results”></span>
```

  In this case, enter **results** for this property's value.

- **SearchFor**(String)

Choose the type of content that may be searched via this control.

- All
- HTML
- Documents
- Images
- Multimedia
- Discussion Forums
- Tags
- eCommerce products
- PageBuilder

If the value is anything other than **All**, this server control only examines the selected content type.

IMPORTANT: If this property is set to anything other than **All**, the search options drop-down does not appear.

- **SearchSynonyms** (Boolean)

  If set to true, the Synonym Search is included with the search. If false, Synonym Sets are ignored. See Also: *Using Synonym Sets* on page 945.

- **ShowCategories** (Boolean)

  If set to true, this server control displays a **Filter by Category** option, which helps a site visitor zero in on relevant content. If false, **Filter by Category** does not appear.

IMPORTANT: In order for the **Filter by Category** option to appear, the `ShowSearchBoxAlways` property must be set to true.

As explained in Organizing Content with Taxonomies, the Taxonomy feature lets users assign information categories to content. For example, if your organization is a university, taxonomy categories might be Athletics, Alumni, Admissions, Academic Departments, and so on. As new content is created, users should apply relevant taxonomy categories to it. This enables a site visitor to search by category *and* search terms. For example, if the search term is calendar and the category is Athletics, the search would typically return calendars of sports teams but not other calendars, such as those for graduation, exams, or parent weekend.

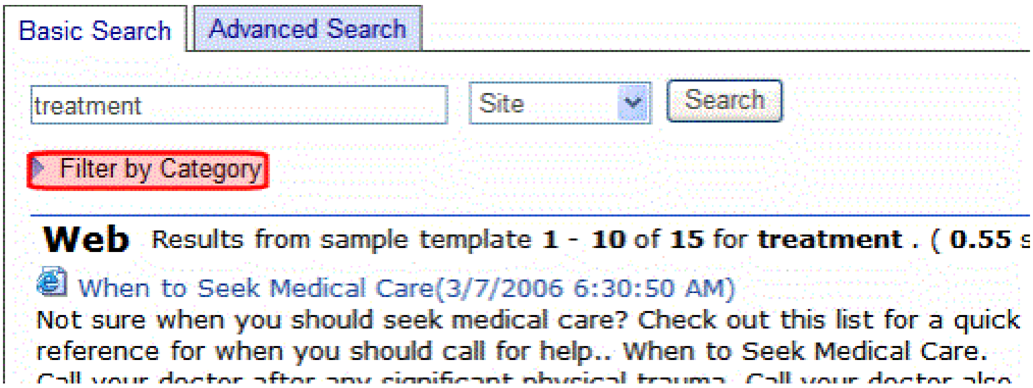
NOTE: This property depends on the assignment of taxonomy categories to content. If they are not, the filter hides relevant but unclassified content.
For example, an author creates an article on “Treating Heart Disease” but doesn't assign a taxonomy category to it. If a site visitor on a search page selects **Filter by Category** then the **Medical Forum > Heart Disease** category, he will not find that article.

A developer can control whether results must match *all* categories selected in the **Filter by Category** tree, or *at least one* category. To display results that must match all categories, set the `TaxonomyOperator` property to `And`. To show results that match one or more categories, set `TaxonomyOperator` to `Or`. By default, the property is set to `Or`, which provides a wider range of results.

Effect of Setting ShowCategories to True

If you set ShowCategories to true, initially the site visitor sees no difference. Upon entering a search term that exists in content to which a taxonomy category is assigned and clicking **Search**, **Filter by Category** appears above the results (illustrated below).

—Image—



- **ShowCustomSummary** (Boolean)

  If set to **true**, the search results display the content item's summary. If false, the search results display the characterization. The default is false.

  NOTE: If this property is set to true, the MaxTeaserLength property is ignored. So, the entire summary appears with search results, regardless of length.

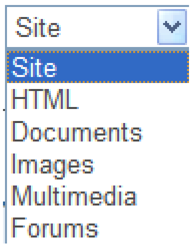
- **ShowSearchBoxAlways** (Boolean)

  If set to true, the search box appears on the PostBack screen. If false, the search box does not appear on the PostBack screen. The default is true.

- **ShowSearchOptions** (Boolean)

  If set to true, the following drop-down appears to the right of the Search box.

  —Image—

  A site visitor can click an option to limit the search by content type. If the user accepts the default value, **Site**, all content types are searched.

  WARNING! If the SearchFor property is set to anything other than **All**, the search options drop-down does not appear.

  NOTE: If the DisableForumSearch property is set to true, **Forums** does not appear in the drop-down.

- **ShowSuggestedResults** (Boolean)

  If set to true, Suggested Results related to the search term appear. If false, Suggested Results do not appear. See Also: *Providing Suggested Results* on page 952.

NOTE: If the `ResultsPageSize` property value is less than the number of suggested results applied to a term or synonym set, only the property's number of results appears. For example, if you assign five links to a Suggested Result set but set `ResultsPageSize` to three, only the first three results appear.

- **Stylesheet**(String)

  If you want to define a style sheet for the search results page, specify its path relative to the site root folder. For example: `Workarea\csslib\mytest.css`. Leave blank to use the default style sheet, `webroot\Workarea\csslib\search.css`.

WARNING! If you enter a valid EkML file at the MarkupLanguage property, or a value at the DisplayXslt property, this property is ignored.

- **SuppressWrapperTags** (Boolean)Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TaxonomyOperator** (Enum-TaxCategoryOperator)

  Select whether to use an `And` or `Or` operator when filtering results by taxonomy. the default value is `Or`.

  And—Only results that match all categories selected in the Filter by Category tree appear. For example, if a site visitor is searching for a medical document in the Hospital and Doctor's Office categories, only documents assigned to both categories appear.

  Or—If more than one category is selected in the Filter by Category tree, results needs to only match one category to be shown.

NOTE: For this property to be active, the `ShowCategories` property must be set to `true`.

- **TextBoxSize** (Integer)

  The size of the search text box for user input, in number of characters.

- **WrapTag**(String)Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Troubleshooting Search

Problem: You publish a Visio® document but the search cannot find it.

Solution 1: Make sure the Visio iFilter is installed. See *Installing the Visio IFilter* on page 943.

Solution 2: Does the content have a non-standard alias extension? Aliases that use standard extensions are not a problem. However, you can create custom alias extensions. See Also: *Creating User-Friendly URLs with Aliasing* on page 835. If you do, that content is searchable only if you add the custom extension to Search Server's extension list. From the Search Server Administration page, click **File types > New File Type**, and add the custom extension. Then, run a full crawl to index these pages.

Solution 3: Is the content stored in a Smart Form field whose type is content? Search does not support Smart Form fields with an Advanced type of **Content** (instead of **Attribute** or **Element**). Smart Form fields that need to be indexed must have a type of **Attribute** or **Element**.

Problem: SearchConfigUI.exe crashes while building search indexes and catalogs

Solution:

1. Make sure the `metaconfig.doc` file exists in the *siteroot*/`uploadedfiles` directory. If it does not, ask Ektron Support to send you a new file.
2. If anyone uploaded Visio documents to your server, make sure the iFilter is installed. See *Installing the Visio IFilter* on page 943.

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24

Setting Up the Digital Experience Hub

The Digital Experience Hub (DxH) lets users of SharePoint®, HubSpot®, Salesforce®, Marketo® Lead Management, Microsoft Dynamics® CRM seamlessly interact with your Ektron-powered website.

- SharePoint—After an Ektron administrator sets up DxH to map SharePoint content to Ektron, an end user only needs to place content in a SharePoint folder to update their Ektron-powered website; the content is automatically transferred to the EktronWorkarea. See Why SharePoint Can Make Your Web Content Management Project Successful.

  You also can manually import SharePoint content from the Ektron Workarea.
- HubSpot, Salesforce, Marketo Lead Management, Microsoft Dynamics CRM—transfer content from Ektron HTML forms to the external application. A site visitor can submit a form, questionnaire, or survey that automatically creates a record with that data in the external application.

Connections vs. Mapping

Connections and *mappings* are key concepts in DxH configuration.

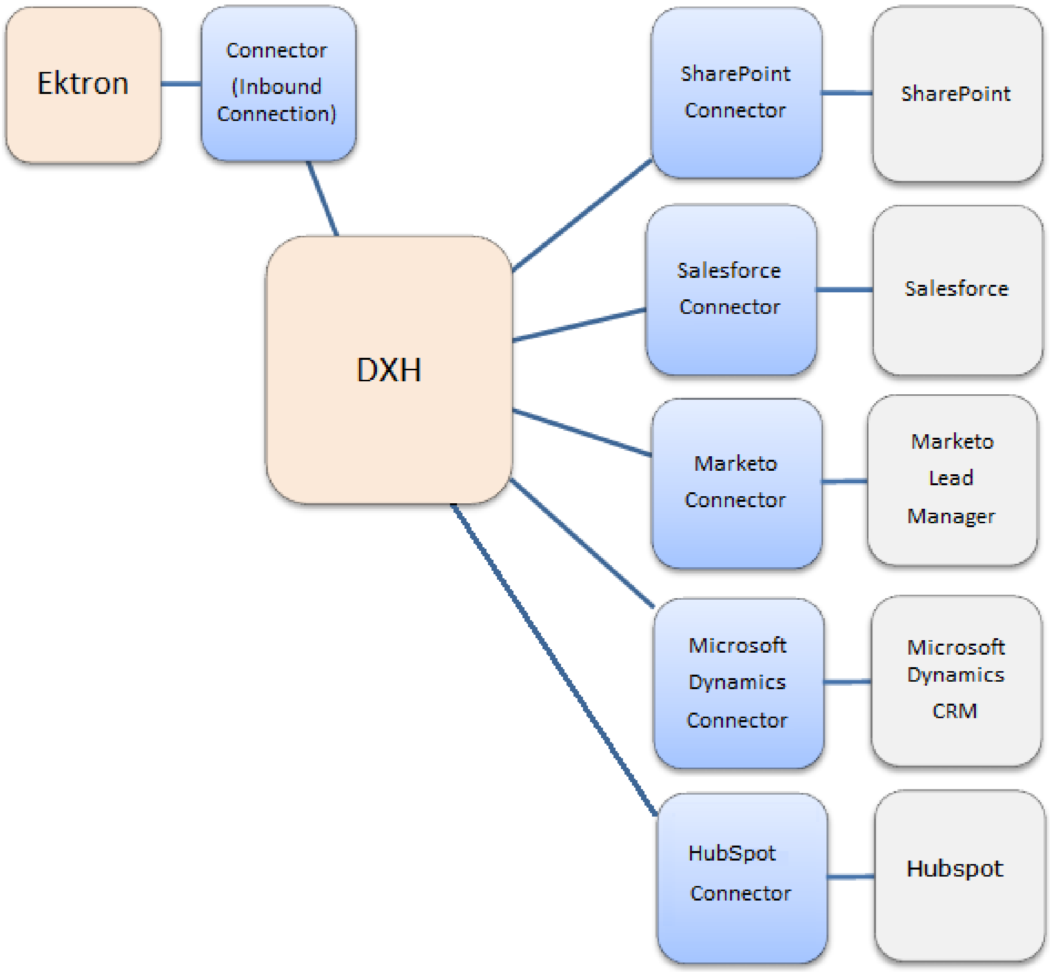
- A *connection* specifies an endpoint (URL or API path) and authentication credentials that allow communication between 2 software instances. First, you connect Ektron to DxH, then you connect DxH to external applications.
  - An *inbound connection* is a special type that updates Ektron content as content is changed in an external application.
- A *mapping* determines what data is passed between 2 software instances in a connection. Each mapping varies according to the needs of the external application.
  - Mapping to SharePoint involves importing content from a SharePoint site into Ektron.
  - Mapping to Marketo, Microsoft Dynamics, HubSpot, or Salesforce creates a relationship between fields in an Ektron HTML form and fields in the external application. When a site visitor submits a mapped form, its data is routed from Ektron through DxH to the external application.

DxH Architecture

DxH architecture connects Ektron to external systems, and shares data and content with third-party applications. DxH includes these components:

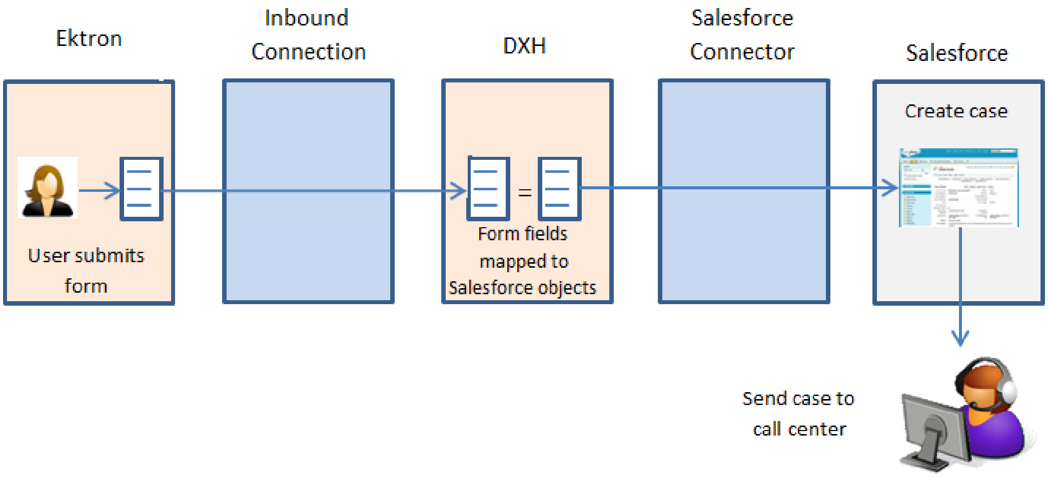
- **Digital Experience Hub**—The core component that transfers information between Ektron and external applications through application-specific connectors.
- **Inbound Connector**—Transfers information between Ektron and DxH.
- **HubSpot Connector**—Transfers information between HubSpot and DxH.
- **Marketo Connector**—Transfers information between Marketo Lead Manager and DxH.
- **Microsoft Dynamics® Connector**—Transfers information between Microsoft Dynamics CRM and DxH.
- **Salesforce® Connector**—Transfers information between Salesforce and DxH.
- **SharePoint® Connector**—Transfers information between SharePoint and DxH.

The following figure shows the relationship among DxH components, Ektron, and external applications.



Example: Adding a Case to Salesforce

You want to let customers alert you about an issue on your website and use that information to create a Salesforce case and subsequent customer contact.



1. An Ektron administrator has previously set up:
   - an inbound DxH connection, which exchanges information between Ektron and DxH
   - a Salesforce connection, which coordinates with the Salesforce administrator to determine path and authentication information

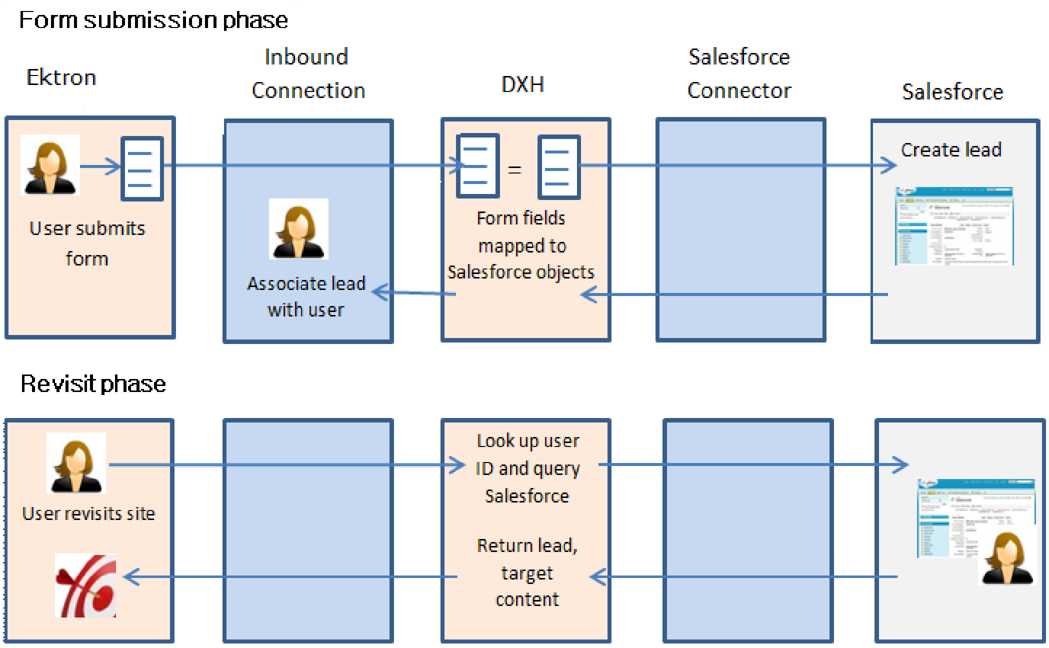
2. The Ektron user coordinates with their Salesforce business partner to determine what data is required to create a Salesforce case.
3. The Ektron user creates a form to capture customer information concerning an issue, such as name, contact information, product name, issue type and description.
4. The Ektron user maps the form's fields to fields in Salesforce.
5. The Ektron user publishes the form to the website.
6. A customer accesses the website and submits the form reporting an issue.
7. The form goes to DxH, which uses the Salesforce Connector to route the data to Salesforce.
8. Salesforce creates a case and, if applicable business logic is in place, routes the case to a call center.

For details about the using Salesforce with DxH, see *Configuring DxH for Mapping Form Data* on page 1018.

Example: Targeting Content Based on a Lead

You want to capture site visitor information, create a lead based on it, then display targeted content when that visitor revisits the site.

The Targeted Content widget lets you personalize your site visitors' experience by providing content that matches their interests, thereby placing your site information in the context of your users. For example, the search keywords used to find your site might determine the best offer to show a prospect. Or, site members might explicitly state their interests by adding to their user profile or filling out a survey. For information about the Targeted Content widget, see *Using Widgets* on page 711.



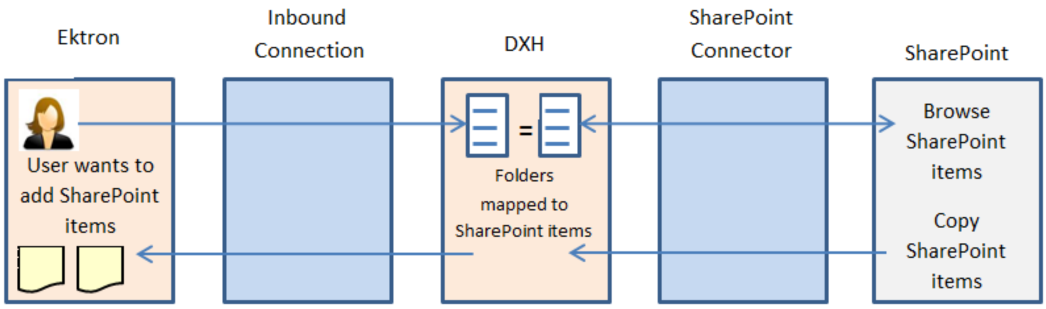
1. An Ektron administrator has previously set up:
   - DxH inbound connection
   - Salesforce connection, coordinating with the Salesforce administrator to determine path and authentication information

2. Ektron user coordinates with a Salesforce business partner to determine data required to create a Salesforce lead.
3. Ektron user creates a form to capture required information from a customer, such as name, contact information, and product of interest.
4. Ektron user maps the form's fields to fields in Salesforce.
5. A customer accesses the website and submits the form.
6. The form goes to DxH, which uses the Salesforce Connector to route the data to Salesforce.
7. Salesforce creates a lead and, using the mapping, associates it with the visitor.
8. When the visitor returns to the site, DxH queries Salesforce for the associated lead properties.

For details about the DxH > Targeted Content connection, see *Using the Targeted Content Widget with External Application Data* on page 1022.

Example: Importing SharePoint Content

You want to display SharePoint content on your website. The content is updated when changes are made in SharePoint.



1. An Ektron administrator has previously set up:
   - a DxH inbound connection
   - a SharePoint connection, coordinating with the SharePoint administrator to determine path and authentication information.
2. A user places content into a SharePoint folder that is mapped to the Ektron Workarea. A copy of the content is updated in the Workarea.
3. As that content is updated in SharePoint, it is automatically updated in the Workarea.

For details on the DxH > SharePoint connection, see *Setting Up the Import of SharePoint Files to Ektron* on page 1009.

Webinars

- Overview of DxH
- DxH Developer Webinar

API Reference

- DxHConnectionManager
- DxHUserConnectionManager
- DxHMappingManager

Sample DxH Connector and Documentation

Installing and Configuring DxH

DxH System Requirements

- Ektron 8.6 or higher
- DxH version 1.2—See Also: *Upgrading DxH to Version 1.2* on the facing page
- Server—Same as *Installing Ektron* on page 9
- Network—By default, DxH uses port 808 to communicate between Ektron and external applications. Whichever port you use, ensure it is open on your firewall.
  - You must enable the Microsoft Windows Net.TCP Port Sharing Service (see How to: Enable the Net.TCP Port Sharing Service).
- External applications
  - SharePoint®
    - SharePoint 2010: Foundation, Standard, or Enterprise Editions
    - SharePoint 2007: Windows SharePoint Services 3.0, MOSS 2007
  - Salesforce®—Group, Professional, Enterprise, and Unlimited Editions
  - Marketo—Spark, Professional, and Enterprise Editions
  - Microsoft Dynamics® CRM—Microsoft Dynamics CRM 2011, Workgroup, Professional, Enterprise, and Service Provider Editions
  - HubSpot®—Enterprise
- You have administrator privileges or privileges to install DxH and create database

Installing DxH

You can install DxH on the Ektron server or on its own server.

NOTE: If you previously installed DxH, you can upgrade to the current version. See Also: *Upgrading DxH to Version 1.2* on the facing page

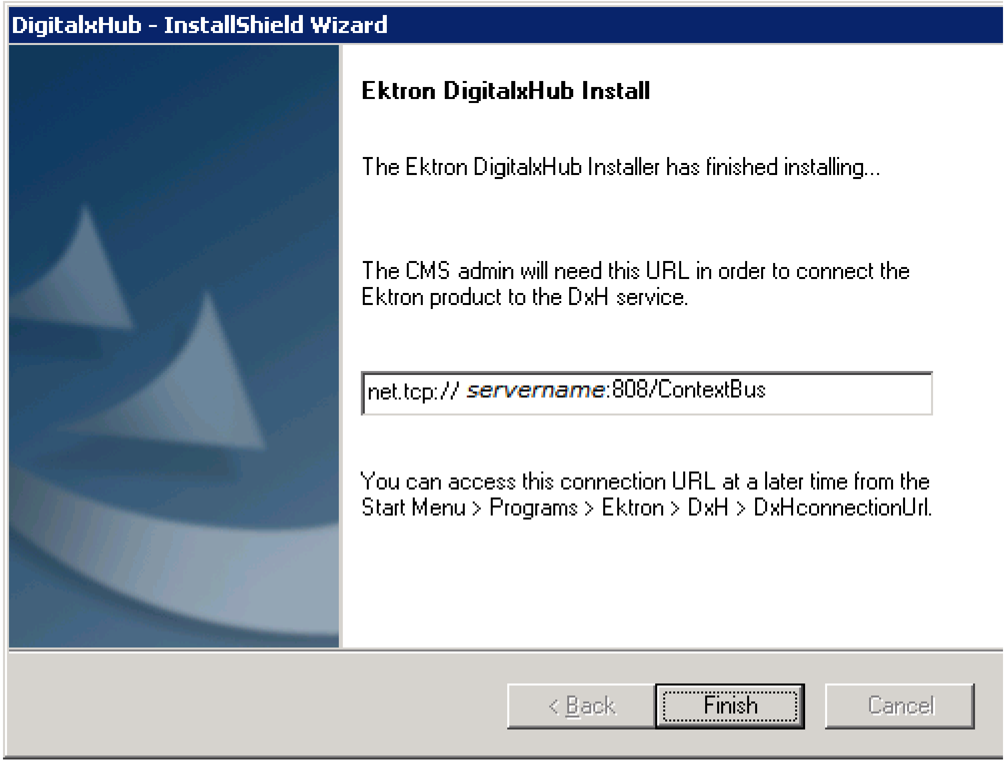
1. Contact your Ektron account manager to obtain a link to download the Digital Experience Hub. See Also: Contact Ektron.
2. If you want to install DxH on the Ektron server, log into the Ektron server as an administrator (or as a user with privileges to create a database).
3. Download `DxHInstaller.exe` to the server to which you will install it.
4. Run `DxHInstaller.exe`.
5. Accept the license agreement and click **Next**. The port setup screen appears.

   Port 808 is the default value. If you want to use a different port, change it on this screen then follow Step 14.
6. The SQL Server DB Setup screen appears. In the **Server** field, enter the machine hosting the Microsoft SQL database. By default, the field is populated with `(local)`. If you are using SQLExpress, use *machine_name*`\SQLExpress`.

   You can use either a domain or SQL Server account when creating the DB. For Ektron, we typically create a dedicated domain or SQL Server account for the database.
7. Enter the **Username** and **Password** for the server. For Trusted Connections, leave the fields empty.

8. Click **Next**. The database connection is tested. If the test is passed, the Ready to Install the Program screen appears.
9. Click **Install**. The Setup Status screen appears, followed by several screens indicating components being installed.
10. The finish screen appears, displaying the URL for connecting to DxH from Ektron. Save this information for later use.

NOTE: You can access this information at any time via the Windows **Start** button **> All Programs > Ektron > Dxh > Dxh Connection URL**.



11. Click **Finish**.
12. Open your `siteroot/web.config` file and find this tag:

```
<endpoint address="net.tcp://localhost:808/EktronConnector/tcp/EktronFormService"
binding="netTcpBinding"
bindingConfiguration="ContextBusNetTcpBinding" contract="IEktronFormService"
name="NetTcpBinding_IEktronFormService" />
```

13. Change `localhost` to the site domain where DxH is installed. For example, if DxH is installed to the domain `myDxhService`, the endpoint address would be `net.tcp://myDxhService:808/ContextBus/EktronConnector/tcpEktronFormService`.
14. If you changed the port in Step 5, edit the port number in the following line of `web.config`.

```
<endpoint address=”net.tcp://localhost:808/EktronConnector/tcpEktronFormService”
binding=”netTcpBindding” contract=”IEktronFormService” name=”NetTcpBinding_
IEktronFormService” />
```

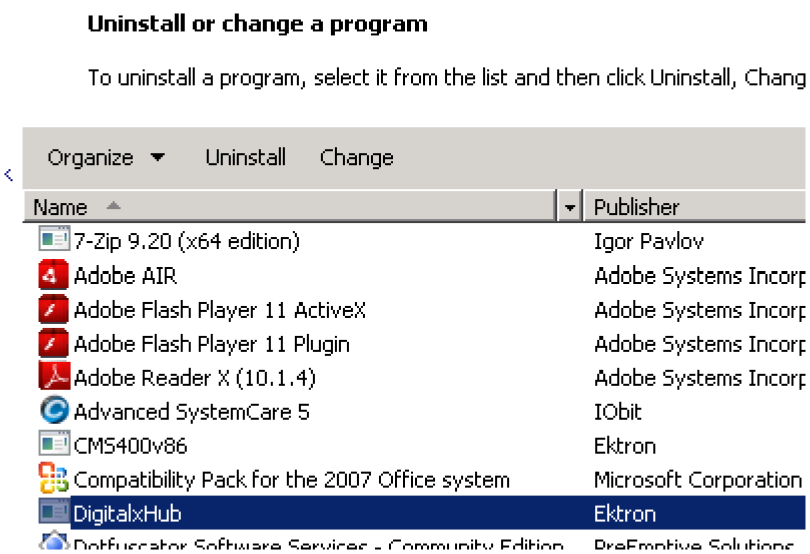
Upgrading DxH to Version 1.2

PREREQUISITE

You downloaded DxH version 1.2. If you have not done that, contact your Ektron account manager.

To upgrade from version 1.0 or 1.1 to 1.2 of DxH:

1. Identify the port and database used by DxH. To find this information:
   a. Navigate to the folder `C:\Program Files (x86)\Ektron\DigitalxHub\ContextBusServiceHost`.
   b. Open the `CBSvcHost.exe.config` file.
   c. Find the `<endpoint` tag.
```
<endpoint name="ContextBus_IEventManager"
address="net.tcp://SQA003:1234/ContextBus" binding="netTcpBinding"
bindingConfiguration="ContextBusNetTcpBinding"
contract="Ektron.DxH.Events.IEventManager">
```
   d. To find the port within the `endpoint` tag, locate the `address` field, following the server name. Write down the port number (red in the above example).
   e. Within `CBSvcHost.exe.config`, find the `<connectionStrings` tag.
```
<add name="CBDatabase" providerName="System.Data.SqlClient"
connectionString="server=(local);database=EktronDxH;Integrated
Security=true;user=;pwd=;" />
```
   f. To find the database within the `add` tag, locate the `database` field's first value (red in the above example).
2. Using SQL Server, back up the database you identified in Step 1f.
3. Uninstall DxH 1.0 or 1.1. If you are prompted to reboot, do so.



4. Install DxH 1.2. See *Installing DxH* on page 996.
5. When asked for port, use the port number you found in Step 1d.
6. Open `C:\Program Files (x86)\Ektron\DigitalxHub\ContextBusServiceHost\CBSvcHost.exe.config`.
7. Edit the `CBDatabase` entry to point to the database name you found in Step 1f.

New IConnector.DeleteObjectInstance Method

To support consistent and standard communication between DxH and connectors for deleting data, a new IConnector method was added, `DeleteObjectInstance`. Since IConnector already has save and get methods, this method rounds out data persistence operations with the ability to delete.

This method lets users optionally delete content from Ektron when related content is deleted from SharePoint. As such, only the Ektron connector's implementation of this method is required for 8.7. Other connectors only need to be updated to maintain technical compatibility with DxH.

Connector-specific operations that support deletes are still supported. However, all connectors need to implement this method to maintain technical compatibility with DxH 1.2, as part the 8.7 release. DxH does not load connectors that do not accommodate this new method. Instead, a message is logged, indicating that the connector is not loaded.

Minimal Implementation

The following minimal implementation maintains compatibility with DXH 1.2.

```
public List<DeleteMessage> DeleteObjectInstance(ObjectInstance objectInstance)
     {
       try
         {
          throw new NotImplementedException();
         }
         catch (Exception ex)
         {
           string msg = string.Format("DeleteObjectInstance could not delete
ObjectInstance:
                        {0}", ex.Message);
           log.LogMessage(msg, "MyConnector", LogSeverity.Error, EventID.ENDPOINT_
ERROR);
           throw new FaultException<ExceptionDetail>(new ExceptionDetail(ex), new
                        FaultReason(msg));
          }
     }
```

Using this implementation, any solution which asks your connector to delete data receives an error that the method is not supported on the connector.

DeleteMessage

In Ektron 8.7, no out-of-the-box solutions call this method on connectors beyond what is outlined above, But, Ektron recommends implementing the `DeleteObjectInstance` to make your connector more flexible for solution developers.

To accomplish this, treat the return type `DeleteMessage` the same way you treat `SaveMessage` when persisting data in your connector, via the `SaveObjectInstance` method. DxH interacts with `DeleteMessages` (and `SaveMessages`) by logging the message text with the appropriate severity in the DxH log. Naturally, the connector developer is responsible for the work of deleting and reporting success.

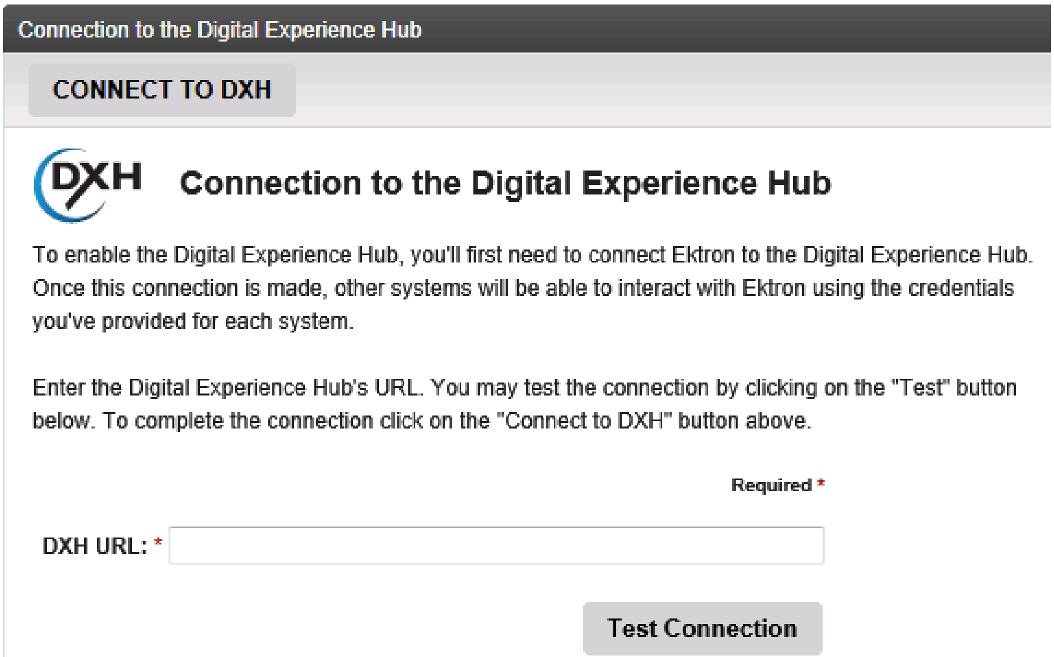
Setting up a DxH Connection to Ektron

After installing DxH, set up a connection between DxH and Ektron.

NOTE: If you are setting up a SharePoint connection, and your SharePoint version contains multiple sites, create a connection for each SharePoint site with which you want to connect.

1. Go to **Workarea > Settings > Digital Experience Hub > Connect to DxH**. The Connection to the Digital Experience Hub screen appears.
2. Insert the URL that you obtained in Step 10 of *Installing DxH* on page 996 and click **Test Connection**.

   NOTE: You can access this information from Windows **Start** menu **> All Programs > Ektron > DxH > DxH Connection URL**.

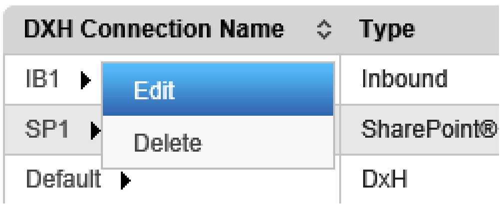


3. Click **Connect to DxH**. If everything is working properly, you see a message that the connection was successful.
4. You are prompted to set up an inbound connection. See *Configuring an Inbound Connection* on the facing page.

Editing a DxH Connection

IMPORTANT: Editing a DxH connection may change the relationship between Ektron and DxH, which may interrupt data transfer between external applications and Ektron.

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Hover over a DxH connection and choose **Edit**. The Edit Connection to the Digital Experience Hub dialog appears.



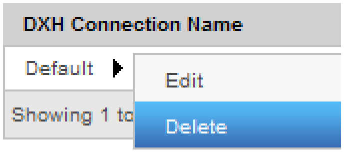
3. Edit the information as required.

4. Click **Test Connection**. If the test fails, an error message appears. Verify that you have the correct URL and that it was entered correctly.
5. Click **Update Connection**.

Deleting a DxH Connection

IMPORTANT: Deleting a connection stops data transfer between Ektron and an external application.

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Hover over a DxH connection and choose **Delete**. The Delete Connection to the Digital Experience Hub dialog appears.

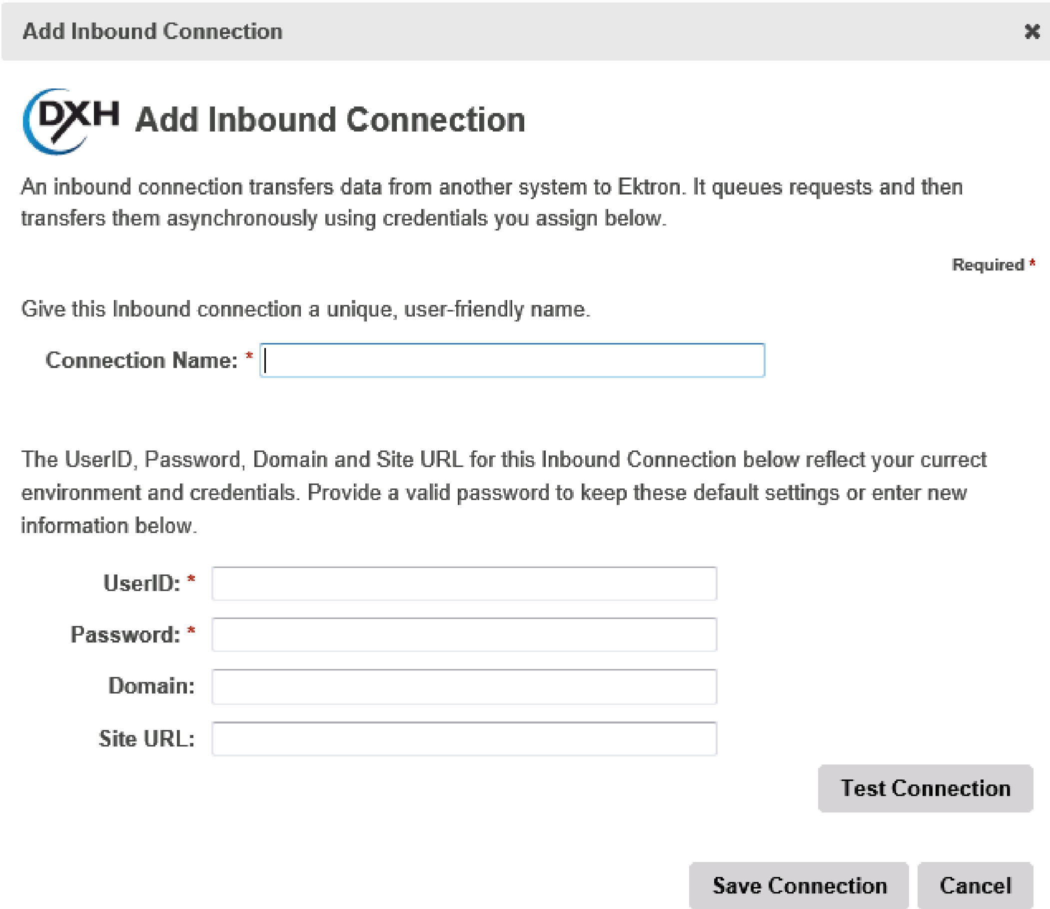


3. Click **Confirm**.

Configuring an Inbound Connection

After installing and connecting DxH to Ektron, you can establish an inbound connection, which lets you transfer information between Ektron and DxH. From DxH, the information can be sent to external applications. See Also: *DxH Architecture* on page 992

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Click **Add Connection > Add Inbound Connection**. The Add Inbound Connection dialog appears.



3. In the **Connection Name** field, enter a unique, user-friendly name.
4. Optionally change the **UserID** field (which defaults to the logged-in user) to the Ektron administrator who will act as the connection manager.

   IMPORTANT: Enter an Ektron Administrators group member. Many DxH features use the Inbound Connector user, not the logged-in user, to perform DxH functions. Administrative privileges are required to complete many DxH tasks.

5. Enter the password for the user.
6. If Active Directory is being used for authentication, enter your Active Directory server **Domain**.
7. If you are using a multi-site setup, select another instance in the **Site URL** field (which defaults to the current Ektron instance).
8. Click **Test Connection**. If the test fails, check your credentials and Site URL and try again.
9. When the connection test is successful, click **Save Connection**.
10. Click **OK**. The View All Digital Experience Hub connections screen appears.

Configuring a Connection to an External Application

Adding an External Application Connection

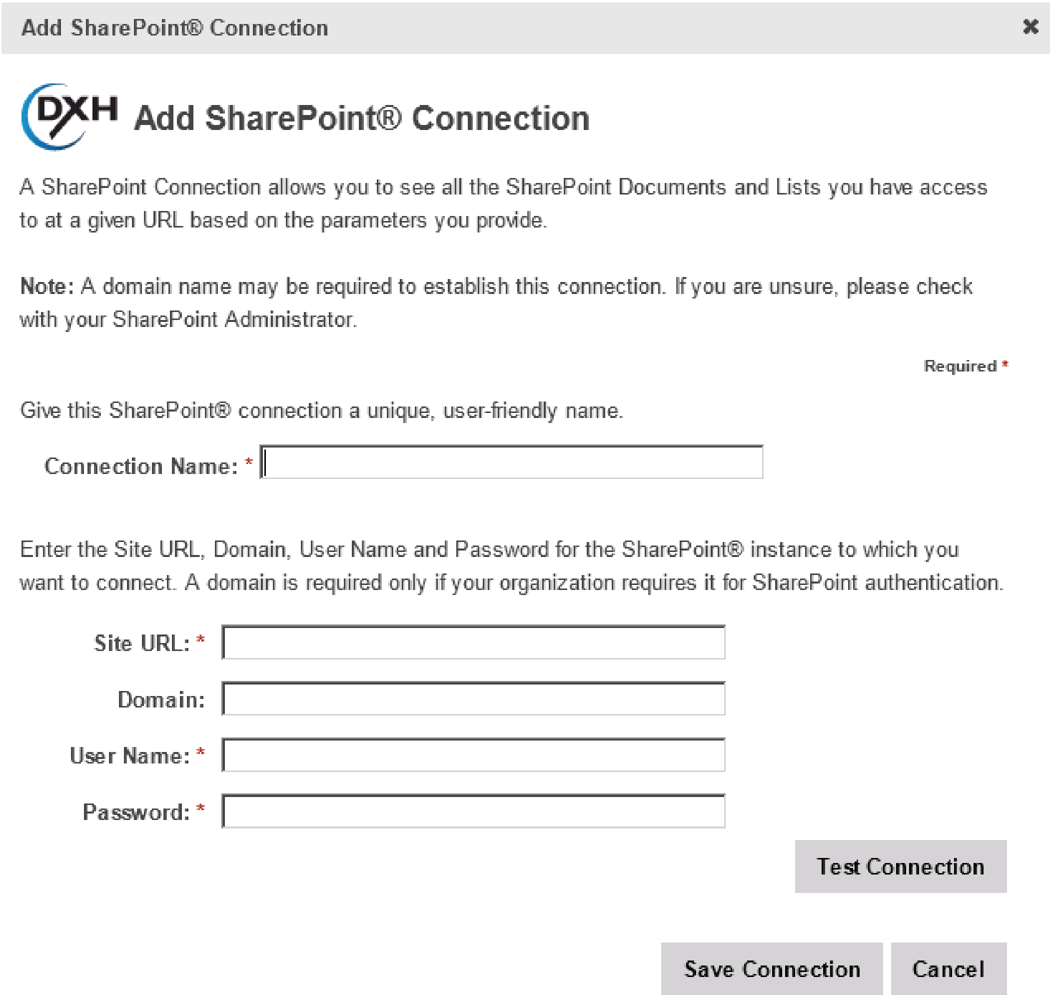
PREREQUISITES

- You are a member of the Ektron Administrators group or assigned a DxH Administrator role.
- The following components are installed and configured: DxH, DxH connection, and inbound connection. See *Installing DxH* on page 996.
- You have access information for external applications that will connect with Ektron via DxH. Obtain this information from the external application administrator before adding a connection.
  - Marketo
    - API path (URL)
    - Client ID
    - Encryption Key
  - Microsoft Dynamics
    - Username
    - Password
    - Fully Qualified Domain Name
    - Organization Name
  - Salesforce
    - API Key (security token)
    - Username
    - Password
  - SharePoint
    - URL
    - Domain
    - Username
    - Password
  - HubSpot
    - API Key (hapikey)

IMPORTANT: After you create a connection, you cannot change its name. This restriction prevents you from accidentally overwriting a connection. To rename a connection, delete it then add it again with a new name, as described in *Deleting Connections to External Applications* on page 1005.

To add an external application connection:

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Hover over **Add Connection** and select a connection. The Add Connection dialog appears.

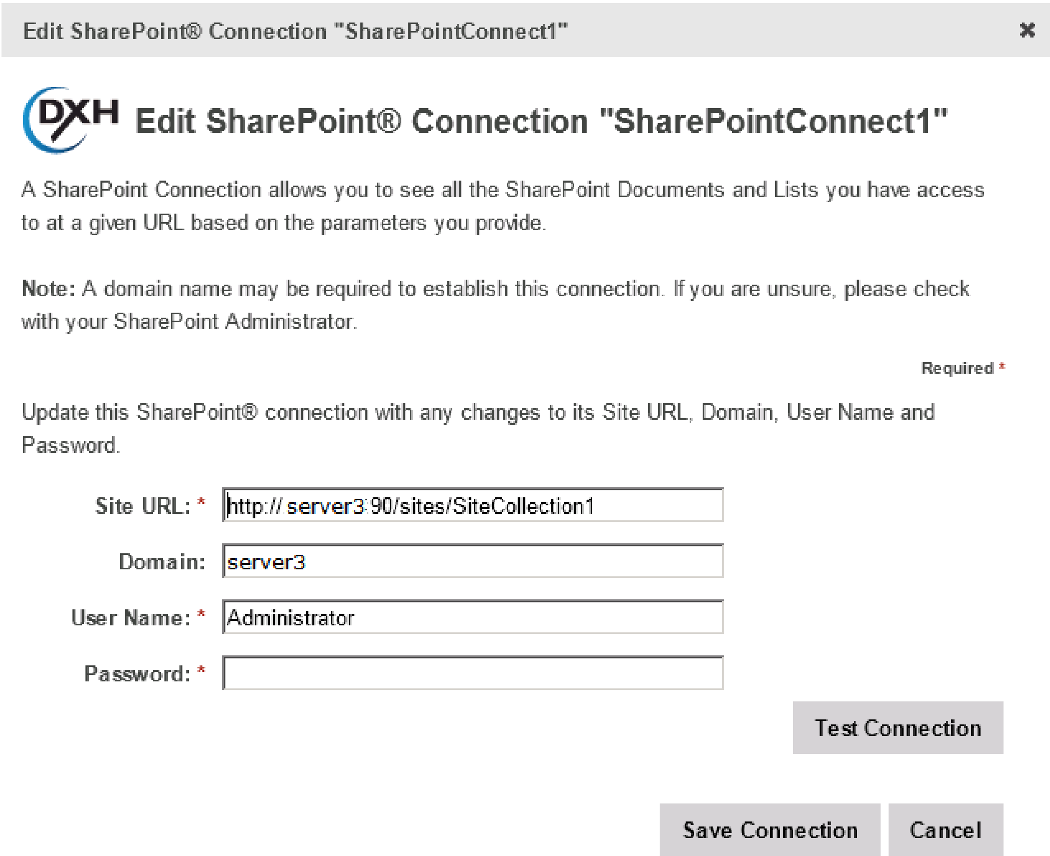


3. Enter a unique, user-friendly name in the **Connection Name** field.
4. Enter required information.
5. Click **Test Connection**.
   - If the test is successful, proceed to the next step.
   - If the test fails, an error message appears. Verify that you entered the correct connection information.
6. Click **Save Connection**.

Editing a Connection to an External Application

IMPORTANT: If you rename a SharePoint Connection, the associated Workarea folder is also renamed.

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Hover over the connection and choose **Edit** from the pop-up menu. The Edit Connection dialog appears.



3. Edit the path or authentication information as required. You *cannot* edit the connection name.
4. Click **Test Connection**. If the test fails, an error message appears. Verify that you have the correct path and authentication information
5. Click **Save Connection**. The View All Digital Experience Hub connections screen appears.

Deleting Connections to External Applications

IMPORTANT: Deleting a connection removes the relationship between the instance of the external application and DxH.This action stops all data transfer.

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Hover over the connection and choose **Delete** from the menu. A confirmation dialog appears.
3. Click **Delete**.

Setting up the SharePoint Receiver

The SharePoint Receiver automatically transfers updated SharePoint content to Ektron. Any edit to a SharePoint document/file or its properties triggers an update.

After you import SharePoint content to Ektron (as described in *Importing SharePoint Files, Lists, and Libraries to Ektron* on page 1012), the receiver monitors that content, and transfers updated files from SharePoint to Ektron with no intervention. The imported file overwrites the current version, if one exists.

This section explains how to set up the SharePoint Receiver.

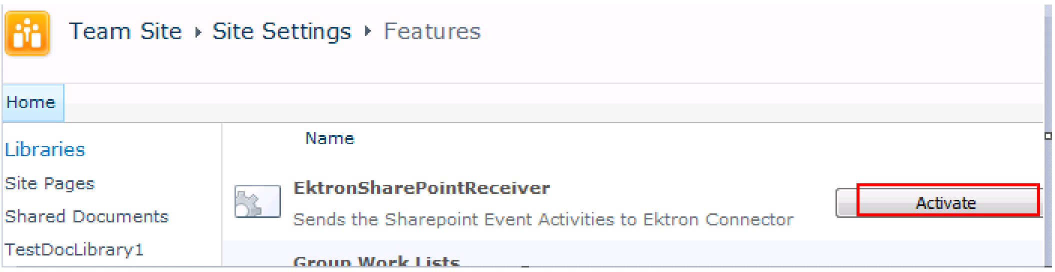
NOTE: Do not confuse the SharePoint *Receiver* (described above) with a SharePoint connection. A *connection* specifies an endpoint (URL or API path) and authentication credentials that allows communication between 2 software instances.

PREREQUISITES

- The SharePoint Receiver installation file. Contact your Ektron account manager to obtain a link to download this file.
- Permission to install and edit files on the SharePoint server.

Setting Up the SharePoint 2010 Receiver

1. Run the SharePoint Receiver installation file on a SharePoint server.
2. Go to the **SharePoint Central Administration screen > System Settings > Manage Farm Solutions**. Make sure the status of ektronsharepointreceiver.wsp is **Deployed**.
3. Log into your SharePoint Web application.
4. Access the **Site Settings** screen > **Manage Site Features**.
5. Click **Activate** to activate the EktronSharePointReceiver.



6. Place the following bindings into each SharePoint Web application's top-level web.config file (which resides within the content root folder). Insert bindings within the <system.servicemodel> section.

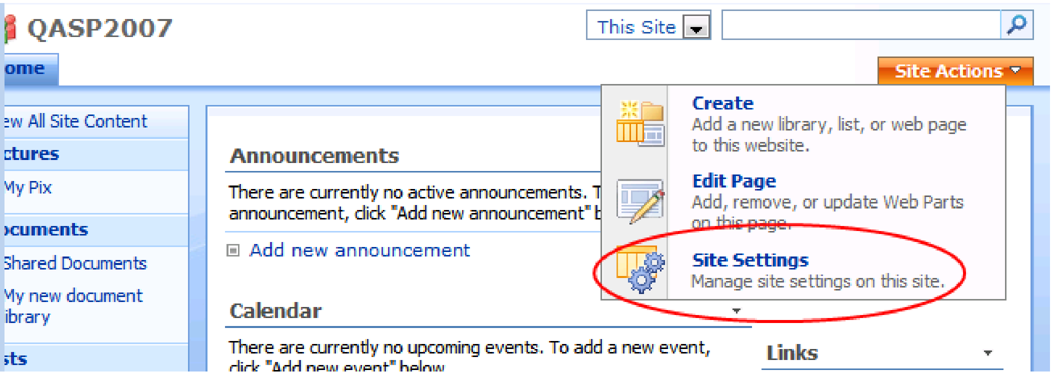
```
<bindings>
 <netTcpBinding>
  <binding name="SharePointConnectorNetTcpBinding"
  portSharingEnabled="true" closeTimeout="00:02:00"
  openTimeout="00:02:00" receiveTimeout="00:10:00"
  sendTimeout="00:02:00" maxBufferSize="2147483647"
  maxConnections="10" maxReceivedMessageSize="2147483647">
  <readerQuotas maxStringContentLength="2147483647"
    maxArrayLength="2147483647" maxBytesPerRead="2147483647"
    maxNameTableCharCount="2147483647"/>
  <security mode="None">
  </security>
  </binding>
 </netTcpBinding>
</bindings>
<client>
  <endpoint name="SharePointAdapter_ISharePointEventReceiver"
```

```
address="net.tcp://localhost:9002/SharePointConnector/tcp/SharePointEventReceiver"
binding="netTcpBinding"
bindingConfiguration="SharePointConnectorNetTcpBinding"
contract="Ektron.DxH.SharePointConnector.Common.ISharePointEventReceiver">
  </endpoint>
</client>
```

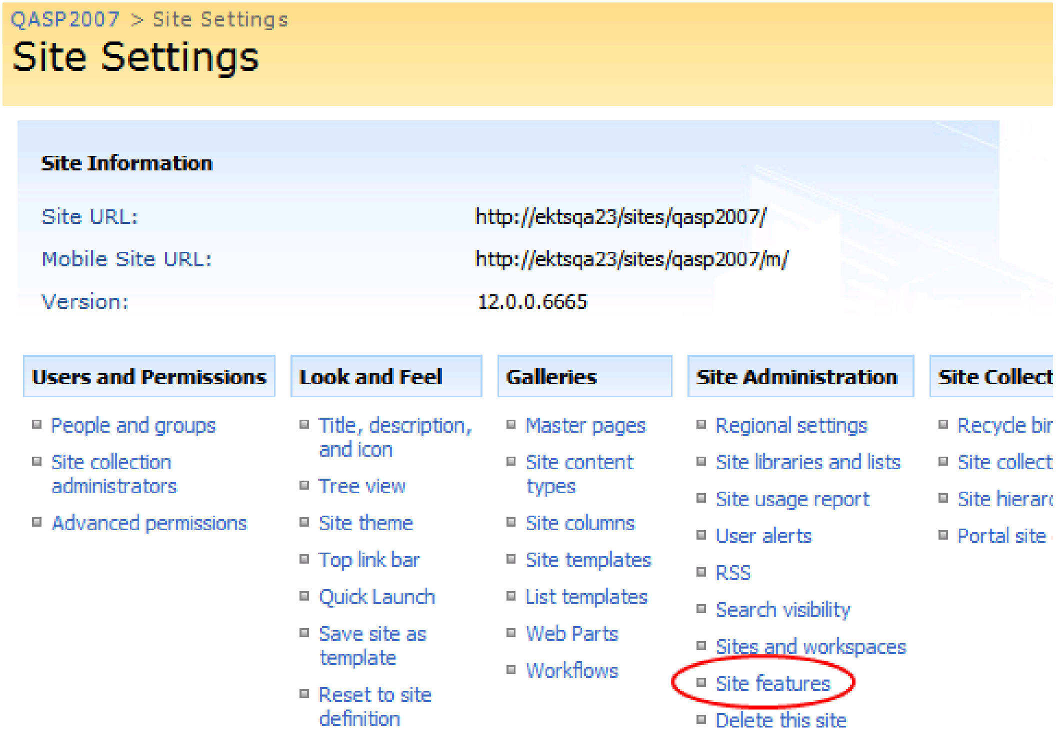
7. In the <endpoint> address property, update the text following net.tcp:// (in red above) to indicate the path and port to which DxH is installed.

Setting Up the SharePoint 2007 Receiver

1. On the SharePoint server, run the SharePoint Receiver installation file.
2. Verify the SharePoint receiver is deployed. To do this:
   a. Click **Start > Administrative Tools > SharePoint 3.0 Central Administration**.
   b. Log in to the Central Administration site.
   c. Under **Global Configuration**, select **Solution Management**.
   d. Check that the entry for SharePoint receiver is **deployed**.
3. Log into your SharePoint site.
4. Click **Site Actions** > **Site Settings**.



5. Select **Site Features**.



6. On the Site Features screen, click **Activate** to activate the EktronSharePointReceiver.
7. Open each SharePoint Web application's top-level `web.config` file (which resides within the content root folder).
8. Place the following bindings into that file, within the `<system.servicemodel>` section.

```
<bindings>
 <netTcpBinding>
  <binding name="SharePointConnectorNetTcpBinding"
    portSharingEnabled="true" closeTimeout="00:02:00"
    openTimeout="00:02:00" receiveTimeout="00:10:00"
    sendTimeout="00:02:00" maxBufferSize="2147483647"
    maxConnections="10" maxReceivedMessageSize="2147483647">
  <readerQuotas maxStringContentLength="2147483647"
    maxArrayLength="2147483647" maxBytesPerRead="2147483647"
    maxNameTableCharCount="2147483647"/>
  <security mode="None">
  </security>
  </binding>
 </netTcpBinding>
</bindings>
<client>
  <endpoint name="SharePointAdapter_ISharePointEventReceiver"

address="net.tcp://localhost:9002/SharePointConnector/tcp/SharePointEventReceiver"
  binding="netTcpBinding" bindingConfiguration="SharePointConnectorNetTcpBinding"
  contract="Ektron.DxH.SharePointConnector.Common.ISharePointEventReceiver">
  </endpoint>
</client>
```

9. In the `<endpoint> address` property, update the text following `net.tcp://` (in red above) to indicate the path and port to which DxH is installed.

Deactivating the SharePoint Receiver

To suspend automatic updating of SharePoint content in Ektron:

1. Log into your SharePoint Web application.
2. Access the **Site Settings** screen > **Manage Site Features**.
3. Deactivate the Ektron SharePoint Receiver.

Monitoring DxH Transactions

Use the DxH Error Log to monitor transactions related to DxH connections and troubleshoot problems. For example, connection failures involving multiple connector types may correspond to network outages, or a specific connector failure may correspond to an event such as an application upgrade in progress.

1. Go to **Workarea > Settings > Digital Experience Hub > Connections**. The View All Digital Experience Hub Connections screen appears.
2. Click **View Error Log**. The DxH log includes the following information:
    - **Severity**—The category of log entry: information, warning, or error.
    - **Log ID**—The system-assigned identifier for the event. Use this ID when communicating with others about issues to help them locate the specific event.
    - **Date/Time**—The date and time that the event occurred, displayed in the time zone of the server hosting DxH, and formatted based on the user's language settings. The Coordinated Universal Time (UTC) variance is shown in the bottom right corner to facilitate sharing log information between time zones.
    - **Source**—The component in which the event was detected.
    - **Event ID**—An identifier indicating the type of event detected.
    - **Message**—Text describing the error. Message is truncated at 180 characters. To display the remainder, click `more...`

You can sort and filter the DxH log as required.

Setting Up the Import of SharePoint Files to Ektron

NOTE: For background about how DxH can import SharePoint content, see *Example: Importing SharePoint Content* on page 995.

This section explains how to set up the import of SharePoint files to Ektron. Before beginning the import process, you should

- Install DxH, set up an inbound connection then a SharePoint connection—see *Installing and Configuring DxH* on page 996
- Install the SharePoint Receiver, which handles the automatic update of content imported from SharePoint to Ektron—see *Setting up the SharePoint Receiver* on page 1005
- Prepare Ektron metadata definitions to match SharePoint metadata—see *Preparing Ektron Metadata to Support SharePoint Import* on the next page

After completing these tasks, you select SharePoint content to import. This involves selecting SharePoint lists, libraries or individual files and then mapping Ektron metadata fields to SharePoint metadata fields. Once the import is set up, the SharePoint Receiver automatically transfers the following changes to the Ektron import folder.

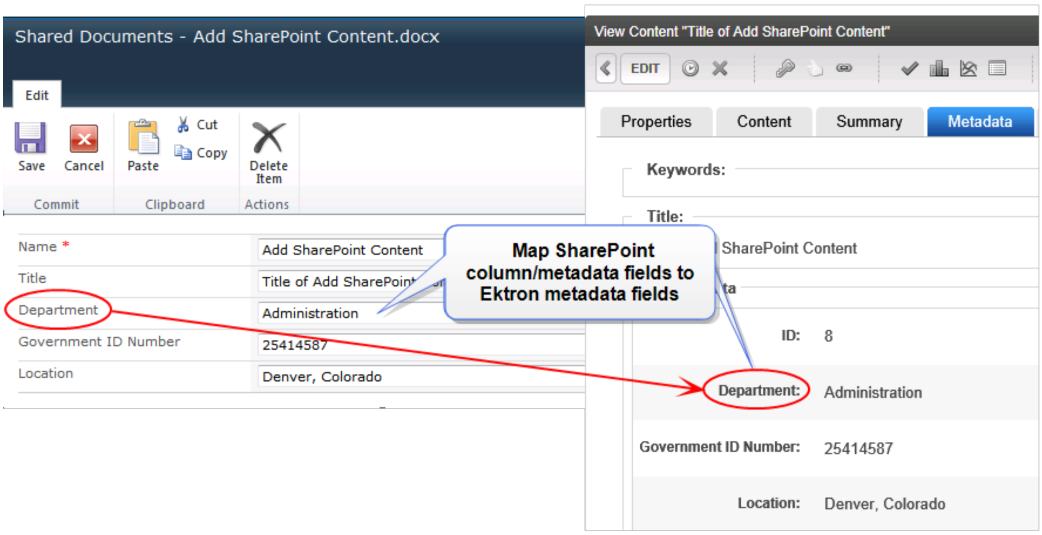
- Within selected SharePoint lists or libraries, content is added, deleted, or updated
- Selected content is updated or deleted

NOTE: While setting up the import,users determine if deletes to SharePoint content affect the Ektron version of that content.

Preparing Ektron Metadata to Support SharePoint Import

NOTE: If you are not familiar with Ektron metadata, please read *Working with Metadata* on page 369.

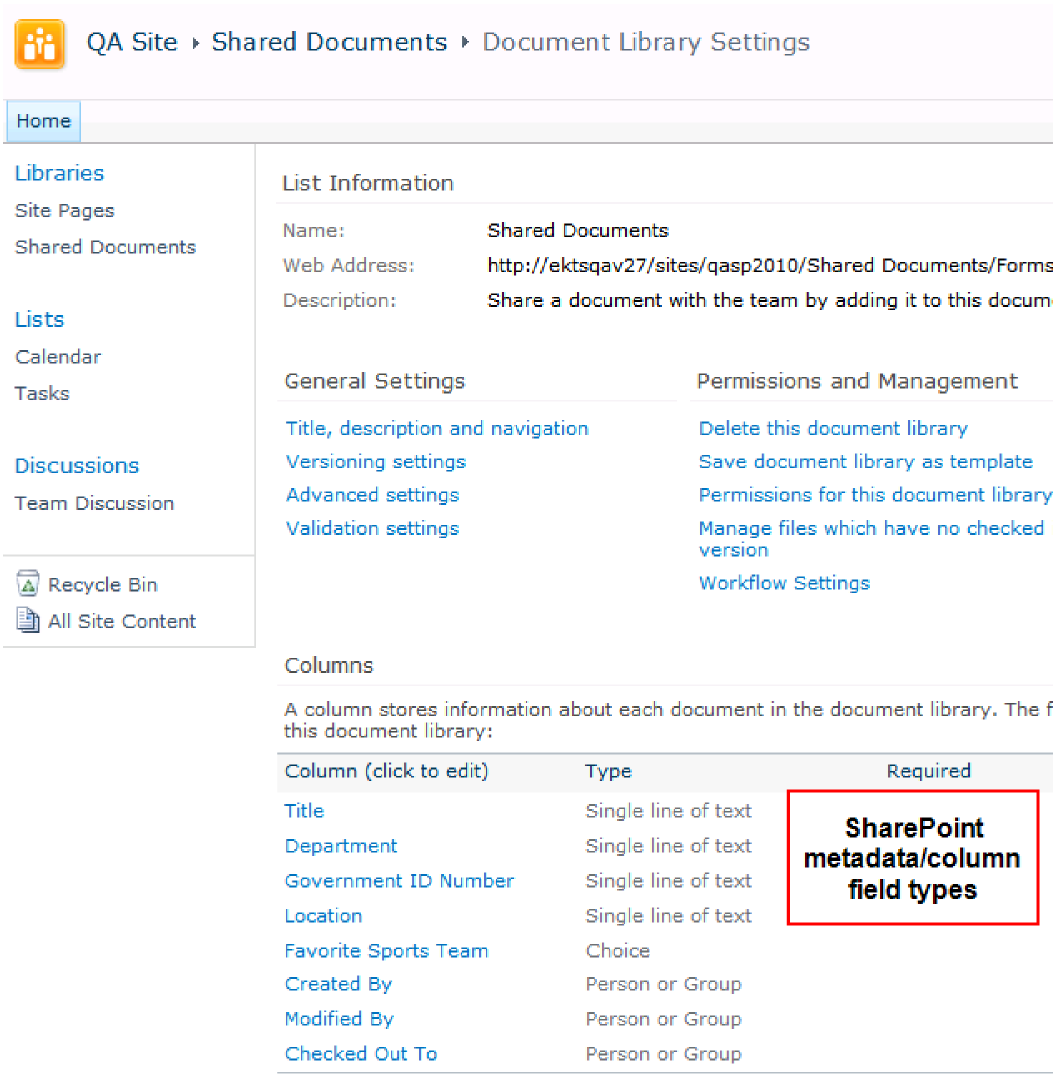
While setting up the import of SharePoint files to Ektron, you may map SharePoint metadata to Ektron metadata. (In SharePoint, extra information about files is stored in *columns*, which are equivalent to metadata.) If you map, as SharePoint content is imported to Ektron, SharePoint metadata values are applied to corresponding Ektron metadata fields.



NOTE: To complete step 1, you must either have access SharePoint, or ask your SharePoint administrator for the information that is collected.

To prepare Ektron metadata to map to SharePoint fields:

1. Obtain the *type* of each SharePoint column/metadata field you want to import to Ektron. To do so,
   a. Go to the SharePoint library or list that contains the content.
   b. Click **Library Settings** > **Columns**.
   c. Within the **Columns** area, find each SharePoint column/metadata field applied to the folder and its type.



IMPORTANT: You can only choose SharePoint column types that correspond to these Ektron metadata types:
* Byte
* Date
* Double
* Float
* Integer
* Long
* Multiple selections
* Number (generic)
* Select from a list
* Short
* Text
* Yes or no
For example, you cannot choose the SharePoint column type **Person or Group**, because there is no corresponding Ektron metadata type.

2. Ektron Workarea **> Settings > Configuration > Metadata Definition**.
3. Click **Add Metadata Definition**.
4. Enter a **Name** for the metadata definition.

5. For **Type**, choose **Searchable Property**.

   NOTE: You can only map **Searchable Property** metadata types to SharePoint files.

6. In the **Style** field, select a type that matches the SharePoint column field type obtained in Step 1. See Also: *Adding a Metadata Definition* on page 370
   - The SharePoint type of **Choice > Drop-Down Menu** or **Radio Buttons** maps to the Ektron**Select From a List** style.
   - The SharePoint type of **Choice > Checkboxes (allow multiple selections)** maps to the Ektron **Multiple Selections** style.
   - The SharePoint type of **Currency** maps to the Ektron **Float** style.
   - The SharePoint type of **Yes/no (check box)**maps to the Ektron **Yes or No** style.
7. Repeat Steps 3 through 6 for each metadata definition you want to import.
8. Assign the metadata definitions to folders to which you will import SharePoint content. See Also: *Assigning Metadata to a Folder* on page 377
9. Import one SharePoint document to Ektron and verify that its metadata imports correctly. If it does not, try applying a different **Style** to the Ektron metadata definition.

NOTE: If you add a new metadata definition but do not see it on the DxH Map Metadata to Ektron Folder screen, reset IIS on the Ektron server.

After you verify that the SharePoint fields are properly mapped to Ektron metadata fields, proceed with the other aspects of importing SharePoint content to Ektron.

Importing SharePoint Files, Lists, and Libraries to Ektron

This section explains the importing of SharePoint files to Ektron. This process, which maps SharePoint lists, libraries, or individual files to an Ektron folder, accomplishes 2 tasks:

- Immediately starts to import selected SharePoint files, lists, and libraries.
- If the SharePoint Receiver is activated, all updates to and deletions of SharePoint files trigger an *automatic update/deletion* to the version stored in Ektron. Also, *new files* added to SharePoint lists and libraries are automatically copied to the mapped Ektron folder.

Prerequisites

PREREQUISITES

- DxH is installed See Also: *Installing and Configuring DxH* on page 996
- An inbound connection is established See Also: *Setting up a DxH Connection to Ektron* on page 999
- A SharePoint connection is established See Also: *Configuring a Connection to an External Application* on page 1002
- SharePoint Receiver is installed See Also: *Setting up the SharePoint Receiver* on page 1005
- To set up the mapping of SharePoint metadata to Ektron metadata, complete the steps in *Preparing Ektron Metadata to Support SharePoint Import* on page 1010.

You can import these SharePoint content types to Ektron:

- Library files are imported as Ektronassets.

NOTE: Only files types listed in the Asset Management Configuration screen's **File Types** field may be imported. See Also: *Configuring Document Management* on page 312

- Libraries and folders are not imported, but items within them are imported. Any folder hierarchy is lost upon import.
- Custom List items, including these data types
  - Single line of text (String)
  - Multiple lines of text (String, HTML)
  - Choice from menu (Select)
  - Number, such as 11.0, 100 (Number)
  - Currency, such as $, ¥, € (Formatted number)
  - Date and time (DateTime)
  - Yes/No check box (Boolean)
  - Hyperlink or picture (Hyperlink, Image)
  - Calculation, based on other columns (String)
- SharePoint List items are imported as an Ektron Smart Form of the type `CustomList`.
  - Each field in a SharePoint list item is created as a Smart Form field. Field types are matched appropriately.
  - Attachments to list items are not imported.
  - The import procedure adds fields to an Ektron Smart Form to manage ongoing updates, such as: created and modified date/time, version, and if any files are attached.

The following SharePoint authentication modes are supported:

- Claims Based authentication mode > Windows Authentication > NTLM and Kerberos
- Classic authentication mode > NTLM and Kerberos

To set up the SharePoint-to-Ektron mapping:

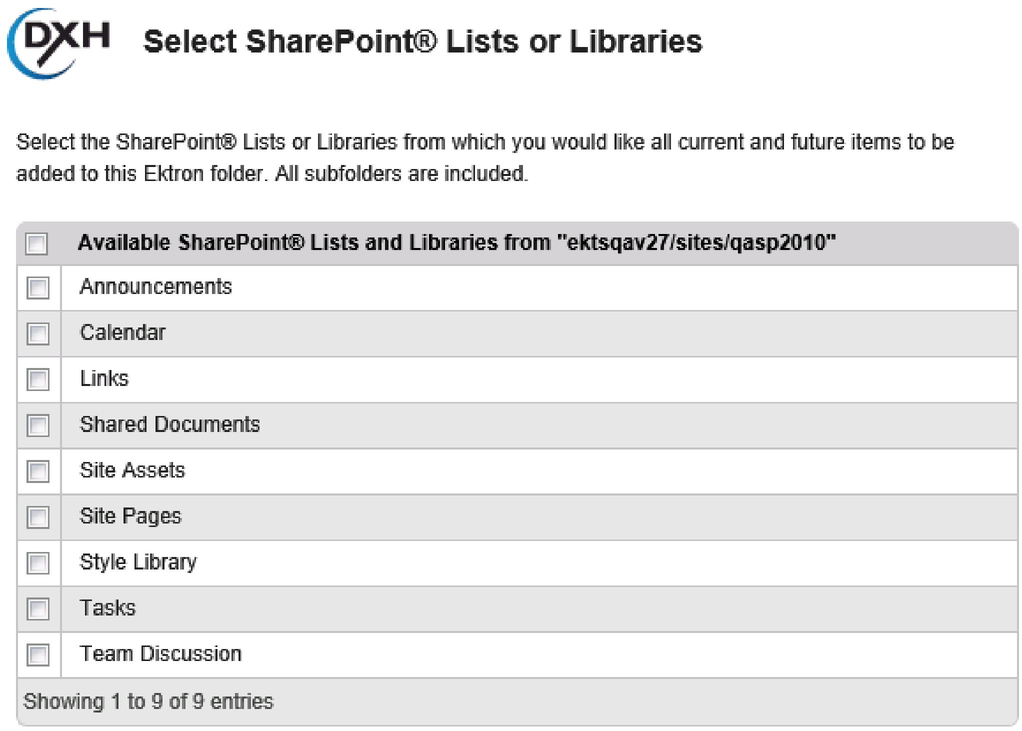
1. On the Ektron Workarea's **Content** tab, navigate to the destination folder.
2. Choose **New > DxH Content > Add SharePoint Content**.
3. The Select SharePoint Connection screen appears. Choose a SharePoint Connection, and click **Start**.
4. The Select SharePoint Content screen appears. At the **What SharePoint® content would you like to add from "My SP" Connection?** field, choose one of these options.
   - **All current and future items from SharePoint® Lists or Libraries**—When you select a list or library, all files within it and its subfolders are imported. And, any files added to or deleted from or updated within that list or library in the future are updated in the selected Ektron folder.

     NOTE: Deletions depend on your choice in the next field.

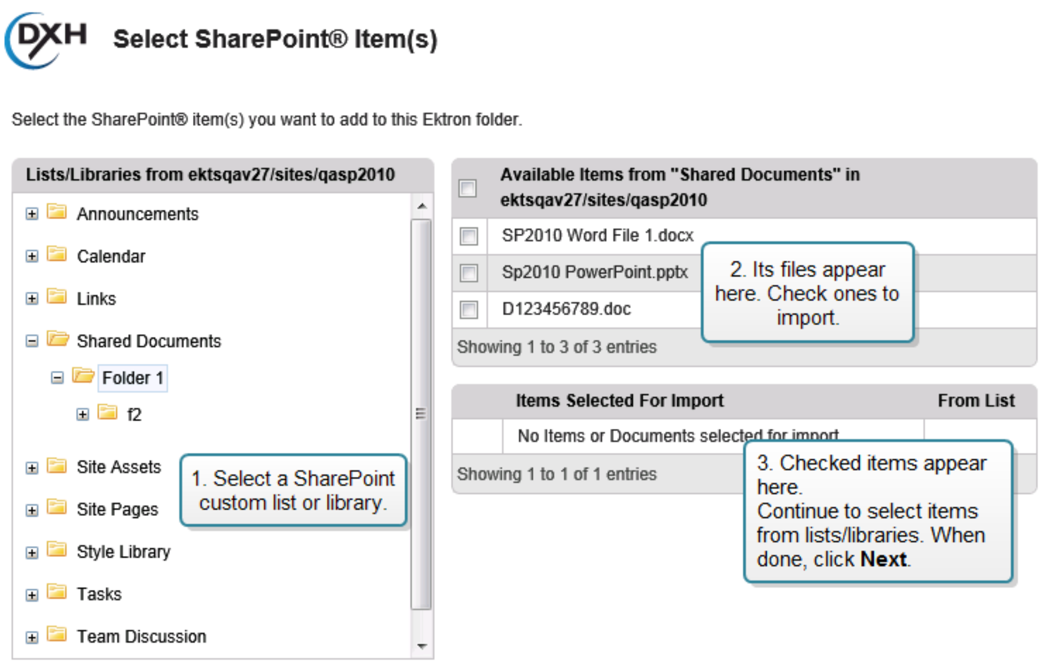
   - **Items from SharePoint® Lists or Libraries**—You choose individual files from several lists and libraries. If the files are updated or deleted in the future, they will be updated in the selectedEktron folder.

NOTE: Deletions depend on your choice in the next field.

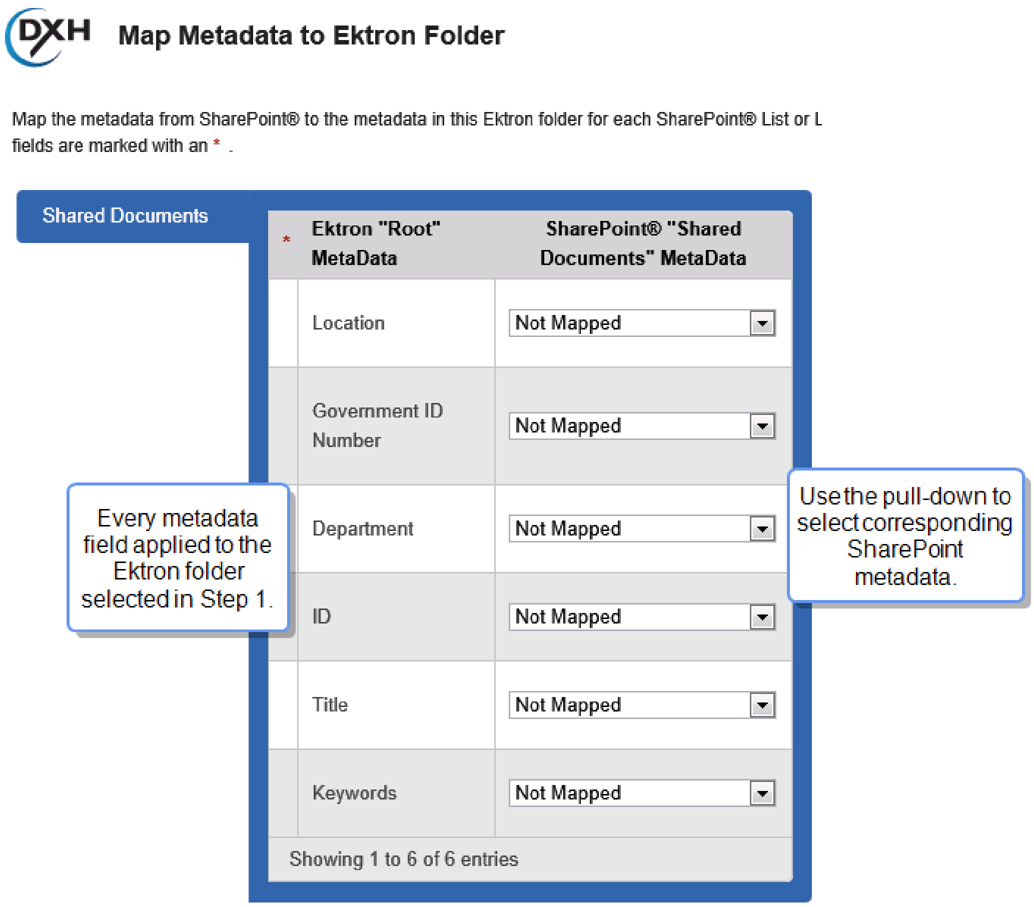
5. At the **If the content you select is deleted from SharePoint® in the future, what should happen to the Ektron copy of that content?** field, choose one of these options.
   - **Do NOT delete it from Ektron**—If the file is deleted from SharePoint, leave the Ektron copy as is.
   - **Delete it from Ektron**—If the file is deleted from SharePoint, delete it from Ektron.
6. The next screen depends on your response to the **What SharePoint® content would you like to add from "My SP" Connection?** field. If you chose
   - **All current and future items from SharePoint® Lists or Libraries**—The following screen appears. Choose SharePoint lists/libraries that you want to import.



   - **Items from SharePoint® Lists or Libraries**—Choose files from several lists and libraries. When you click a list or library, its items appear in the top right grid. As you check items to import, they appear in the lower grid.



7. The Map Metadata to Ektron Folder screen appears. For background information on this screen, see *Preparing Ektron Metadata to Support SharePoint Import* on page 1010.



You may map as many Ektron metadata fields to SharePoint metadata fields as you wish.

Required Ektron fields have an asterisk (*). If you do not map required metadata fields, you may proceed but when the content is imported to Ektron, its status is Checked-In. The content can only be published after required metadata values are entered.

8. Click **Next** then **Done**. It takes a while to import the SharePoint files. The length of time depends on the number and size of the files.

SharePoint-to-Ektron Import Notes

- If you import SharePoint content to an Ektron folder then later to the same folder, the second document is imported with different ID, and its title is appended with a unique number.
- Ektron authors can edit content imported from SharePoint. But if the content is updated in SharePoint and the SharePoint Receiver is active, the version in the Ektron folder is automatically updated, **overwriting** the file (and any edits the Ektron author made).
- SharePoint content can depend on other SharePoint files. These are handled as follows:
  - SharePoint content items that include other content (for example, a SharePoint document that includes a SharePoint image) are stored in Ektron as separate items. Changes to SharePoint content are automatically updated in Ektron.

    Also, you can manually update any imported file at any time. See Also: *Updating SharePoint Content Manually* on the facing page

    NOTE: Files attached to a custom list are not imported.
  - If SharePoint content includes a *link* to other content, such as a hyperlink to another document, only the selected content is copied to Ektron.

    For example, SharePoint Document A includes a hyperlink to SharePoint Document B. When Document A is copied to Ektron, Document B is not. If Document B is not copied to Ektron, the link in Document A does not resolve correctly.
- You can search content imported from SharePoint if it is tagged as searchable. See Also: *Ensuring Your Content is Searchable* on page 942
- Imported content's last editor is the user set to log into the Inbound Connection. It is not the user who completed the Add SharePoint Content screen.
- Do not copy imported SharePoint content from its import folder to another Ektron folder.
- If a SharePoint *library document* does not have a title, its file name is used for a title in Ektron. If a SharePoint *custom list* does not have a title, it is imported with `(no title)` as the title. If several items are imported to the same folder with no title, an integer is appended. For example: `(no title)(1)`.
- Checked-out Ektron content may be updated automatically (by the SharePoint Receiver) or manually.
- If you import a SharePoint custom list into Ektron, and then a SharePoint user adds a column to that list, you cannot update it in Ektron, neither automatically nor manually. You must either import it to a different Ektron folder, or delete it in Ektron and then re-import it from SharePoint.
- If the Ektron folder receiving SharePoint content requires a taxonomy category or alias (or both), the content is imported but its status is set to Checked In (I). If you try to publish the content, you must first supply the required category or alias. See Also: *Requiring the Assignment of at Least One Category* on page 791

- To improve the performance of the SharePoint import, Ektron sets a caching value of 900 seconds in the following *siteroot*/web.config file key: `<add key="ek_dxh_sharepoint_cache" value="900" />`. You may disable caching by changing this value to zero (0). If you do, the import screen's performance may be a bit slower.

Content Deletion Notes

- If a deleted SharePoint content is restored from the recycle bin, if it was imported using the **All current and future items from SharePoint® Lists or Libraries** option, the content returns to the Ektron folder.

  However, if the user selected **Items from SharePoint® Lists or Libraries** during import, content restored from the SharePoint recycle bin does *not* return to Ektron.
- If content is imported from SharePoint then deleted in Ektron, it no longer appears in Ektron.

Changing the Language of Imported Content

NOTE: You can translate content imported from SharePoint, but the translated content resides only in Ektron and is not associated with SharePoint. See Also: *Creating Multi-language Content* on page 1062

PREREQUISITE

You need the ID of the language in which SharePoint® content will be imported. To obtain the language ID, go to **Workarea > Settings > Localization > Languages and Regions**, and look in the **ID** column.

By default, SharePoint content is imported in US English (ID 1033). To import it in another language:

1. Open `C\Program Files (x86)\Ektron\DigitalxHub\ContextBusServiceHostCBSvcHost.exe.config`.
2. Find the `<appSettings>` section.
3. Add the following line

```
<add key=”ek_DefaultContentLanguage” value=”xxxx” />
```

   where xxxx is the desired language ID. For example, the ID for Español [Spanish] is 1034.
4. Restart the Ektron ContextBus Service Host service.

Updating SharePoint Content Manually

This section explains how to manually transfer SharePoint files to Ektron. Typically, the SharePoint Receiver handles this task for you. You only need the manual import if the SharePoint receiver is not installed or is inactive. See Also: *Setting up the SharePoint Receiver* on page 1005

PREREQUISITE

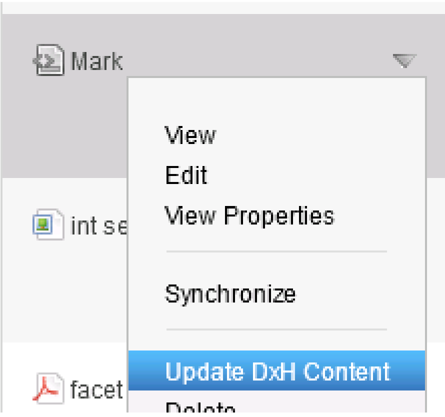
You have 1 of the following Ektron designations:

- Administrators group member
- DxH Connection User Role

- Folder-Admin role
- Edit permissions for the folder containing SharePoint content

Use the manual update feature to transfer a file to Ektron immediately. You also can manually transfer an updated image file that is embedded within SharePoint content. Without a manual update, that image only transfers to Ektron when the related SharePoint content is updated.

1. In SharePoint, edit either the SharePoint document/file or its properties.
2. Navigate to the folder that contains the content you want to update.
3. Click the arrow to the right of the content title.
4. Click **Update DxH Content**.



NOTE: When a user imports a SharePoint content item to an Ektron folder that already contains the item, that action also updates the Ektron content.

Configuring DxH for Mapping Form Data

This section explains how to map an Ektron HTML form to an external application. For example, you create a form that prompts a site visitor for contact information (name, mailing address, physical address, and phone number) to create a sales lead. After completing the mapping, you publish the form on your Ektron website. As site visitors complete the form, its information is sent to the external application. For background on using DxH to transfer Ektron form data to an external application, see *Setting Up the Digital Experience Hub* on page 991 and *Setting Up the Digital Experience Hub* on page 991.

This section also explains how to use information collected through Ektron forms and stored in an external application in a Targeted Content widget. See Also: *Using Widgets* on page 711

Creating a Mapped Form

PREREQUISITES

- DxH and inbound connections are established See Also: *Setting Up the Digital Experience Hub* on page 991
- A connection to an external application is established (Salesforce, HubSpot, Marketo, or Microsoft Dynamics) See Also: *Configuring a Connection to an External Application* on page 1002
- Either you have permission to publish the form, or it was already published

To create a mapped form:

1. Obtain the following from the external application's administrator:
   - Form/record name

   > **NOTE:** Only these forms are supported:
   > * Marketo Lead Management—Lead
   > * Salesforce—Lead, Contact, Account
   > * Microsoft Dynamics CRM—Lead, Contact, Account
   > * HubSpot—Contacts

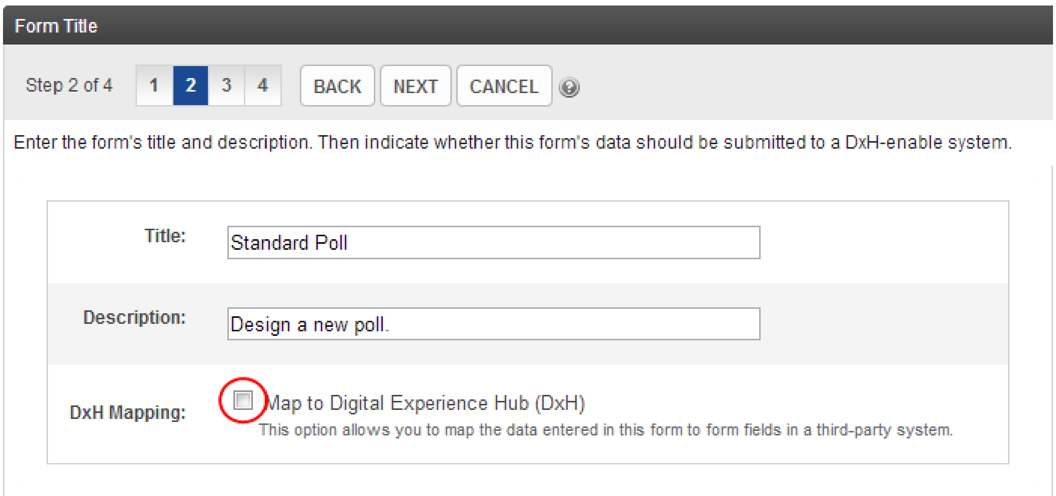
   - Form fields that you will map to an Ektron form.
   - Data type for each form field. Only these types are available in Ektron, so the external application field's data types must match one of them.
     - **Checkbox**—User’s response is checked or unchecked (boolean)
     - **Choices**—Several choices available. User selects any number of choices
     - **Calendar**—A date
     - **Text**—Free text

   > **IMPORTANT:** Coordination is critical when mapping form fields to external applications. Before creating a form, contact your business partner for the application and determine which fields are required to complete the desired action.

2. Create a new HTML form. See Also: *Creating a Form* on page 386

   > **NOTE:** You may only create a form in the Ektron default language.See Also: *Setting the Default Language* on page 1061

3. On the second screen of the Create Form wizard, check **DxH Mapping**.



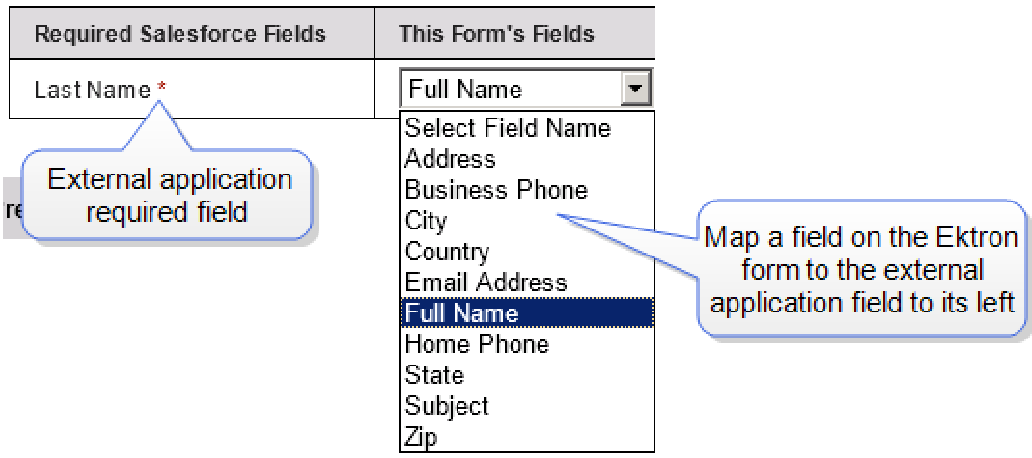
4. Complete the steps for creating the form. When inserting form fields, refer to information collected in Step 1.
5. Publish the form.
6. Edit the form and, from its toolbar, click **Map to DxH**. The Map Form to DxH screen appears.
7. Enter a name for this mapping. It must be unique and easy to recognize.
8. Select the connection to the external application. You created this in *Configuring a Connection to an External Application* on page 1002.

9. From the **Object Type** drop-down, select the external form with which to map this Ektron form. The following forms are supported:
   - **Marketo Lead Management—**Lead
   - **Salesforce—**Lead, Contact, Account
   - **Microsoft Dynamics CRM—**Lead, Contact, Account
   - **HubSpot**—Contact

   NOTE: You obtained the form name in Step 1.

10. Click **Next**. The Map Required Form Fields screen appears. All required external fields appear in the left column. Use the drop-down in the right column to map one Ektron form field to each required field.

    IMPORTANT: The external application field's data type must match the Ektron form field .



11. When the Map Optional Form Fields screen appears, follow instructions in Step 10 to map Ektron form fields to optional external fields.
12. Click **Publish**. The Form Mapping Completed screen appears.
13. Click **Test Form Mapping**. A new form appears, showing fields that you mapped.
14. Enter sample data into each field and click **Test Mapping**. You are notified if the sample data is valid.
15. Click **OK**.

IMPORTANT: The Form Mapping Complete dialog indicates that mapping between form fields and the external application object has been established, but does not indicate that the mapping is valid. You should perform end-to-end system testing to ensure that form fields pass successfully between systems.

When a site visitor submits a mapped form, the external application creates a record (Lead, Account, or Contact). You may edit the record in the external application.

Mapping an Existing Form to an External Application

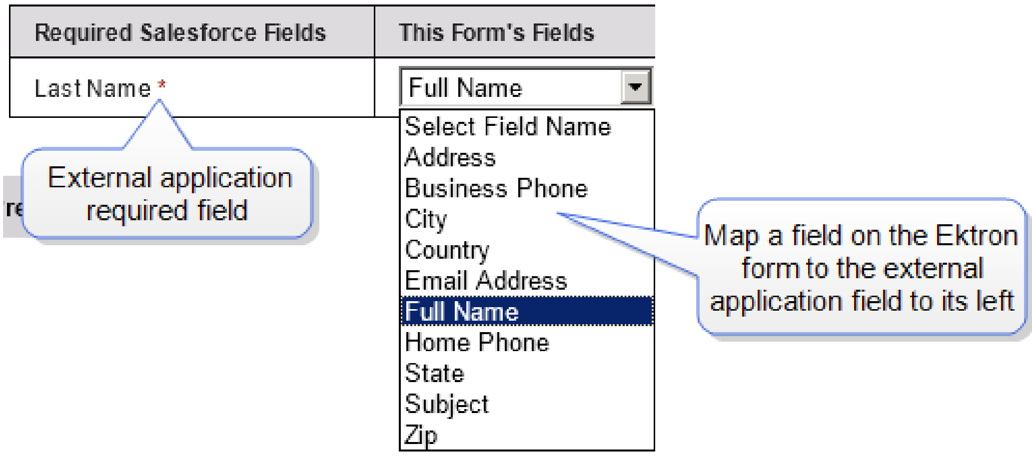
1. Go to **Workarea > Content >** the folder that contains the form.
2. Click the form. The View Form screen appears.
3. Click **Map to DxH**. The Map Form to the Digital Experience Hub dialog appears.
4. Enter a name for this mapping. It must be unique and easy to recognize.

5. Select the connection to the external application. You created this in *Configuring a Connection to an External Application* on page 1002.
6. From the **Object Type** drop-down, select the external form with which to map this Ektron form. The following forms are supported:
   - **Marketo Lead Management—**Lead
   - **Salesforce—**Lead, Contact, Account
   - **Microsoft Dynamics CRM—**Lead, Contact, Account
   - **HubSpot**—Contact

NOTE: You obtained the form name in Step 1.

7. Click **Next**. The Map Required Form Fields screen appears. All required external fields appear in the left column. Use the drop-down in the right column to map one Ektron form field to each required field.

IMPORTANT: The external application field's data type must match the Ektron form field .



8. When the Map Optional Form Fields screen appears, follow instructions in Step 7 to map Ektron form fields to optional external fields.
9. Click **Publish**. The Form Mapping Completed screen appears.
10. Click **Test Form Mapping**. A new form appears, showing fields that you mapped.
11. Enter sample data into each field and click **Test Mapping**. You are notified if the sample data is valid.
12. Click **OK**.

Editing a Form Mapping to an External Application

After a form is mapped to an external application, you can edit the map properties.

1. Go to **Workarea > Content >** *the folder that contains the form*.
2. Click the form. The View Form screen appears.
3. Click **Edit DxH Mapping**. The Map Form to the Digital Experience Hub dialog appears.
4. Edit the form properties as required.
5. Click **Publish**. The Form Mapping Completed dialog box appears.
6. Click **Close**.

Deleting a Mapped Form

If you try to delete a form mapped to an external application, a dialog notifies you that by deleting the form, you are also deleting the mapping. Click **Delete** to delete the form and mapping.

Using the Targeted Content Widget with External Application Data

You can use data collected through Ektron forms and stored in an external application in a Targeted Content widget. When a user submits a mapped form, the external application connector writes a user ID for that login back to Ektron. This enables the delivery of targeted content based on the user's identity.

You can use the Targeted Content widget to personalize a Web page by displaying content based on information from a user-completed form. For example, if the Salesforce lead's industry is healthcare, the page may display content of interest to healthcare professionals. See Also: *Using Widgets* on page 711

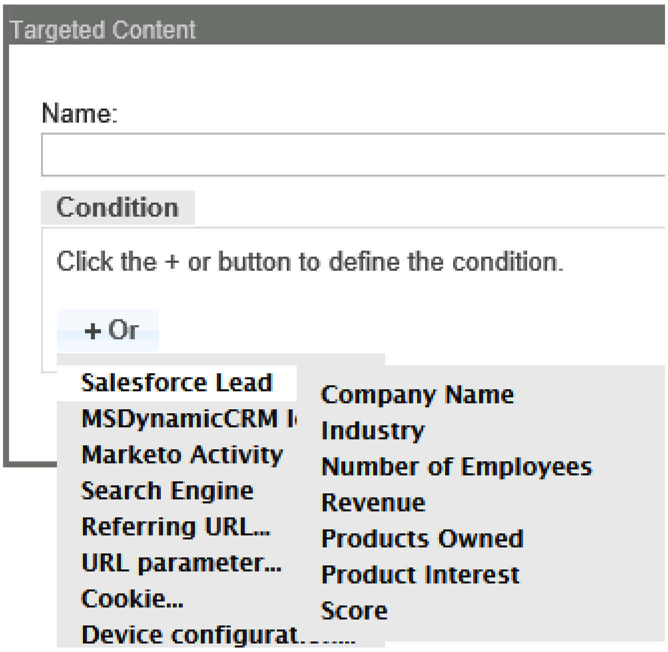
To use DxH with a Targeted Content widget:

1. Determine Targeted Content widget criteria from the external application forms and fields in the `siteroot/dxhTargetingRules.config` file. The following sample shows a portion of this file (which are

   in the file by default).

   ```
   <dxhRules> <Adapter name="Salesforce"> <AdapterObject name="Lead"> <add
   name="Company Name" value="Company"/> <add name="Industry" value="Industry"/> <add
   name="Number of Employees" value="NumberOfEmployees"/> <add name="Revenue"
   value="AnnualRevenue"/> <add name="Products Owned" value="Products Owned"/> <add
   name="Product Interest" value="ProductInterest"/> <add name="Score"
   value="Rating"/> </AdapterObject> </Adapter>
   ```

   - **`dxhRules`**—The file's root tag.
   - **`Adapter`**—The adapter for which to display object rules, such as **Salesforce** or **MSDynamics**. It is *not* the connection name (for example, `marketingSF`).
   - **`AdapterObject`**—The system name of the object within the specified adapter. For example, to enter a Salesforce lead, insert the system name **Lead** (case-sensitive).
   - **`add`—**The field. The `name` attribute contains text that the end user sees (as shown in the following image). The `value` attribute contains the system name of the field.



NOTE: The field's datatype is recognized and automatically surfaced into the correct rule type; numeric rule for an integer or decimal, string rule for a string, a multi-select rule for a pick list, and so on.

2. Access either a Targeted Content widget or a Targeted Content configuration. See Also: *Using Widgets* on page 711; *Using Targeted Content Configurations* on page 744
3. Click the **Or+** button to add a criterion for the widget.
4. Select an adapter and field. For example, **Salesforce Lead > Industry**.
5. Enter additional fields as you would in any Targeted Content widget or configuration.
6. Save the widget and test it.

Troubleshooting Broken Connections

After creating connections to external applications and mapping forms to those applications, you should test the mappings before exposing the forms on a production site. The following errors can occur:

- System errors—DxH or the external application connection is not available.
- Business rule errors—DxH or the external application connection is available, but the contents of the form violate the external application's business rules
- Validation errors—DxH or the external application connection is available, but the contents of the form violate the external application's form field validation rules

Network or server issues may cause a DxH connection to become unavailable. If this happens, a message displays on the View All Digital Experience Hub Connections screen, and the connections are shown as disabled.

Access to SharePoint content is dependent on the following connections:

- **An active DxH connection**—If the DxH connection is unavailable, no content is imported into the CMS and no form data is submitted to external applications.

- **An active inbound connection**—If the inbound connection is unavailable, DxH cannot communicate with the Ektron.
- **An application-specific connection**—If a specific external application connection is inactive, no content is imported into Ektron or no form data is submitted to that external application, but other application connections continue to work normally.

To address the problem, choose from these options:

- Click **Retry** to attempt to re-establish the connection using the same URL as when the connection was first established.
- Select **Add Connection > Connect to DxH** or click on the link in the error message to display the Connect to the Digital Experience Hub page. This lets you change the DxH URL if required.
- Contact your IT Administrator.

An external application or SharePoint connection can become unavailable due to network issues, user account changes, or issues with the server hosting the application.

Use the DxH log to display recent information, warning, and error messages about DxH, inbound, and external application connections, as described in *Monitoring DxH Transactions* on page 1009.

Using DxH with HubSpot

DxH's HubSpot connectors help marketers customize and personalize the site visitor experience. These visitors benefit from a consistent message, as marketers can access customer data available from HubSpot, resulting in more meaningful conversations and enhanced customer experience.

When a prospect submits a form on an Ektron-powered website, a HubSpot lead is automatically created, and campaign information is updated. This process can trigger a HubSpot business rule, which sends an email response to the customer, and routes the lead to the appropriate sales representative.

This section explains how to implement the Ektron DxH to HubSpot connection.

1. Contact your HubSpot partner to obtain
   - authentication information (a hapikey)
   - fields to be collected on the HubSpot form (typically, only an email address)
2. After installing DxH, create an inbound and a HubSpot connection. See *Configuring an Inbound Connection* on page 1001, *Configuring a Connection to an External Application* on page 1002
3. Create an Ektron HTML form to capture customer information. On the second screen of the Create Form wizard, be sure to check **DxH Mapping**. Map the form fields to HubSpot fields. See *Creating a Mapped Form* on page 1018.
4. Publish the form to your Ektron website.
5. A visitor to your website submits the form.
6. The form goes to DxH, which uses HubSpot Connector to route the data to HubSpot.
7. HubSpot creates a contact and, if applicable business logic is in place, associates the form information with the visitor.
8. Use HubSpot contact information in the Targeted Content widget to create a personalized experience when the site visitor return to your site. See *Using the Targeted Content*

Widget with External Application Data on page 1022, Managing Web Experience With DxH and HubSpot.

The Targeted Content widget can determine page content based on information transferred to HubSpot via DxH, such as:

- lifecycle stage, for example, sales qualified lead
- title, for example, Chief Marketing Officer

Use HubSpot's website to learn how to maximize the information collected above. See Also: HubSpot Academy

You can also use Ektron's HubSpot/Aloha plugin to bring HubSpot keywords into the editor experience. The plugin enables content authors to see how well they are targeting keywords as they create content. See Also: Using Hubspot with the editor

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25

Assigning and Managing Tasks

A task is a required action within Ektron, such as updating or publishing content, reordering a collection, or updating an image. You can attach a task to a content item, so that as it progresses through editing and approval, a task tracks those activities.

When working with tasks, you need to understand the following.

- Permissions for creating, redirecting, editing, and deleting tasks.
  - You can create and view tasks for yourself.
  - Administrators can perform all task activities.
  - Others must have roles that let them create a task, redirect a task to another user or group, or delete a task.
  - Only Administrators group members and the user who created a task are authorized to edit it. This is because the Task feature is designed to restrict the actions that most users can perform on their tasks, so that tasks progress through a prescribed series of states.
- You can create and manage tasks from multiple places. For example:
  - If you are setting up tasks for a project that does not yet have content or for work items not related to specific content, create tasks through the **Workarea > Reports > Tasks** folder.
  - If you are browsing a website and notice that a content change is required, create a task from the website.
  - If you are reviewing Workarea content and recognize that a new task is needed, create one from the View Content screen.
- The difference between a task assigned to content and one not assigned to content.
- How task preapproval works.
- How to create and manage task categories and types, which are used to filter tasks.
- How to use task states to indicate the status of a content-associated task

Task states

Task States

Tasks are assigned one of the following states.

- Not Started
- Active
- Awaiting Data
- On Hold
- Pending
- Reopened
- Completed
- Archived
- Deleted
- Purged

Contrasting tasks assigned to content with tasks not assigned to content

Contrasting Tasks Assigned to Content with Tasks not Assigned to Content

There are 2 kinds of tasks, contrasted below. The difference between them involves how a task's state can change.

Tasks assigned to content—Task state changes automatically as the assigned content's status changes. For example, if content is checked out, the task state changes to active. Administrators can manually change the task state at any time. See Also: *How Content Events Change a Task's State* on page 1033

Tasks *not* assigned to content—authorized users manually change a task's state at any time. For example, when a task is finished, you change its state to Completed. Ektron events do not affect these tasks.

This section also contains the following topics.

Working with tasks assigned to content

Working with Tasks Assigned to Content

This section explains how to work with tasks that are assigned to content items.

Creating a task assigned to content

Creating a Task Assigned to Content

- Only members of the Administrators groups and users assigned to the Tasks-Create role can create tasks.

1. Create a task and assign it to content from any of these locations.

   NOTE: In the second and third options, you choose a content item then select a task. In these cases, you have already selected the task's content and language.

   - **Workarea > Reports > Tasks > Assigned by and to me >** click **Add**. The Add Task screen appears.
   - **Workarea > Content > *folder* > *content* >** View Content screen **>** click **Add Task** ( ).
   - a website by clicking the access point ( ) or content menu ( ) **> Add Task**.
2. Complete the Add Task screen.
   - **Title**—Enter a title for the task.
   - **Assigned To**—To assign the task to anyone who can edit the assigned content (**All Authors**), proceed to the next field. Otherwise, click **Select User or Group** and choose a user or group.

NOTE: You can only assign a task to someone else if you are a member of the Administrators group or assigned the Tasks-Redirect role. If you don't have this capability, the task is assigned to anyone who can edit the assigned content (**All Authors**).
The user to whom a task is being assigned must have edit permission for the content.

- **Language**—Select the language of the content to be assigned to the task.
  If you accessed the Add Task screen from the View Content screen or a website, the language is selected, and you cannot change it.
- **Content**—Click **Select**. A new window appears from which you can navigate to the content. You see only content in the selected language and for which you have at least read-only permission.
  If you accessed the Add Task screen from the View Content screen or a website, the content is selected, and you cannot change it.
- **Priority**—Select the priority of the task. Your choices are High, Normal, and Low. You can sort tasks by priority on the View Tasks screen.
- **Category**—If desired, select a category for the task. If you choose a Task Category, the Task Type drop-down box is auto-filled with task types associated with that category. See Also: *Setting Up Task Types and Categories* on the facing page.
- **Type**—If desired, select the Task Type for this task. You must specify a Task Category before you assign a task type. See Also: *Setting Up Task Types and Categories* on the facing page.
- **Add**—If you want to add Task Categories and Task Types, click **Add**. See Also: *Setting Up Task Types and Categories* on the facing page

WARNING! If you add a Task Category or Task Type while adding a task, the task information entered (Task Title, Assigned To, Language, and so on) is lost when the screen refreshes.

- **Edit**—By clicking the **Edit** link, you can edit the Task Type.

WARNING! If you edit a Task Type while adding a task, the task information (Task Title, Assigned To, Language, and so on) entered will be lost when the screen refreshes.

- **State**— The state is set to **Not Started** and cannot be edited. You can sort tasks by state on the View Tasks screen. To learn more about the interaction of content status and task state, see *How Content Events Change a Task's State* on page 1033.
- **Start Date**—Using the calendar button, choose a start date for the task. The start date appears on the View Tasks screen, where users can sort tasks by start date.
- **Due Date**—Using the calendar button, choose the date by which the task needs to be completed. The due date appears on the View Tasks screen, where users can sort tasks by due date.

  If you see a mix-up of the month and date of your entry (for example, you select March 2 but see February 3), make sure the date format specified in the Windows Control Panel Regional Settings dialog matches your current language. Also, make sure the settings apply to the default user.
- **Description**—Add additional information to describe the task. The description appears on the View Task screen.

3. Click **Save**. If email notification is enabled, an email is sent to the user or group to which the task was assigned.

Setting up task types and categories

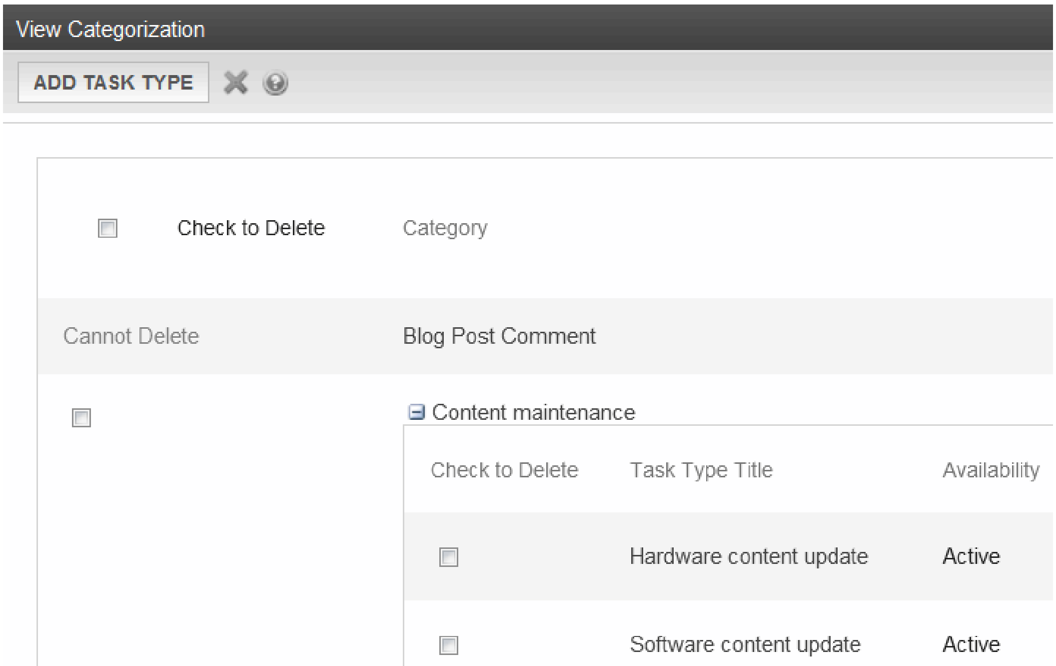
Setting Up Task Types and Categories

You can organize tasks by *category* and *type*. You can assign several types to each category. For example:

- Task Categories: Content Maintenance, Engineering, Sales, Documentation, Web Design, and so on.
- Task Types: Hardware content update, Software content update, Edit Content, Update Documents, Contact Customer, and so on.

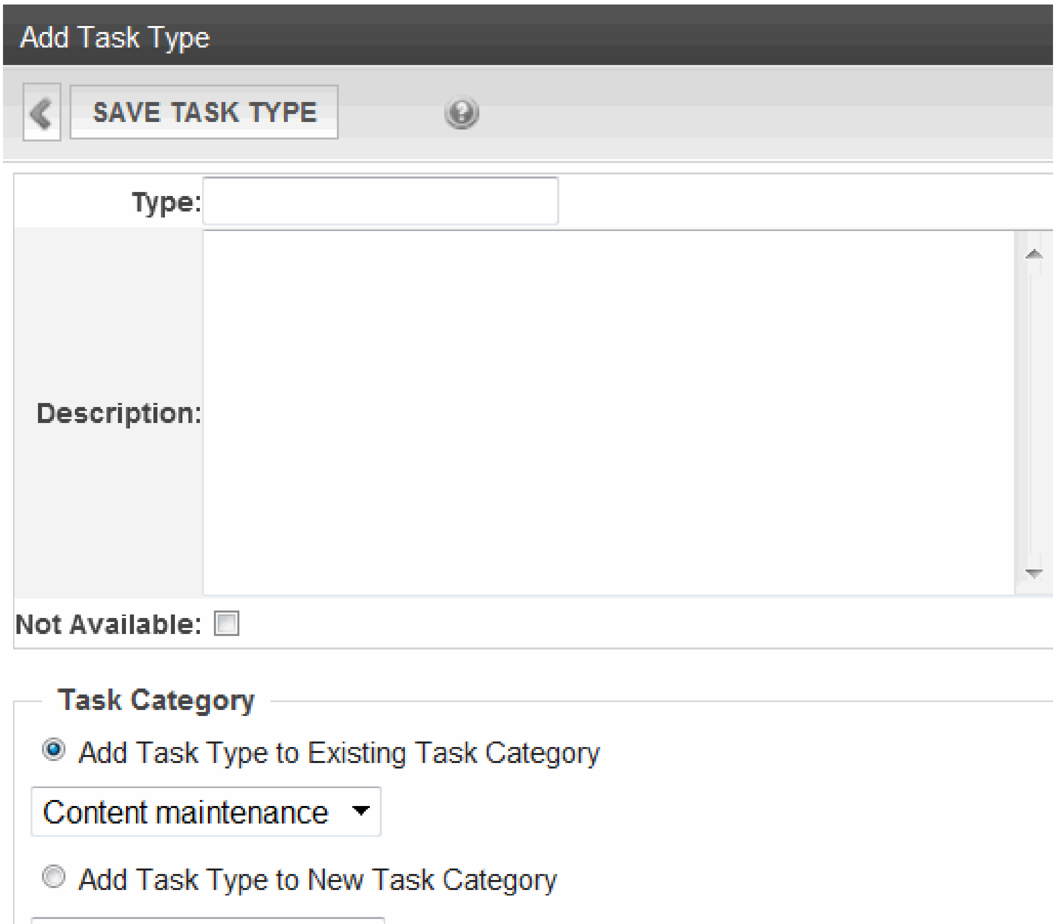
You can use task categories and types to filter tasks. See *Filtering Tasks By Task Type* on page 1039.

1. Go to **Workarea > Settings > Configuration > Task Types**. To collapse a Task Category, click next to the Task Category name; to expand one, click .
   —Image—



NOTE: The View Categorization screen has a system-defined category (Form Submission Task) that can only be used with forms. You can change its name but cannot delete it. For more information, see *Working with HTML Forms* on page 386.

2. From the View Categorization screen, click **Add Task Type**. The Add Task Type Screen appears.
   —Image—



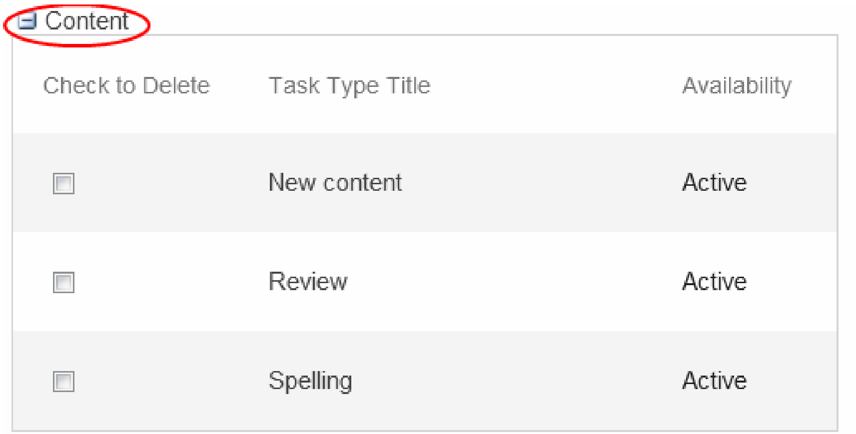
3. In the Task Category area, choose an existing Task Category from the drop-down menu, or enable the **Add Task Type to New Task Category** radio button and enter a new category name in the **text** field.
4. Add a Task Type name in the **Task Type** field.
5. Enter a **Task Type Description**.
6. Choose a Task Type Availability.

   You can hide Task Types from users by enabling **Not Available** in the Add Task Type and Edit Task Type screens. If you make a Task Type unavailable, the assigned task's **Type** and **Category** are changed to **Not Specified**.
7. Click **Save Task Type**.

Editing a task category

Editing a Task Category

1. From the View Categorization screen, click the task category whose name you want to change.
   —Image—



2. In the text box screen next to the category name, enter the new name.

3. Click **Save Category** ().

Deleting a task category or task type

Deleting a Task Category or Task Type

1. From the View Categorization screen, click the check boxes next to the Task items you want to delete.
2. Click **Delete** (). A confirmation box appears.
3. Click **OK**.

How content events change a task's state

How Content Events Change a Task's State

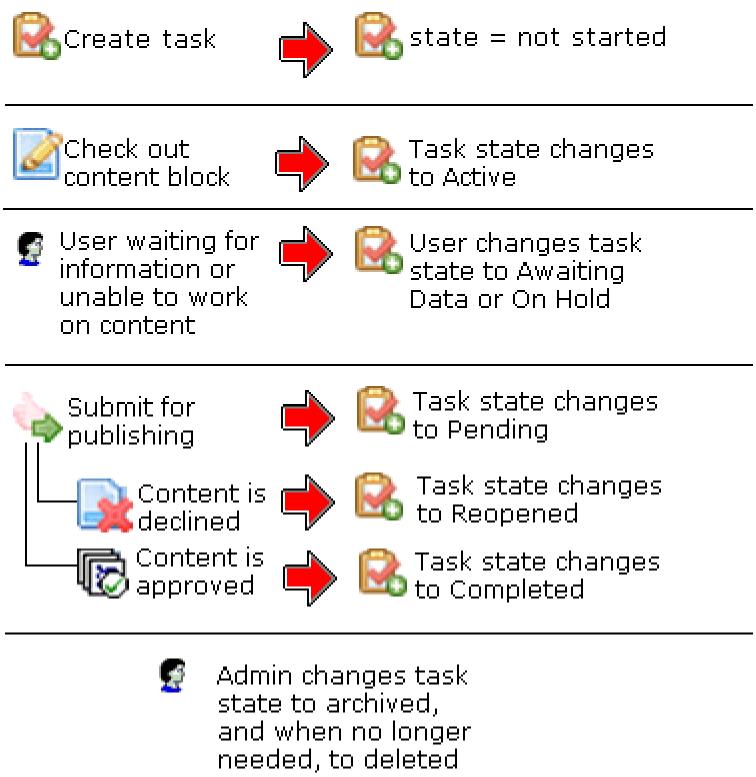
A task assigned to content typically moves through a series of states, from creation to completion to removal. A task's history shows each state, when it was assigned, and who assigned it.

Many states are assigned automatically when associated content undergoes a change. For example, when content is submitted for approval, the task’s state changes to *Pending*. Some states are manually assigned by users.

IMPORTANT: At any time, an Administrators group member can change a task’s state to any other state.

Here is the sequence of user and system actions that change a task’s state.

—Image—



Here is the progression of states for tasks assigned to content.

- **Not Started**—System action—Automatically assigned when task is created.
- **Active**—System action—The task's content was checked out at some point. It may currently be checked in.
- **Awaiting Data**—User action—The task is started but the assigned-to user is awaiting information from an external source. Use comments to indicate the data required for task reactivation.
- **On Hold**—User action—Task cannot be worked on at this time.
- **Pending**—System action—Content is submitted for approval.

  If the current approver edits content then submits it for approval, its status changes to **T** (awaiting completion of associated tasks), and all tasks assigned to the content are set to Pending. At that point, an authorized user must change the status of all assigned tasks to **Completed**. Then, all approvers must approve the content to publish it.
- **Reopened**—System action—Content is declined by an approver in the approval processworkflow. Or, if someone edits content whose task state is Pending, it changes to Reopened.
- **Completed**—System action—The content is published.
- **Archived**—User action—After a task is completed, administrators can assign this state. It no longer appears on open task lists but is kept for reviews and reports. Only the administrator can view Archived tasks. See *Archiving a Task* on page 1036.
- **Deleted**—User action—When an archived task is no longer needed for reporting or reviewing, administrators can assign this state. While in this state, the task remains in the database. See *Deleting a Task* on page 1036.

- **(Purged*)**—User action—When you purge a task, it and all of its transactions are removed from the database, so the purged state does not actually show. Only administrators and users with Task-Delete role can purge. See *Purging a Task* on page 1037.

You can receive email notification of changes in status for tasks and associated content. See *Installing Ektron* on page 9 about setting up email notifications.

Editing a task

Editing a Task

Only Administrators group members and the user who created a task are authorized to edit it. If the person to whom a task is assigned is not authorized, that person can only view it and insert a comment. The Task feature restricts most users' ability to edit tasks, so that they progress through a prescribed series of states.

Authorized users can manually edit any task information (except **Assigned By, Task ID**, and **Created By**).

NOTE: System events automatically change a task's state. See Also: *How Content Events Change a Task's State* on page 1033

1. Go to **Workarea > Reports > Tasks > All open Tasks**.
2. Click the task. The View Task screen appears.
3. Click **Edit**. The Edit Task screen appears.
4. Edit task information and click **Update**.

Adding comments to a task

Adding Comments to a Task

Only members of the Administrators group, the user who created a task, and the user to whom a task is assigned can add comments to it.

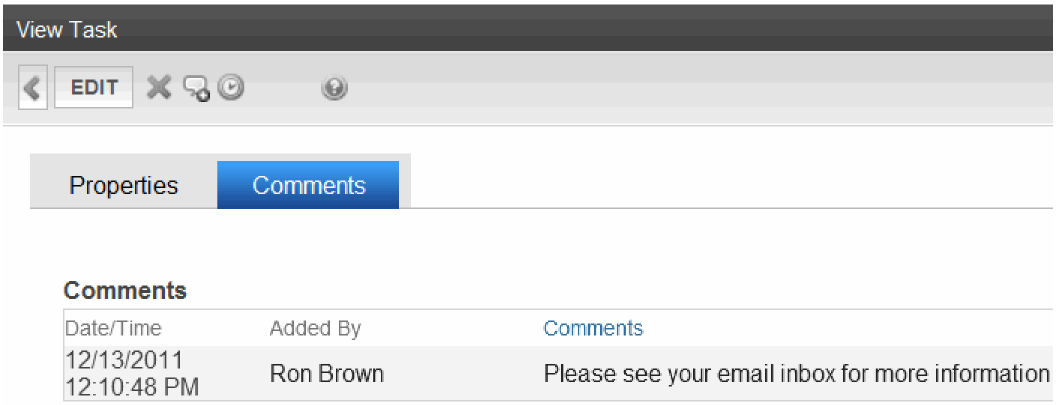
Comments can be added to a task to record its progress from assignment to completion.

Comments appear on the **Comments** tab of the View Task screen. If a task is assigned to content, and an approver approves or declines content from the Content Awaiting Approval screen, the Add Comments to Task screen appears. The screen lets the approver add comments about the task associated with the content.

Authorized users also can add comments to a task at any time to provide additional information about its status. For example, if you update a task’s status from *In progress* to *Waiting on Someone Else*, you can use a comment such as: *Please review for grammar and punctuation.*

1. Go to **Workarea > Reports > Tasks > All open Tasks** (or any other type of task).
2. Click **Add Comment** ( ). The Comments window appears.
3. Enter a comment.

4. Click **Insert**. The View Task screen reappears. The comment appears on the **Comments** tab.
   —Image—



To update a comment, click its **Date/Time** link.

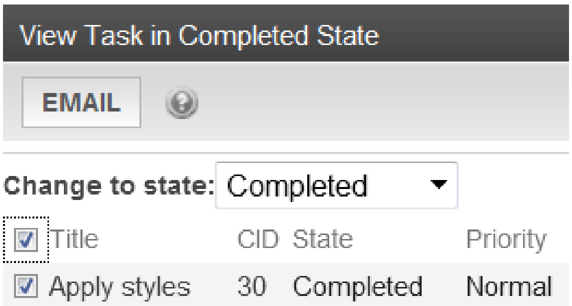
Archiving a task

Archiving a Task

- Only members of the Administrators group or users to whom a task is assigned can change its status to archived.

To clean up completed tasks while keeping a record of the tasks, move selected tasks to the Archived Tasks list. This helps you focus on more recent task completions.

1. Go to **Workarea > Reports > Tasks** and choose the type of task that you want to archive. (Typically, you archive completed tasks.) The View Task screen appears.
2. Select tasks one at a time, or click the check box in the top left corner to select all.
   —Image—



3. In the **Change to State** field, choose **Archived** from the drop-down list.
4. Click **Set**.

Deleting a task

Deleting a Task

- Only Administrators group members and users assigned to the Task-Delete role can delete a task.
- Users can only delete tasks that they can view. See *Determining Which Tasks are Visible* on page 1039

You can delete a task that is no longer needed, such as after it is completed or archived, depending on your organization's policies.

1. Go to **Workarea > Reports > Tasks**.
2. Choose the type of task that you want to delete (for example, **All Open Tasks**). The View Task screen appears.
3. Click the task that you want to delete.
4. Click **Delete** (). A confirmation message appears.
5. Click **OK**.

Deleting several tasks at once

Deleting Several Tasks at Once

1. Go to **Workarea > Reports > Tasks** and choose the state of tasks that you want to delete. The View Task screen appears.
2. Select 1 or more tasks, or click the check box in the top left corner to select all.
3. Choose **Deleted** from the **Change to State** drop-down.
4. Click **Set**.

Purging a task

Purging a Task

- Only members of the Administrators group or users to whom the Task-Delete role is assigned can purge a task.

WARNING! Purging removes a task and its history from the database.

1. Go to **Workarea > Reports > Tasks > Deleted**.
2. Select tasks one at a time, or click the check box in the top left corner to select all.
3. Click **Purge**.

Viewing a task

Viewing a Task

Only members of the Administrators group, the user who created a task, and the user to whom a task is assigned can view it. See Also: *Determining Which Tasks are Visible* on page 1039

You can view a task in the following ways.

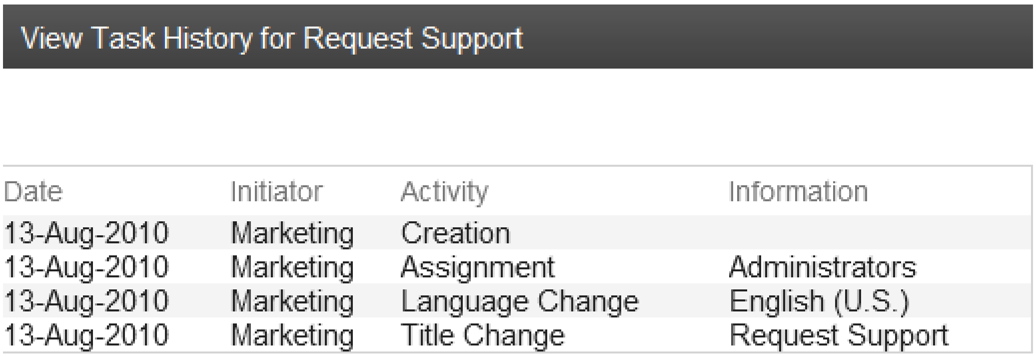
- If a task is assigned to content
    1. Go to **Workarea > Content > *folder*** and click content associated with a task.
    2. Click the **Tasks** tab to see the content's tasks.
- Whether or not a task is assigned to content
    1. Go to **Workarea > Reports > Tasks > *type of task***. For example, **All open Tasks**.
    2. Click the task you want to view.
- Viewing a task's history

  Ektron maintains a history of events and comments in the life of a task. For example, the history shows when and by whom the task was created, when it changed to Active, was linked to content, its state changed, it was approved, and so on.

  NOTE: You can view a task's history until it is purged.

    1. Go to **Workarea > Reports > Tasks > *type of task***. For example, **All open Tasks**.
    2. Click a task. The View Task screen appears.
    3. Click **History** ( ). The history of task events appears.

    —Image—



View Task History for Request Support

Date	Initiator	Activity	Information
13-Aug-2010	Marketing	Creation	
13-Aug-2010	Marketing	Assignment	Administrators
13-Aug-2010	Marketing	Language Change	English (U.S.)
13-Aug-2010	Marketing	Title Change	Request Support

Viewing task reports

Viewing Task Reports

The **Workarea > Reports > Tasks** folder displays all tasks, many filtered by task state.

Only Administrators group members , the user who created or assigned a task, or the user to whom a task is assigned can view it. See Also: *Determining Which Tasks are Visible* on the facing page

The following list shows the types of tasks that authorized users can view, filter, and assign to other users.

Show the types of tasks

- **All open Tasks**—shows all tasks whose status is one of the following:

  NOTE: Authorized users also can edit a task from this task state.

  - not started
  - active
  - awaiting data
  - on hold
  - reopened
  - pending
- **Assigned by and to me**—tasks assigned to you, and tasks you assigned to yourself or someone else
- **Assigned to me**—tasks assigned to you
- **Assigned by me**—tasks you assigned to someone else
- **Created by me**—tasks you created
- **Assigned to User**—tasks you assigned to a user
- **Not started**—tasks whose state is *Not started*
- **Active**—tasks whose state is *Active*
- **Awaiting Data**—tasks whose state is *Awaiting Data*
- **On Hold**—tasks whose state is *On Hold*
- **Pending**—tasks whose state is *Pending*
- **Reopened**—tasks whose state is *Reopened*
- **Complete**—tasks whose state is *Complete*
- **Archived**—tasks whose state is *Archived*
- **Deleted**—tasks whose state is *Deleted*

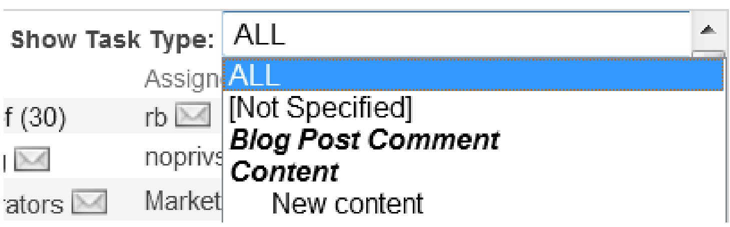
  NOTE: You can also purge tasks from the **Deleted** task state.

Filtering tasks by task type

Filtering Tasks By Task Type

Every View Task screen lets you filter tasks by type. Use the **Show Task Type** drop-down to choose a Task Type. Only Task Types that are applied to a task appear in the Show Task Type drop-down box.

NOTE: Words in ***bold italics*** are Task Categories. You cannot filter by Task Categories.



Determining which tasks are visible

Determining Which Tasks are Visible

To provide security, Ektron restricts which users can view which tasks. The following table shows the Viewing options by user or group.

View option	Administrator group member	User or group member to whom task assigned	User who assigned task	User who created task
All Open *	X			
Assigned by Me *			X	
Assigned to Me *		X		
Created by Me *				X
Assigned to User	X			
Not Started	all tasks in specified state	only tasks assigned to user in Not Started state		
Active	all tasks in specified state	only tasks assigned to user in Active state		
Awaiting data	all tasks in specified state	only tasks assigned to user in Awaiting data state		
On hold	all tasks in specified state	only tasks assigned to user in on hold state		
Pending	all tasks in specified state	only tasks assigned to user in Pending state		
Reopened	all tasks in specified state	only tasks assigned to user in Reopened state		
Completed	all tasks in specified state	only tasks assigned to user in Completed state		
Archived	all tasks in specified state			
Deleted	all tasks in specified state			

*—user can only view tasks in a not started, active, awaiting data, on hold, pending, or reopened state

Working with Tasks Unrelated to Content

This section explains how to create tasks for activities that are unrelated to specific content items.

- Only members of the Administrators groups and users assigned to the Tasks-Create role can create tasks.

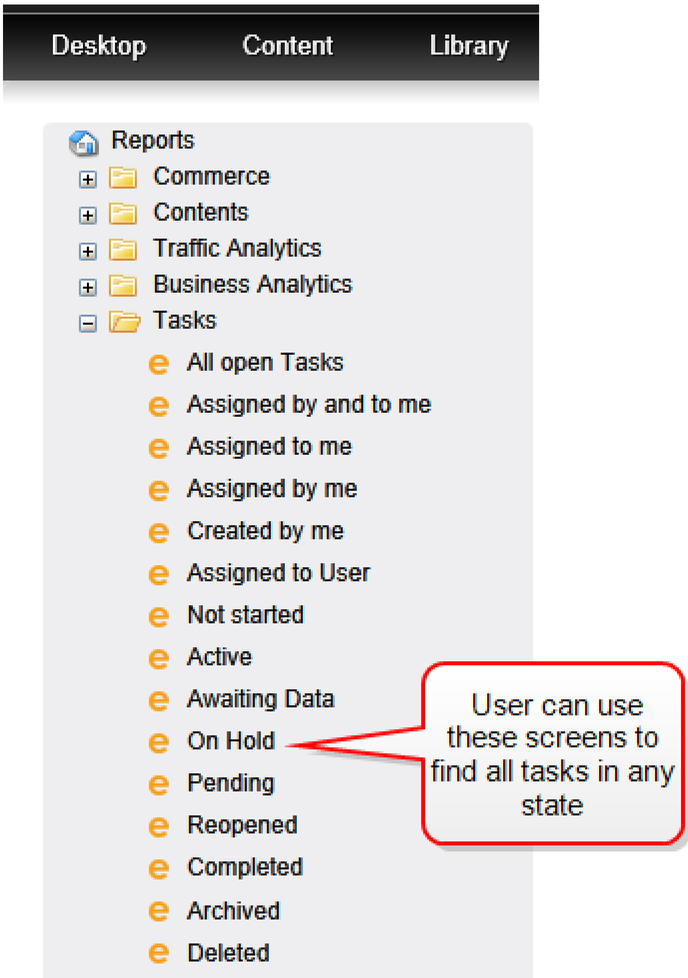
1. **Workarea > Reports > Tasks > Assigned by and to me >** click **Add**. The Add Task screen appears.
2. Enter the following information.
   - **Title**—Enter a title for the task.
   - **Assigned To**—Click **Select user or group** and choose a user or group to assign to the task.
   - **Language**—Ignore.
   - **Content**—Ignore.
   - **Priority**—Select the priority of the task. Your choices are High, Normal and Low. The priority appears on the View Tasks screen, where a user can sort tasks by priority.
   - **Category**—If desired, select a category for the task. If you choose a Task Category, the Task Type drop-down box is auto filled with task types associated with that category. See Also: *Setting Up Task Types and Categories* on page 1031.
   - **Type**—If desired, select the Task Type for this task. You must specify a Task Category before you assign a task type. See Also: *Setting Up Task Types and Categories* on page 1031.
   - **Add**—If you want to add Task Categories and Task Types, click **Add**. See Also: *Setting Up Task Types and Categories* on page 1031

     WARNING! If you add a Task Category or Task Type while adding a task, the task information entered (Task Title, Assigned To, Language, and so on) is lost when the screen refreshes.

   - **Edit**—By clicking the **Edit** link, you can edit the Task Type.

     WARNING! If you edit a Task Type while adding a task, the task information (Task Title, Assigned To, Language, and so on) entered will be lost when the screen refreshes.

   - **State**— Select a task state to indicate the task's completion status. To find any task, users can select from options below the Tasks folder to view all tasks in that state.
     —Image—



- **Start Date**—Using the calendar button, choose a start date for the task. The start date appears on the View Tasks screen, where users can sort tasks by start date.
- **Due Date**—Using the calendar button, choose the date by which the task needs to be completed. The due date appears on the View Tasks screen, where users can sort tasks by due date.

  If you see a mix-up of the month and date of your entry (for example, you select March 2 but see February 3), make sure the date format specified in the Windows Control Panel Regional Settings dialog matches your current language. Also, make sure the settings apply to the default user.
- **Description**—Add additional information to describe the task. The description appears on the View Task screen.

3. Click **Save**. If email notification is enabled, an email is sent to the user or group to which the task was assigned.

What happens to a task unrelated to content after it is created

What Happens to a Task Unrelated to Content after it is Created

After a task is created, the user to whom it is assigned would typically perform some aspect of the task. Then, that user would use the **Assigned to me** screen to change its state as appropriate. For example, the user might change its state to Completed. Or, the user might change its status to On Hold and assign it to someone else.

The following activities can be performed on a task not related to content.

- *Setting Up Task Types and Categories* on page 1031
- *Editing a Task* on page 1035
- *Adding Comments to a Task* on page 1035
- *Archiving a Task* on page 1036
- *Deleting a Task* on page 1036
- *Purging a Task* on page 1037
- *Viewing a Task* on page 1037
- *Viewing Task Reports* on page 1038

Setting up an automatic task for pre-approving content

Setting Up an Automatic Task for Pre-approving Content

You can set up a preapproval task to require 1 or more users to approve content before it enters the regular approval process. See Also: *Creating an Approval Chain for a Content Folder* on page 264

NOTE: You also can create a task automatically when a form is submitted. See Also: *Assigning a Task to a Form* on page 421

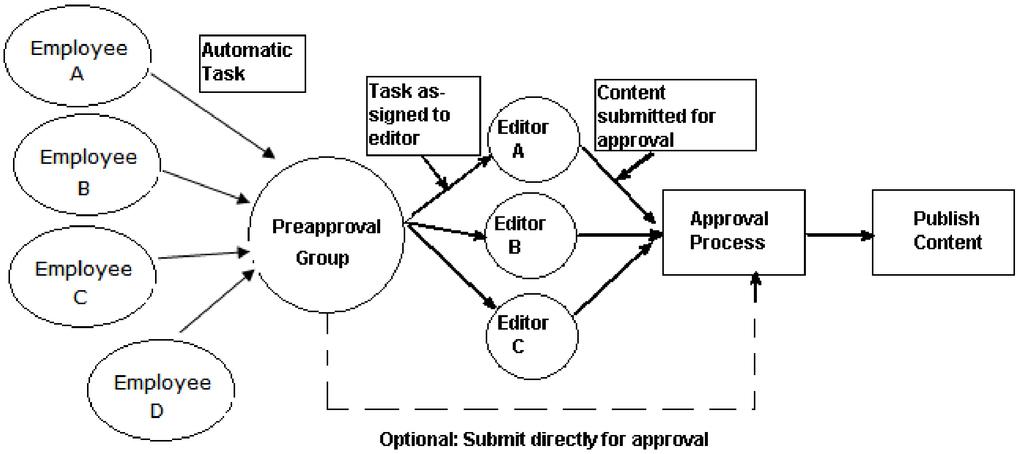
Overview

When a user submits content for approval, Ektron checks to see if an open task exists for it. (An open task is one whose state is Not Started, Active, Awaiting Data, On Hold, or Pending.) If none exists but a preapproval group is assigned to its folder, a task is automatically created for the content. When the task is reviewed by any preapproval group member, there are 2 choices.

- Assign the task to another user, such as an editor. (The user to whom the task is being assigned must have permission to edit the content.) The editor reviews the content, updates it as needed, and submits it into the regular workflowapproval process.
- Review the content and submit it for publishing. This action completes the preapproval process and submits the content into the regular workflowapproval process.

NOTE: The user submitting the content does not need permission to create tasks. Also, the user assigned to the task should not change its state using the task system. Instead, the user should review and approve content using the content approval mechanism. That mechanism automatically changes the task's state.

—Image—



The new task has the following default information.

- **Title**—A string formulated by joining the content title, content ID number, underscore (_), and `Task`. For example, `Private Content2_Task`.
- **Assigned to**—The preapproval group
- **Assigned by**—The user who submitted the content
- **Content**—The content submitted for approval
- **Priority**—Normal
- **State**—Not Started
- **Due date**—none
- **Start date**—none
- **Created by**—User who submitted content
- **Description**—none

The following list shows the sequence of changes to content and its associated task. All changes are logged in the task's history. Also, email is automatically generated for automatic tasks as it is for manually-created tasks.

Task/content statuses (author cannot approve)

Task/Content Statuses (Author cannot approve)

- Content is created and checked in
  - Content status: Checked In
  - Task state: No auto task assigned
- Content is submitted for approval

  NOTE: This action creates an automatic task for the content.

  - Content status: Waiting for completion of associated tasks
  - Task state: Not Started
- Content is assigned by a preapproval group member to an editor
  - Content status: Waiting for completion of associated tasks
  - Task state: Not Started

- Editor updates content then checks it in
  - Content status: Checked In
  - Task state: Active
- Content is submitted for approval; it enters any workflowapproval process set for the folder or content

  NOTE: Because the task requires an approval, it appears in the task list of the current approver. When the content is approved, the task is moved to the next approver's task list.

  - Content status: Submitted for Approval
  - Task state: Pending
- Approver denies request
  - Content status: Checked In
  - Task state: Reopened
- Approver approves content
  - Content status: Approved
  - Task state: Complete

Task/content statuses (author can approve)

Task/Content Statuses (Author can approve)

- Content is created then checked in
  - Content status: Checked In
  - Task state: No auto task assigned
- Content is edited then checked in
  - Content status: Checked In
  - Task state: Active
- Content is submitted for approval

  NOTE: Although an author can approve content, the author must click **publish** twice: once to change content status to Awaiting Completion of Associated Task, and a second time to change it to Approved.

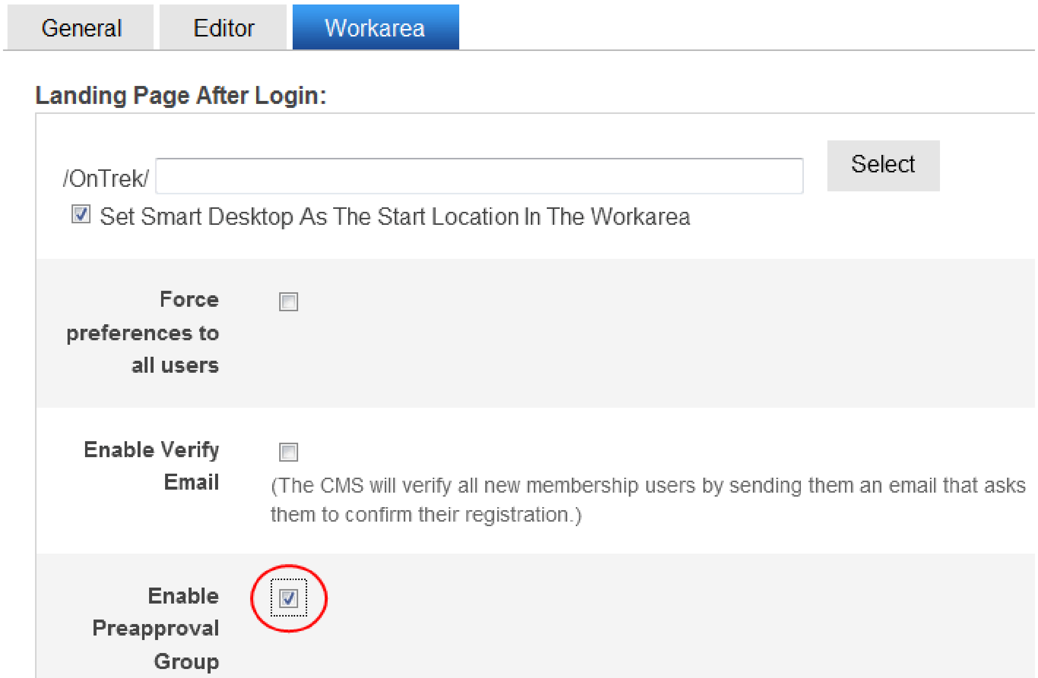
  - Content status: Pending
  - Task state: Not Started
- Content is published
  - Content status: Approved
  - Task state: Completed

Enabling task preapprovals

Enabling Task Preapprovals

To set up an automatic preapproval group:

1. Go to **Workarea > Settings > Configuration > Setup > Application Setup > Workarea** tab **> Enable Preapproval Group** and check the box.
   —Image—

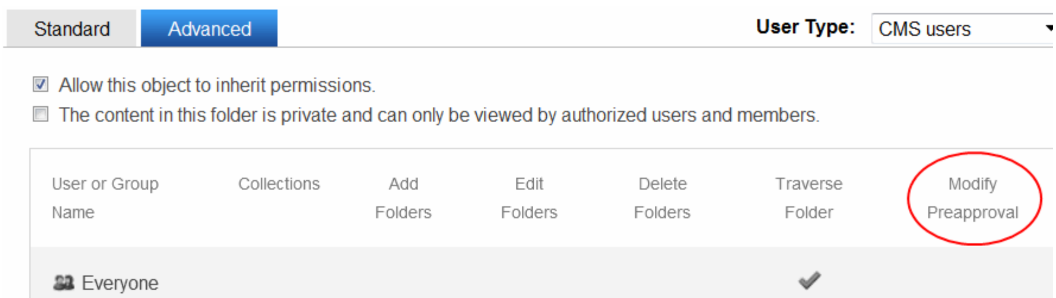


2. Assign user groups to folders whose content must complete the preapproval process before it enters the regular workflowapproval process.

You can choose (or update) a preapproval group only if these criteria are both true.

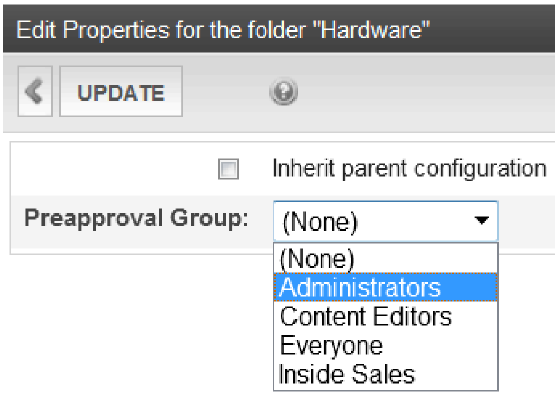
- The **Enable Preapproval Group** field is enabled (see Step 1 above)
- You are an administrator or a user that has the **Modify Preapproval** permission enabled on the Advanced tab of a folder's View Permissions screen. To view permissions, click a folder, then choose **View > Properties > Advanced > View Permissions** ().

  —Image—



   a. Go to the folder's properties screen and click **Modify PreapprovalGroup** () to access the **PreApproval Group** field. The Edit Properties screen appears.

—Image—



b. Check the **Inherit parent configuration** box if you want this folder to inherit the preapproval group from its parent folder. If you choose a user group, an automatic task is assigned to that group whenever content in that folder is created or updated.

NOTE: The Preapproval Groups Report lists all preapproval groups assigned to Ektron folders. To access it, go to **Workarea > Reports > Contents > Preapproval Groups**.

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26

Creating Business Rules for Your Website

PREREQUISITE

Only members of the Administrators user group and those defined in the Manage Members for Role: Add Role Member Business Rule Editor screen can work with Business Rules. See Also: *Defining Roles* on page 1120

Business Rules let you define conditions for Web pages on your site. You choose an action based on whether the conditions are true or false when a site visitor browses your site. For example:

- **Condition—**a site visitor visits your site for the first time
- **Action**—add a cookie to the site visitor's computer and display a welcome message

With Business Rules, you do not write code to set conditions and initiate actions. You simply complete the Business Rules wizard, have your developer add a Business Rules server control to your Web form, and assign a Business Ruleset to the server control. See Also: *BusinessRules* on page 1671 server control.

Business Rules start out with a ruleset made up of one or more rules. Rules consist of conditions and actions. There are several predefined conditions and actions for rules.

Conditions include:

- Cookie Parameter = value
- Form Parameter = value
- QueryString Parameter = value
- Server Variable = value
- Custom Parameter = value

Actions include:

- Display a calendar
- Display a message
- Open a URL in a new window
- Pop up a message
- Redirect to a new URL
- Set a cookie value
- Display content

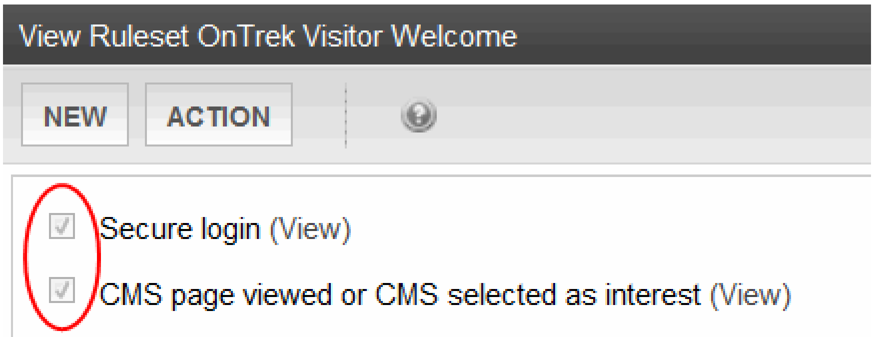
When a rule is defined, you can add it to multiple rulesets. This is useful if several rulesets use a common rule.

This section also contains the following topics.

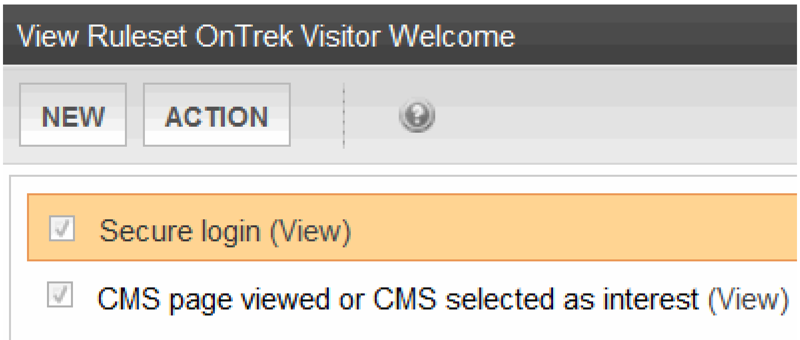
Selecting a Rule

There are 2 ways to select an existing rule:

- **Check boxes**—allow you turn a rule on or off by clicking the check box. Checked, the rule is active; unchecked, the rule is inactive.



- **Highlighting**—used when you want to work with a rule; for example, you want to edit or delete a rule. To highlight a rule, click its title.



Creating a New Business Ruleset

1. Navigate to **Settings > Business Rules**.
2. Click **Add New Ruleset**. The Add New Ruleset screen appears.
3. In the **Name** text box, add a unique, descriptive name for the ruleset.
4. Click **Save Ruleset**. The View Ruleset screen appears.

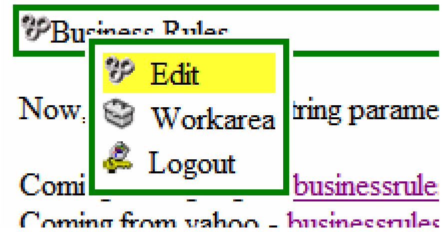
You can now add a rule (as described in *Add a New Rule to a Ruleset* on page 1053) or click **Back** ( ) and return to add a rule later.

Working with Rulesets

After creating a ruleset, you typically add rules to it via the View Ruleset screen. This screen is the launch pad for working with existing rulesets or creating new rulesets.

Edit a Ruleset

You can edit a ruleset from 2 locations: the Web page or the Workarea. To edit a ruleset from the Web page, navigate to a Business Rule on a Web page while logged in. Then, right click the Business Rule icon and click **Edit**.



To edit from the Workarea:

1. Navigate to **Settings > Business Rules**. The Business Ruleset screen appears.
2. Click the ruleset name.
3. Click **Action > Edit Ruleset**. The Edit Ruleset screen appears.
4. From this screen, you can make a rule inactive (*Selecting a Rule* on page 1050), remove a rule from the ruleset (*Remove a Rule From a Ruleset* below), or change the order in which rules are applied (*Change the Order of Rules in the Ruleset* below).

Remove a Rule From a Ruleset

1. Navigate to the Edit Ruleset screen, as explained in *Edit a Ruleset* on the previous page.
2. Highlight the rule you want to remove.

   IMPORTANT: The rule must be inactive (check box deselected) for you to remove the rule. If the check box is not empty, the rule will only appear as though it has been removed.

3. Click **Remove Rule** ( ). A window indicates that the rule will be removed from this ruleset only.
4. Click **OK**. The rule is removed from the Edit Ruleset screen.
5. Click **Save Ruleset**.

Change the Order of Rules in the Ruleset

The order of rules in a Ruleset affects their application when a site visitor views a page. For example, you want to display a welcome message before a content item. To accomplish this, move the rule for the welcome message above the rule for a content item.

1. Navigate to the **Edit Ruleset** screen, as explained in *Edit a Ruleset* on the previous page.
2. Highlight the rule you want to reorder.
3. Click the up and down arrow buttons to move the rule within the list.
4. Click **Save Ruleset**.

Delete a Ruleset

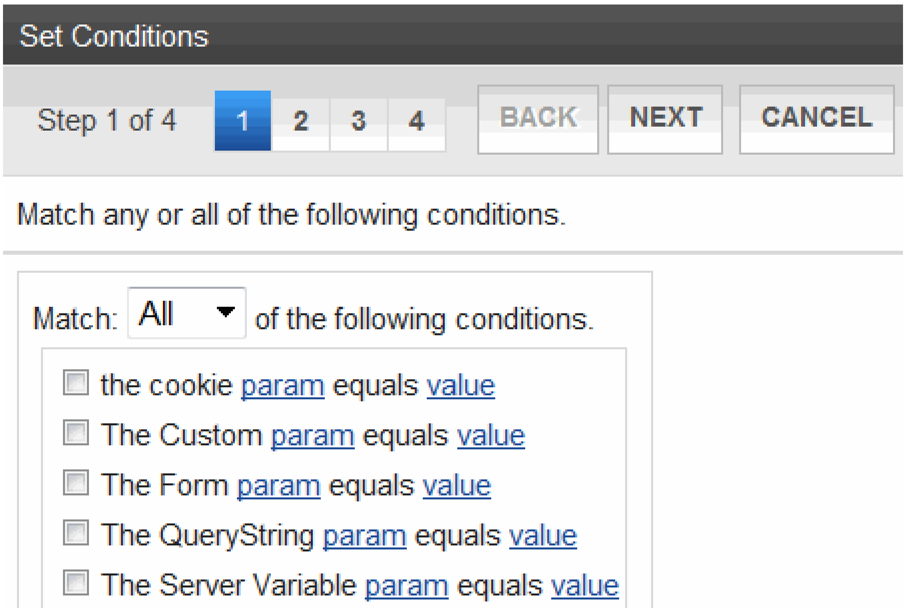
When you delete a Ruleset, it is removed from the system permanently. However, rules in a Ruleset are not deleted because they can be used in multiple Rulesets.

1. Navigate to **Settings > Business Rules**. The Business Rulesets screen appears.
2. Click the ruleset name.

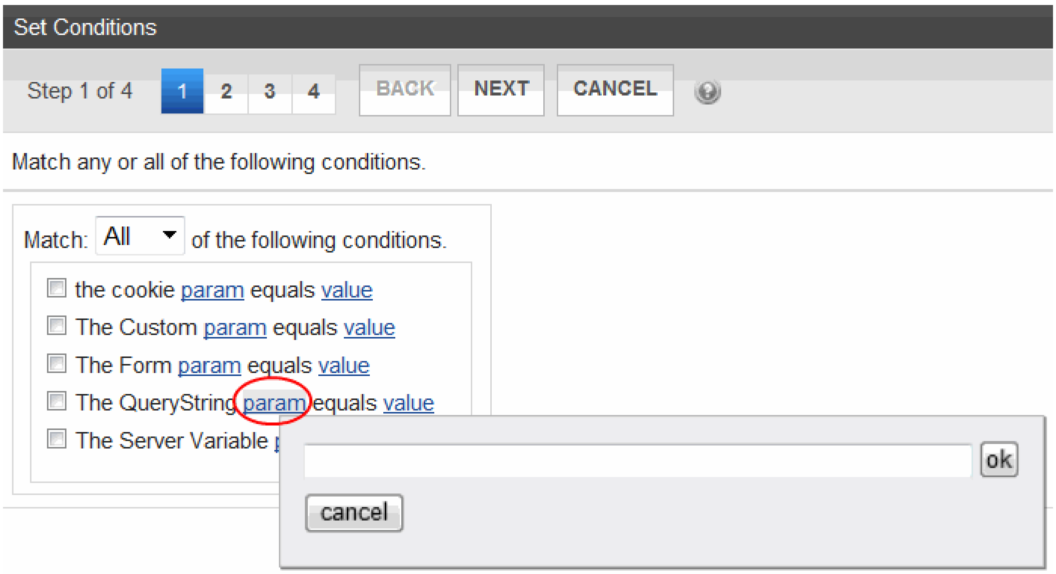
3. Click **Action > Delete Ruleset**. A dialog asks you to confirm the deletion.
4. Click **OK**.

Add a New Rule to a Ruleset

1. Navigate to **Settings > Business Rules**. The Business Rulesets screen appears.
2. Click the Business Ruleset for which you want to create a new rule.
3. Click **New > Add New**. The Rules Wizard launches and helps you define a rule.



4. Wizard Step 1 prompts you to create conditions for the rule and decide whether a site visitor needs to match Any or All conditions. Click the param and value links to open a dialog to enter information.



5. Place a check next to any condition you want to use. Use the following list to help you complete the param and value fields.
   - Cookie param equals value—Use a cookie for this condition.

  - **param**—enter **Name** in this field.
  - **value**—enter the name of the cookie in this field.

  Does the site visitor's system have an Ektron cookie?

  Usage: Cookie param “Name” equals value “Ektron”

- Form param equals value—Use a form elements field name and match the value entered into the element.
  - **param**—enter a form’s element Field Name from a form.
  - **value**—enter the value you want the form element to match.

  A form has a Choices Field element with the Field Name “Favorite_Food” and choices of Pizza, Steak and Chicken. When a site visitor chooses Pizza and clicks **submit**, your rule launches a Pizza company’s website.

  Usage: Form param “Favorite_Food” equals value “Pizza”

- QueryString param equals value—Use the QueryString for this condition
  - **param**—the name of the QueryString. For example, ID.
  - **value**—the value associated with the parameter. For example, 18.

  Is content with the ID of 18 being displayed?

  Usage: QueryString param “ID” equals value “18”

- Server Variable param equals value—Use server variables from the site visitor.
  - **param**—enter the name of a server variable. For example, HTTPS.
  - **value**—the value associated with the parameter. For example, On.

  Is the site visitor’s browser using SSL?

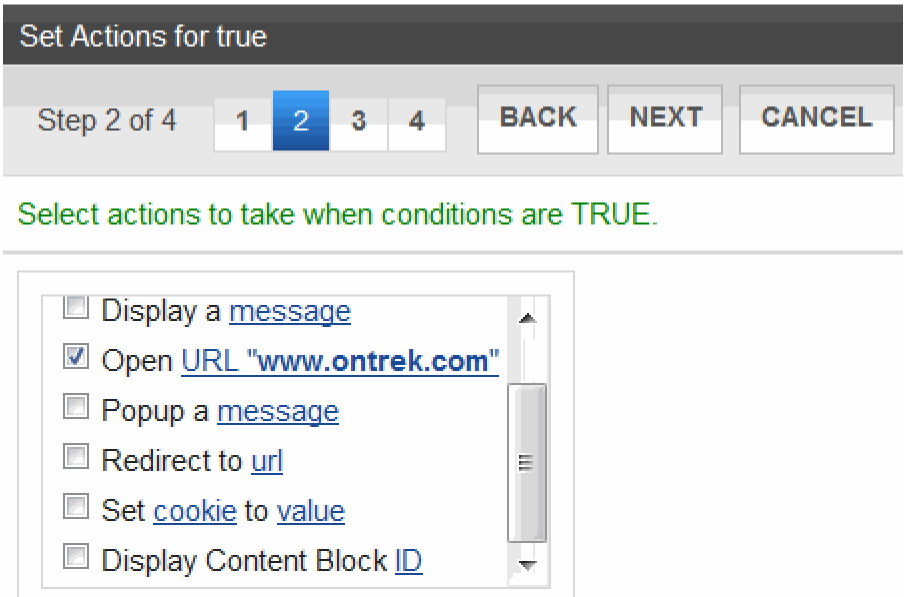
  Usage: Server Variable param “HTTPS” equals value “On”

- Custom param equals value—Use custom parameters from the user. User parameters are defined in the code-behind of a Web page.
  - **param**—enter the name of a custom parameter. For example, AcctBlnc
  - **value**—the value associated with the parameter. For example, 1000

  Is the user's account balance $1000?

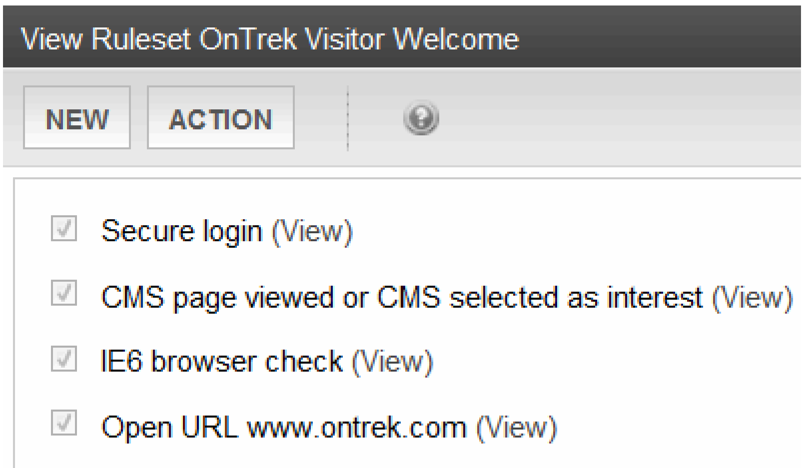
  Usage: Custom param “AcctBlnc” equals value “1000”

6. Click **Next**. Wizard Step 2 prompts you select an action to take if conditions are true. Check the boxes for the actions to take. Click the blue links to add the appropriate information.



- **Display Calendar ID**—Enter an Ektron Calendar ID.
- **Display a Message**—Enter a message to be displayed.
- **Open URL**—Enter a URL. This opens a new window with the URL.
- **Popup A Message**—Enter a message that appears in a popup dialog box.
- **Redirect to a URL**—Enter a URL to redirect a the site visitor's browser.
- **Set Cookie to Value**—Creates a cookie on the site visitor's system. Enter **Name** for Cookie and the name of the cookie for Value.
- **Display Content Block ID**—Enter an Ektron content block's ID.

7. Click **Next**. Wizard Step 3 lets you select actions to take when conditions are false. This works the same as Wizard Step 2.
8. Click **Next**. Step 4 of the Wizard asks you to enter a name for the rule in the text box.
9. Click **Done**. The View Ruleset screen appears. Your rule appears in the Ruleset box.



Add an Existing Rule to a Ruleset

You can add a rule to multiple Rulesets. To do so:

1. Navigate to **Settings > Business Rules**. The Business Rulesets screen appears.
2. Click a Business Ruleset to which you want to add a rule.
3. Choose **New > Add Existing**. The Add an Existing Ruleset screen appears.
4. Check one or more rules to add to the Ruleset.
5. Click **Save Ruleset**.

Edit a Rule in a Ruleset

1. Navigate to **Settings > Business Rules**. The Business Rulesets screen appears.
2. Click on the Ruleset that contains the rule to be changed. The View Ruleset screen appears.
3. Click on the name of the rule to be changed. The rule is highlighted.
4. Choose **Action > Edit Rule**. The Rules Wizard appears with the rule loaded.
5. Edit as necessary. The Rules Wizard is explained in *Add a New Rule to a Ruleset* on page 1053.

27

Working with Multi-Language Content

Ektron enables authoring, organizing, publishing, and versioning of Web content—in multiple languages. Ektron has a fully-developed, Web content localization solution that combines Web content management with localization/translation management, and supports creating content in any language supported by the Unicode standard. Ektron provides multi-language support for the following areas:

- Content—seen by content contributors; visitors to your site.
- Spell check dictionary—seen by visitors to your site.
- Special Character Encoding—seen by visitors to your site.
- Workarea screen labels, alt text, system messages—seen by content contributors.

Multi-language editions of the same content have the same ID number but are differentiated by a language attribute. As a result, a Web page template can link to a content item, but what appears is determined by the selected language. There are 2 ways that content's language can be selected:

- a language cookie, which is created when a visitor browses to your site and selects a language
- the link to another page includes the language (`langType`) parameter. For example, `mytemplate.aspx?LangType=1033`. For a list of the decimal values for each supported language, see Ektron **Workarea > Settings > Localization > Languages and Regions**.

Developers can use the following server controls for multi-language content:

- *LanguageAPI* on page 1754—to specify a language for a site.
- *LanguageSelect* on page 1755—to display a drop-down list of available languages.

The following Ektron components are affected by multi-language support:

- **Approval chains**—You can set up a language-specific approval chain and method (just as you can create separate editions of content for each enabled language). For more information, see *Setting Approval Chains* on page 262
- **Calendars**—You can create calendars in any supported language. When you enter the calendar and event information in the foreign language, the calendar display (that is, day and month names) automatically appears in that language. Also, regional conventions for first-last days of the week, and date and time formats are maintained. For more information, see *Working with Calendars* on page 514.
- **Collections**—You can create a language-specific instance of each collection. For more information, see *Working with a Collection in a Multi-Language System* on page 365.
- **Menus**—You can create an instance of any menu in every supported language so that site visitors can see a menu displayed in the user-selected language. (If a menu in the selected language is not available, nothing appears.) For more information, see *Working with Menus in a Multi-Language System* on page 770.
- **Tasks**—If you create content then add a task to it, the task can be in any enabled language. For example, this is helpful if you review English content then want to assign the task of translating it into another language in that language. If you create a task then try to assign content to it, you can only choose from content in the language of the task. For more information, see *Assigning and Managing Tasks* on page 1027.
- **Taxonomies**—Multi-language support affects the way you create, maintain, and manage taxonomies. See *Working with Taxonomies in a Multi-Language Environment* on page 814.

Setting Up a Multi-lingual Website

The following steps provide an overview for setting up a multi-lingual website.

1. Enable multi-lingual support in `web.config`. See *Enabling/Disabling Support for Multiple Language Content* below
2. Enable languages that your site will support. See *Determining Which Languages are Available* below
3. Set a default content language, one that will be used by the majority of your site's content. If you had a previous version of Ektron and selected a default language on the Database Upgrade Utility, be sure that default language matches the one in `web.config`.
4. Add language selection function to templates so that your site can be viewed in another language. See *Viewing Your Site in Another Language* on page 1062
5. Create multi-language content. See *Creating Multi-language Content* on page 1062 and *Translating Content into Another Language* on page 296
6. Modify page content based on language selection. See *Modifying Page Content Based on Language Selection* on page 1064
7. Modify an image based on language selection. See *Modifying Images Based on Language Selection* on page 1064
8. Create a metadata definition for each supported language. See *Working with Metadata* on page 369
9. Set up approval chains for new content. See *Setting Approval Chains* on page 262
10. Set up multi-lingual collections. See *Working with a Collection in a Multi-Language System* on page 365
11. Set up multi-lingual menus. See *Working with Menus in a Multi-Language System* on page 770
12. Set up multi-lingual taxonomies. See *Working with Taxonomies in a Multi-Language Environment* on page 814

Enabling/Disabling Support for Multiple Language Content

1. Open *siteroot*`\web.config`.
2. Set the value of `ek_EnableMultilingual` to 1.

   NOTE: To disable, set the value to zero (0).

3. Save `web.config`.

Determining Which Languages are Available

PREREQUISITE

Only members of the Administrator Group or those assigned to the XLIFF-Admin role can view, add, or edit language settings. See Also: *Using the Roles Screens* on page 1121.

A locale consists of a language and a region. For example, English (United States) describes the variation of English used in the United States, as opposed to English (English U.K.) used in the United Kingdom.

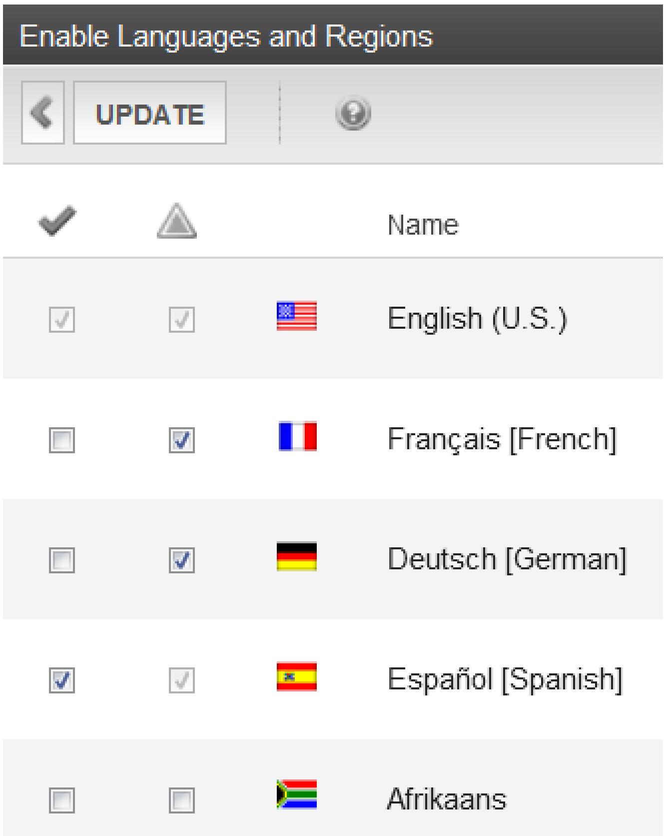
Each locale's identifier consists of a language code and region code.

- **fr-FR** = Language:French + Region:France
- **pt-BR** = Language:Portuguese + Region:Brazil
- **es_419-AR** = Language:Latin American Spanish + Region Argentina

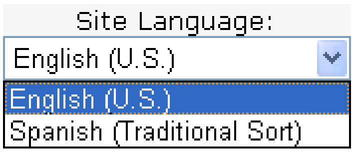
You can create a new locale, if needed.

To determine which locales are available for creating content:

1. Go to **Workarea > Settings > Localization > Languages and Regions**. The Edit Language Details screen lists locales in which you can create content on your site.
2. Click **Enable**. The Enable Languages and Regions screen appears.



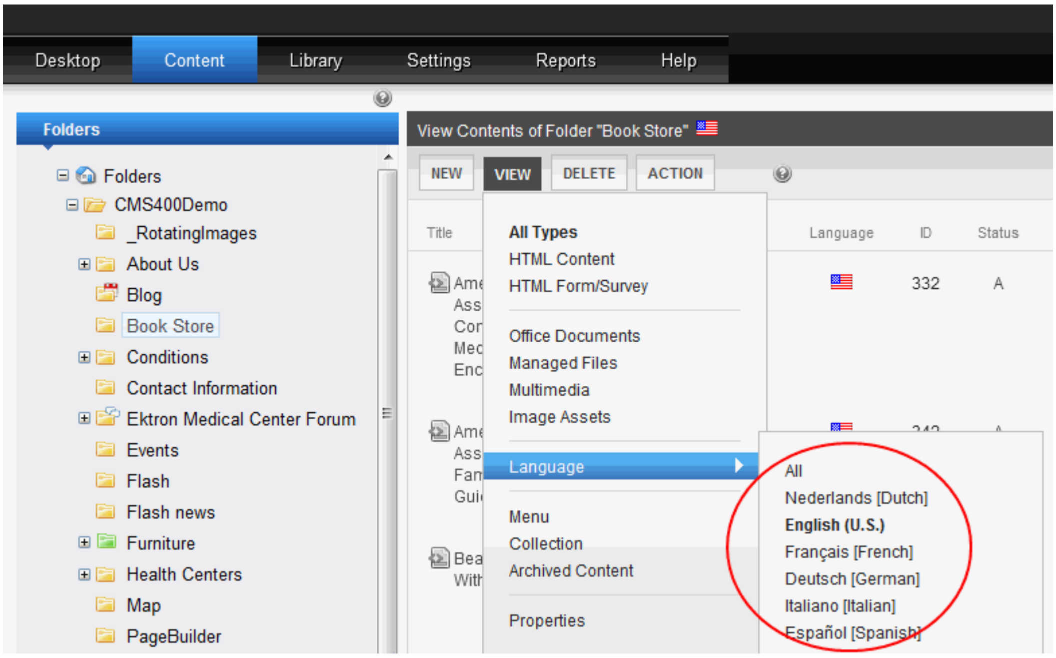
3. Each language has 2 check boxes:
   - To enable a language in the Workarea *and* let site visitors select it when viewing the site, check the box in the check mark ( ) column.



NOTE: If you select , the box in the column is checked automatically. This is because, if you let users view the language on the site, it must be enabled in the Workarea.

The default content language on a drop-down list is determined in the `ek_DefaultContentLanguage` element of the `web.config` file.

- To enable a language in the Workarea only, check a box in the triangle ( ) column. The language populates the language drop-down lists in Ektron. So, you can enable languages in the column while you are translating the site but are not ready to publish that content. When you complete the translation, check the column.



If you enable only one language on the Enable Languages and Regions screen, fields that prompt the user to select a language do not appear in Ektron. Instead, all content is created in that language.

Disabling a Language

To disable any language, uncheck its box in the column of the Enable Languages and Regions screen.

Before disabling the default language, you must assign a new one. If you disable a language for which content exists, that content remains in the database but no one can access it, either from within Ektron or when visiting your site, unless you later re-enable that language.

Setting the Default Language

When you install Ektron, the default language is US-English (1033). The default language determines which edition of content is displayed if a site visitor does not select a language, or a visitor selects a language other than the default and navigates to page for which content does not exist in the selected language. In that case, Ektron looks for the selected language's Fallback Locales. For more information, see *Setting the Fallback Locale* on page 1069. If content is not available in any of its Fallback locales, Ektron displays that content in the default language (if available).

IMPORTANT: You must enable a language before setting it as the default. See Also: *Determining Which Languages are Available* on page 1059

To change the default language for your multi-language website:

1. Open `yourwebsite\web.config`.
2. Set the value of `ek_DefaultContentLanguage` to the locale id of the default language. For example, 1031 for German. For a list of locale ids, see Ektron **Workarea > Settings > Localization > Languages and Regions**.
3. Save `web.config`.

Viewing Your Site in Another Language

When a site visitor selects a language then navigates to a page on your site, Ektron uses the following criteria to determine which language edition of content to display.

1. Display content in the selected language, if available.
2. If that edition is *not* available, check the language's **Fallback Locale**. If it is set and content is available in that language, display that. See Also: *Setting the Fallback Locale* on page 1069
3. If content is not available in the Fallback Locale, display it in the default language. See Also: *Setting the Default Language* on the previous page
4. If no editions are available, display nothing.

To let site visitors to view your site in any enabled language, your developer places a LanguageSelect server control on any template. See Also: *LanguageSelect* on page 1755

You can also indicate a language-edition by adding a language parameter to a quicklink. For example, `products.aspx?LangType=1033` displays the English (US) edition of the `products.aspx` content. This syntax automatically sets the language cookie.

NOTE: For a list of the decimal value of each supported language, see Ektron **Workarea > Settings > Localization > Languages and Regions**.

Creating an external link to a page of foreign content

If another website links to a multi-lingual page on your site, the URL must include the language ID parameter. For example:

```
www.ektron.com/web-content-management-solutions.aspx?LangType=1036
```

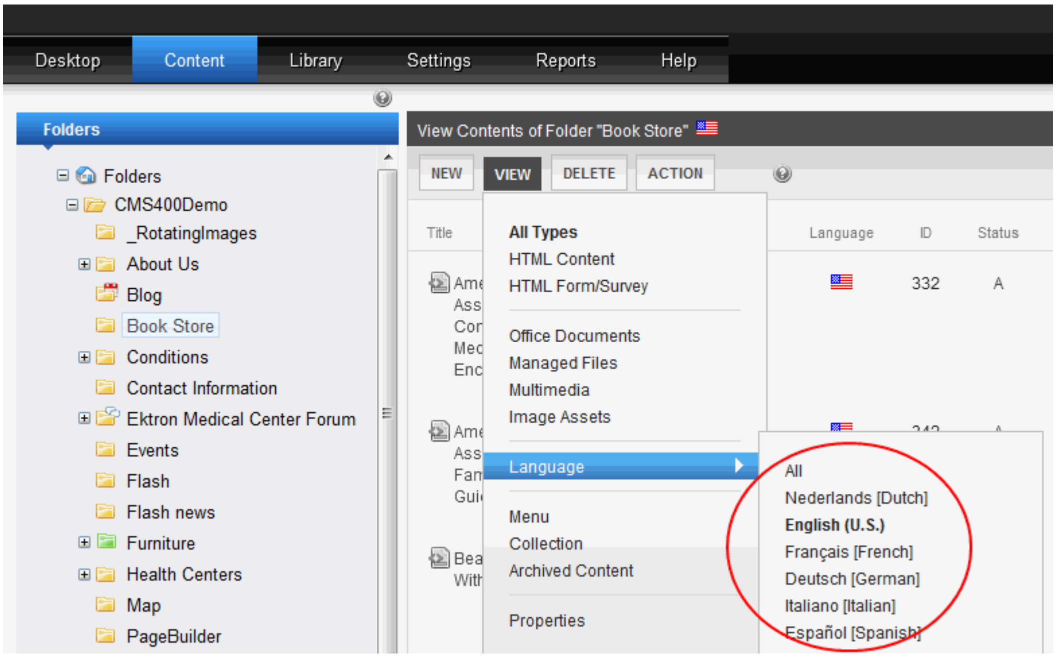
Creating Multi-language Content

PREREQUISITE

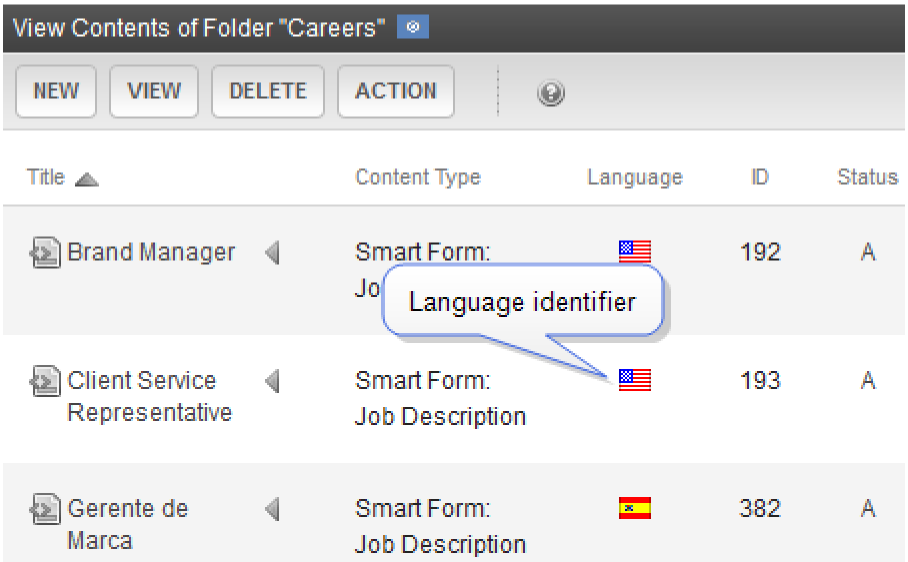
You have permission to add content to the folder.

1. Navigate to the content folder in which you want to create the content.
2. Choose **View > Language** and select the language in which you want to create the content. If the desired language is not available, see *Determining Which Languages are Available* on page 1059.

   You can also view *all* content in a folder, regardless of language. This menu makes it easy to find content in a selected language.



   The View Contents of Folder screen displays the language of each content item.



3. Click **Add Content** ( ) and create the content as you would any content. See Also: *Creating New Content* on page 287
4. When applying metadata, you can only use metadata definitions created for the selected language. See Also: *Working with Metadata* on page 369

You can set up a separate approval chain for each edition of a content, and can create collections, menus, taxonomy categories, and tasks in any supported language.

NOTE: Alternatively, you can designate certain sections of text within a content item to be included or excluded from certain languages. See Also: *Creating One or More Localized Paragraphs* on page 1073

Modifying Page Content Based on Language Selection

If a template's text should change according to a user's language selection, use a case statement to provide the language-specific content. Assume you want to create editions of the menu that runs under the header in 3 languages: English, French, and German:

NOTE: This procedure uses the `header.asp` file delivered with the RC International sample site as an example.

1. In the template file, declare each menu option a variable. For example:

```
Dim t_search, t_products, t_support, t_news, t_careers,
  t_calendar, t_home, t_login, t_site_lang, t_contact,
  t_copyright, calendar_id
```

2. Enter case statements that provide the value of each variable in each language. (1031—German; 1036—French.) The following case statement is for the search menu option.

```
Select
  Case ContentLanguage
  Case "1031" t_search = "Suche"
  Case "1036" t_search = "Recherche"
  Case else t_search = "Search" End Select
```

When a user visits a page controlled by this template and selects French or German as the site language, the page is refreshed and the translated values appear on the template.

Modifying Images Based on Language Selection

Many Web page templates also include images that require translation. To set up templates to invoke images in the user-selected language:

1. Add to the library each image that should change when the language changes. For example, if your company's tag line is translated into 3 languages, upload the 3 images into the library.
2. You should include the language in the title of the image. For example, tagline_English, tagline_French.
3. Create a separate content block for each language-specific image. Each content block must have a unique ID number.
4. Insert the appropriate image into a content block for each language. For example, insert the tagline_English image into the English content block.
5. Insert the content blocks into the appropriate templates. For example, insert the English content block into the English template.

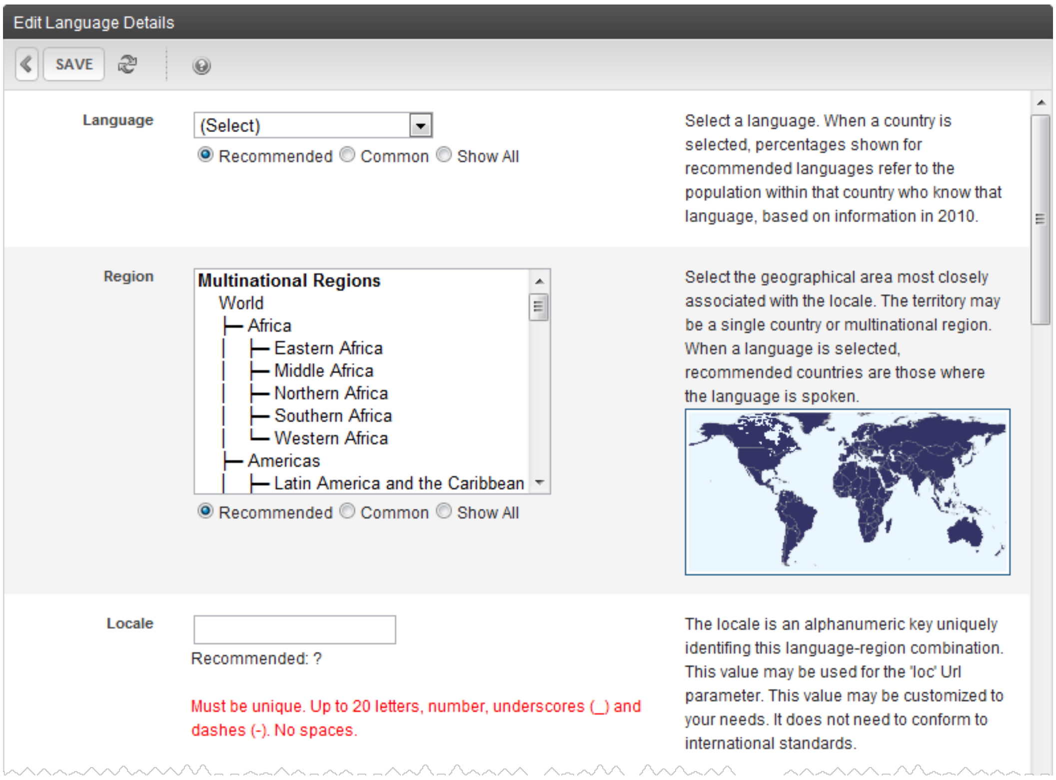
Setting Up Locales

Ektron provides locales for every language and region supported by your Windows server.

You can create a new locale on the Edit Language Details screen by picking a combination of language and region, as defined by the Unicode Common Locale Data Repository. On Windows Vista and later versions, you can use the Microsoft Locale Builder to create custom, supplemental ASP.NET cultures. Custom cultures are helpful if no ASP.NET culture matches either the language or the region; for example, eo-150 (Esperanto in Europe). You also can create custom cultures for new combinations, for example, fr-US (French in U.S.). For information about custom cultures and the Locale Builder, see the following Ektron Knowledge Base article: Using Locale Builder to create custom locales. After you create a locale, Ektron authors can create content, menus, collections, and so on in that locale, and your site visitors can view content based on it.

Creating a New Locale

1. Go to **Workarea > Settings > Localization > Languages and Regions**.
2. Click Add ( ). The Edit Language Details screen appears. A partial image is shown in the following image.



- **Language**—can display the major languages in every country (via the **Show All** radio button), or the most common world languages (use the **Common** radio button). If you are unsure about which languages are used in a country, move to the **Region** field, select a country, and click the **Recommended** radio button. Then, go back to the **Languages** field; you will see all languages spoken in the selected country by percentage.
- **Region**—provides several options for finding the new locale's region or country.
  - If you selected a language above, you can select from a list of countries that use the language. To do that, click **Recommended** and scroll below the list of multinational regions. Click the country of the locale you are defining.

  - To select from an alphabetical list of *all* countries, click **Show All** and scroll below the list of multinational regions.
  - If the language's locale is not tied to a specific country but is connected to a region, select the region from the regions list.
- **Locale**—assign a locale ID to the new language. The locale ID must be unique, but is free-form, so you can customize it. It could be based on a target market, for example, “youth” for English US young adults (for example, youth-US), or “euro” for English in Europe (euro-UK), or even “klingon” (klingon-US). If you select a language, the field is filled in for you. Typically, the suggested value is adequate.
- **Fallback Locale**—For every language, you can set a **Fallback Locale**, a language in which content appears if it is not available in the selected language. If content is not available in the fallback locale, Ektron looks for content in the fallback locale's **Fallback Locale**. If content in *that* language is not found, Ektron looks for up to 4 additional fallback locales. At that point, if content is still not found, Ektron tries to display the content in the default language.

  For example, your website's default language is US English. You have some content in Swiss German (de-CH). The fallback language for that is Austrian German (de-AT), and the fallback language for Austrian German is German (de-DE). If the content on a page is not available in Swiss German, Ektron tries to find an Austrian German edition. If it cannot find that, it looks for a German edition. If that is not available, it tries to display an English edition. See also *Setting the Fallback Locale* on page 1069.

  In certain situations, you may want no fallback locale. That is, you want to display nothing if content is not available in the selected language. To accommodate this, **None** is an option in the **Fallback Locale** drop-down list.

  NOTE: If you set **None** as the **Fallback Locale** for any language, and content is not available in the selected language, nothing appears on the page and no other languages are checked.

- **Language Tag**—assign a language code to the language. This section of the screen contains important information about this field.

  IMPORTANT: Unlike the **Locale** field, the **Language Tag** field must conform to the IETF BCP 47 (Best Current Practice).

- **Alphabet**—Some languages can be written in more than one alphabet. For example, Serbian can be written using the Latin or Cyrillic alphabet.
- **Custom Ext.**—choose between 2 strategies when exporting content for translation: machine translation and pseudolocalization.

  Using a MachineTranslation Strategy

  When you export content for translation and apply the MachineTranslation strategy, Ektron translates the content using machine translation then immediately imports it. See Also: *Using Machine Translation* on page 1071

  The following is an example of how to implement the strategy. See Also: *Customizing Behavior with Extensions* on page 1867

```
<objectFactory>
  <objectStrategies>
    <add name="MachineTranslation">
    <strategies>
      <add name="MachineTranslationStrategyTemplate"
```

```
        type="Cms.Extensions.Templates
          .MachineTranslationStrategyTemplate,
          Cms.Extensions.Templates"/>
    </strategies>
    </add>
  </objectStrategies>
  <objectImplementations> </objectImplementations>
</objectFactory>
```

Using a PseudoLocalization Strategy

NOTE: For background information, see Pseudolocalization (Wikipedia).

When you export content for translation and apply the PseudoLocalization strategy, Ektron converts the content to pseudo-language text and the immediately imports it..

The following is an example of how to implement the strategy. See Also: *Customizing Behavior with Extensions* on page 1867

```
<objectFactory>
  <objectStrategies>
    <add name="PseudoLocalization">
    <strategies>
      <add name="PseudoLocalizationStrategyTemplate"
        type="Cms.Extensions.Templates
          .PseudoLocalizationStrategyTemplate,
          Cms.Extensions.Templates"/>
      </strategies>
      </add>
    </objectStrategies>
    <objectImplementations> </objectImplementations>
</objectFactory>
```

Here is an example of how to override the `PseudoLocalize` method.

```
public override void
  PseudoLocalize(ref string content, PseudoLocalizationEventArgs
  eventArgs)
```

Here are the `PseudoLocalizationEventArgs` properties.

```
LocaleData
Locale
LocalizableCmsObjectType
ObjectType
long
ObjectId
```

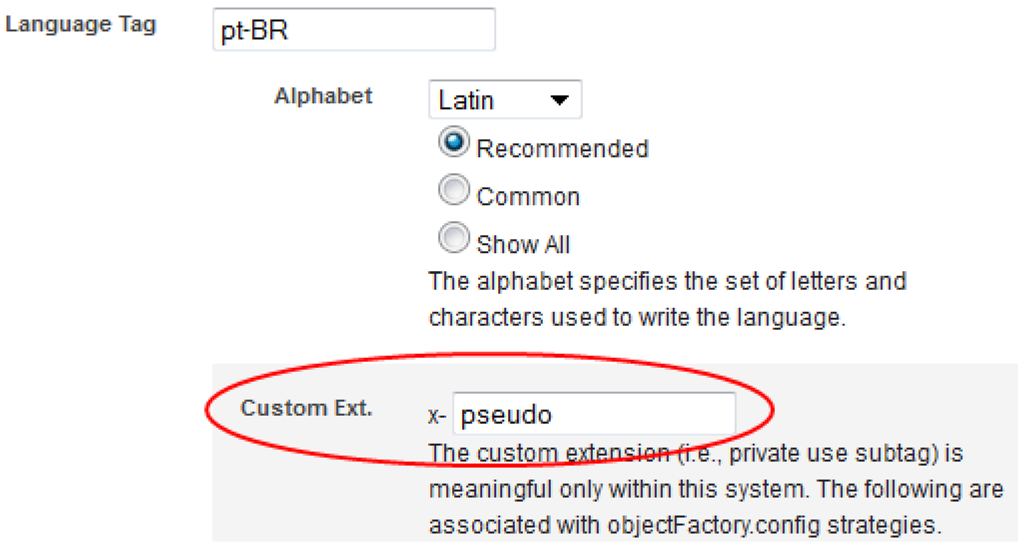
Developers use the `PseudoLocalize` property to write custom code that programmatically starts the export process. Here is an example:
`Ektron.Cms.Localization.LocalizationExportJob.PseudoLocalize = true;`

Ektron applies the PseudoLocalization strategy if either of the following conditions is met:

- The target locale's language tag contains `x-pseudo`.
- The export job's `PseudoLocalize` property is `true`.

Applying PseudoLocalization Strategy to a Locale

You can apply PseudoLocalization Strategy to a locale's language tag in the Workarea. Use the **Settings > Localization > Languages and Regions** screen's **Custom EXT** field, as illustrated in the following figure. Programmatically, `LocaleData.XmlLang` contains `x-pseudo`.



Overriding the Translate Method

Here is an example of overriding the Translate method.

```
public override void
  Translate(ref string content, MachineTranslationEventArgs
  eventArgs)
```

The `MachineTranslationEventArgs` have intellisense, but the following is a list of its properties.

```
LocaleData SourceLocale
LocaleData TargetLocale
LocalizableCmsObjectType ObjectType
long ObjectId
```

Ektron applies the Machine Translation strategy if either of the following conditions is met.

- The target locale’s language tag contains `x-mt`
- The export job’s `MachineTranslate` property is `true`

Developers use the `MachineTranslate` property to write custom code that programmatically starts the export process. Here is an example:
`Ektron.Cms.Localization.LocalizationExportJob.MachineTranslate = true;`

Applying Machine Translation Strategy to a Locale

You can apply Machine Translation Strategy to a locale's language tag in the Workarea. Use the **Settings > Localization > Languages and Regions** screen's **Custom EXT**field. Programmatically,`LocaleData.XmlLang` contains `x-mt`.

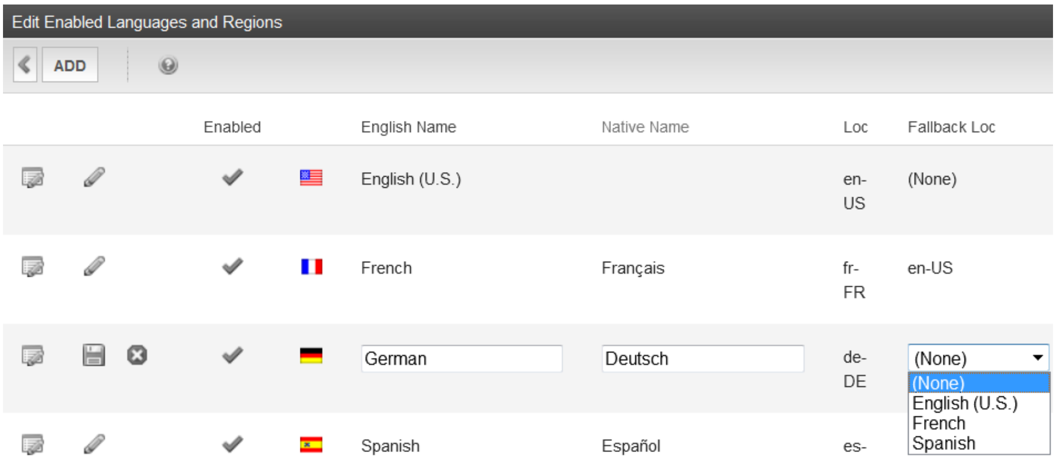
- **ASP.NET Culture**—specifies the region for formatting dates, times, currencies, and so on. This value is assigned to the ASP.NET `Culture` property. See Also: [How to: Set the Culture and UI Culture for ASP.NET Web Page Globalization]().

For instructions on setting a **custom culture**, see the following Ektron Knowledge Base article: HOW TO: Using Locale Builder to create custom locales

- **ASP.NET UICulture**—specifies the natural language of resource strings. This value is assigned to the ASP.NET `UICulture` property. See Also: How to: Set the Culture and UI Culture for ASP.NET Web Page Globalization
- **Flag Icon**—used in the Workarea as a quick, visual indicator of the locale, it is important for each locale to have a unique flag. Flag files must be 16x16 pixel .gif images. Ektron provides several flags, which are installed to the `/siteroot/WorkArea/images/application/flags/` folder. Any flags with elements in common with the locale's language and region appear as choices. If there is no flag next to the locale you are creating (for example fr-017, French in Africa), you can create an image, assign that name to it, and place it in the designated folder. Then return to this screen, select the locale, and select the image.
- **Native Name**—the name of the locale in its native natural language. That is, what the people in that locale call their own language and region.
- **English Name**—the name of the locale in English.

Setting the Fallback Locale

1. Go to **Workarea >Settings > Localization > Languages and Regions.**
2. Click **Edit** ( ).
3. Click **Rename or Change Fallback Locale** ( ) for the language of interest.
4. Use the pulldown in that language's **Fallback Loc** column to select a fallback locale.



NOTE: If you set a language's **Fallback Locale** to **None** and the language is part of a fallback chain, if content is not available in that language, the chain terminates there.

5. Click **Save** ( ) in the row of the language you are changing.

Translating Content

You have the following options for translating content.

- ***Translating Content Manually* on the next page**—Copy original content to a new content item in new language, then translate content manually.

- Only one content block at a time.
- Error prone because some translatable text is hidden (such as 'alt' text in images). Also, some text might be translated that should not be translated (for example, Smart Form choice field values).

- ***Using Machine Translation* on the facing page**—Use the computer-based translation tool provided with Ektron.
  - Readily available as a browser add-on.
  - Results in a poor quality translation.
- ***Exporting Content to XLIFF* on page 1072**—**best option for translating**, whether in-house or outsourcing. Use an XLIFF editor.
  - Supports batch processing of several content blocks.
  - The XLIFF file is sent to a translation agency and returns translated to the new language(s). Then, import the translated files into Ektron.
  - Free XLIFF editors may not adequately support the XLIFF standard so may not be compatible.

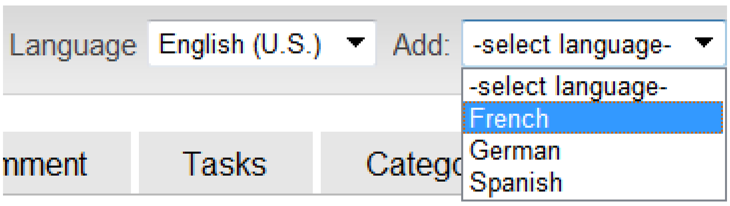
IMPORTANT: Before using machine translation services, you must first register with Google Translation services and then add your Google key value into the following code in the `web.config` file:

```
<machineTranslation>
  <add key="GoogleTranslator" value="[your Google key value],
    https://www.googleapis.com/language/translate/v2?key=" />
</machineTranslation>
```

Translating Content Manually

Use this procedure to initialize new foreign language content with content from a source language, then translate the content manually. The copying should facilitate the translation. For example, an editor translates content from French to German. The editor copies the French edition to new content whose language is German. As the editor translates the French edition into German, the French content is deleted. Any images in the content usually would remain, and all formatting (tables, bullets, and so on) is retained.

1. Go to the View Contents of Folder screen for the content you want to translate. Its status must allow editing (it cannot be submitted or pending).
2. Choose **View >Language** and select an original language.
3. Click the content you want to translate. It appears on the View Content screen.
4. Use the **Add** drop-down list in the upper right corner to select a language into which you want to translate the content. The original language content appears.



5. Translate into the new language then delete the original content. At this point, you can click **Translate Content** ( ) to have the software translate the content. You can then edit as needed to perfect the translation. When done, click the **Paste Content** button.

NOTE: You cannot translate XML Smart Forms using the **Translate Content** ( ) button.

6. Translate the **Title** and **Summary**.
7. To add metadata to content, metadata specifications must have been created for the selected language. See Also: *Working with Metadata* on page 369
8. When you save the content, it is saved as the edition of that content in the selected language.

Using Machine Translation

Ektron includes a machine translation feature, which is powered by the Google Translation Service. To see a list of supported languages, go to http://translate.google.com/.

NOTE: Machine translation is not supported for all languages in the Language Settings screen. Also, you cannot translate XML Smart Forms using this method.

Like most software-based translation, someone fluent in the new language should verify that the translation is appropriate within the context of the page.

The machine translation feature lets you choose a glossary (that is, a field, industry, or subject area). This helps the software find the best translation for a term or phrase in that field.

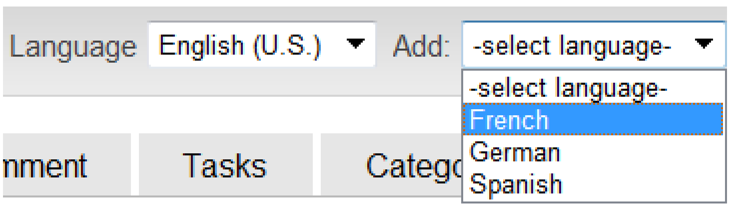
Follow these steps to use the machine translation feature.

PREREQUISITE

Your Ektron administrator has enabled the feature. See Also: *Enabling Machine Translation* on the next page

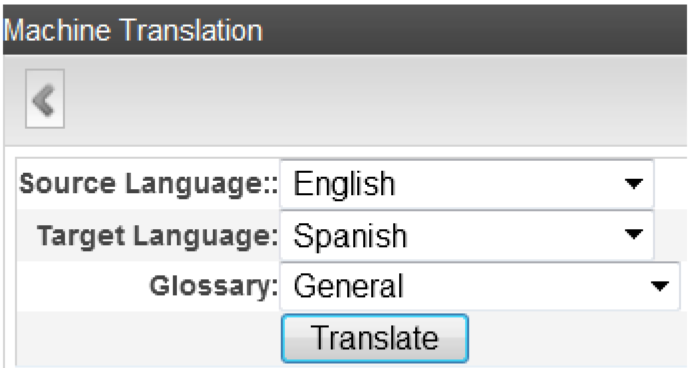
1. In the Workarea, open the folder that contains content to be translated.
2. Choose **View > Language** and select an original language (that is, the language from which it will be translated).
3. Click the content you want to translate. Its status must allow editing (that is, its status cannot be submitted or pending). It appears on the View Content screen.
4. Use the **Add** drop-down list in the upper right corner to select a new language for the content.

NOTE: If you do not see the language on the drop-down, you need to enable the language. See Also: *Determining Which Languages are Available* on page 1059



5. The original language content appears.
6. Edit the title if appropriate.

7. Click **Translate Content** ( ). The Translation screen appears.



8. Select the source (old) and target (new) languages.
9. If the content should refer to a specific glossary, select one from the drop-down list.
10. Click **Translate**. The translation appears.
11. If the translation looks OK, click **Paste Content**. The translated content replaces the original content in the editor. Modify as needed.
12. Translate the **Title** and **Summary**.
13. To add metadata to the content, metadata specifications must have been created for the selected language. See Also: *Working with Metadata* on page 369
14. When you save, the content is saved as the selected language edition of the content.

NOTE: When the View Contents of Folders screen reappears, it is probably set to the source language. In this case, you do not see the new content in the target language. To see it, click **View > Language** and select **All** or the target language.

Enabling Machine Translation

Follow these steps to enable Ektron's machine translation feature.

1. Using the information on the Web page https://developers.google.com/translate/v2/faq, obtain a Google Translation API key.

   NOTE: The Google Translate API is only available as a paid service.

2. Open the Ektron siteroot folder\`web.config` file.
3. Find the following element:

```
<machineTranslation>
<!-- ex. value="[API_KEY_FROM_GOOGLE],
https://www.googleapis.com/language/translate/v2?key="-->
<add key="GoogleTranslator" value="" />
</machineTranslation>
```

4. Insert the API key you obtained in Step 1 into the `value` attribute.

Exporting Content to XLIFF

You can copy content into XLIFF files that you can submit to a translation agency, or translate the content "in house." When the translation is complete, you import translated content to Ektron.

You can translate these kinds of Ektron information.

- content, including summary, comments, and metadata
- a portion of a content (see *Creating One or More Localized Paragraphs* below)
- forms, including response message, comments, and metadata
- all menus (you cannot choose individual menus)
- assets (Office documents, managed files, and so on. You *cannot* export. zip files.)
- taxonomy data

XLIFF (XML Localization Interchange File Format) is a format for exchanging localization data between participants in a translation project. This format lets translators concentrate on the text to be translated, without worrying about its layout. XLIFF is supported by a large group of localization service and tools providers. To learn more about XLIFF, visit these websites:

- XML in localisation: A practical analysis
- OASIS XML Localisation Interchange File Format (XLIFF) TC

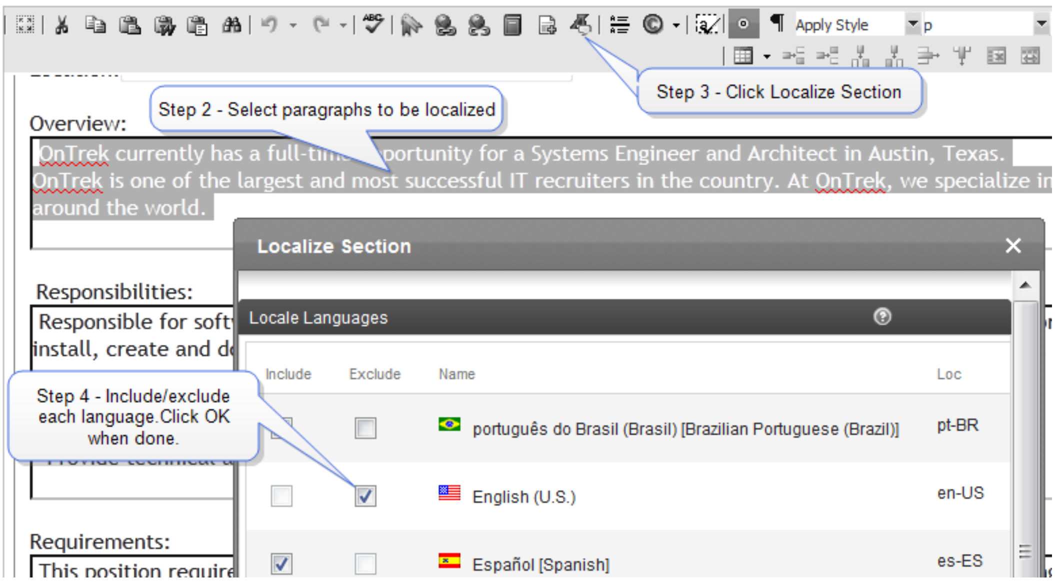
Ektron supports versions 1.0, 1.1, and 1.2 of the XLIFF standard. You specify the version you are exporting in the `web.config` file, using the `ek_XliffVersion` element. Any listed version can be imported.

Creating One or More Localized Paragraphs

IMPORTANT: This button is only available in the eWebEdit400 editor.

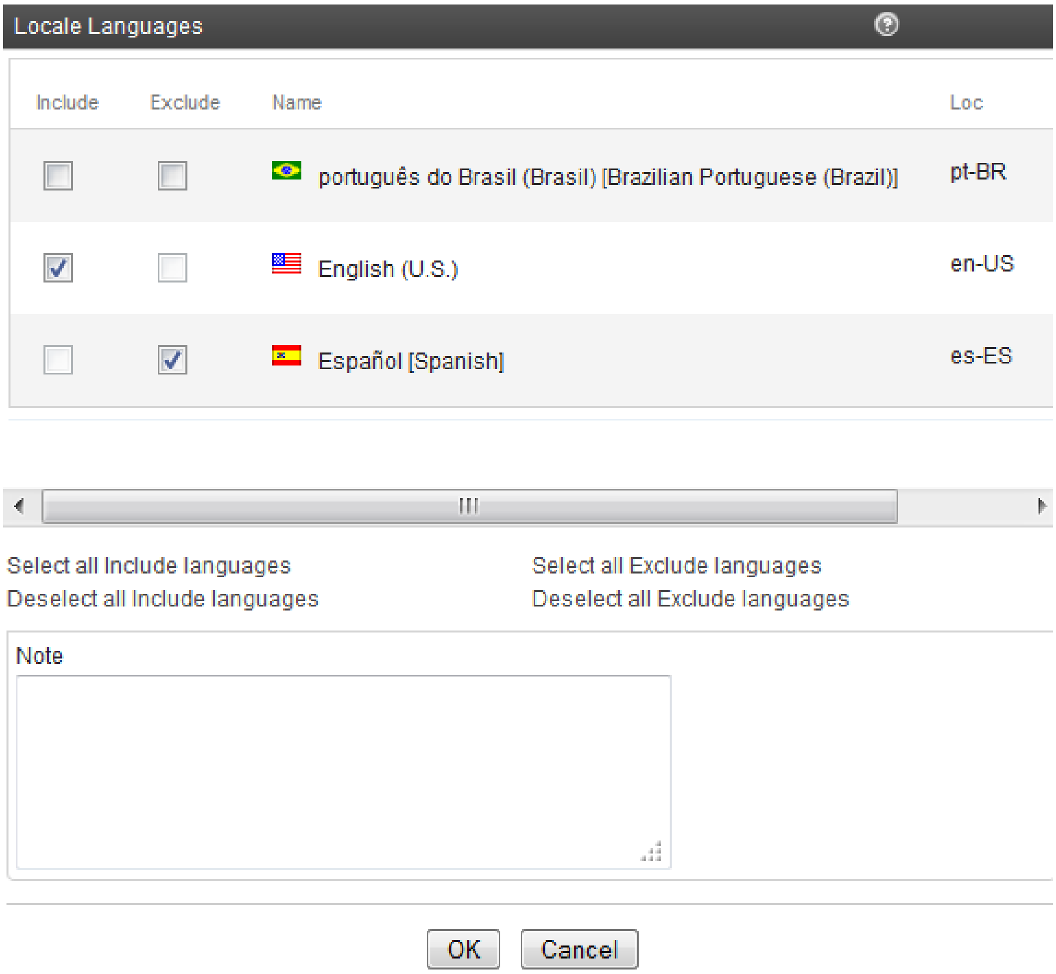
The Localize Section button ( ) lets you designate paragraphs to localize for the XLIFF translation process. For example, an author creates content in English, and does not want a specific paragraph to be translated into French. So, the author uses the Localize Section feature to exclude that paragraph from the French version of content. When the content is exported, the selected paragraph does not appear in the French XLIFF file.

1. Open the content with paragraphs that you want to localize.

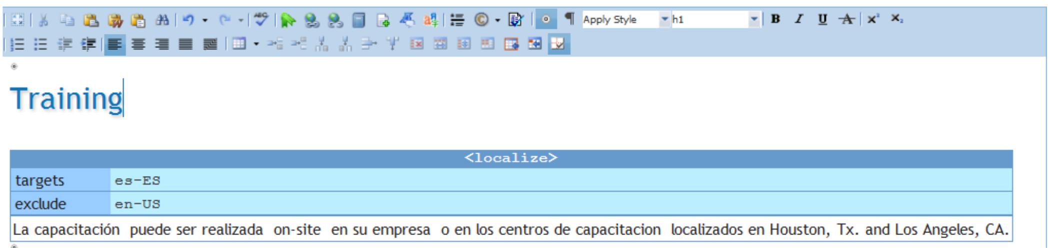


2. **Select** one or more paragraphs. You must select entire paragraphs. You cannot select individual words or sentences within a paragraph. Also, if the content is a bulleted or numbered list, you must select the entire list.

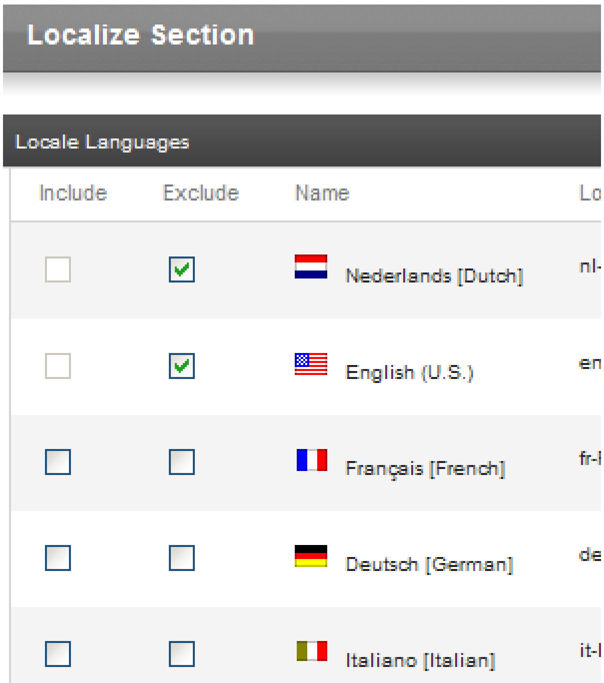
3. Click **Localize Section** ( ). The Localize Section dialog appears.



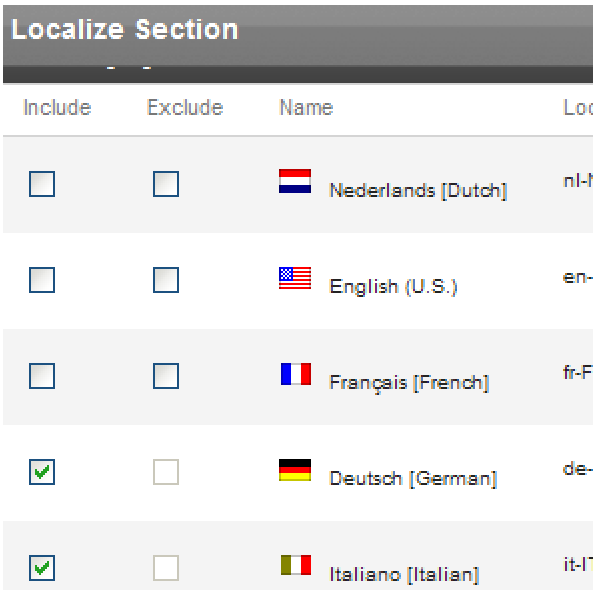
4. For each language on the list, **Include** or **Exclude** the selected text.
   - If you *include* one or more languages, all unchecked languages are *excluded*.
   - If you *exclude* one or more languages, all unchecked languages are *included*.
   - If you *include* some languages and *exclude* others, all unchecked languages are *excluded*.
5. Click **OK**. From now on, when editing that content, authors see a **<localize>** box that shows the localized sections that are exported/imported when using the XLIFF process.



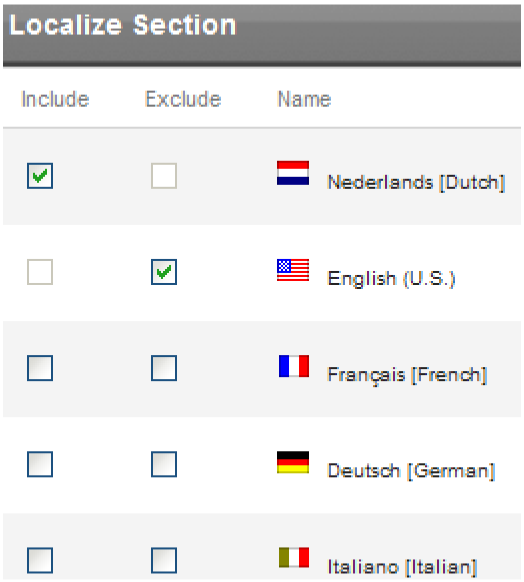
On the following sample screen, Dutch and U.S. English are excluded. This means that French, German and Italian are *included* even though the **Include** box is not checked.



On the following sample screen, German and Italian are included. This means that Dutch, U.S. English, and French are *excluded* even though the **Exclude** box is not checked.



On the following sample screen, Dutch is included and U.S. English is excluded. In this case, because one language is included and another is excluded, German, Italian, and French are *excluded* even though the **Exclude** box is not checked.



Editing a Localized Section

1. Edit the content that contains the localized section. A localized section looks like a table within the editor.
2. Place the cursor in the table header, near `<Localize>`.
3. Right click and choose **Localize Section**.
4. Choose Locale Languages to **Include** or **Exclude**.
5. Click **OK**.

Removing a Localized Section

1. Edit the content that contains the localized section. A localized section looks like a table within the editor.
2. Place the cursor in the table header, near `<Localize>`.
3. Right click and choose **Remove Localize Section**. The localization information is removed but the text remains.

Importing Translation Files

The following is an overview of importing translation files.

1. You select content to translate.
   - a content item
   - a folder—all content in the folder is selected; you may include its subfolders
   - all menus
   - all taxonomies

   Alternatively, select a Translation Package. See Also: *Creating Multi-language Content* on page 1062.
2. Ektron converts the selected content to XLIFF files. (Only content whose state is marked "Ready for translation" is converted to XLIFF format.) You can prepare the files for

translation into several languages at once. A separate .xlf file is created for each item. Then, all .xlf files for each language are compressed into one .zip file.

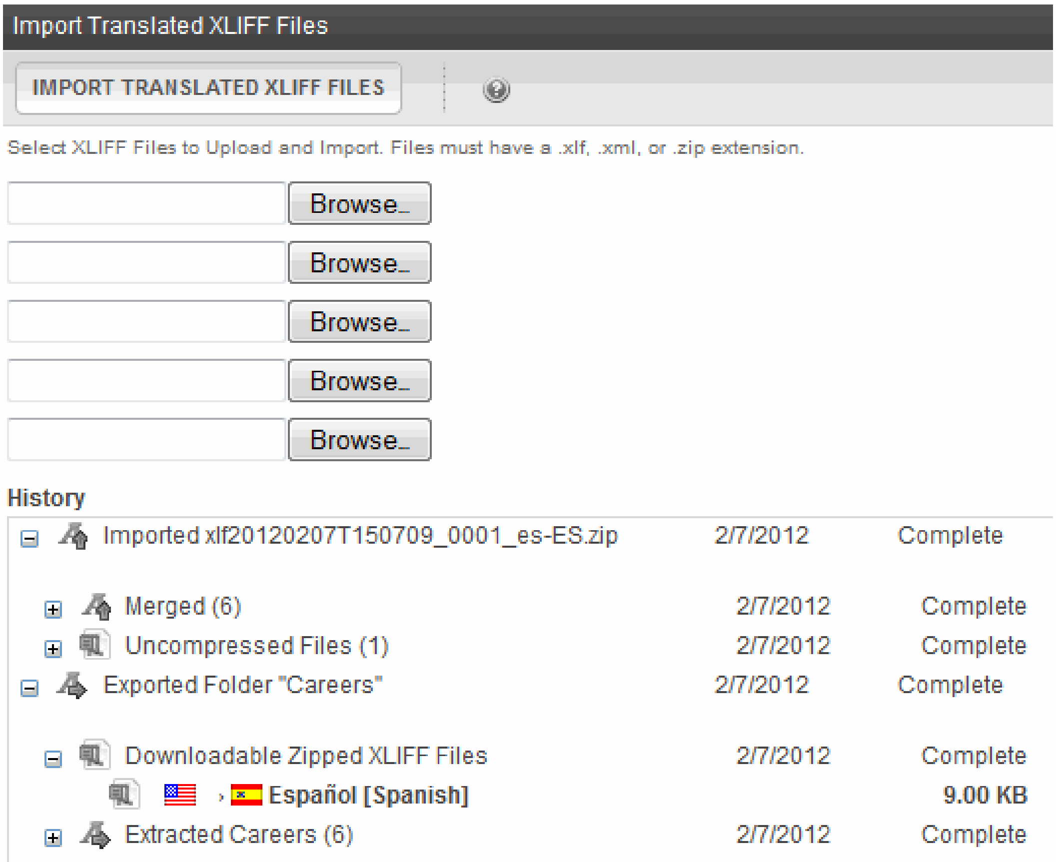
3. Transmit the .zip files to a translation agency.
4. The agency translates and returns the files. Alternatively, the files can be translated "in house."
5. Import the files into Ektron. If the content does not exist in the target language, it is created.

PREREQUISITE

Only members of the Administrator User Group and those defined in the Manage Members for Role: XLIFF-Admin screen can create or import XLIFF files. See Also: *Using the Roles Screens* on page 1121

IMPORTANT: Make sure the files have been translated before you import them.

1. From the Workarea, choose **Settings > Localization > Import Translated Files**.
2. Click **Browse** and navigate to the folder that contains the translated files.
3. Select the files to import.
4. Click **Import Translated XLIFF Files**. Ektron creates new or updates existing foreign-language editions of the imported content/menu/taxonomy.
5. Information about the imported file appears in the history area of the screen. You can click plus signs (+) to see increasing levels of information about imported content.



For each new edition:

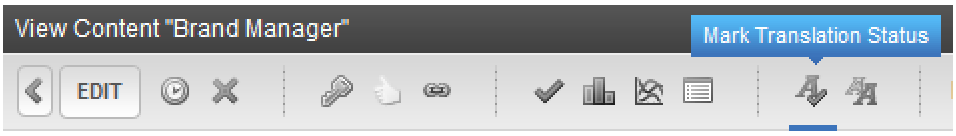
- If the content title is the same as the source edition, the next available number is appended to the title to distinguish it from the source. For example: **Henry Williams(1)**.
- its status matches the source content's status. Typically, its status is checked out. When imported, the content can enter the approval process just like other content.
- its history indicates it was checked in at the time the report was run
- for content, the following properties are inherited from the original content:
  - Smart FormSee Also: *Working with Smart Forms* on page 423
  - content searchable See Also: *Ensuring Your Content is Searchable* on page 942
  - approval method See Also: *Setting the Approval Method* on page 271
- date created and last edit date are captured from when the content is imported
- the last user to edit is captured by user who imported the file

Marking Translation Statuses

PREREQUISITE

Member of Administrators group, or assigned to the Translation State Admin or XLIFF Admin role See Also: *Defining Roles* on page 1120

Each Ektron content item has a translation status. Only content marked "ready for translation" is included when you create an .xlf file. Use **Mark Translation Status** on the View Content screen to mark the translation status. See Also: *Content Statuses* on page 307



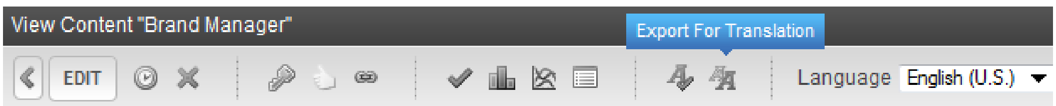
The **Mark Translation Status** button may have any of 3 icons, which also indicate the content's status.

- **Ready for translation**—Automatically applied when content status changes to Approved. Manually applied when authorized user clicks button and changes status to **Ready for Translation**.

  NOTE: You may apply this status to unapproved content if it needs translation before the site goes live.

- **Not ready for translation**—Automatically applied when content status changes to anything other than Approved. Translation status changes if
  - authorized user clicks button and chooses **ready for translation**
  - content's status changes to approved
- **Do not translate**—Prevents content from being translated. Translation status changes only if authorized user clicks button and chooses **ready for translation**.

If you click Mark Translation Status ( ), a menu appears that lets you change its status. Note that **Export for Translation** ( ) appears on the toolbar only if the content's translation status is **Ready for Translation**.



If you create an .xlf file for a folder, only content whose translation status is ready is included in the file.

NOTE: The Localization Dashboard provides an overview of translation activity within Ektron.

Applying Translated Metadata to Translated Content

Prior to version 8.5, translated metadata is ignored when importing XLIFF files. Starting with version 8.5, key metadata fields are recognized in the XLIFF process and will be imported/exported.

After you import the translation files, Ektron removes them from the file system.

NOTE: If an error exists in any of the files, the erroneous files are moved into a subdirectory. The directory is created using a timestamp. For example: `uploadedFiles\localization\merged\xlf20060208T141841_u1\error\`.

Metadata that Works with XLIFF Export and Import

The following metadata field names may be used for translation using the XLIFF export and import process.

- **XliffReferenceSource**—Content Selector
- **XliffReference**—Content Selector
- **XliffGlossary**—Content Selector
- **XliffNote**—Meta Data

Working with Metadata that does not work with XLIFF

This section describes how to have translated metadata applied to the translated content that does not use the above special names.

Background Information

Although metadata exists in the XLIFF files, it does not appear in the content's metadata even if metadata is defined for that language. This is because metadata definitions have unique IDs across languages. While a content ID is the same for a corresponding content block in other languages, the same is not true for metadata.

As a result, the ID for the source language (for example, English) metadata is not automatically mapped to metadata for other languages (for example, Spanish).

To solve this problem, create a mapping between the IDs of metadata definitions of different languages that are synonymous. For example, consider the following metadata definitions.

ID	Name	Language
102	Paper form number	en-US
104	Original page count	en-US
106	Número de papel de la forma	es-ES

ID	Name	Language
108	Cuenta de la página original	es-ES
110	Estado de la minoría	es-ES

In this example, IDs 102 and 106 are synonymous as are 104 and 108. Definition 110, however, only exists in Spanish.

The mapping is stored in an XML file. The mapping informs the XLIFF import process that metadata for ID 102 in English corresponds to ID 106 in Spanish and likewise with 104 and 108.

Setting up the Process to Apply Translated Metadata to Content

1. Open the folder *siteroot*/workarea/xslt/ and look for metadatadefinitions.xml. If it exists, go to step 2.

   If it does not, download it from XliffMetadata.zip. After unzipping the file, copy the .xslt files to the *siteroot*/workarea/localization/xliff folder. Copy the xml file to the *siteroot*/workarea/xslt folder.

2. Create metadata definitions in the other language(s). Be sure to use the same data type. To do this, log in, open the workarea, go to **Settings > Configuration > Metadata Definition**.
3. Make note of the definitions in the original language (for example, English).
4. Switch to view another language (for example, Spanish) and add a new definition. Assign it the same data type and other properties as the original. Note the new ID numbers.
5. Create metadata definitions in all languages you wish to support. You may add other languages and define more metadata definitions at any time.
6. Edit `workarea/xslt/metadataDefinitions.xml`. For each Metadata Definition, enter a `<dd>` element within the `<dl>` element. The `<dd>` element has the following form.

   ```
   <dd title="Name of the metadata definition">
   <dfn id="ID" xml:lang="language-country code"/>
   <dfn id="ID" xml:lang="language-country code"/> :
   </dd>
   ```

   For example:

   ```
   <dl>
     <dd title="Paper form number">
       <dfn id="102" xml:lang="en-US"/>
       <dfn id="106" xml:lang="es-ES"/>
     </dd>
     <dd title="Original page count">
       <dfn id="104" xml:lang="en-US"/>
       <dfn id="108" xml:lang="es-ES"/>
     </dd>
   </dl>
   ```

The definition for ID 110 is not included because it applies to only one language.

Now, the XLIFF import process accesses the `metadataDefinitions.xml` file to determine which definitions in the target language (for example, Spanish) correspond to the definitions in the source language (for example, English).

Creating the .zip File

To create one or more .zip files for translation:

PREREQUISITE

Only members of the Administrator User Group or those assigned to the XLIFF-Admin role can create, export, or import XLIFF files. See Also: *Using the Roles Screens* on page 1121.

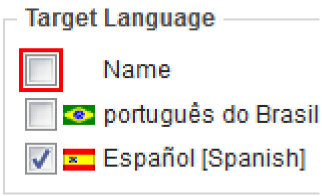
1. Select the content to be exported:
   - To translate *one content item*, navigate to its folder then click it.
   - To translate *all content in a folder* (and, if desired, its subfolders), navigate to its View Contents of Folder screen.
   - To translate a menu, go to **Content Tab > Menus**.
   - To translate a taxonomy, go to **Content Tab > Taxonomy** and check taxonomies to translate.
   - To translate a Translation Package, see *Creating Multi-language Content* on page 1062.
2. Click **Export for Translation** ( ). (On the View Contents of Folder Screen, choose **Action > Export for Translation**.) The Export for Translation screen appears.

NOTE: The **Include Subfolders** field appears only if you click **Export for Translation** from the View Contents of Folder screen.

3. To include content in all of a selected folder's subfolders, check **Include Subfolders**.
4. From the **Source Language** pull-down, select the language of items being translated.
5. All enabled languages are selected under **Target Language**. (See Also: *Determining Which Languages are Available* on page 1059).

6. To translate the content into *all* languages, proceed to the next step.

   To translate the content into *some* languages, uncheck the languages that you do not want. You can uncheck the box in the header row (illustrated below) to uncheck all, then only check the ones you want.



7. Click **Create XLIFF Files for Translation**.
8. Ektron creates one .zip file for each language. The .zip file includes an XLIFF file for each selected content item. (If content in a target language was edited more recently than the source language edition, that content is excluded from the .zip file. Also, the content's translation status must be **ready**. See Also: *Marking Translation Statuses* on page 1078)

   The **History** section of the Export for Translation screen displays the translated files.

   The history lists the .zip file created for each language. The top of the history window displays the most recently exported/imported files. ZIP files are indicated by the WinZip icon ( ). To the right of the icon are:

   - the source language's flag
   - an arrow indicating the direction of the translation
   - the destination language's flag and name
   - the zip file size

9. To review items in a zip file, click **+** next to **Extracted**. When you do, each content item's ID number, title, and last edit date appear.
10. Click the .zip file icon (under Downloadable Zipped XLIFF Files). The File Download window appears. If you want to review the XLIFF files within the .zip file, click **Open**.
11. Click **Save**. The Save As window appears.
12. Navigate to the folder where you want to place the zip file and click **Save**.
13. Transmit the files to the translation agency.

NOTE: When the translation agency returns XLIFF files, their extension must be .xlf or .xml. Other than that, the file name is not important.

File Naming Patterns

XLIFF

- *item identifier*[*item ID*]_[*new language hexadecimal code*][*2 letter new language code*].xlf
  - *item identifier* options:
  - content: **cont**
  - form: **form**
  - menu: **s**
  - menu item: **s**
  - taxonomy: **t**
- *item ID* varies, depending on whether the item is content, a form, a menu, or a menu item
  - content: content ID number
  - form: form ID number
  - Menu: menu ID number
  - Menu item: menu ID number

ZIP

- xlf[*timestamp in format yyyymmddThhmmss*]_u[*user ID*] _ [*new language hexadecimal code*]-[*2 letter language code*].zip

  The user ID indicates which user performed the export or import.

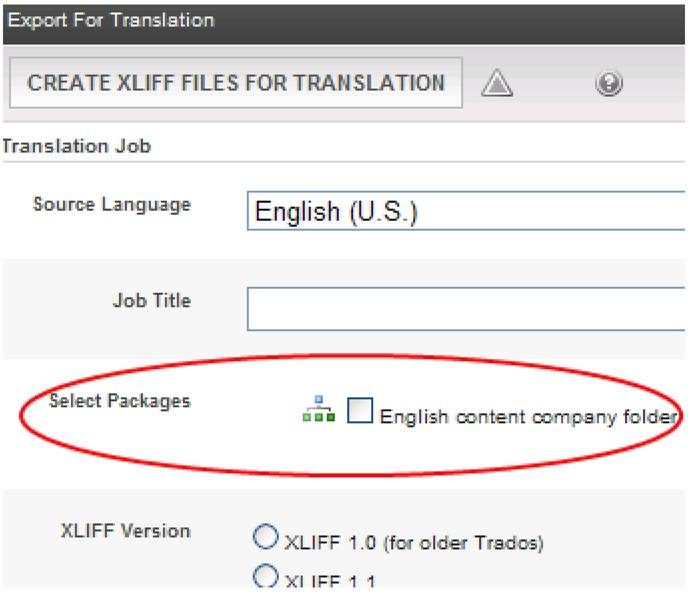
Creating a Multi-language Translation Package

Use the Multi-language Translation Package to create and control groups of content that require translation. Translation packages contain any type of content managed by Ektron including

- HTML
- XML Smart Forms
- assets like Microsoft Word documents, PDFs
- images. Images (.gif, .png, .jpg and so on) are also managed with their associated source documents like Photoshop (.psd) files.

For ease of use, you may add content and folders to one or more Translation Packages.

After creating a Translation Package, you use the Export for Translation screen's **Select Packages** field to export the content for translation. See Also: *Exporting Content to XLIFF* on page 1072



Only content that’s selected for that package and marked “Ready for Translation” is exported. See Also: *Marking Translation Statuses* on page 1078

PREREQUISITE

You must be a member of the Administrators group or be assigned to the XLIFF Admin role. See Also: *Defining Roles* on page 1120

Viewing Translation Packages

When you first view the Translation Packages screen, you see all packages in the default language. To view existing packages in any (or all) languages, change the language drop-down.

Adding a Translation Package

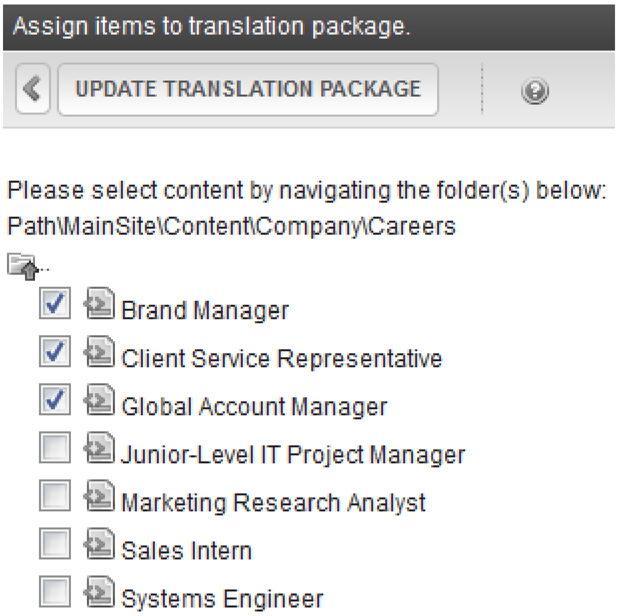
1. Go to **Workarea > Settings > Localization > Translation Packages**.
2. Choose a language for this Translation Package using the **View:** drop-down.
3. Click **Add Translation Package**. The Add Translation Package screen appears.
4. Enter a translation package title and description.
5. Click **Save**. The**Items** and **Properties** tabs appear.
6. Below the tabs, a screen appears. Use toolbar buttons to add items to the Translation Package.
   - —Assign languages into which the package's content is exported for translation. See *Creating the .zip File* on page 1081.
   - —Assign content to Translation Package. See*Assigning Items to a Translation Package* on the facing page .
   - —Assign folders to Translation Package. See *Assigning Folders to a Translation Package* on the facing page.
   - —Edit Translation Package.Change the title or description. To change other elements of the package (content, folders, and so on), click the appropriate button.
   - —Delete Translation Package.

Assigning Items to a Translation Package

1. Go to **Workarea > Settings > Localization > Translation Packages**.
2. Choose a language for this Translation Package in the **View:** drop-down.

NOTE: You can add more languages to the package after you create it.

3. Click a **Package Name** to view it.
4. Click **Assign Items** (). The following image shows an example of the `\Content\Company\Careers` folder.

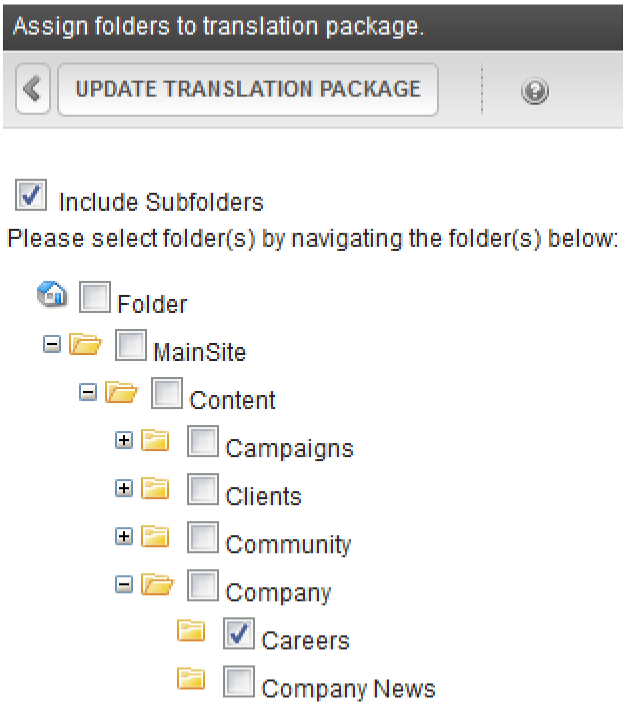


5. **Check** items to include in this package. Only content in the selected language appears.
6. Click **Update Translation Package**.

Assigning Folders to a Translation Package

If you select a folder, only content in that folder that matches the Translation Package's source language is included. For example, you create a Translation Package in English. In that package, you select folder which has 1 content item in English, 2 in Spanish, and 1 in German. When the package is exported for translation, it includes the English content only.

1. Go to **Workarea > Settings > Localization > Translation Packages**.
2. Click on a **Package Name** to view it.
3. Choose a language for this Translation Package in **View:**.
4. Click **Assign Folders** (). The following image shows an example of the MainSite\Content\Company\Careers folder.



5. **Check** folders to include in this package.

   NOTE: To check subfolders, open the folder tree to show the subfolders then check the top folder. If you do not want to include the subfolders, do not open the folder tree or uncheck the specific subfolders.

6. Click **Update Translation Package**.

Linking a Photoshop Source File to an Image for Translation

Complex images often contain text that you wish to translate. Because the image is a "flat" non-layered file, it is difficult to make text changes. However, the text may be on a layer within a Photoshop (.psd) file.

1. Create a Metadata key called `XliffReferenceSource` of the type `Content Selector`.

   NOTE: The key name `XliffReferenceSource` is a reserved name and recognized by the XLIFF import/export process.

2. Assign *XliffReferenceSource* metadata to the folder where the images are stored.
3. Add the Photoshop file as an asset in the folder.
4. Go to the Library and **edit** the image to which you associate the psd file.
5. Click the metadata tab and **add** the Photoshop file to the *XliffReferenceSource*field.
6. Click **Publish**.

Translating the Workarea

By default, the Workarea is in English. Ektron provides US English strings in a text file. Workarea text (that is, screen titles, Workarea menus, messages, alt text for buttons, and so on) is stored in a *resource file*. Resource files are installed to the *siteroot*\Workarea\resources directory. Workarea images that include text are stored in the workarea/images/*language* folder. For example, Workarea\images\french_standard.

Ektron provides a resource files for the following languages. The English resource file is complete, so translate the English file into the desired language. The others are partially complete.

- German
- English—United States
- Spanish
- French
- Italian
- Dutch—Netherlands
- Dutch—Belgium

A resource file is not human-readable. To make it so, use Microsoft's resgen utility, then translate the human-readable, .txt version of the file. The following example shows a portion of it.

```
add menu title=Add Menu
lbl ad serverip=Domain Controller IP
alt: remove collection items text=Click here to remove items
       from this collection
```

Each string has the following components:

- English description—includes information about where the text appears. For example, btn text appears on a button.
- an equal sign (=)
- English text—The text displayed on the screen, for example, a button label, menu item, or mouse-over text.

For each string, translate the text to the right of the equal sign. Then, run the resgen utility on the .txt file again, indicating the translate-to language. This converts the file back to a machine-readable format. Finally, move that file to the appropriate language folder under workarea/images, and enable the new language in the Workarea.

PREREQUISITES

- The alphabetical, 4-character identifier of the country/language into which you are translating. See CultureInfo Class from the MSDN website.
- The server that hosts Ektron must have Visual Studio.NET.

1. Copy the resgen.exe utility from C:\Program Files (x86)\Microsoft SDKs\Windows\v7.0A\Bin to the *your-web-site*\Workarea\resources folder.

   In Visual Studio 2008, the resgen.exe utility is typically located in the <SDK dir>\bin directory, located via HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft SDKs\Windows.
2. Go to **Windows Start button > Microsoft Visual Studio 2010 > Visual Studio Tools > Visual Studio Command Prompt** to open a command window.
3. In the command window, change the directory to the *your-web-site*\Workarea\resources folder. For example, cd C:\Inetpub\wwwroot\CMS400Min\Workarea\resources.

4. Insert the following text: `resgen EKResource.en-US.resources` *`anyfilename`*`.txt`
   You can assign any name to the .txt file. A .txt file of resource strings converted to a human-readable format is created in the `resources` directory.
5. Open the .txt file.
6. Replace all single backslashes (\) with a double backslash (\\).
7. Translate the text following every equal sign (=). Be careful not to change any occurrences of **n** surrounded by double backslashes (`\\n\\`).
8. Save and close the .txt file.
9. Open the command window (as described in Step 2) and insert the following:
   ```
   resgen anyfilename.txt EKResource.two-character country
     code-two-character language code.resources.
   ```
   Replace *`anyfilename`*`.txt` with the file you named in Step 4. In this example, the .txt file is named `span_translation.txt`. For example, to indicate that the Workarea is being translated into the Spanish/Spain, enter `resgen.exe span_translation.txt EKResource.es-ES.resources`.
   When the conversion is complete, **Writing Resource File ...Done** appears in the command window.
10. The `Workarea\resources` folder includes several resource files. If one exists for the translate-to language, it is overwritten. If one does not exist, it is created. To follow our example, the `EkResource.es-ES.resources` file was updated with your changes.
11. **Your website's `Workarea\images` folder contains text images that need translation. If the country/language into which you are translating has subfolder within `Workarea\images`, inspect its images to see if they need translation. If the country/language into which you are translating does *not* have a subfolder within `Workarea\images`:
    a. Create a new folder whose name is the language code into which you are translating.
    b. Copy the files in the `Workarea\images\en` folder.
    c. Paste those files to the folder you created in Step 10a.
    d. Review the files in the folder you created in Step 10a. Translate text as needed.
12. Enable the new language in the Language Settings screen. See *Determining Which Languages are Available* on page 1059
13. Make the new language the default language in the Configuration Setup screen. See *Getting Started with Ektron* on page 5.

Setting the Language of Spell Checking for eWebEdit400

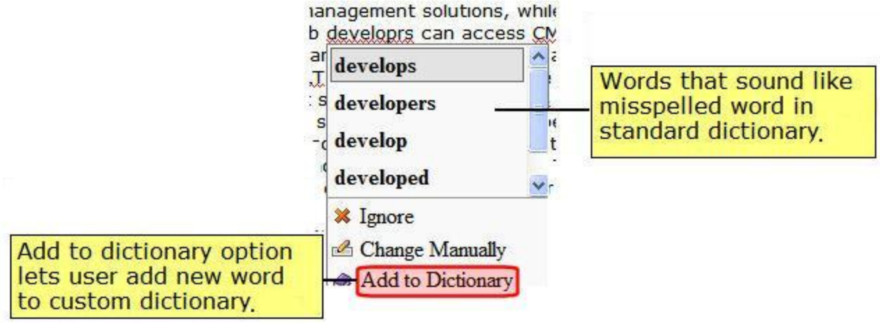
NOTE: If you use the default editor, your browser manages the spell checking.

Ektron's spell checker for eWebEdit400 refers to a *standard dictionary* of the content's language. So, for example, if the content is U.S. English, the U.S. English dictionary is referenced.

The spell checker also references a language-specific *custom dictionary*. Words are added to this list when a user stops at a misspelled word and chooses the **Add to Dictionary** option.

Both dictionaries reside on the server that hosts Ektron.

The spell checker compares each word against both sources. If a word is in either one, the spell checker moves to the next word. If a word is missing from both sources, the spell check options shown below appear, and the user decides what to do.



Ektron provides the following standard dictionaries.

- uk-UA—Afrikaans
- ar-AR—Arabic
- bg-BG—Bulgarian
- cs-CZ—Czech
- da-DK—Danish
- de-CH—German (Switzerland)]
- de-DE—German
- en-GB—English (Great Britain)
- en-US—English (United States)
- es-ES—Spanish
- fr-FR—French
- he-IL—Hebrew
- it-IT—Italian
- nl-NL—Dutch
- nn-NO—Norwegian (Nynorsk)
- pl-PL—Polish
- pt-PT—Portuguese
- pt-BR—Portuguese (Brazil)
- ru-RU—Russian
- sl-SL—Slovenian
- sv-SE—Swedish
- uk-UA—Ukrainian

If Ektron does not have a dictionary that matches the content language, it proceeds through these steps in the following order:

1. If the language begins with en (for example, en-AU), use the en-GB dictionary.
   If it begins with zh, use zh-CHS.
2. Each language has a *default version*, indicated by letters before the dash matching the ones after the dash. For example fr-FR. If the default version's dictionary is available, use it.

3. Use the first dictionary (alphabetically) that begins with the content language. For example, the content language is es-AR, but its dictionary does not exist. The first dictionary alphabetically beginning with es that is available is es-CO, so use that.
4. If none of the above is available, use en-US.

Editing eWebEdit400's Standard Dictionaries

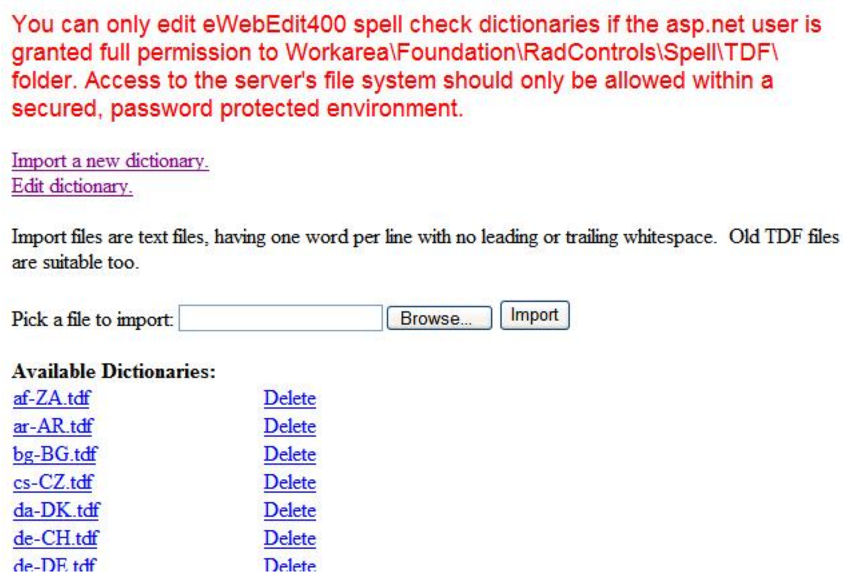
The following topics explain how to access a screen for working with standard dictionaries, and how to update, edit, replace, and delete individual words as well as entire dictionaries. You cannot edit a word. Instead, delete a word then add the corrected version.

Accessing the Spell Check Dictionary Update Screen

Ektron provides a special screen that lets you create, update, and delete the standard dictionaries. To access this screen, use this URL:

```
http://your-server/siteroot/workarea
/contentdesigner/dictionaryconfigurator
/dictionaryconfigurator.aspx
```

This screen looks like this.



NOTE: If you want to remove the red text from the top of the screen, open the .aspx file and delete that text.

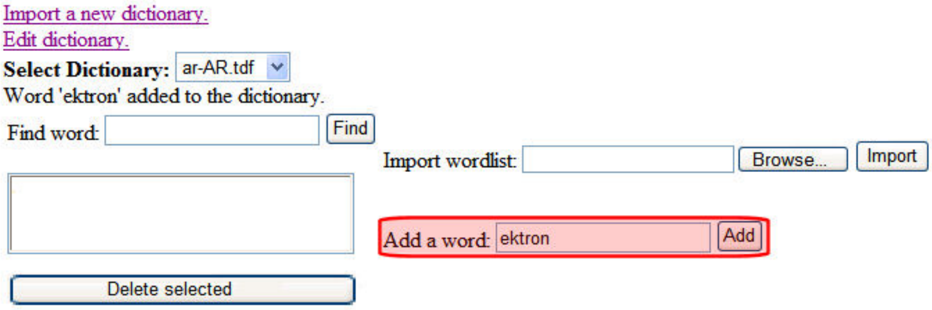
To use this screen, the ASP.NET user must be granted read and write permission to the following folder: `your-server\siteroot\Workarea\Foundation\RadControls\Spell\TDF`.

NOTE: If ASP.NET user has full permission but you still cannot edit a dictionary, open the folder listed above, right click the TDF file and verify it is not read-only.

Adding a Word to a Dictionary

1. Open the Dictionary Update screen. See Also: *Accessing the Spell Check Dictionary Update Screen* above
2. Click **Edit Dictionary.**

3. At the **Select Dictionary** drop-down, choose the language of the dictionary you want to update.
4. In the **Add a word** field in the lower right corner of the screen, enter the word to add.

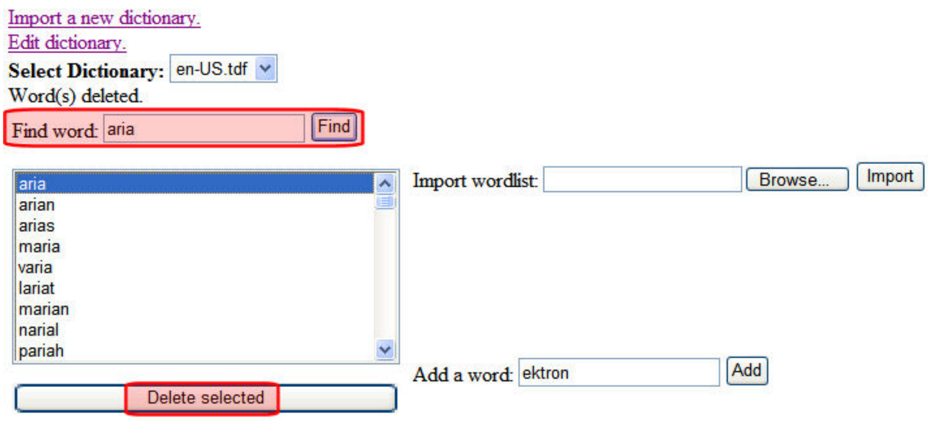


5. Click **Add**.

NOTE: Tip! Enter the word you just added into the **Find Word** field and click **Find** to verify that the word was successfully added.

Deleting a Word from a Dictionary

1. Open the Dictionary Update screen. See Also: *Accessing the Spell Check Dictionary Update Screen* on the previous page
2. Click **Edit Dictionary**.
3. At the **Select Dictionary** drop-down, choose the language of the dictionary you want to update.
4. In the **Find word** field in the top left of the screen, enter the word to delete.



5. Click **Find**.
6. In the results box below, click the word.
7. Click **Delete Selected**.

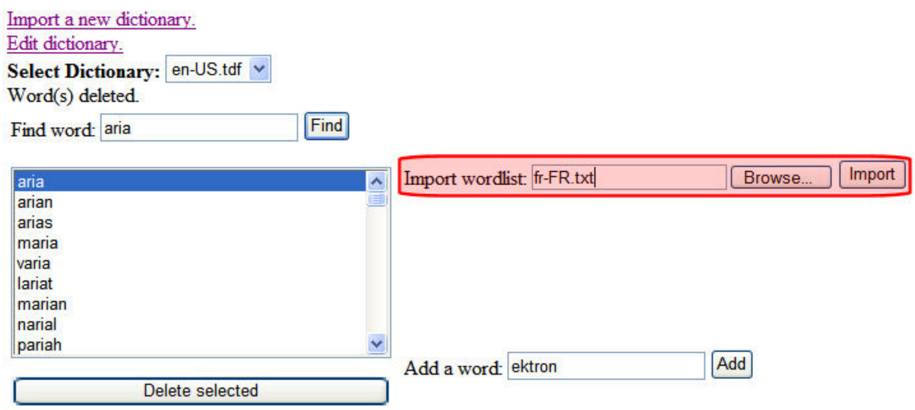
NOTE: Enter the deleted word into the **Find Word** field and click **Find** to verify that the word was successfully removed.

Adding a Word List

You can add a list of words to a standard dictionary. For example, you work in a hospital and want to add medical terms. While you can add words one at a time using *Adding a Word to a*

Dictionary on the previous page, it is more efficient to place all words in a text file then import the file into a dictionary.

1. On your server, create a .txt file.
2. Place all words into the .txt file, one on each line.
3. Save the file using the language code of the dictionary you are updating. For example, if you are adding to the French dictionary, name the file fr-fr.txt.
4. Open the Dictionary Configurator screen. See *Accessing the Spell Check Dictionary Update Screen* on page 1090.
5. Click **Edit Dictionary**.
6. Next to **Import Wordlist**, click **Browse**.



7. Navigate to the text file you saved in Step 3.
8. Click **Import**. All words on the list are added to the dictionary whose name matches the .txt file. For example, words in the fr-fr.txt file are added to the fr-FR.TDF dictionary file.

NOTE: While on the screen, enter one of the words in the word list into the **Find word** field, then click **Find** to verify that the import succeeded.

Importing a Dictionary

Typically, you want to import a dictionary because the language of some Ektron content is not included in the set of standard dictionaries. For example, your content is Japanese.

You also can delete a standard dictionary then import one to replace it if you have a word list that you consider superior to the standard dictionary. See Also: *Deleting a Dictionary* on the facing page.

To import a dictionary:

NOTE: The following procedure assumes the words do not yet exist in a .TDF file. If they do, open the Dictionary Configurator screen, click **Browse**, select the file, and click **Import**. See Also: *Accessing the Spell Check Dictionary Update Screen* on page 1090.

1. Create a blank .tdf file.
   a. On your server, use Notepad to create a blank .tdf file named after the language code of the dictionary you are importing. For example, if you are importing a French dictionary, name the file fr-fr.tdf.

b. Open the Dictionary Configurator screen. See Also: *Accessing the Spell Check Dictionary Update Screen* on page 1090.

c. Next to the **Pick a file to import** field, click **Browse**.

d. Navigate to the .tdf file you created in Step 1.

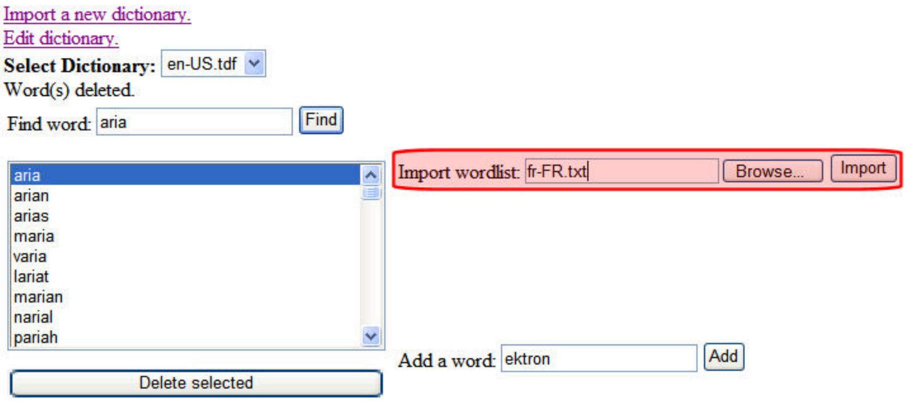
e. Click **Import**. This action places the TDF file into the correct folder.

2. Create and import the word list.

   a. Follow the procedure described in *Adding a Word List* on page 1091 to insert all dictionary words into a .txt file.

   b. Click **Edit Dictionary**.

   c. Next to **Import Wordlist**, click **Browse**.



   d. Select the text file you created in Step 1.

   e. Click **Import**. All words in the list are added to the dictionary whose name matches the .txt file name.

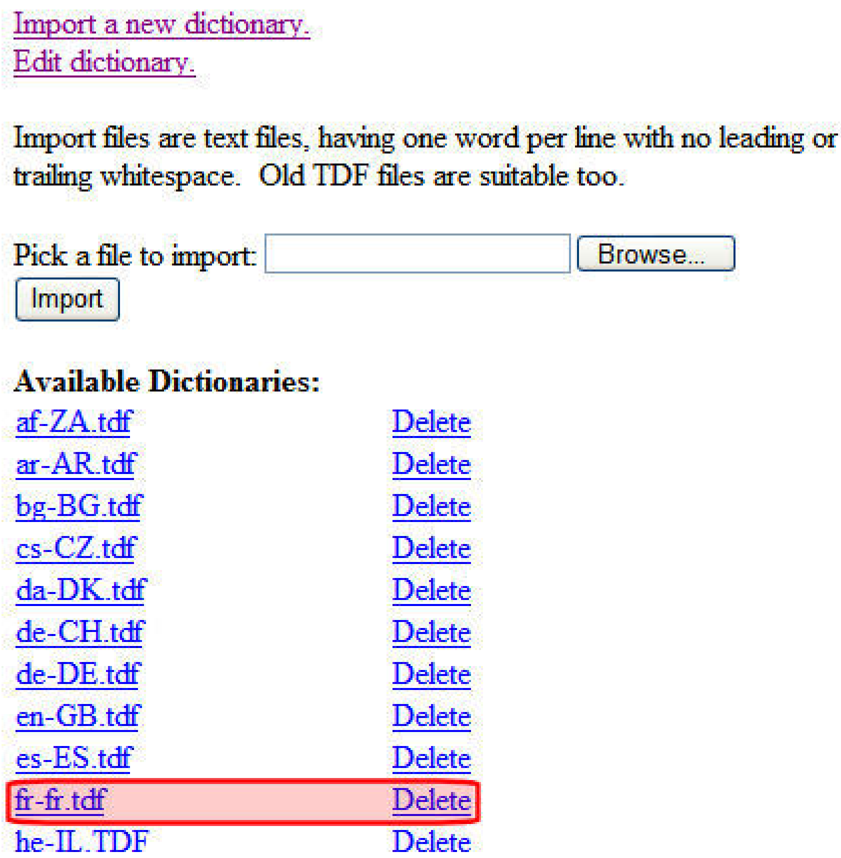
NOTE: Use the Edit dictionary screen to select the dictionary. Then, use the **Find word** field to verify that the import succeeded.

Deleting a Dictionary

You typically would delete a standard dictionary to replace it if you have a word list that you consider superior to the standard dictionary.

1. Open the Dictionary Configurator screen. See Also: *Accessing the Spell Check Dictionary Update Screen* on page 1090.

2. In the available dictionaries list, find the language whose dictionary you want to import.



3. To the right of the language, click **Delete**.

Editing eWebEdit400's Custom Dictionary

A language's custom dictionary is created the first time a user uses the **Add to Dictionary** option while spell checking content in that language. From then on, the dictionary is updated when anyone using that server edits content in that language and uses the **Add to Dictionary** option. The name of the custom dictionary is formed using:

- the language code of the content
- a dash (-)
- the word **custom**
- the file extension .txt

So, if the content is French, the file's name is`fr-fr-custom.txt`. The file is saved to the `root/Workarea/Foundation/RadControls/Spell/TDF` folder.

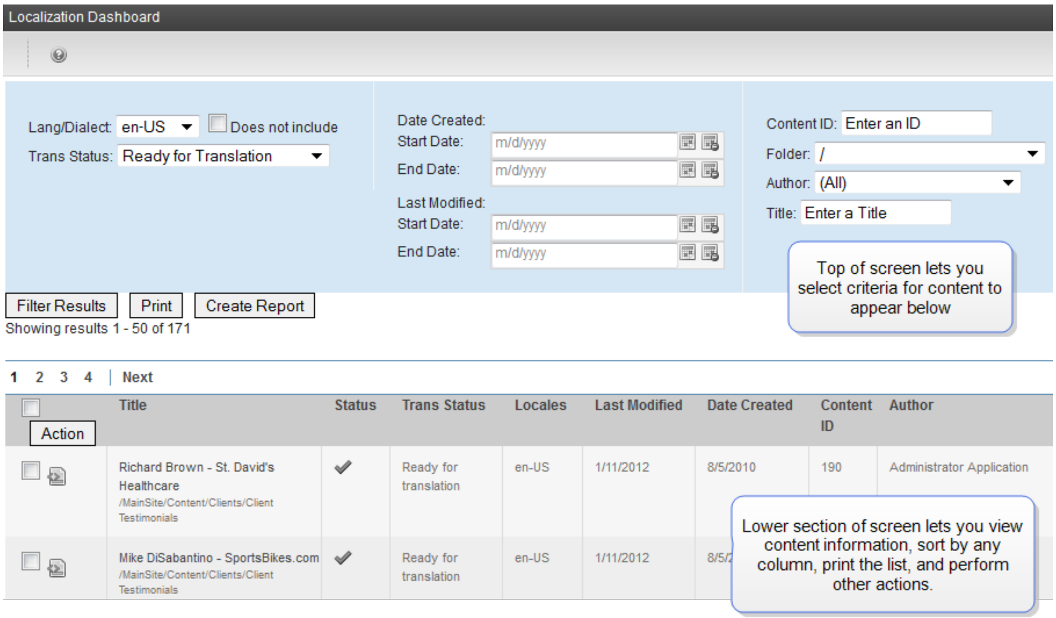
You can edit the custom dictionary manually using an application that updates .txt files, such as Notepad.

Using the Localization Dashboard

PREREQUISITE

You must be a member of the Administrators group or assigned to the XLIFF Admin role. See Also: *Defining Roles* on page 1120

The Localization Dashboard provides an overview of translation activity occurring in Ektron. To access the Localization Dashboard from the Workarea, go to **Settings > Localization > Dashboard**. The top of the screen lets you choose criteria. The lower section then displays content that meets the criteria. For example, you can find all US English content whose translation status is **Ready for Translation**, and resides in the `/Clients` folder. The lower section of the screen also lets you perform tasks on its content, such as print a list or change its Translation Status. See Also: *Marking Translation Statuses* on page 1078



This section also contains the following topics.

Selection Criteria

The following list explains the fields at the top of the screen. After you enter the selection criteria, click **Filter Results** to apply the new selections.

IMPORTANT: These criteria have an AND relationship. This means that, if you select several criteria, only content that satisfies *all* appears in the lower section of the screen.

- **Lang/Dialect**—Select the language whose content you want to view. To ignore this field, choose **NULL**. Alternatively, you can select all content *not* in the selected language. To do that, check the **Does not Include** box.
- **Trans Status**—Select the translation status of content you want to view. To disregard this criterion, choose **(Any)**. See Also: *Marking Translation Statuses* on page 1078
- **Date Created**—If desired, enter a range of content creation dates. If you do, only content created within those dates appears below.

- **Last Modified**—If desired, enter a range of content modification dates. If you do, only content edited within those dates appears below.
- **ContentID**—To see a particular content item, enter its ID number.
- **Folder**—If desired, select a folder whose content you want to view.
- **Author**—If desired, select the person who last edited the content you want to view.
- **Title**—If you know one or more words in the title of content that you want to view, enter them. You may enter one partial word and find all content whose title includes it.

Viewing Content on the Localization Dashboard

When you open the Localization Dashboard, the lower section displays all content in the Default Application Language.

NOTE: The pagination of the content list is controlled by the <add key="ek_PageSize"> element of your *siteroot*/web.config file.

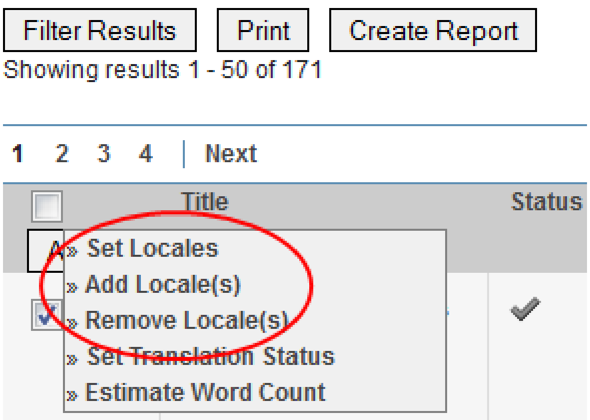
On the lower section, you can:

- sort by any column in ascending or descending order by clicking on the column header
- view and work with any content item by clicking it, if you have permission to do so See Also: *Managing Folder Permissions* on page 257
- print current results by clicking **Print**
- export current results to a Microsoft Excel spreadsheet by clicking **Create Report**
- edit the selected content's export languages
- change the content's Translation Status
- estimate the word count for one or more pieces of content

Editing the Content's Export Languages

As described in *Creating the .zip File* on page 1081, when exporting content for translation, you select one or more target languages.

You can add, edit, or remove target languages for content in the lower section of the Localization Dashboard using **Action** menu options.



The actions associated with the menu options are performed the next time the **Create XLIFF Files for Translation** button is clicked:

- **Set Locales**—View and modify locales into which selected content will be exported.
- **Add Locales**—Add locales into which selected content will be exported.

- **Remove Locales**—Remove locales into which selected content will be exported.

To change the target language assigned to content in the lower section of the Localization Dashboard:

1. Check the box next to each content item that you want to modify. To check all items, check the box in the header row.
2. Click **Action >** *menu option*. For example, **Action > Set Locales**.
3. Select desired locales and click **Save**.

Changing the Content's Translation Status

To learn about Translation Status, see *Marking Translation Statuses* on page 1078.

1. Check the box next to each content item that you want to modify. To check all items, enable the check box in the header row.
2. Click **Action > Set Translation Status**.
3. Select the appropriate **Translation Status** and click **Save**.

Estimating the Content's Word Count

1. Enable the checkbox associated with one or more pieces of content.
2. Choose **Action > Estimate Word Count**. The Estimated Word Count screen appears.
3. Click **Save**. The screen is dismissed. (Note that the word count is not saved.)

Configuring Character Encoding

The following Ektron Knowledge Base articles describe issues surrounding the display of special characters within Ektron eWebEditPro, Ektron's deprecated WYSIWYG editor embedded within Ektron.

Wherever these articles contain references to eWebEditPro's configuration data or file (`config.xml`), you should instead update the `web.config` file, located in your site's root folder.

- Produce UTF-8
- Character Encoding
- Encoding special characters

(This page intentionally blank.)

28

Managing Users and User Groups

NOTE: Only members of the Administrators User Group and those defined in the Manage Members for Role: User Admin screen can view, add, or edit users and user groups.

Users are people who administer the website, create content, or publish content. Without users, the website would be blank. In Ektron, you can add, edit, and delete users to and from the application through the Settings folder in the Workarea.

Every Ektron user belongs to a User Group. When you create a user, the user is added to the Everyone group by default. User groups are used when creating permissions and an approval chain for content folders. User groups can be departments in your company (Human Resources, Sales, Engineering) or indicate a user's role (Publishers, Administrators, Editors, and so on).

All user and user group information is accessible from the Workarea.

To access the user folder in Ektron, navigate to **Workarea > Settings > Users**. The View Users screen appears. From this screen, you can add, edit, and delete users.

To access the user group folder in Ektron, navigate to **Workarea > Settings > User Groups**. The View User Groups screen appears. From this screen, you can add, edit, and delete user groups.

IMPORTANT: This chapter only applies to systems that do not use Active Directory Integration. If your system uses the Active Directory Integration Feature, see *Using Active Directory with Ektron* on page 1127 to learn about user management functions. If your system uses LDAP Authentication, see *Using LDAP with Ektron* on page 1151.

This section also contains the following topics.

Managing Users

Creating a New User

Before you can assign a user to a user group, you must add the user to the system.

1. Go to **Workarea > Settings > Users**.
2. Click **Add User**. The Add a New User to the System screen appears.

   NOTE: To learn about the lock and unlock buttons ( ), see Account Locked (below). The buttons provide a shortcut to that field for users with a check in the box to the left of their name.

3. Enter the following information about the user. An asterisk next to a field name indicates that the field is required and cannot be blank.

   —Editable by a non-administrator user. Non-admin users can edit their own profiles only, and only fields indicated.

General Tab (tabs only appear when editing)

- **Username**—Insert a username for the user you want to create.
- **Path**—This field is only available when using LDAP Authentication. See Also: *Adding User Information from an LDAP Server to Ektron* on page 1154.
- **First Name**—Enter the first name of the user.
- **Last Name**—Enter the last name of the user.
- ✓ **Display Name**—Enter the name that is used to identify a user in the Workarea and on the website. This can be different from the Username, which is the name used to log in.

  NOTE: The Display Name cannot be blank.

- ✓ **Password**—Enter a password for the user. See Also: *Getting Started with Ektron* on page 5.
- ✓ **Confirm Password**—Confirm the password by typing it again.
- ✓ **User Language**—Select the language in which the user will view Ektron screens and messages. The language also determines the default value whenever a drop-down list of languages appears within Ektron.

  The drop-down list is derived from the Language Settings screen, available from the **Settings > Configuration** folder.

  Do not confuse the system language with the user's ability to create and edit foreign editions of content. This field does not prevent a user from working with multiple language content.

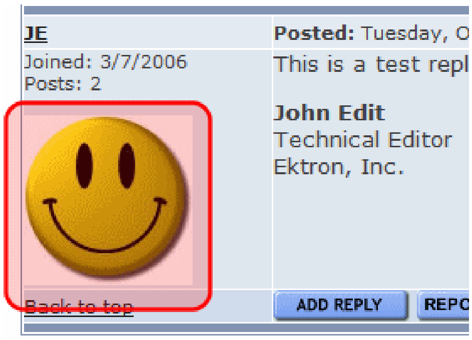
  See Also: *Working with Multi-Language Content* on page 1057

  NOTE: If the selected language is not English, French or German, it is only supported after you download the Ektron Language Support Program from Ektron and translate the website.

- ✓ **Email Address**—Enter the email address of the user. Notification email is sent to this address unless the **Disable E-mail Notification** field is checked. Also, this address identifies the user sending Instant email. See Also: *Installing Ektron* on page 9
- ✓ **Account Locked**—Check this box to lock or unlock this user. Locked users cannot log in. For information on events that automatically lock a user out, see *Getting Started with Ektron* on page 5. You can manually lock or unlock users via the lock buttons () on the View Users in Groups screen.
- ✓ **Content and Forum Editor**—Uses the default editor.

  NOTE: If an editor is defined in the `siteroot/web.config` file's `ek_EditControlWin` or `ek_EditControlMac` tag, this field is disabled.

- **Avatar**—An image or icon to represent you in the Forum.



Insert a Web path to the image. For example: `http://www.example.com/smileyface.gif`. Alternatively, you can click **Upload** to browse to a file on your network.

By default, an avatar's maximum size is 200 kilobytes, and its height and width are reduced 125 pixels, preserving the aspect ratio. To change the file size limit, edit *Siteroot*\Workarea\Upload.aspx.vb. In this file, change the line shown below to the maximum file size.

```
If (numFileSize > 200) Then
```

To change the avatar's default height and width, edit `Siteroot\App_Code\VBCode\Utilities.vb`. In this file, change the following lines to the desired size.

```
Dim Width As Integer = 125
Dim Height As Integer = 125
```

- **Disable Receiving of Workflow and Task Email**—Select to disable the workflow and task email notifications for the user. If you do, the user does not receive the automatic email notification described in *Installing Ektron* on page 9. However, this field has no effect on the user’s ability to receive instant email.
- **Address**—Enter the address used to find this user’s location when a search based on location is being performed. You can enter either a full address or a postal code.
- **Latitude, Longitude**—The Google GeoCoder strategy uses the information from the **Address** field to determine the user's latitude and longitude. These values are used to identify a user’s location when someone performs a search based on location.

Custom Properties Tab

- **Features**—Create User Calendar—See *Working with Calendars* on page 514
- **Additional custom user properties**—See *Creating Custom User Properties* on page 1108

If email notification is turned off in the setup page, you are notified when editing, adding, or viewing a user.

4. Click **Save**. The View Users in Group Everyone screen appears with the new user included in the table. When you add a new user, he is automatically placed in the Everyone user group. To assign users to other groups, see *Assigning Users to User Groups* on page 1106.

5. Continue this process until you add all website users, or reach the maximum allowed by your license.

NOTE: Contact Ektron Sales for pricing of adding more users to your license.

Viewing a User

After adding a user, you can view that information. While viewing a user, you can edit or delete the user.

1. Access the user folder as described in *Managing Users and User Groups* on page 1099.
2. Click the **Username** of the user you want to view. The View User Information screen appears. To learn about the fields, see *Creating a New User* on page 1100.

Editing a User

NOTE: If you are using Active Directory to edit a user, see *Adding and Maintaining User Information* on page 1143.

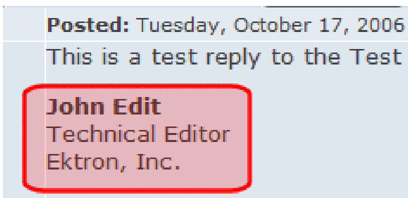
When editing a user, you can change the fields set when adding the user, such as username, first name, last name, password, user language, and email address. Also, while editing, you can change fields that were not available when the user was created.

1. Access the view user screen of the user you want to edit, as described in *Viewing a User* above.
2. Click the **Username** of the user you want to edit. The View User Information screen appears.
3. Click **Edit**. The Edit User screen appears.

   —Editable by a non-administrator user. Non-admin users can edit their own profiles only, and only fields indicated.

   General Tab

   - **ID**—A unique identifier assigned to a user by the system. This field is not editable.
   - **Account Locked**—Check this box to lock or unlock this user. Locked users cannot log in. For information on events that automatically lock a user out, see *Getting Started with Ektron* on page 5.
   - **Forum Signature**—Adds a signature to your posts in the forum. You do not see the signature in the editor. It is added after you click the **Post** button.

   - **Tags**—Select from a predefined list of Tags that describe yourself. Or, create a new tag by clicking **Add Tag**. Placing a check mark in the check box next to a tag activates it for your profile. See Also: *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245.

- **User Groups Tab** (Tab only appears when viewing properties) -Lists user groups to which the user belongs. See Also: *Assigning Users to User Groups* on page 1106.

Workarea Tab

- **Full Screen**—When a check mark appears in this check box, the Workarea opens up to the size of the full screen. In addition, the Width and Height options are hidden. See *Getting Started with Ektron* on page 5.
- **Width**—If desired, change the width of the screen in which Ektron appears for this user. The width in pixels must be between 400 and 2400. This field accommodates users who have larger monitors and/or prefer a smaller resolution, such as 1280 x 1024. If a check mark appears in the Full Screen check box, this option is hidden.
- **Height**—If desired, you can change the height of the screen in which Ektron appears for this user. The height in pixels must be between 300 and 1800. This field accommodates users who have larger monitors and/or prefer a smaller resolution, such as 1280 x 1024. If a check mark appears in the Full Screen check box, this option is hidden.
- **Landing Page after login**—See *Getting Started with Ektron* on page 5.
- **Set smart desktop as the start location in the Workarea**—If you want the Smart Desktop to appear as soon as this user enters the Workarea, click this check box. See Also: *Personalizing the Smart Desktop* on page 278. If you leave this check box blank, when this user enters the Workarea, he goes to the folder of the content specified at the **Landing Page after login** field.
- **Restore Default Preferences**—Restore the default Workarea settings specified by the Administrator

Custom Tab (same as when adding a user)

Activities Tab

If you disable Notifications, the **Activities** tab (which lets the user pick Notifications to receive and send) disappears.

- **Colleagues Sub**—Select notifications you want to receive when a colleague performs an activity, and the agent that transmits the notification. For example, if you want to receive email notifications when a colleague posts a blog message, check inside the box for **Blog Post** in the email column. See Also: *Sending Notifications to a Community* on page 1194
- **Community Groups Sub**—This tab sets preferences for all community groups. Select notifications you want to receive when a community group member performs an activity relating to the group, and the agent that transmits the notification. For example, you want to receive email notifications when a community group member posts to group’s blog. To enable this, check inside the **Group Blog Post** box in the email column. See Also: *Sending Notifications to a Community* on page 1194

  For Developers: Ektron has created a UserGroupPreferences user control. If you add the control to a community group’s profile page, users can specify notification preferences for individual groups. This control is installed with Ektron and is located in:

```
[Drive:]\webroot\siteroot\Workarea\Notifications\Controls
```

- **My Activities Sub**—Select notifications you want publish when performing various activities on the website. For example, if you want to publish notifications when you post to your blog, check the box for **Blog Post** in the **Publish** column. See Also: *Sending Notifications to a Community* on page 1194.
- **Profile Links**—Displays the user's alias if community aliasing is set for users. See Also: *Creating User-Friendly URLs with Aliasing* on page 835
- **Roles—**This tab shows the roles assigned to this user. See Also: *Defining Roles* on page 1120

4. Make necessary changes to user information.
5. Click **Update**.

Deleting a User

NOTE: If you are using Active Directory to delete a user, see *Maintaining AD User Information* on page 1139.

When you need to remove a user from the application, you can easily do it from the User's Folder in the Workarea.

1. Access the view user screen for the user you want to delete, as described in *Viewing a User* on page 1103.
2. Click the **Username** of the user you want to delete. The View User Information screen appears.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**.

WARNING! When a user is deleted from the database, the user is permanently deleted. The process cannot be undone.

Removing Users from User Groups

NOTE: If you are using Active Directory to remove a user from a group, see *Maintaining AD User Group Information* on page 1141.

Removing a user from a user group does not delete the user from Ektron. Also, you cannot remove users from the Everyone group.

1. **Workarea > Settings > User Groups**.
2. Click the name of the group that includes the user you want to remove. Members of the group appear.
3. Click **Remove** to the far right of the user that you want to remove. A confirmation message appears.
4. Click **OK**.

Managing User Groups

NOTE: If you are using Active Directory to manage user groups, see *Setting Up Active Directory Integration Mode* on page 1131.

Every Ektron user belongs to at least one User Group. User groups are used when creating permissions and an approval chain for content folders.

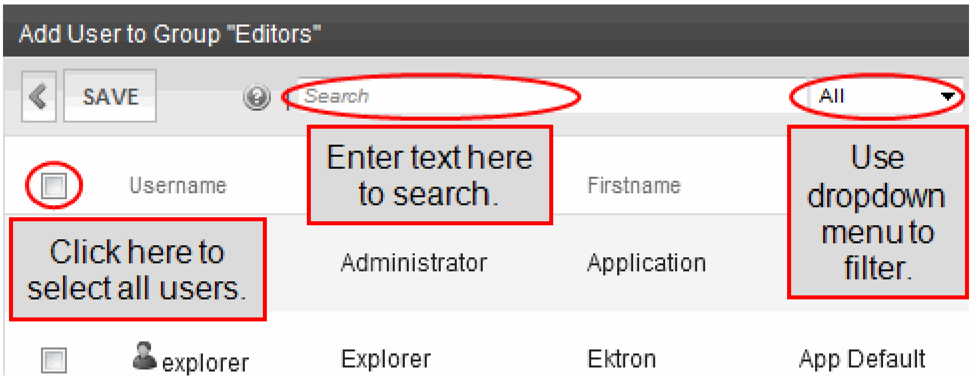
Creating a New User Group

1. Access the User Groups folder in the administrator Workarea, as described in *Managing Users and User Groups* on page 1099.
2. Click **Add User Group**. The Add a New User Group to the System screen appears.
3. Enter a name and brief description of the user group you want to create.
4. Click **Save**.

Assigning Users to User Groups

When you create a user group, no user is initially assigned to it. To add a user to a user group:

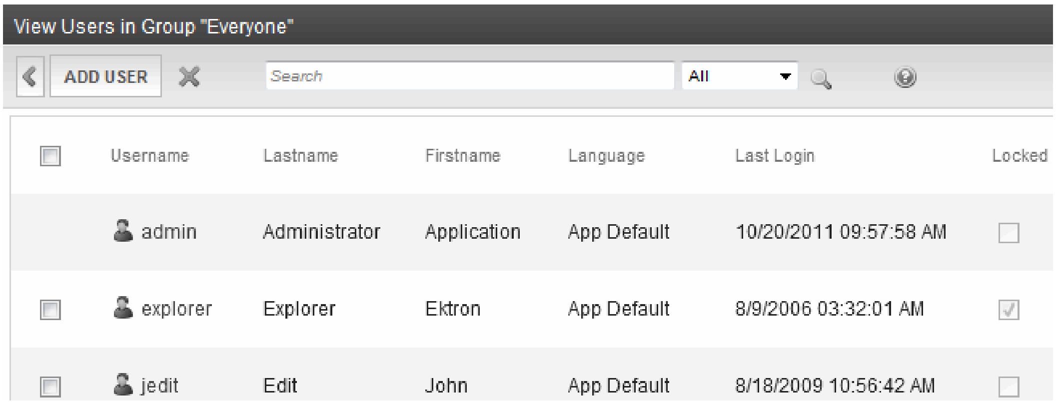
1. Access the **Workarea > Settings > User Groups**.
2. Click the user group to which you want to add a user. The View Users in Group screen appears.
3. Click **Add User**. Users who do not belong to the group appear.
4. Select the users to add to the group using one or more of the following methods:
    - To select specific users, check the box to the left of their name.
    - To select all users, check the box in the column header row.
    - Enter characters into the **Search** field and find only users that match them. For example, you could enter **bill**, click the **Search** button, and see only users with those characters in their name.
    - Use the drop-down menu to sort the display by **User Name**, **Last Name** or **First Name**.



5. Click **Save**. A confirmation message appears.
6. Click **OK**. The selected users are now members of the selected group.
7. Continue this process until you add all users into User Groups.

Viewing the Users in a User Group

1. Access the User Group folder in the administrator Workarea, as described in *Managing Users and User Groups* on page 1099.
2. Click the user group whose members you want to view. The View Users in Group screen appears with a list of users who are members of the group. From this screen, you can edit or delete user groups, as well as add and remove users to and from the user group.



Editing a User Group

When editing a User Group, you can only change its name.

NOTE: You cannot edit the default Administrators and Everyone user groups.

1. Access the View Users in Group screen for the user group you want to edit, as described in *Viewing the Users in a User Group* above.
2. Click the User Group you want to edit. The View Users In Group screen appears.
3. Click **Edit** ( ). The Edit User Group screen appears.
4. Edit the group name as required.
5. Click **Update**.

Deleting a User Group

When you do not need a User Group anymore, you can delete it from the system.

NOTE: You cannot delete the Administrator and Everyone groups.

1. Access the View Users in Group screen for the user group you want to delete, as described in *Viewing the Users in a User Group* above.
2. Click the User Group you want to delete. The View Users In Group screen appears.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**. The User Group is deleted from the Ektron website.

Removing a User from a User Group

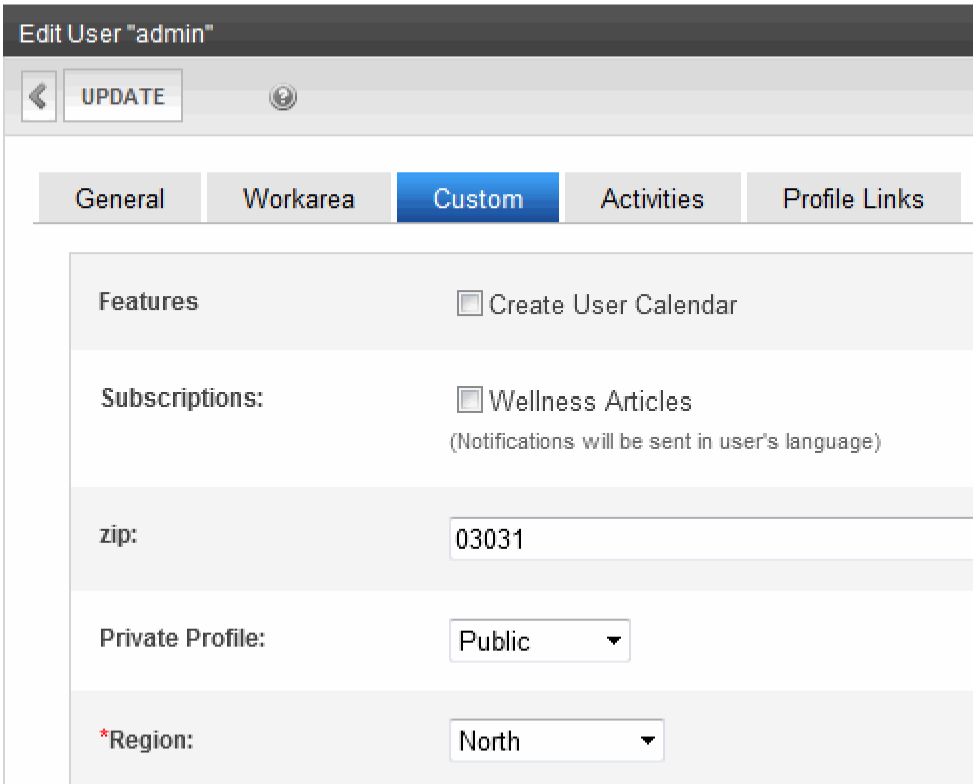
See *Removing Users from User Groups* on page 1105.

Creating Custom User Properties

PREREQUISITE

Only members of the Administrators Group can work with Custom User Properties.

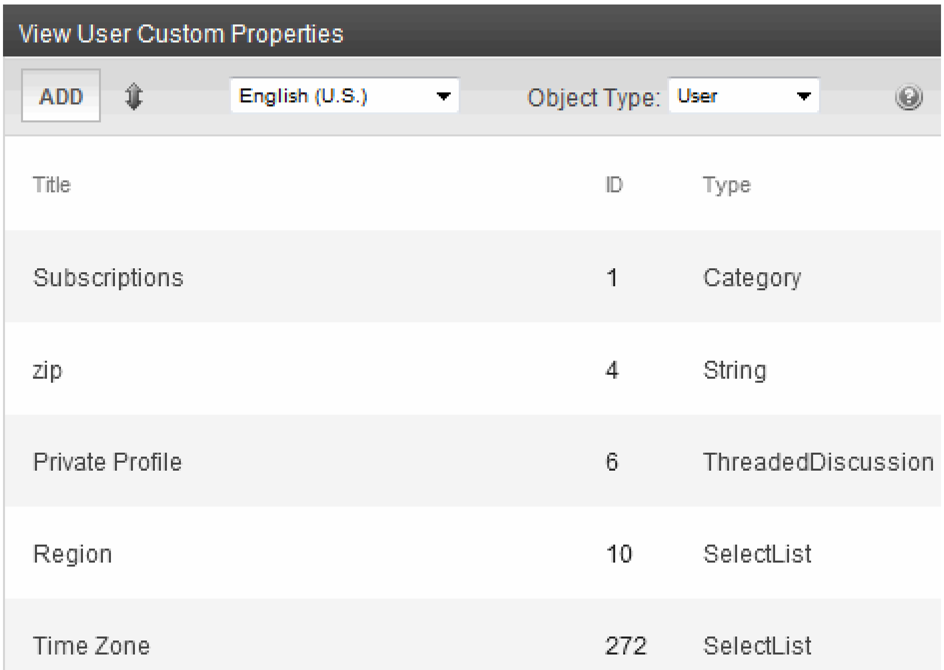
Custom User Properties let you create custom fields that collect user information beyond the standard Ektron properties. Examples include employee ID, phone number, start date, position, department, and IP address. Custom fields appear on the User Properties and Membership User Properties screens on the **Custom** tab, and on the *Membership* on page 1771 server control.

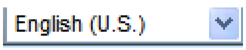


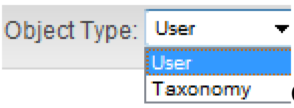
Viewing Custom Properties

Use the View Custom Properties screen (**Settings > Configuration > Custom Properties**) to create custom properties for users and membership users. From the View Custom Properties screen, you can:

- add a new custom property. See *Adding a Custom User Property* on page 1110.
- edit a custom property. See *Editing Custom User Properties* on page 1116.
- reorder the way custom properties appear on the users and membership users screen. See *Setting the Order of Custom User Properties* on page 1117.
- work with custom properties in different languages. See *Managing Users and User Groups* on page 1099.



- **Add**—Add custom user properties. See *Adding a Custom User Property* on the next page.
- **Reorder**—Change the order of the custom user properties on the Users or Membership User Properties screen. See *Setting the Order of Custom User Properties* on page 1117.
- 

Language Selection drop-down list —lets you view custom user properties by language. See *Viewing Custom User Properties By Language* below.
- 

Object Type drop-down list—lets you choose users or taxonomies whose custom user properties you want to manage. See *Adding a Custom User Property* on the next page and *Assigning Custom Properties to a Taxonomy* on page 808.
- **Title** field—Displays the title of a custom user property. When viewing by language, the title changes to the title used in a specific language if it has been defined. Click a **Title** to edit the property. See *Editing Custom User Properties* on page 1116. Title and label are the same field. On some screens, **Title** is used; on others **Label** is used.
- **ID**—A unique property identifier assigned by the system. This field is not editable.
- **Type field**—Shows the Type that was chosen for a custom user property.

Viewing Custom User Properties By Language

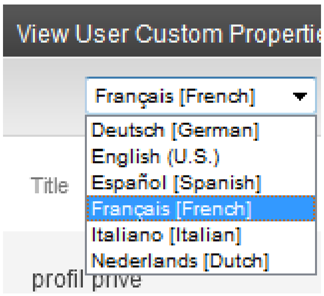
From the View Custom User Properties screen, you can view the custom users properties by languages.

NOTE: If there is only an English version of the property, the English version appears in all the languages.

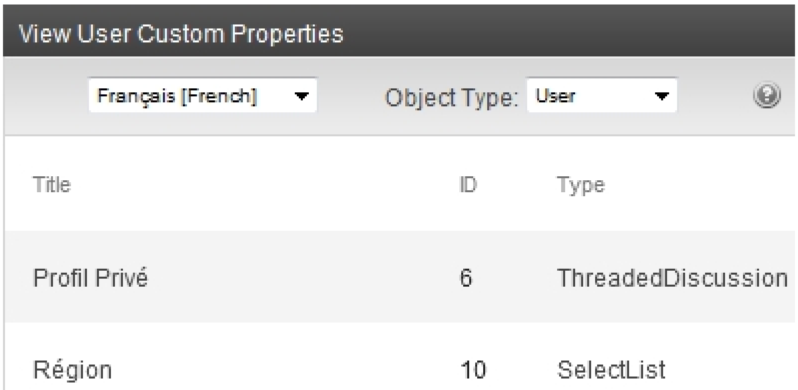
All custom user properties, in languages other than English, are tied to the English version of the property. If you delete the English version of the property, all other language versions of the properties are deleted.

To view the custom user properties by language:

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Choose the language in which to view the properties from the language drop-down box. The View User Custom Languages screen for that language appears.



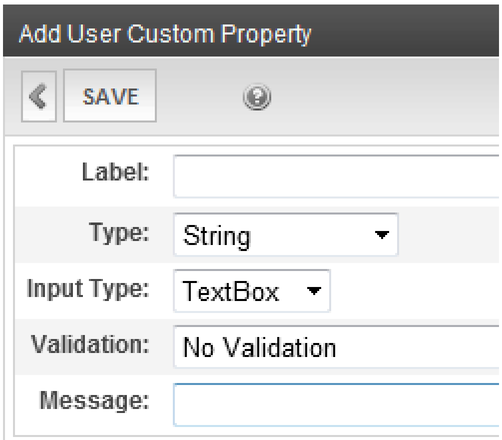
4. In the following example, some properties have not been translated, so the English versions appear instead.



Adding a Custom User Property

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Choose the standard language used in your Workarea.

4. Click **Add**. The Add User Custom Property screen appears.

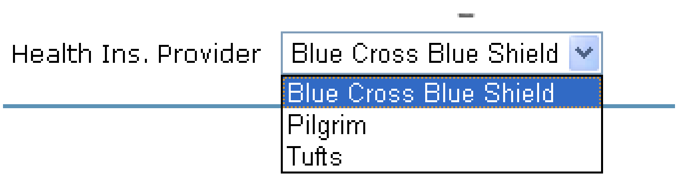


- **Label**—Title of the property you are adding. For example, Employee ID.

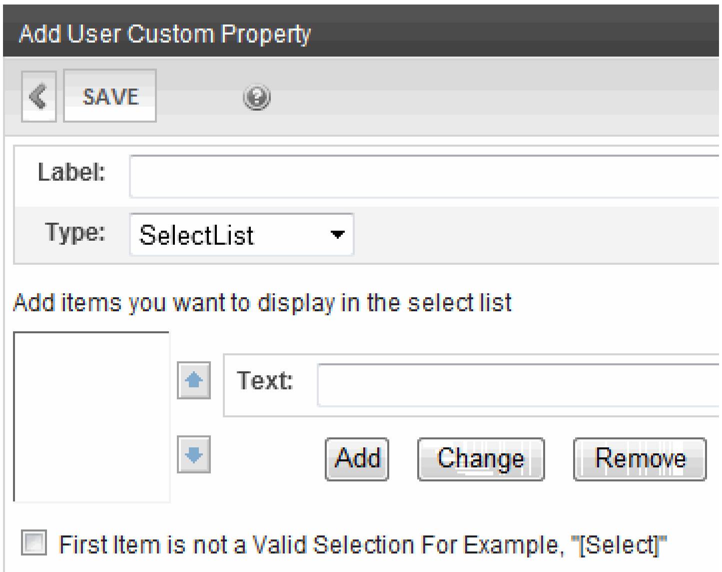
  NOTE: The Title and Label are the same field. On some screens the word Title is used, on others the word Label is used.

- **Type**—The property's data type. When a type is selected and saved, you cannot change it. You must delete the custom property and re-enter it.
  - **String**—Accepts all alpha, numeric, and symbol characters. Text Box, Text Area, and Hidden input types are available. All validations are available. See Also: **"Validation" on page 15-23**
  - **Boolean—**Accepts a true or false response. Check Box and None input types are available.
  - **Numeric—**Accepts numbers only. The following input types are available.
    - Text Box
    - No Validation
    - Cannot be blank
    - Numeric Only
    - U.S. Zip Code
    - Dollar Amount
  - **Date—**Only a date can be entered. The following input types are available.
    - Text Box
    - No Validation
    - Cannot be blank
    - Date Only
  - **SelectList—**Select a response from a list of choices.

    Use a **SelectList** field to present the user completing the User Information or Membership User Properties screen with a list of choices.



When you create a custom user property and specify its type to be **Select List**, the screen changes, allowing you to add, change, or remove list entries.



Completing a SelectList Field Entry

To add an item to the list, enter its text in the **Text** field, then click **Add** . Added items then appear in the larger box on the left. You can then:

- *remove* any item from the list by clicking it. It appears in the **Text** field. Click **Remove**.
- *change* the text of any list item by clicking it. It appears in the **Text** field. Make changes then click **Change**.
- *change the sequence* of list items by selecting an item then clicking the up or down arrow to move the item

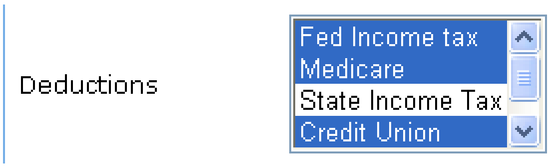
Using the First List Item to Prompt a Response

You can use the first list item to prompt the user to make a selection instead of being a valid response. For example, the first list item may say **Select from a list of choices**. To do this, check the **First item is not a valid selection for example, "[Select]"** check box.

If this option is selected, the field has an asterisk (*) next to it (indicating it is required) on the User Information and Membership User Properties screens. The user completing the screen must choose any selection other than the first item. If he tries to file the screen without choosing a different item, the following error message appears: **Please fill in all required fields (*)**

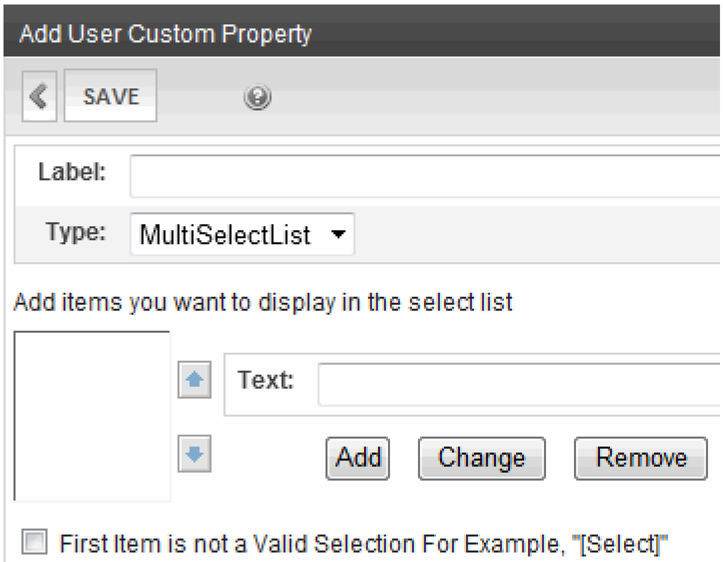
- **Multi SelectList**—Select any number of responses from a list of choices.

  Use a **MultiSelectList** field to present the user completing the User Information or Membership User Properties screen with a list of choices. The user can choose as many responses as appropriate.



Selected items are indicated by a blue background.

When you create a custom user property and specify its type to be **MultiSelect List**, the screen changes.



For information about completing the screen, see *Completing a SelectList Field Entry* on the previous page.

- **Category—**A system-defined type that appears when the first subscription is created. One entry covers all subscriptions. See Also: *Defining Subscriptions* on page 1578.

- **Input Type**—Choose how a user is able to enter a response to the property.
  - **Text Box**—Creates a standard text box. Use this with a String, Numeric, or Date. For example:

  - **Text Area**—Creates a multi-lined area for entering text (String). Typically used when more than one line of text needs to be added. For example:

  - **Hidden**—Hides the input field (String). This can be used by an administrator to add additional values at postback time. This requires a developer to add client-side JavaScript. If you change a String field's **Input Type** from **Text Box** or **Text Area** to **Hidden**, then sign in as a member of the Administrators group, the field and its value still appear on the user's profile.
  - **Check Box**—Creates a boolean checkbox. Used when the field requires a boolean (true / false) response. For example:

- **Validation**—Ensures the right type of data is entered in a text box or text area.

Validation	Description	An Option When Used With
No Validation	The entry is not checked.	• String • Numeric • Date
Cannot be blank	A response must be entered.	• String • Numeric • Date
Numeric Only	The response must be a number.	• String • Numeric
Text Only	The response must be characters (any combination of alpha, numeric, and symbol).	• String
Date Only	The response must be entered in the following format: `mm/dd/yyyy`.	• String • Date
Email Only	The response must be entered as an Email address. For example, `username@domain.domainextention`.	• String
Credit Card Only	The response must be entered as a credit card number. For example, `nnnn nnnn nnnn nnnn`	• String
Social Security Only	The response must consist of 9 digits in this pattern:`nnn-nn-nnnn`.	• String
U.S. State Code	A 2-letter state code. For example: NH = New Hampshire.	• String.
U.S. Zip Code	The response must consist of 5 (`nnnnn`) or 9 digits separated by a dash after the fifth (`nnnnn-nnnn`). **NOTE:** If you use the Numeric Type, you cannot have a dash or space when using a 9 digit Zip Code	• String • Numeric
Valid US Phone Number	The response must consist of a 10 digits in this pattern: `nnn-nnn-nnnn`.	• String

Validation	Description	An Option When Used With
Canadian Postal Code	The response must consist of 6 (`xnx nxn`) alpha or numeric characters with a space after the first 3 characters.	• String
Time HH:MM or HH:MM:SS or HH:MM:SS.mm	Time is entered in one of the following 3 formats. • `HH:MM`—Hours and Minutes 09:30 • `HH:MM:SS`—Hours, Minutes and Seconds 09:30:45 • `HH:MM:SS.mm`—Hours, Minutes, Seconds and milliseconds 09:30:45.002	• String
IP Address	The response must be in the form of an IP address.	• String
Dollar Amount	This validation works differently depending on the Type used. If used with the *String* Type, you can have a dollar sign ($) along with the money amount in the text field. When used with the *Numeric* Type, you are not allowed to have a dollar sign ($) in the text field. The following are examples of each type with validation: • **String**—$3.00 • **Numeric**—3.00	• String • Numeric
Canadian Social Insurance Number	The response must consist of 9 digits in this pattern (`nnn nnn nnn`).	• String

- **Min Value**—If desired, enter the minimum value you want to allow. The Min Value only appears when the following Validation methods are used: Numeric Only, Date Only and U.S. Zip Code. The following is an example of a Date Only Min Value: **01/01/1900**.
- **Max Value**—If desired, enter the maximum value you want to allow. The Max Value only appears when the following Validation methods are used: Numeric Only, Date Only and U.S. Zip Code. The following is an example of a Date Only Max Value: **01/01/1987**.
- **Message**—A message that appears when information entered in a user property violates the validation criteria. For example, if the validation is U.S. Zip Code, you might use the following message: **Please enter a valid zip code**

Features Field

This field is automatically included on the User or Member profile Custom Tab to let the profile owner edit events on a Web calendar. When this is checked, it cannot be unchecked. For more information about Web Calendar, see *Adding System Calendar Events* on page 517.

Private Profile Field

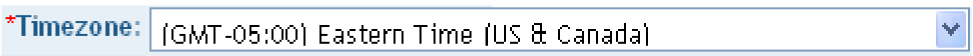
This field is automatically included on the User or Member profile Custom tab. It lets the profile owner determine which other users can see the owner's community activities. For example, *Using the ActivityStream Widget on a PageBuilder Page* on page 1236 explains how this setting affects other users' ability to see your activities.

The **Private Profile** field value also determines if a user's profile is visible on a forum. See Also: *Using Discussion Boards on Your Website* on page 568

When a Micro-message server control is placed on a page in TimeLine mode, micro-messages only appear for users whose **Private Profile** setting is set to **Public**. See Also: *Server Control Reference* on page 1636

Time Zone Field

The **Time Zone** property field is a special field used by the Web Calendar feature.



Select the time zone of the User or Member here. When they are logged in, appointment times will show in this time zone. For more information, See Also: *Adding System Calendar Events* on page 517.

5. Click **Save**. The new property appears on the View Custom User Properties screen.

Editing Custom User Properties

Click a custom user property’s title to display the Edit Custom Property Screen. From this screen, you can edit and delete a custom property or create a version of the custom property in a non-English language. When you edit a custom user property, the changes are applied to all users and membership users when the **Save** button is clicked. These changes are also applied to any other language versions of the custom user properties that exist.

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Click the **Title** of the Custom User Property you want to edit.
4. Choose the field you want to change. You can edit the following fields:
   - Label
   - Input Type
   - Validation
   - Min Value
   - Max Value
   - Message
5. Click **Save**.
6. When you click a user or membership user, you see your changes. For descriptions of these fields, see *Creating Custom User Properties* on page 1108.

NOTE: You cannot edit the **Type** field. If you need to change the type, you must delete the custom user property and create a new one.

WARNING! If you delete a custom user property, it is removed from all users and membership users. Any information that has been collected about users and membership users for that property will be lost. In addition, any language versions of the custom user property are deleted.

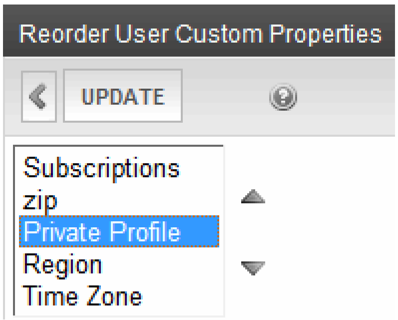
Deleting a Custom User Property

If you delete a custom user property, it is removed from all users and membership users. Any information that has been collected about users and membership users for that property will be lost. In addition, any language versions of the custom user property are deleted.

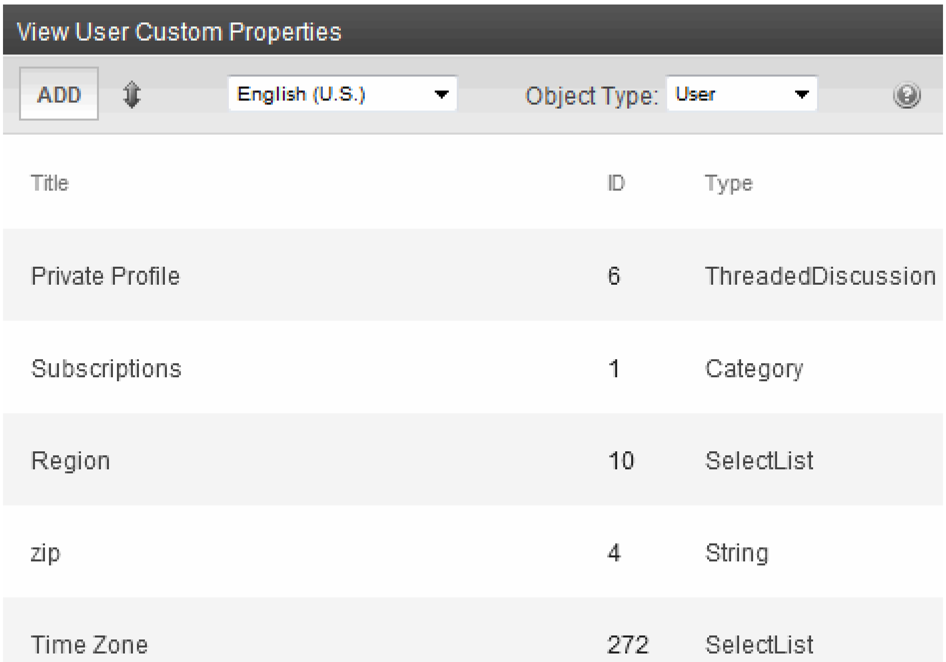
1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Click the **Title** of the custom user property you want to delete.
4. Click **Delete** ( ).
5. A dialog box appears asking if you are sure you would like to delete the item.
6. Click **OK**. The View Custom User Properties screen appears, and the property is no longer available.

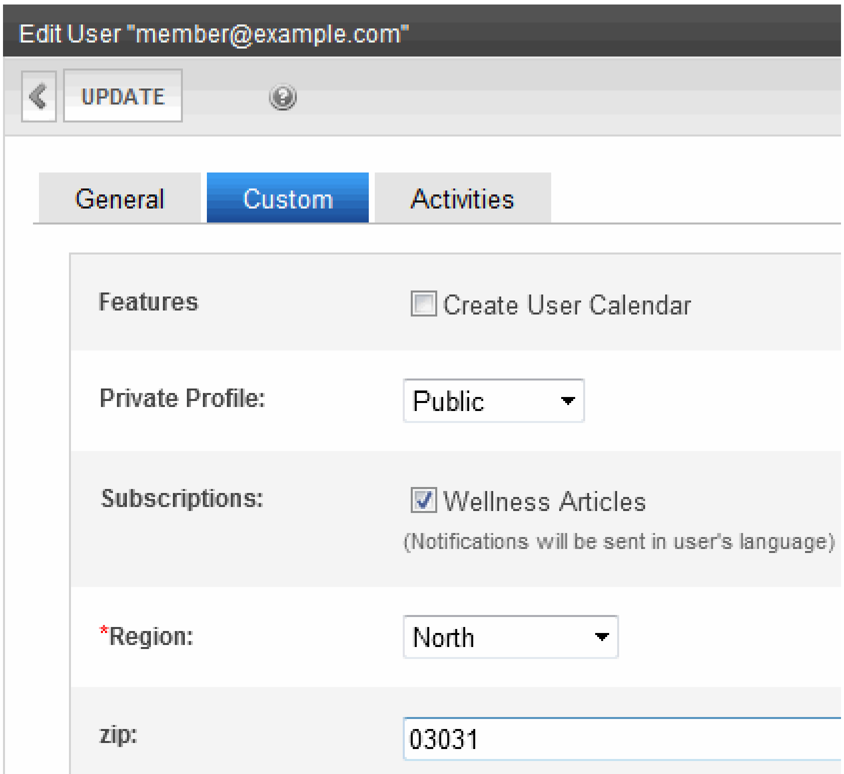
Setting the Order of Custom User Properties

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Click **Reorder** ( ). The Reorder User Custom Properties screen appears.



4. Click a property.
5. Click the **Up** or **Down** arrows to move the property up or down the list.
6. Click **Save**.
7. On the View Custom User Properties screen, you now see the properties in the new order. If you go to the User or Membership User Properties screen, the order of the properties there reflects the changes.





Creating a Non-English Custom User Property

Like content, custom user properties have a language attribute. This is useful if you have users or membership users that only use a specific language. It can also be used if you want a custom user property to appear in the language in which the user is signed in.

Unless a language other than English is defined for a custom user property, the property defaults to the English version. For example, if you have 2 properties called Birthday and

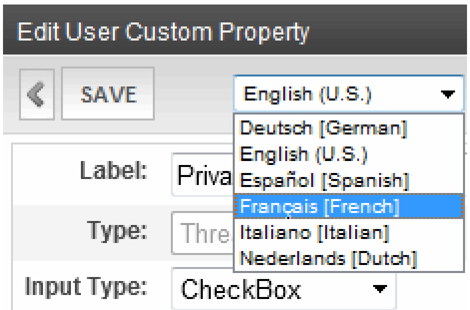
Phone Number in English and you can translate the French version of Birthday to Anniversaire, when you view the properties in French, you see the English version of Phone Number and the French version of Birthday.

When creating a custom user property, it must be created in English then translated to the desired language. This is done by editing the property, changing languages, filling out the Translate Custom Property Label screen and saving the property.

WARNING! All custom user properties in languages other than English are tied to the English version of the property. If you delete the English version of the property, all other language versions of the properties are deleted also. However, you can remove a non-English language version of the custom properties without deleting the English version. See *Removing a Non-English Custom User Property Title* below

To translate the Title/Label of a property into French.

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Choose a custom property to be defined in another language.
4. Choose a language from the language select drop-down box. The Translate Custom Property Label screen appears.

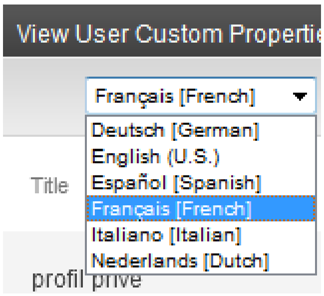


5. Enter a **Label** for the property in the language you have chosen. For example, if you are creating a French version of a Birthday custom user property, you would enter Anniversaire in the label text field. For information on the Label property, see *Adding a Custom User Property* on page 1110
6. Click **Save**.

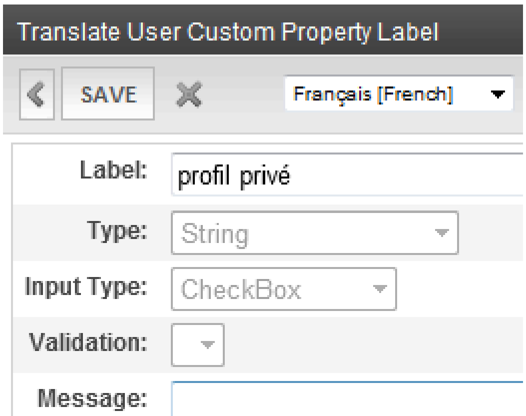
Removing a Non-English Custom User Property Title

Removing a non-English version of a custom user property title does not remove the English version of the property. When you remove the non-English version of a property, you are basically removing the label for that specific language in the custom property.

1. In the Workarea, click **Settings > Configuration > Custom Properties**.
2. From the **Object Type** pulldown, select **User**.
3. Choose the language in which the custom user property appears from the Language drop-down box.



4. Click the Title you want to delete. The Translate User Custom Property Label screen appears.



5. Click **Delete** ( ). A dialog box appears asking if you would like to remove the translated custom property title.
6. Click **OK**. The English version of the Edit Custom Property screen appears.
7. Click **Back** ( ).

WARNING! Do not click the delete button on the Edit Custom Property screen. This action deletes the English version of the custom user property. If you click the delete button, you lose all information collected by the property and all language versions of the property.

Defining Roles

Ektron contains an Administrators User Group. Any user who is a member of that group automatically has full administrator privileges. The Roles feature lets you assign *limited* or *specific* administrator privileges to users who do not require full administrator privileges. For example, you can let certain users create, redirect, or remove tasks but deny them other privileges normally granted to administrators.

The Permissions Table lets you control which users can manage a folder's properties, its content, library items, and create or edit collections. (See Also: *Managing Folder Permissions on page 257*) Together, the Roles feature and the Permission Table enable you to assign administrative privileges to users who are not members of the Administrators group.

BEST PRACTICE

When creating new user groups to use with roles, assign names as a mnemonic aid for the role, especially for folder-specific rules. For example, the Marketing Folder Admins user group could be used for all role members who administer the marketing folder.

Using the Roles Screens

Use the Roles screens to assign limited administrator privileges. To access the Roles screens, go to **Workarea > Settings > Roles > Built-In > Folder Specific** or **System-Wide**.

NOTE: In the Roles screens, you can select users or groups. However, you cannot select the Administrators group, because that group already has full permissions.

To view all roles assigned to any user, go to **Workarea > Settings > Users**. Then, select a user and click the **Roles** tab.

Folder Specific Roles

When setting up users and groups for administrative access over folders, keep these guidelines in mind.

- After being identified on the Manage Members for Role: Folder User Admin screen, users or groups must also be given at least Read-Only permission for individual folders on the **Folder Properties > View Permissions for the Folder** screen. See Also: *Managing Folder Permissions* on page 257
- You *must* use the same identity on the Manage Members for Role: Folder User Admin and Folder properties screens. If a user group is listed for the role, use the same group when assigning folder permissions, not simply a group member. Conversely, if individual users are listed on the role screen, they must be specified in the folder permission.
- Ektron *strongly* recommends adding only user groups to the Folder User Admin role, not individual users. If you set up an individual user as a role member, he could accidentally receive administrative rights to other folders.

Folder-User Admin

View and edit folder properties. These users can update properties, permissions, the approval chain, metadata, Web alerts, purge history, and so on. For example, create a user group and give it permission to manage the top-level marketing folder. Group members can do everything to that folder and its subfolders, but cannot manage other folders.See Also: *Creating a Custom Permissions Role* on page 1125 and *Setting Folder Properties* on page 253.

Move or Copy

Move or copy content. An Ektron best practice is to create a User Group for this purpose, then assign the group to this role. You should not assign the role to individual users. After assigning the User Group here, go to the folders whose content these users will be allowed to move or copy, and assign to that User Group at least Read Only and Traverse permissions. See Also: *Managing Folder Permissions* on page 257 and *Moving or Copying Content* on page 290.

System-Wide Roles

Alias-Admin

Perform all URL Aliasing functions. See *Creating User-Friendly URLs with Aliasing* on page 835

Alias-Author

Perform all functions related to URL Aliasing *except* viewing and editing the URL Aliasing Setting screen and Editing aliasing rules.

Analytics Viewer

Can view:

- Web Traffic Analytics reports
- Analytics button on the View Content Screen
- Analytics from the website's Access point menu ( )
- Analytics from a PageBuilder page

See *Viewing Analytics Data* on page 622

Business Rule Editor

Create or edit business rules and rule sets. See *Creating Business Rules for Your Website* on page 1049.

Collection and Menu Admin

Create, edit and delete collections and menus via the **Content** tab.

NOTE: To manage permissions for creating collections and menus via the folder's New > Collection or New> Menu option, use folder permissions. See Also: *Managing Folder Permissions* on page 257

See *Working with Collections* on page 355 and *Permission to Use Menus* on page 755.

Collection Admin

Create, edit and delete collections via the **Content** tab.

NOTE: To manage permissions for creating collections via the folder's **New > Collection** option, use folder permissions. See Also: *Managing Folder Permissions* on page 257

See *Working with Collections* on page 355.

Collection Approver

If approval is required for a collection, approve changes to it, including the deletion of a collection. See *Setting Up Collection Approval* on page 366.

Commerce Admin

Use the eCommerce feature from the Workarea. See *Conducting eCommerce* on page 1279.

Community Admin

Perform the following community activities:

- Set system default preferences
- View and create new
  - Activity Types
  - Agents
  - Messages
- Enable or Disable Notifications

See *Sending Notifications to a Community* on page 1194 and *Micro-messaging* on page 1801.

Community Group Admin

Create, edit and delete and manage all community groups. These users have the same privileges as the group Administrator and members of the Administrators group. See *Managing Community Groups* on page 1181.

Community Group Create

Create and manage community groups. A user with this role can only manage community groups she or he has created. See *Managing Community Groups* on page 1181.

DxH Connection Admin

Create and manage DxH connections via the **Workarea > Settings > Digital Experience Hub > Connect to DxH** screen.

DxH Connection User

Import and update DxH content into Ektron folders.

MasterLayout-Create

Create and edit PageBuilder Master Layouts. See *Creating a PageBuilder Master Layout* on page 680.

Menu Admin

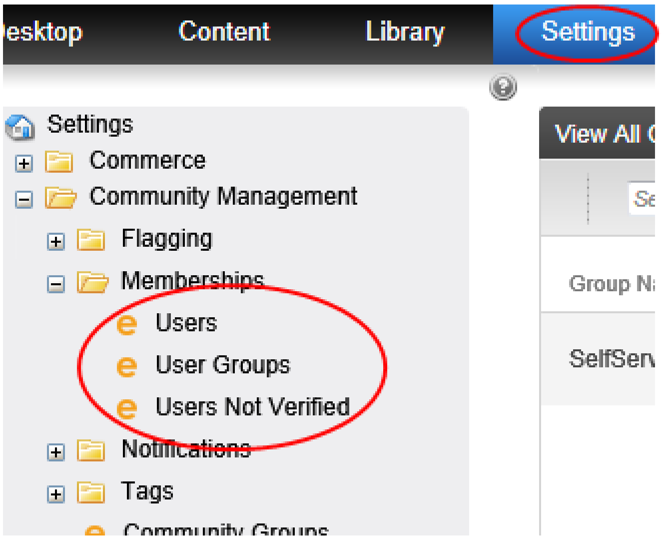
Create, edit and delete Menus via the **Content** tab.

NOTE: To manage permissions for creating menus via the folder's New> Menu option, use folder permissions. See Also: *Managing Folder Permissions* on page 257

See *Permission to Use Menus* on page 755

Member Admin

Manage membership users and membership user groups. Member admin role members cannot work with Ektron users. Users assigned to this role can create, edit, and delete membership users and groups through the following screen.



See Also: *Membership Users and Groups* on page 1161; *Membership Groups* on page 1165

Message Board Admin

Approve pending comments or delete existing comments on a message board. See *Who Can Moderate Message Board?* on page 1177

Metadata-Admin

View, create and edit metadata definitions. See *Working with Metadata* on page 369.

Multivariate Tester

Perform multivariate testing. *Optimizing Page Layout with Multivariate Testing* on page 695.

Search-Admin

Create and edit Synonym Sets, Suggested Results, Integrated Search Mappings, and the Search Status screen. See *Providing Suggested Results* on page 952, *Using Synonym Sets* on page 945, *Including External Files in Your Search* on page 946.

Smart Forms Admin

Create and edit Smart Forms. See *Working with Smart Forms* on page 423.

Synchronization Admin

Access the **Workarea > Settings > Configuration > Synchronization** screen, which lets the user perform all synchronization activities, such as:

- manage sync configurations and profiles
- run a sync
- perform content and folder-level sync

See *Synchronizing Servers Using eSync* on page 1473.

Synchronization User

- Sync content and folders
- View Sync logs

- Run a sync
- Sync content and folders

See Synchronizing Servers Using eSync.

Task Create

Create tasks. See *Assigning and Managing Tasks* on page 1027.

Task Delete

Delete tasks. See *Assigning and Managing Tasks* on page 1027.

Task Redirect

Redirect tasks. See *Assigning and Managing Tasks* on page 1027.

Taxonomy Administrator

Create and manage taxonomies. See *Using Taxonomies* on page 777.

Template Configuration

View, create, update, and delete system templates. See *Working with Templates* on page 382.

Translation State Admin

Change the translation status of content. See *Marking Translation Statuses* on page 1078.

User-Admin

Create, view, edit, and delete users and user groups. See *Managing Users and User Groups* on page 1099.

XLIFF-Admin

Use the Language Xport feature, which copies content into XLIFF files that can be submitted to a translation agency. Can change the translation status of content. See *Exporting Content to XLIFF* on page 1072 and *Marking Translation Statuses* on page 1078.

Widget Synchronizer

Update widgets and edit their title, label, and parameters.

Creating a Custom Permissions Role

The custom permissions role lets your Web developer create a site page, and then extend or restrict access to that page's content (or areas with a page) to users assigned to a custom role.

Items you could show and hide could be as simple as a content block. But they could be more complicated, such as displaying buttons and fields for one user group, and something completely different for another.

Custom roles have no effect inside the workarea.

Examples of Custom Roles

- Most of your site visitors belong to different political parties, while some are not registered with any party. By checking the user's ID against custom roles, you could present registered voters with selections for their party's primary, and prevent unregistered voters from participating.
- Your Ektron site visitors fall into 2 categories: suppliers and buyers. You could check the current user against a custom role and show buyers one set of data and suppliers a different set.
- On your eCommerce site, registered students see a list of coupons that are not displayed for anyone else. Or, only registered adults can order age-controlled items, such as tobacco or alcohol.
- Control your pages' background colors, images, and skins based on custom roles. For example, mothers get family-oriented background images while teenagers get rock images and related styling.

Setting up a Custom Role

1. Set up user groups and add to them users who will have some level of access to the custom page. See Also: *Creating a New User Group* on page 1106
2. To continue the above example, create one group of auditors (who will have read-only access), and another group of administrators (who will have edit access).
3. Create a folder to hold the content that will appear on the custom page. Use the folder's permission table to assign users and groups appropriate access to the folder's content. See Also: *Managing Folder Permissions* on page 257
4. Go to **Workarea > Settings > Roles > Custom Permissions**.
5. Click **Add Custom Roles**. The Manage Custom Roles screen appears.
6. Enter a name for the custom role.
7. Click **Save**. The Manage Custom Roles screen appears, displaying the new custom role.
8. Click the name of the role you created. The Manage Members for Role screen appears.
9. From the Show drop-down menu, select the type of users you want to add to the role.
10. Click **AddRole Member**.
11. Check the box next to the users or groups that you want to add to the role.
12. Click **Save**. The Manage Members for Role screen appears.
13. Your Web developer creates the custom page.
14. You create content to appear on the custom page. Place the content in the folder you created in Step 2.

Information about Custom Roles for your Developer

The API provides 2 methods that determine if the current user is logged in, and if he is a member of the Administrators group. The methods let you test customizable roles with conditions outside the standard Is-Logged-In / Is-Admin tests. API methods are listed below.

`GetRolePermissionSystem(RoleName As String, nUserId As Long)` is a Boolean value indicating if the user belongs to the system-wide custom role.

`GetRolePermissionFolder(RoleName As String, nFolderId As Long, nUserId As Long)` is a Boolean value indicating if the user belongs to the custom role for the given folder.

Administrator Role Privileges

Administrator privileges include access to the screens that appear when you select **Settings > Configuration**.

Administrators can also

- edit folder properties (including Web alerts, metadata, permissions, and the approval chain)
- manage aliasing features, such as turn aliasing on or off, activate and deactivate manual aliases, and create automatic aliases
- manually alias content
- add, edit, or delete a calendar
- add, edit, or delete a business rule
- create, view, edit, and delete metadata definitions
- create, view, edit, and delete taxonomies
- create, redirect, and delete tasks
- require a collection to go through an approval process
- export content for translation to another language using XLIFF
- run an eSync
- access the eCommerce Module

Using Active Directory with Ektron

Active Directory lets you retrieve user and user group information from the Microsoft Windows Active Directory (AD) into Ektron. As a result, you can administer user information from 1 place, and users need to remember only 1 username/password combination to sign on to the network and Ektron.

- To learn more about Active Directory, see Access & Information Protection.
- To learn how to sign on using NTLM (NT Lan Manager), see HOW TO: Enabling NTLM Authentication (Automatic logon).

Setting Up Active Directory

IMPORTANT: Ektron strongly recommends configuring SSL, especially if you are using Active Directory Integration. SSL encrypts passwords that are otherwise sent as clear text to the Ektron server. See Also: *Updating web.config to Use SSL* on page 67

You can set up Active Directory in the following ways:

- **Advanced Domains**—Set up through editing the `web.config` file and entering information in the Workarea. Use this method if:
  - You are using a firewall.
  - The Ektron server need not be part of an Active Directory domain.
  - You are connecting to multiple Active Directory domains, even ones that do not see each other.
- **Legacy**—The domain connects to the AD domain within the `web.config`. Use this method if you are using auto discovery and Active Directory single signon.

Setting Up Active Directory via the Advanced

Domains Method

1. Verify AD information because, after you enable AD integration, logon name and domain are imported to Ektron.
2. If your Active Directory forest has multiple domains, decide if you want Ektron to reference the listed domains or if you want to choose a specific one. (You will use this when completing the **Domain** field of the Active Directory Setup Screen.)
3. Edit the `web.config` file to the following values:
```
<add key="ek_ADEnabled" value="true"/>
<add key="ek_ADAdvancedconfig" value="true"/>
<add key="ek_AUTH_Protocol" value="LDAP"/>
<identity impersonate="false">
```

NOTE: When using the Advanced Domains Method, the domains screen's credentials are used.

4. Set up your domains on the Edit Domains screen.
5. Configure the AD setup page. See *Setting Up Active Directory* on page 1133.
6. Assign AD groups to Ektron user groups. See *Importing AD User Group Information* on page 1139.

Setting Up Active Directory via the Legacy Method

1. Make sure each AD user to be used in Ektron is defined correctly in the Active Directory. Remember that, when you enable AD integration, logon name and domain are copied from AD to Ektron.
2. If you have multiple domains in your Active Directory forest, decide if you want Ektron to reference all domains or if you want to choose a specific one. (You will use this when completing the **Domain** field of the Active Directory Setup Screen.)
3. Set the following elements in the `web.config`.
   - Set the `ek_ADEnabled` element to **true**. It should look like this:
     ```
     <add key="ek_ADEnabled" value="true"/>
     ```
   - Make sure the `ek_ADAdvancedconfig` element is set to **False**. (This is the default value.)
   - Set the `ek_AUTH_Protocol` element to **GC**. It should look like this:
     ```
     <add key="ek_AUTH_Protocol" value="GC"/>
     ```
   - Declare a domain account through `ek_adusername` and `ek_adpassword`. (Before entering the password, encrypt it using Ektron's password encryption utility. To access that utility, go to the Windows **Start menu > All Programs > Ektron > *current release* > Utilities > Encrypt Email Password**.) It should look like this:
     ```
     <add key="ek_ADUsername" value="[username]@domain" />
     <add key="ek_ADPassword" value="YourPasswordHere" />
     ```
   - For the `authentication` element, change the value of the `impersonate` attribute to **False**. It should look like this:
     ```
     <identity impersonate="false" userName="" password=""/>
     ```
4. Configure the AD setup page. See *Setting Up Active Directory* on page 1133.

5. Assign AD groups to Ektron user groups. See *Importing AD User Group Information* on page 1139.

Implementing Active Directory

You can implement Active Directory in 1 of 2 modes.

- *Active Directory Integration* mode—the following information is shared between Active Directory and Ektron:
  - user logon name
  - domain
  - password
- *User authentication only* mode—the following information is shared between Active Directory and Ektron:
  - user logon name
  - domain
  - password
  - user's first and last name
  - email address
  - user groups
  - user's group memberships

Implementing Active Directory Integration Mode

Active Directory Integration maintains consistent user and user group information between AD and Ektron. First, user information is imported from AD into Ektron. When this is complete, user group information is imported.

Ektron does not write to Active Directory; it only reads from it. This changes the way Ektron manages user and user group information.

- After you enable AD integration, many changes to user and user group information must be made in AD. Several fields on the Edit User and User Group screens become view-only.
- When adding new users or groups, you can only select from users and groups in AD. If a user or group does not exist in AD, create it there then import it to Ektron.
- Integration requires Read Membership Group Permissions within Active Directory. See Also: AD integration not reading user group memberships correctly
- When using Integration, you must select a Administrator group. (There can only be one admin group per Ektron CMS.) Click the search option and select Domain users or an admin group created in AD specifically for CMS.

Ektron imports the following AD user information.

- Authentication (user logon name and domain) for signing in to Ektron. The AD password is not stored in Ektron but only refers to it during sign in.
- Group name (AD attribute cn), which corresponds to the Ektron domain and user group

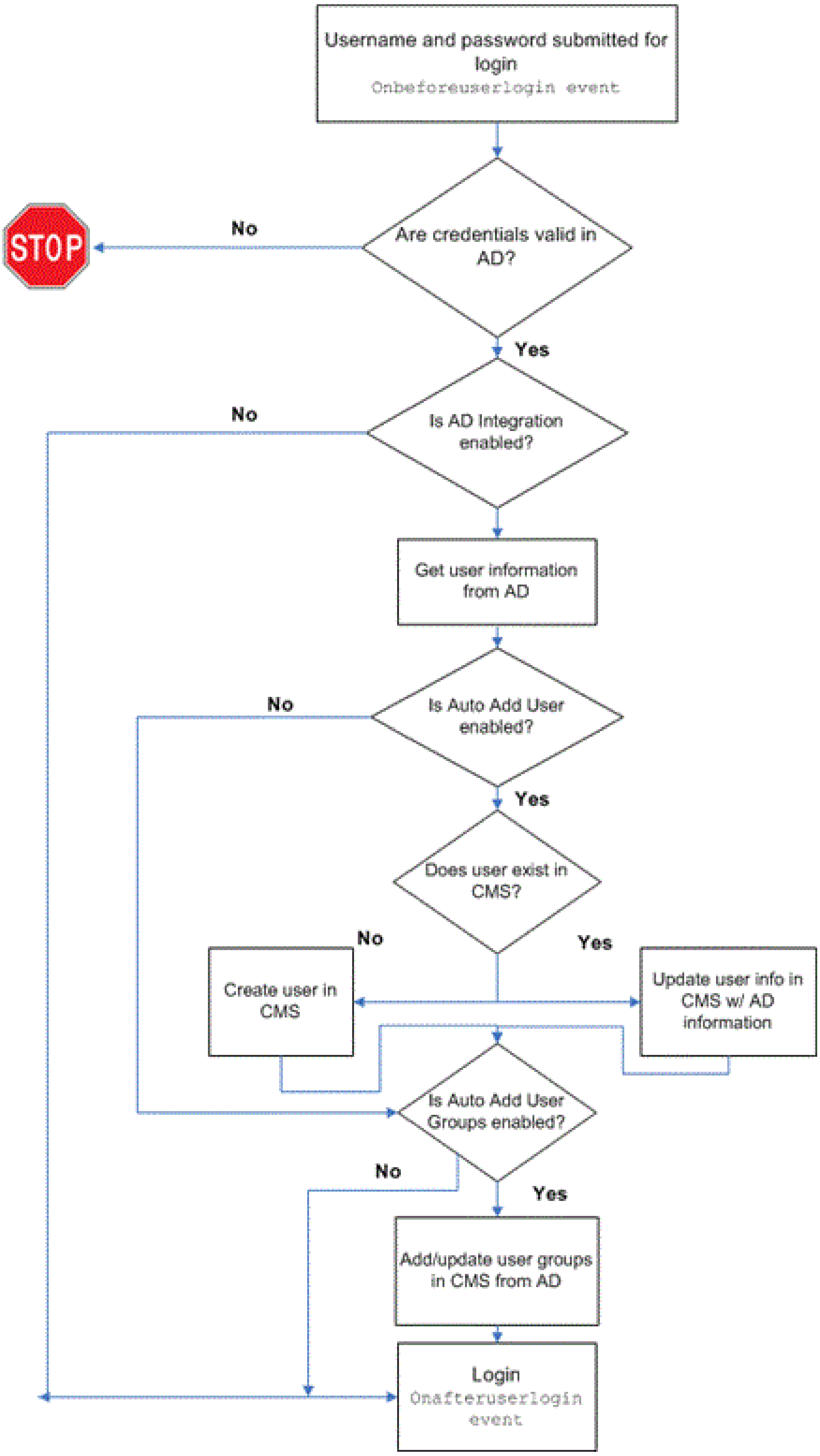
name.

- User information

Field in AD	AD Attribute	Corresponding Field in Ektron
User logon name (pre-Windows 2000)	sAMAccountName	Domain and Username
Last Name	sn	Lastname
First Name	givenName	Firstname
Email	mail	email Address

NOTE: Users and user groups can share a name in different domains, for example, juser@example.com and juser@example.net. Otherwise, user names must be unique.

The following diagram illustrates the Active Directory feature's components.



Setting Up Active Directory Integration Mode

The Active Directory feature uses multiple Ektron screens to edit domains, set up Active Directory, display AD status, and view and search for users and user groups.

Adding Domains to AD

Use the Edit Domains screen to identify each network domain you will use with Ektron's Active Directory Integration. The screen lets you add new domains, modify existing ones, or delete obsolete ones. Use this screen to define domains, as opposed to using auto discovery to find them.

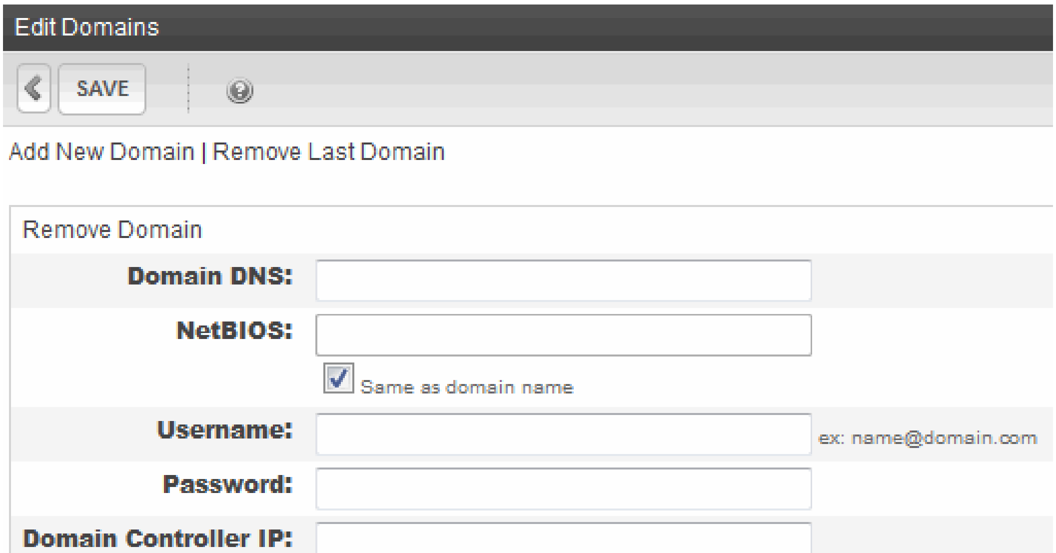
Domains are used during signon. In addition to username and password, users must select a domain. Domains are also referenced when defining the users and user groups that map to the Ektron users and groups.

PREREQUISITES

- Edit `web.config` as explained in *Setting Up Active Directory via the Advanced Domains Method* on page 1127.
- You need your NetBIOS and setting, if it is different from your domain name. Contact your server administrator for this information.
- You need your domain’s DNS. Contact your server administrator for this information.

To add a new domain:

1. Navigate to **Workarea > Settings > Configuration > Active Directory > Domains**.
2. Click **Edit**. The **Add New Domain** and **Remove Last Domain** options appear.
3. Click **Add New Domain**. The Edit Domains screen appears.



Domain DNS—Enter the domain’s DNS. Contact your server administrator for this information. For example, **corp.example.com**.

NetBIOS—If your NetBios is the same as your domain name, leave the box checked. Otherwise, uncheck the box and enter your NetBIOS setting in this field. Contact your server administrator for this information.

Username—Enter the name of the user with permission to sign on to the domain server. The name is in the format *username@domainDNS.* For example, **jsmith@corp.example.com**.

Password—Enter the password of the user in the **Password** field.

Domain Controller IP—Enter the IP address or DNS name of your domain controller. If using Active Directory with LDAP across a firewall, the IP address should be that of the firewall. On the firewall, traffic on port 389 (LDAP) should be allowed. Active Directory with GC uses different ports.

Setting Up Active Directory

The Active Directory Setup screen lets you enable or disable AD and manage other AD settings, such as whether users and groups are automatically updated.

To enable AD and manage settings:

1. Go to **Settings >Configuration > Active Directory > Setup**. The Active Directory Setup screen appears.
2. Click **Edit**.
3. Enable options or enter information in fields as required.

   Active Directory Installed

   - **Disable Active Directory and LDAP Authentication**—Disables the use of Active Directory and LDAP Authentication. See *Disabling AD Integration* on page 1141.
   - **Enable LDAP Authentication**—If enabled, you must complete the LDAP-related fields (Type, LDAP Server, Port, Organization, Domain, Attribute, Use SSL, Path). See *Enabling LDAP* on page 1152.
   - **Enable Active Directory Authentication**—If enabled, user authentication is functional, and you can enable the following 3 fields. If you do not enable these fields, you are using *Implementing User Authentication Mode* on page 1142. For information on LDAP, see *Using LDAP with Ektron* on page 1151
     - **Enable Active Directory Integration**—If enabled, the Active Directory Integration feature is functional and you can enable the next 2 fields.
     - **Enable automatic addition of user from AD**—If enabled, user information is imported from AD to Ektron when that user logs in or when the user is added to Ektron.
     - **Enable automatic addition of user to groups**—If enabled, a user's group membership is first imported from AD when a user logs in or is added.

   Auto Add

   - **User Type**—Choose the type of user to be automatically added: Author or Member.

   User Property Association

   - **EmailAddr1**—Enter the Active Directory property that maps to the user's last name in Ektron. By default, this is `mail`, but you can change it to any AD property.
   - **FirstName**—Enter the Active Directory property that maps to the user's first name in Ektron. By default, this is `givenName`, but you can change it to any AD property.
   - **LastName**—Enter the Active Directory property that maps to the user's last name in Ektron. By default, this is `sn`, but you can change it to any AD property.

     For more information on user properties, see MSDN Library
     User Object User Interface Mapping (Windows)

   Ektron Administrator Group Association

- **AD Group Name @ AD Domain**—Enter the Active Directory user group and domain name that map to the Ektron administrator group. If your AD does not have a user group that includes all Ektron administrators, you should create one then enter it here. See *Mapping the Administrator Group* on page 1140.
- **Domain**—If you want to restrict the search of new users and groups to one AD domain, select that domain. The Search Active Directory for Users and Search Active Directory for Groups screens let you search the selected domain only.

  Also, if any Ektron user or group names include a domain (for example, admin@saturn.example.com) that is excluded by your selection, those users/groups are flagged on the Active Directory Setup and Active Directory Status screens because the names include an invalid domain.

4. Messages may be displayed near the top of the Active Directory Setup screen to notify you that additional configuration steps are required. If either message appears, click it. The Active Directory Status screen appears, which helps you resolve the discrepancies.

   Active Directory Authentication is Enabled and Requires More Configuration—Some Ektron users are not associated with AD users. Also, if you are using full active directory integration mode, user groups and/or user group relationships may not be associated.

   Active Directory Authentication is disabled, but needs further configuration—Some Ektron users and/or groups are no longer unique. This happens because, in AD, users and groups can share a logon name as long as their domains are different. But, if AD authentication is disabled, 2 users or groups can no longer share a name—each must be unique.

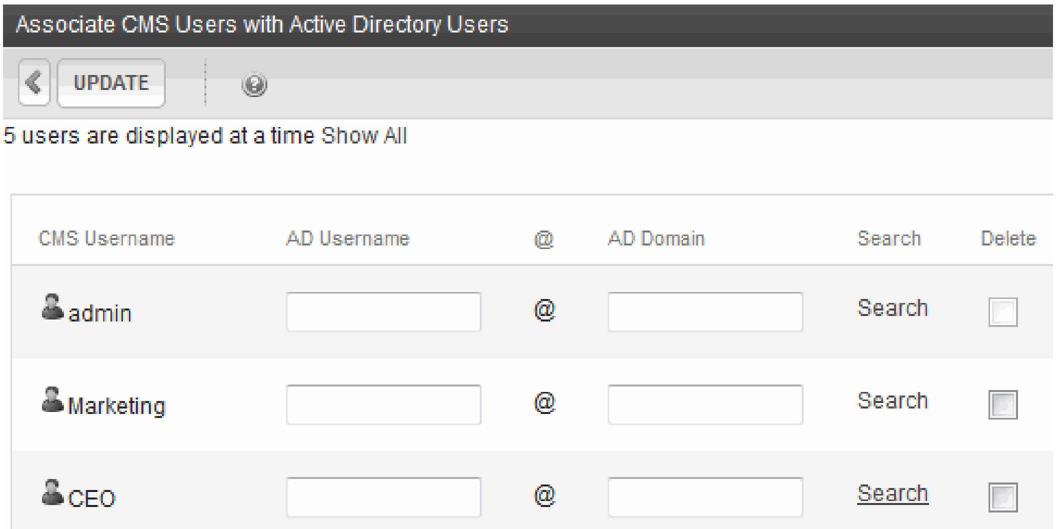
Displaying Active Directory Status

Use the Active Directory Status screen to identify and resolve discrepancies between Ektron and AD:

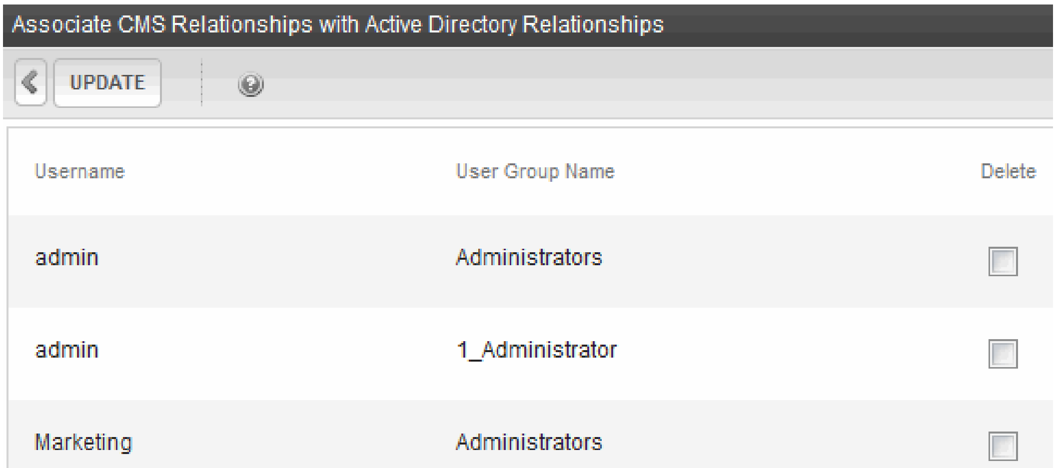
- An Ektron user must be associated with an AD user
- An Ektron user group must be associated with an AD user group
- An Ektron user's group membership must be associated with the same AD user's group membership

Any combination of these messages may be displayed depending on the issues requiring resolution. The following procedure provides steps to resolve all 3 issues.

1. Go to **Settings > Configuration > Active Directory > Status**.
2. Click a link on the Active Directory Status screen to display a new screen lets you resolve the discrepancy.
3. Click **CMS users need to be associated with Active Directory users** on the Active Directory Status screen. The Associate CMS Users with Active Directory Users screen appears. Use this screen to associate Ektron users with AD users.



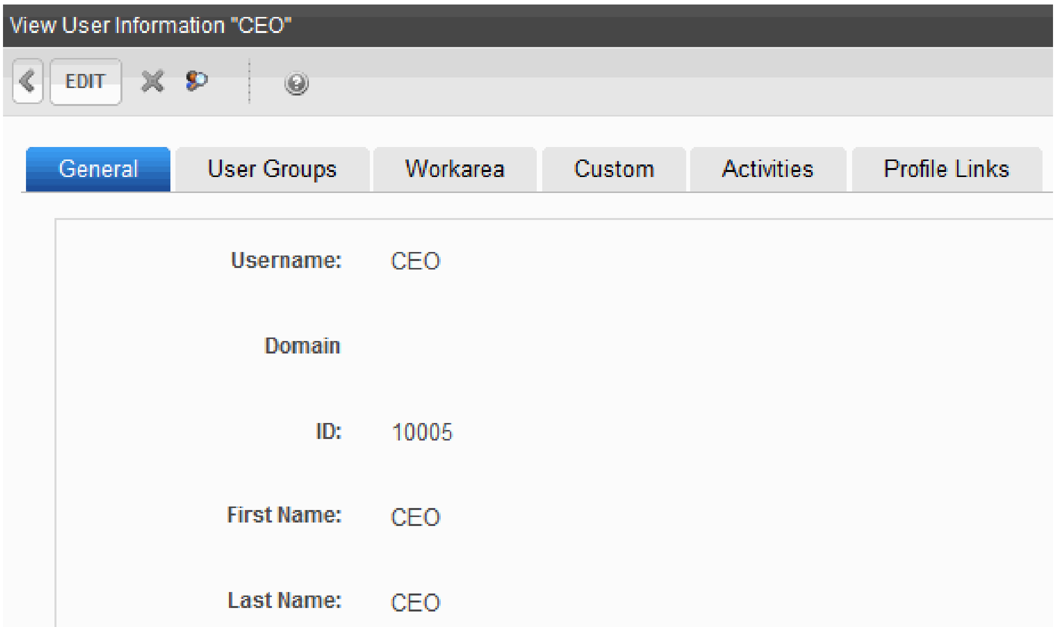
4. Depending on the user, perform the appropriate action:
   - If a user with the same username exists in AD, that name and domain appear in the **AD Username** and **AD Domain** fields. If the user exists in more than one AD domain, select a domain from the pull-down list.
   - If there is no default and you know the AD user name to associate with an Ektron user, enter that in the **AD Username** and **AD Domain** fields. If you do not know the AD username, click **Search** to find the user in AD.
   - If you decide to change the username in AD to match the Ektron username, make the change in AD. Then, click **Refresh** ( ) to update Ektron and resolve the discrepancy.
   - If a user should not exist in Ektron, click the **Delete** box.
5. After you complete the changes, click **Save**.
6. Click **CMS relationships need to be associated with Active Directory relationships** on the Active Directory Status screen. The Associate CMS Relationships with Active Directory Relationships screen appears. The screen displays a user’s group membership that exists in Ektron, but does not exist in AD. Use this screen to coordinate Ektron user group membership with AD user group membership.



7. After viewing the discrepancy, perform the appropriate action:
   - To associate the user with the same user group in AD, go to AD and assign the user to the group. Then, return to this screen and click **Refresh** ( ) to update user group information in Ektron. See Also: *Importing a User's AD Group Information to Ektron* on page 1140
   - To remove the user's group membership in Ektron, check the **Delete** box and
8. After you complete the changes, click **Save** ( ).
9. Click **CMS groups need to be associated with Active Directory groups** on the Active Directory Status screen, the Associate CMS User Groups with Active Directory Groups screen appears. Use this screen to associate Ektron groups with AD groups.
10. Depending on the group, perform the appropriate action:
    - If there is no default, enter that in the **AD Group Name** and **AD Domain** fields. If you do *not* know the AD group name, click **Search** to find the group in AD.
    - If a group should not exist in Ektron, click the box under the **Delete** column to delete the group.
11. After you complete the changes, click **Save**.

Viewing and Searching for Users

1. Click **Settings > Users** from the Workarea. The View users screen appears.
2. Click a user to display detailed information for that user. The View User Information screen appears.



3. If you are using *user authentication mode*, **Username** and **Domain** can only be edited in AD. You can edit all other fields on this screen.

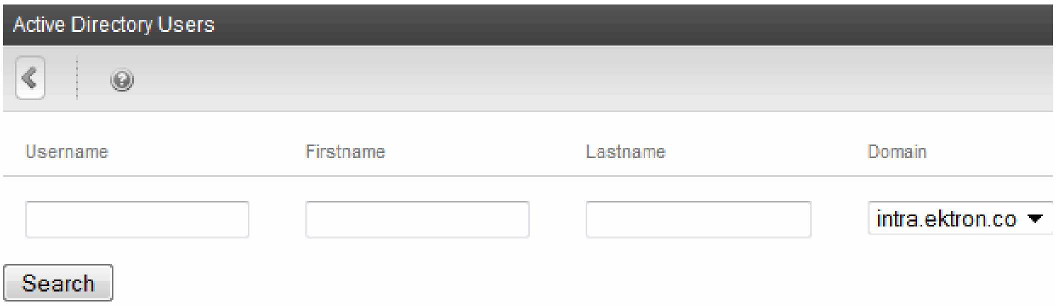
   If you are using *full AD Integration mode*, **Username**, **Domain**, **First Name**, **Last Name**, and **email Address** can only be edited in AD. You can edit all other fields on this screen.

   The screen also displays the following buttons.

- **Edit**—Edit information on screen.
- —Delete user.
- —Retrieve latest information from AD into Ektron. This button is not displayed in user authentication mode.
- —Replace CMS user with different AD User.
- —Return to previous screen

If you cannot easily locate specific users on the View Users screen, use the search function.

4. Click **Add User**. The Search Active Directory for Users screen appears.

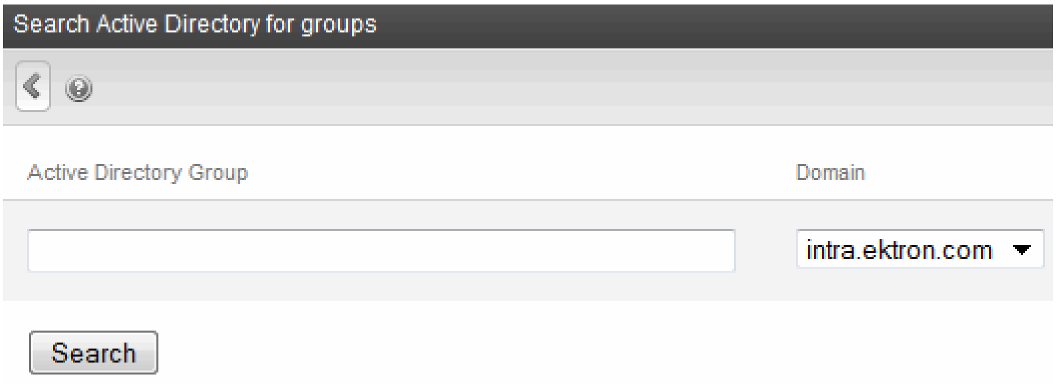


5. Enter as many search criteria as you know to reduce the number of users that the search returns. For example, if you know the user's last name is Jackson and he is in the planets domain, enter those criteria to get fewer results.
6. Click **Search**. The Active Directory Users screen appears.
7. Check the box next to each user you want to add to Ektron.
8. Click **Save**to import the information.

Viewing and Searching for User Groups

The View User Groups Screen displays all AD user groups that have been imported to Ektron.

1. Go to **Settings > User Groups**. The View User Groups screen appears.
2. Click the group name to display detailed information for the group. The View Users in Group screen appears, showing the following information for each user in the group:
   - username and domain
   - first and last name
   - language
3. To add AD groups to Ektron, click the toolbar button ( ) that lets you add AD groups to Ektron. The Search Active Directory for Groups screen appears.
4. If the Domain setting on the Active Directory Setup screen is set to restrict AD integration to one domain, you can only search for groups in that domain.



5. Click **Search**. A new screen appears that lists all AD groups that satisfy the search criteria.
6. Click the box next to groups you want to create in Ektron.
7. Click**Save**to import their information.

Importing AD User Information to Ektron

This section explains importing AD *user* information when integration is first enabled and on an ongoing basis.

AD user information is initially imported to Ektron in different ways depending on whether:

- the Ektron database has already been populated with users
- the Ektron database has not yet been fully populated with users. (At least one user is always present because of the default admin user.)
- users are manually added to the Ektron database

For a *populated Ektron database*:

1. If **Enable automatic addition of user from AD** is checked on the Active Directory Setup screen, user information is imported from AD to Ektron when that user logs in or is added to Ektron. See Also: *Setting Up Active Directory* on page 1133
2. At that time, AD information overwrites all Ektron information.
3. If 2 or more AD users have the same Ektron user logon name but different domains (for example, JDoe in `Eng.Example.com` and JDoe in `Mkt.Example.com`) and that username (JDoe) also exists in Ektron, the Active Directory Setup and Active Directory Status screens indicate this discrepancy via this message: **CMS users need to be associated with Active Directory users**.
4. Click the message to proceed to the Associate Ektron Users to Active Directory Users screen. From there, you can link an AD user to an Ektron user. See Also: *Maintaining AD User Information* on the facing page

For a *Ektron database with only a few users*, go to the Search Active Directory for Users screen and select AD users that will use Ektron. You can only select AD users that do not exist in Ektron. Also, the Active Directory Setup screen can restrict AD integration to one domain. If it does, you can only search for users in that domain.When you add a user, AD information is imported to Ektron. See Also: *Viewing and Searching for Users* on page 1136

You can also *manually* add AD users to Ektron:

1. From the Workarea, click **Settings >Users**.
2. Click **Add Users**. The Active Directory Users screen appears.

3. From the **Domain** pull-down list, select the domain from which you want to add a user.
4. Enter as much information as you know into the other fields.
5. Click **Search**. A screen displays all users that satisfy the search criteria.
6. Check the box next to each user you want to add.
7. Click **Save**.

Maintaining AD User Information

When AD integration has been established, new AD user information is imported to Ektron when either of these events occurs:

- the user logs in
- someone clicks **Refresh** ( ) on the user's View User Information screen

Maintenance tasks include:

- **Editing**—Because Ektron does not write to AD, you can only change some fields on the Edit User screen. Edit read-only fields from AD.
- **Deleting**—If a user is deleted in AD, Ektron does not delete the user. However, the login fails because the user cannot be authenticated. To delete the user from Ektron, use the Delete User function described in *Deleting a User* on page 1105.

  If you mistakenly delete all users with administrative privileges, you can still sign in using the builtin user's username and password. For more information, see *Getting Started with Ektron* on page 5.

- **Replacing**—If you associate the wrong AD user with an Ektron user, you can replace the user. If you do, all Ektron permissions and approval process responsibilities transfer from the old to the new user.

1. Go to **Settings > Users**.
2. Click the user you want to replace.
3. Click **Associate CMS User with Different AD User** ( ).
4. Select a user to replace the previously selected user.
5. Click **Save**. The first user is deleted from Ektron.

Importing AD User Group Information

This section explains how a user's group membership is imported from AD to Ektron after integration is enabled. When assigned to a group, the user automatically receives all Ektron permissions and approval process responsibilities associated with it.

NOTE: Active Directory has 2 kinds of user groups: security and distribution. Ektron does not distinguish between them. As long as a user is a member of either kind of group, group information can be imported to Ektron.

Before using AD integration, import all AD groups you will use into Ektron:

1. From the Workarea, choose **Settings > User Groups**.
2. Click **Add Groups**. The Search Active Directory for Groups screen appears.

3. From the **Domain** drop-down list, select the domain of the user group you want to add.

   NOTE: The Active Directory Setup screen can restrict AD integration to one domain. If it does, you can only search within that domain.

4. Enter as much information as you know into the **Active Directory Group** field.
5. Click **Search**. A screen displays all groups that satisfy the search criteria.
6. Check the box to the left of each group you want to import to Ektron.
7. Click **Save**.

Importing a User's AD Group Information to Ektron

Users' membership in AD Groups are imported to Ektron in different ways depending on the state of existing Ektron user groups:

- **If CMS user groups already exist**—If **Enable automatic addition of user to groups** is checked on the Active Directory Setup screen, a user's group membership is imported from AD to Ektron when a user first logs in or is added. At this time, any AD group memberships overwrite Ektron group memberships *except* the Everyone group, to which all users belong.

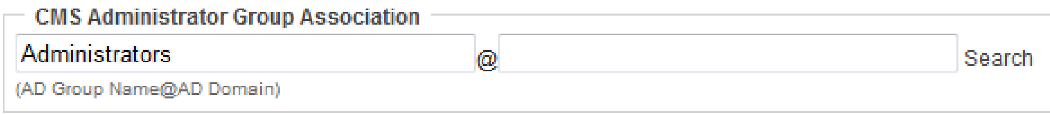
  In the case of a discrepancy between AD and Ektron user groups:

  - If a user belongs to an AD user group that does not exist in Ektron, no action is taken. The AD Integration feature assumes that not all AD groups are meaningful in Ektron.
  - If a user belongs to an Ektron user group that does not exist in AD, the discrepancy is flagged on the Active Directory Setup and Active Directory Status screens. From these screens, you can import AD group information into Ektron.
  - If the user should belong to an AD group, add the group membership within AD. Then, refresh the user on the View User Information screen to import AD group information into Ektron.
- **If only default user groups exist in the CMS**—Follow the procedure described in *Importing AD User Information to Ektron* on page 1138 to import AD user groups to Ektron. Then, as users in those groups are added to Ektron, their group memberships are applied.
- **After AD integration is enabled**—a user's group memberships in Ektron are updated when all of the following are true:
  - The **Enable automatic addition of user to groups** field is checked on the Active Directory Setup screen
  - A user is added to Ektron or the user's AD group membership changes
  - The user logs in or someone clicks **Refresh** ( ) on the user's View User Information screen

Alternatively, if **Enable automatic addition of user to groups** field is *un*checked, you can add the user to (or remove the user from) groups independently of AD group memberships.

Mapping the Administrator Group

On the Active Directory Setup screen, you identify the AD group that maps to the Ektron Administrator group using a syntax of *AD group name@AD domain*. Members of this group receive administrator privileges.See Also: *Administrator Role Privileges* on page 1126



If such a group does not exist in AD, create it, then assign it on the Active Directory Setup screen.

Note that only one AD group can be mapped to the Ektron Administrator group. You cannot have an AD administrator group within each AD domain.

NOTE: Unlike other Ektron user groups, whose names are imported from AD, the Ektron Administrator and Everyone group names cannot be changed.

Maintaining AD User Group Information

Maintenance tasks include:

- **Removing users from a group**—If you delete a user from an AD group, the user is removed from the associated Ektron group the next time the user's information is updated.
- **Adding user groups**—If AD integration is enabled, you can only add user groups in AD. Then log on to Ektron and use the Search Active Directory for Groups screen to import the AD user group to Ektron as described in *Importing AD User Group Information* on page 1139.
- **Adding a user to a group**—You cannot add a user to a user group within Ektron; you must do so in Active Directory.
- **Replacing a group**—If you associated the wrong AD user group with an Ektron user group, replace the user group.
    1. From the Workarea, click **Settings >User Groups**.
    2. Click the user group that you want to replace.
    3. Click **Associate CMS Group with Different AD Group** ( ).
    4. Select a group to replace the group you selected in Step 2.
    5. Click **Save**.
- **Deleting a group**—You can delete a user group from AD or Ektron. When deleting user groups, consider the following behaviors:
    - If you delete a user group in AD and users are assigned to the group within Ektron, the group is *not* deleted in Ektron. However, any Ektron users who were members of the group are no longer members the next time their Ektron information is updated. The discrepancy is flagged on the Active Directory Setup and Active Directory Status screens.
    - If you delete a user group in Ektron and users are assigned to that group within AD, nothing happens. This is because AD Integration assumes that the Ektron administrator only maintains user groups that are meaningful to Ektron, and some AD groups are not meaningful to Ektron.

Disabling AD Integration

When you disable AD integration, domain names are dropped, which may cause user and user group names to not be unique. For example, 2 users are named `JJackson@example.net` and `JJackson@example.com`. When AD is enabled, domain names make the users and user groups unique. However, when AD is disabled and domain names are dropped, the names are now identical. You need to make the users and user groups unique.

To disable AD authentication or integration:

1. Go to **Settings > Configuration > Active Directory > Setup**. The Active Directory Setup screen appears.
2. Enable the **Disable Active Directory and LDAP Authentication** radio button. If any users or groups have the same name with different domains, the following message appears: **Active Directory Authentication is disabled, but needs further configuration**
3. Click the message. The Active Directory Status screen appears.
4. Click the **CMS users need to be made unique** message. The Make CMS Users Unique screen appears.

Username	@	Domain	New Unique Username
bbolt	@	intra.ektron.com	bbolt_@_intra.ektron.com
bbolt	@	bushwood.com	bbolt_@_bushwood.com
bfanny	@	intra.ektron.com	bfanny_@_intra.ektron.com
bfanny	@	bushwood.com	bfanny_@_bushwood.com
CCampbell	@	intra.ektron.com	CCampbell_@_intra.ektron.com
ccampbell	@	bushwood.com	ccampbell_@_bushwood.com

User group names are handled in the same manner. Click the **CMS user groups need to be made unique** message. The Make CMS Groups Unique screen appears.

User Group Name	@ Domain	New Unique User Group Name
Account Operators	@ planets.com	Account Operators_@_planets.com
Account Operators	@ saturn.planets.com	Account Operators_@_saturn.planets.com

5. Click **Save** to accept the suggested new names as recommended by Ektron. By accepting the suggested name, you allow the software to automatically associate AD andEktron users or groups if you later decide to re-enable AD integration.

Implementing User Authentication Mode

In user authentication mode, AD is used only to authenticate users logging in to Ektron. User groups are managed within Ektron, not AD.

Transferring User Information from AD to Ektron

Ektron does not write to AD; it only reads from it. This changes how usernames, domains, and passwords are handled in Ektron.

- Changes to user logon name, domain and password must be made in AD. You cannot update these fields in the Ektron Edit User screens.
- When adding a new user to Ektron, you can only select AD users. If the user does not exist in AD, create the user there and then import the user into Ektron.

Ektron refers to the following AD authentication information during sign-in: password, user logon name, and domain. Note that the password is not stored in Ektron; Ektron only *refers* to the password during sign-in.

Adding and Maintaining User Information

Adding user information in user authentication mode is the same as in AD integration mode.

If a user's *logon name* changes in AD, it no longer matches the Ektron logon name. This discrepancy is flagged on the Active Directory Setup and Active Directory Status screens. Go to the Associate CMS Users to Active Directory Users screen, where you can update the user information.

Alternatively, you could:

1. Go to the View User Information screen.
2. Select the user whose AD name changed.
3. Click **Associate the CMS user with Different AD user** ( ).
4. Select the AD user and domain.

See Also: *Maintaining AD User Information* on page 1139

Editing User Information in Ektron

Ektron does not write to AD. This means that you can only change the **Username** and **Domain** fields from AD. You can change the following fields on the Ektron Edit User screen:

- First Name
- Last Name
- E-Mail Address
- User Language
- Disable Receiving of Workflow and Task Email

IMPORTANT: If you replace a user in user authentication-only mode, the user's first name, last name, and email address are not overwritten with information in AD.

Using AD Integration Screens in User Authentication Mode

Because the scope of user authentication mode is limited to authentication, only some fields on AD Integration screens are used:

- On the Active Directory setup screen, the only relevant fields are **authentication** and **domain**. See Also: *Setting Up Active Directory* on page 1133
- On the Active Directory Status Screen, only one discrepancy message may appear:
  CMS user needs to be associated with an AD user
  See Also: *Maintaining AD User Information* on page 1139
- The View Users Screen works the same for both modes. See Also: *Viewing and Searching for Users* on page 1136

Because AD usernames and passwords are stored by domain, the AD sign-on procedure requires the user to select a domain. When AD integration is enabled, the sign-on screen includes a domain drop-down list.

This section also contains the following topics.

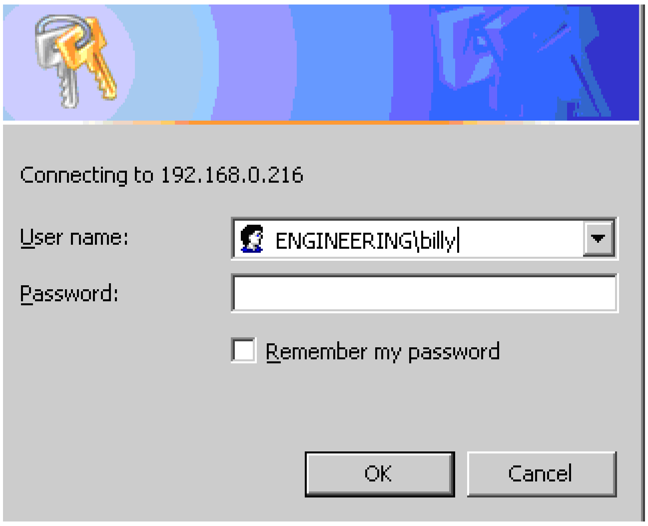
Single Sign On

The Single Sign On feature retrieves a user's login information from Active Directory to authenticate access to Ektron. The user does not need to enter a password. After clicking **Login**, he immediately logs in.

Single Sign On uses a variable called `User.Identity.Name`. This maintains the user's account and domain in Active Directory, and has the format `[domain]\[username]`. For example, `EKTRON1\ssmith`. The variable's value is set when a user authenticates against a Windows server.

When a user clicks the Login server control, if the variable passes successfully and Active Directory is enabled, the server control opens the `autologin.aspx` page. Next, the opening window refreshes like a normal login, except the user is not prompted for a username, password, and domain.

However, if the user's computer is not on a domain, not on the same domain as Ektron, or does not include the Ektron server as a trusted site, the following login screen appears.



If Active Directory is not enabled, the normal `login.aspx` page appears.

Single Sign On uses the `autologin.aspx` file in the `workarea/SSO` directory. When set up, user authentication is enabled from any domain that this server can reach. For example, if Ektron is located in a third level domain, users from third, second, and first level domains can authenticate.

To allow membership users to use single signon, see *Authenticating Membership Users with AD or LDAP* on page 1156. When enabling this functionality, create one login page for Ektron users and another for membership users. For example, use the membership user login as the front-facing login, and then secure a `/cmslogin.aspx` for Ektron user. Next, secure the login with IIS security because Windows authentication only allows the Ektron administrators group in AD to read permissions on the `/cmslogin.aspx` page.

NOTE: Single signon may not work directly on servers, due to security settings on the server and its browser. Try a different machine and make sure it works elsewhere before troubleshooting further.

See Also: Enabling NTLM Authentication (Automatic logon)

Use the setup instructions that correspond to the IIS version running on your server.

After completing these procedures, enable Active Directory within Ektron (if it isn't already enabled). See Also: *Setting Up Active Directory* on page 1127

You should enable the automatic addition of users and groups.

Use the following line of codebehind when troubleshooting user login with Single Signon. If this .NET code cannot get the user login, then Ektron cannot either.

```
Response.Write("UserName:" & Request.ServerVariables("LOGON_USER"))
```

Setting up Single Sign On Using IIS7 or IIS7.5

Setting up Single Sign On with IIS 7 or IIS7.5 involves modifying the `web.config` file and editing security settings.

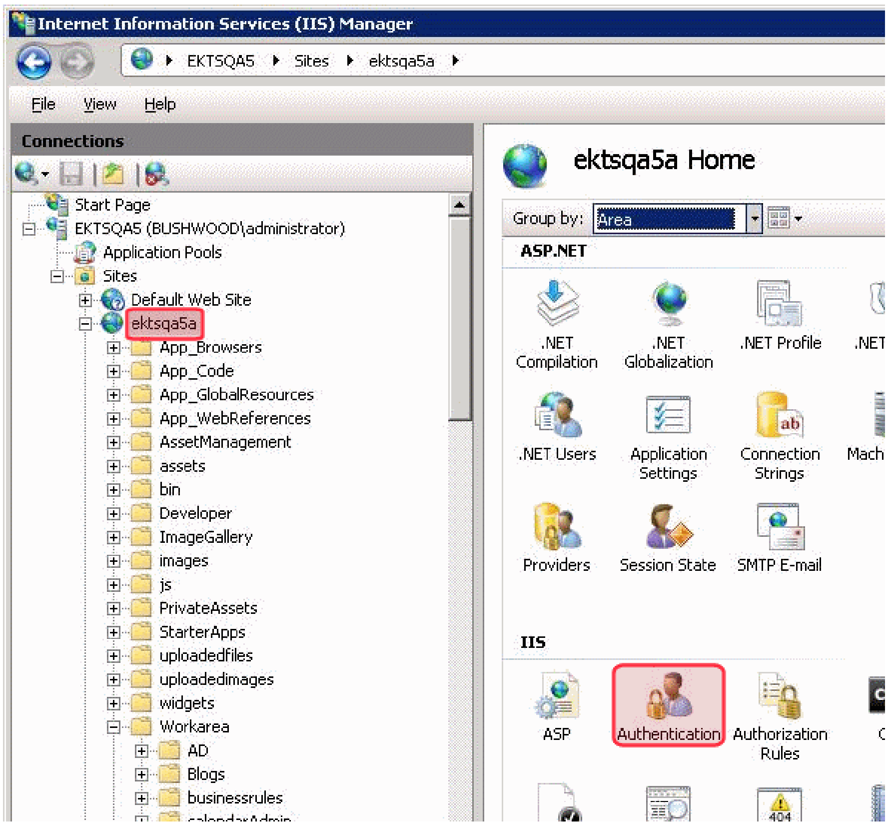
Modifying Web.config for Single Sign On

1. Open *site root*/Web.config.
2. Find the `ek_AUTH_protocol` element and change its value to **LDAP**:
   ```
   <add key="ek_AUTH_Protocol" value="LDAP" />
   ```
3. Find the `authentication` element and change the value of `authentication mode` to **Windows**.
4. Change the value of `impersonate` to **False**:
   ```
   <authentication mode="Windows" />
   <identity impersonate="false" userName="" password=""/>
   ```
5. Comment out the `MyDigestAuthenticationModule` only.
   ```
   <modules>
   <!--add name="MyDigestAuthenticationModule"
   type="Ektron.ASM.EkHttpDavHandler.Security.DigestAuthenticationModule,
     Ektron.ASM.EkHttpDavHandler" /-->
   <add name="ScriptModule" type="System.Web.Handlers.ScriptModule,
     System.Web.Extensions, Version=1.0.61025.0, Culture=neutral,
     PublicKeyToken=31bf3856ad364e35" preCondition="integratedMode" />
   <add name="EkUrlAliasModule" type="UrlAliasingModule"
     preCondition="integratedMode" />
   </modules>
   ```

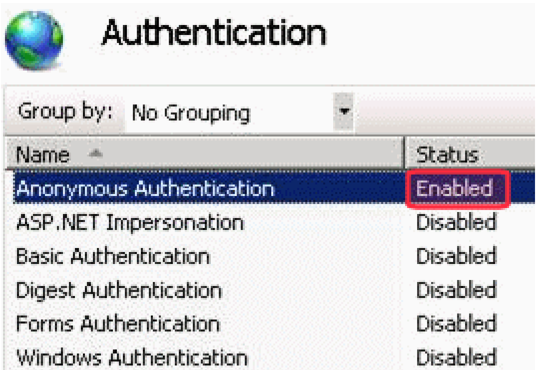
Adjusting Security Settings for the Site Root Folder

1. Go to **Start menu > Administrative Tools > Internet Information Services**.
2. Within IIS, go to **Sites** and select your Ektron site.

3. From the right panel, select **Authentication**.

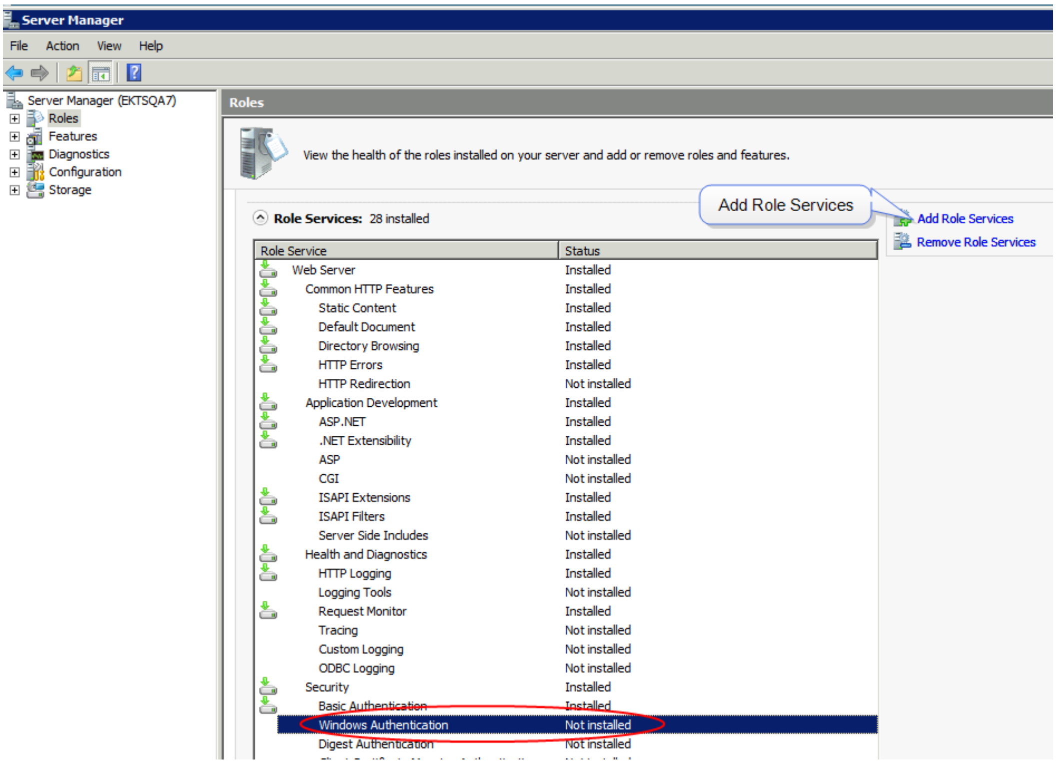


4. On the Authentication screen, enable **Anonymous Authentication**.



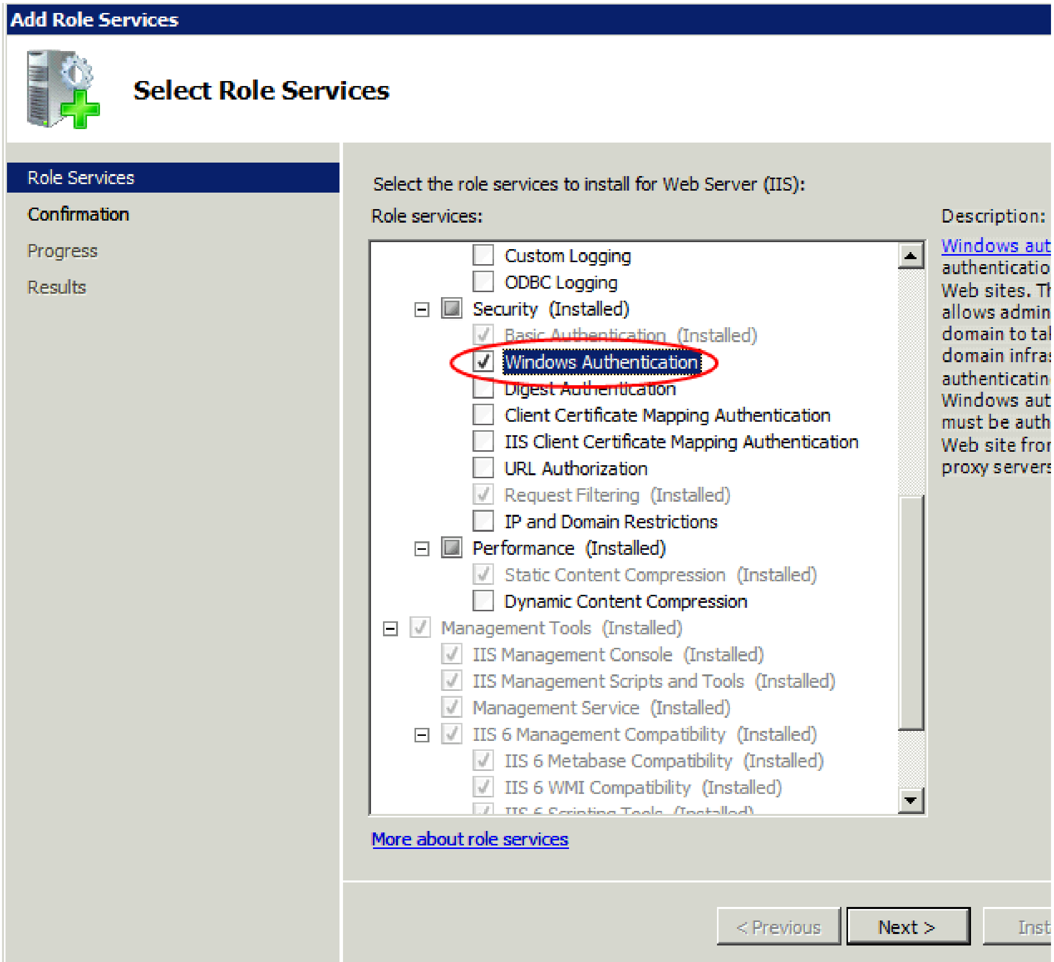
Adjusting Security Settings for autologin.aspx

1. Make sure that Windows Authentication is installed on this server. To do this:
   a. Open **Start** menu **> Administrative Tools > Server Manager**.
   b. Click **Roles > WebServer (IIS) Role Services > Security > Windows Authentication**.

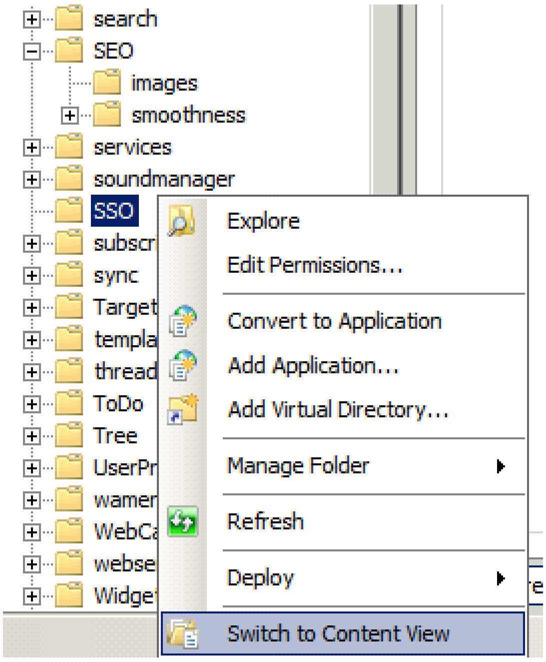


c. If the status of **Windows Authentication** is **Installed**, proceed to Step 2.

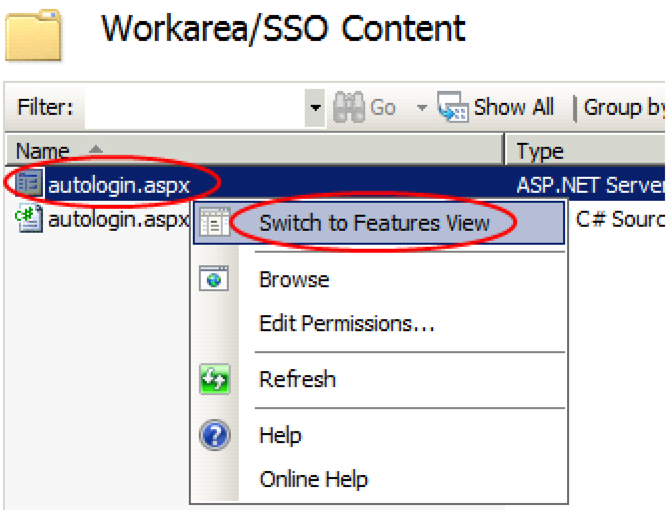
If the status of **Windows Authentication** is **Not Installed**, click **Add Role Services**. The Add Role Services screen appears.



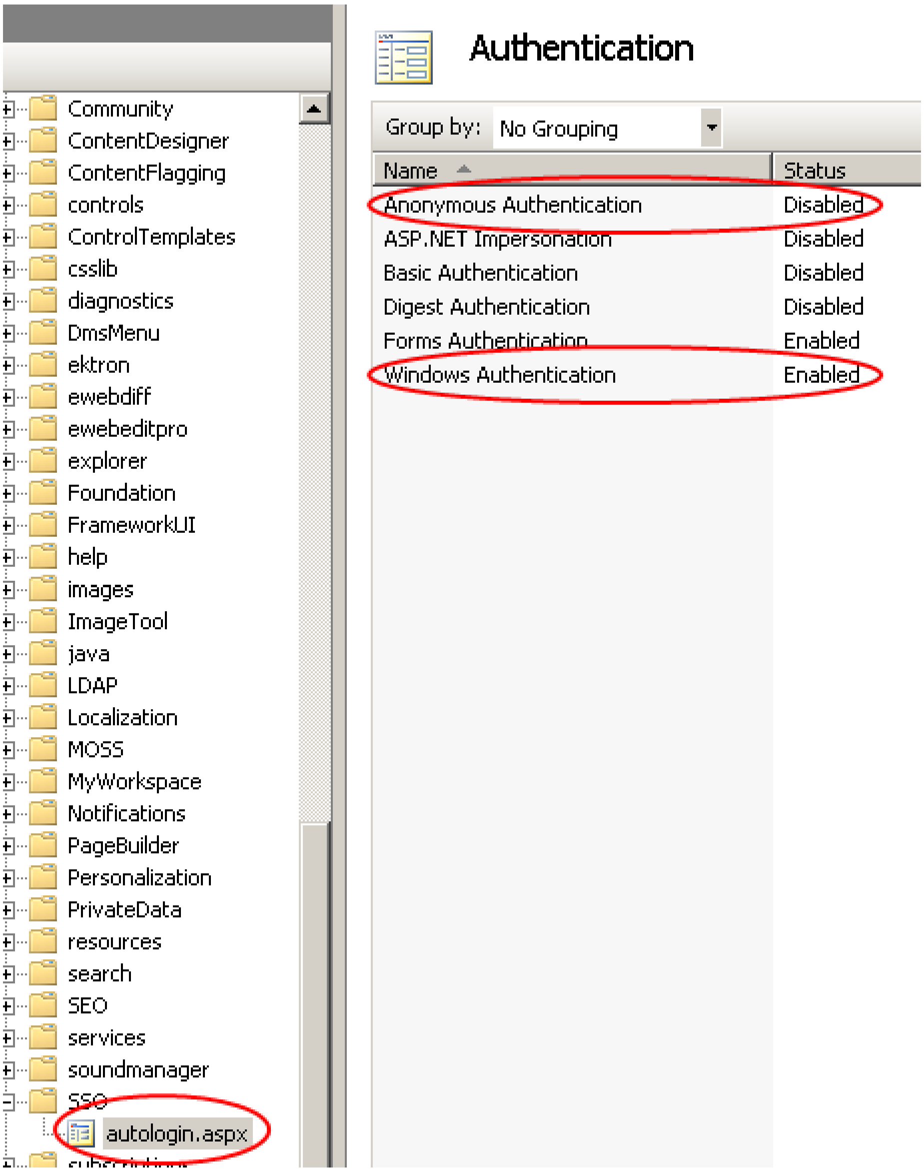
   d. Check **Windows Authentication**.
   e. Click **Next** and follow the prompts to install Windows Authentication.
   f. Close Server Manager.
2. Open IIS Manager.
3. Go to **Sites > *your website's root folder* > Workarea > SSO** and right click **Switch to Content View**.



4. In the center panel, right click **autologin.aspx** and select **Switch to Features View**.



5. In the center panel, click **Authentication**.
6. From the center panel, check the status of **Windows Authentication**. If it is disabled, enable it by selecting it, right clicking, and choosing **Enable** from the menu.



7. From the center panel, check the status of **Anonymous Authentication**. If it is enabled, disable it by selecting it, right clicking, and choosing **Disable** from the menu. As a result of this procedure, `autologin.aspx` passes credentials from the logged-in user's desktop.

Updating the Login Server Control for Single Signon

This sample shows how to modify the Login server control to accommodate single signon. See Also: *Login* on page 1763 server control

```
/Cmslogin.aspx <cms:login> Control
<cms:login runat="server" AutoLogin="True" AutoAddType="Author"
  id="cmslogin" />
/login.aspx.cs
bAutoLogin = true;
```

Active Directory and eSync

An Active Directory configuration does not get Synched.

In an eSync environment, add all users to one environment. Then, sync the users if multiple servers are using AD login.

Using LDAP with Ektron

Lightweight Directory Access Protocol (LDAP) is a set of protocols that enable the hierarchical arrangement of corporate directory entries in a structure, which may reflect geographic or organizational boundaries. Active Directory and LDAP are not the same. While they perform similar functions, LDAP (when used with Ektron) only verifies login information and creates the user in the Everyone group.

Ektron's LDAP feature lets you retrieve user login information from an LDAP server. As a result, you can administer user information from one place, and users only need to remember one password/username combination to sign on to the network and Ektron.

The hierarchical structure of LDAP authentication can be organized in several different ways. For example, if you had the following LDAP structure, the domain would typically span multiple countries.

NOTE: Abbreviations: CN = Common Name, OU = Organizational Unit, O = Organization, C= Country, DN = Distinguished Name.

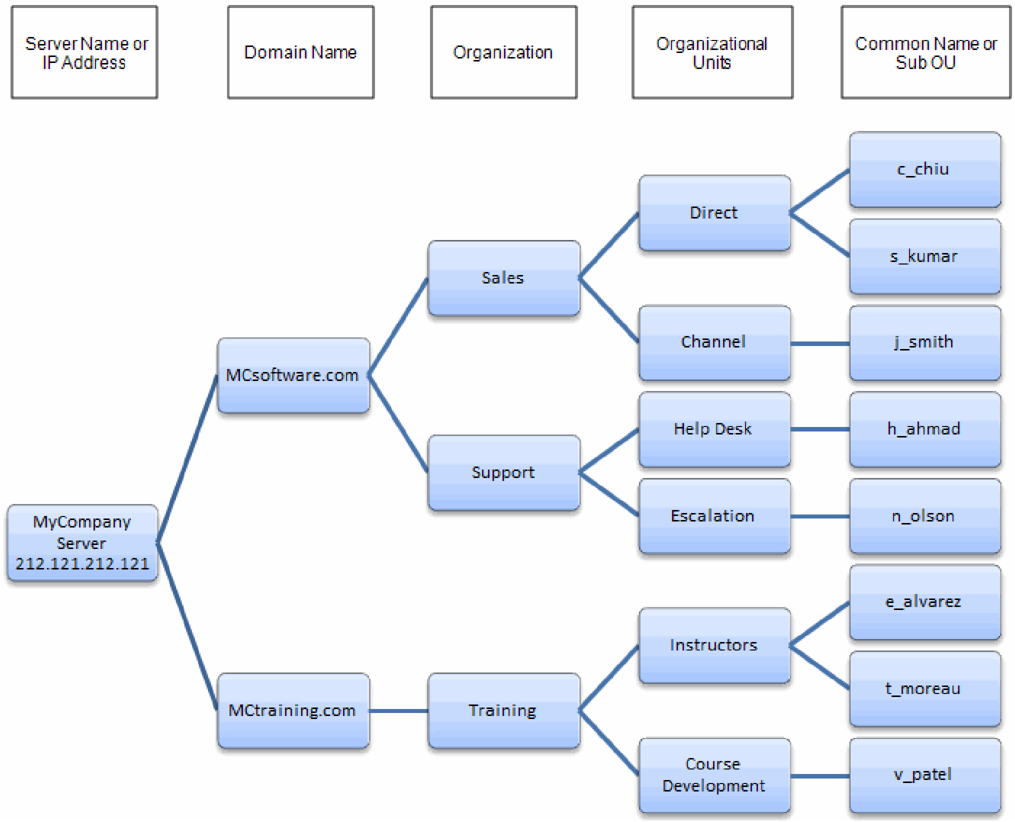
CN=j_smith, OU=Sales, O=MyCompany, C=US, DN=example.com

By changing the order of C and DN, the hierarchy indicates that the domain `example.com` is located in the US.

CN=j_smith, OU=Sales, O=MyCompany, DN=example.com, C=US.

In some instances, it may be necessary to have an Organization appear below an Organizational Unit. For example, your Organizational Unit has it own Organizations.

Below is a visual example of an LDAP hierarchical structure.



Enabling LDAP

You enable LDAP by editing the `web.config` file and editing settings on the Active Directory Setup screen. See Also: *Setting Up Active Directory* on page 1133

IMPORTANT: Before enabling LDAP in Ektron, make sure your LDAP server is ready for use. Be sure to include an Ektron administrator account for yourself. After you enable LDAP, only the BuiltIn account can access Ektron without LDAP authentication. See Also: *Getting Started with Ektron* on page 5

1. In the `siteroot\web.config` file, change the `ek_AUTH_Protocol` property to GC:
   `<add key="ek_AUTH_Protocol" value="GC"/>`
2. Go to **Settings > Configuration > Active Directory > Setup**. The Active Directory Setup screen appears.
3. Click **Edit**.
4. Select **Enable LDAP Authentication**.
5. Complete the LDAP-related fields and click **Update**.
   - **Type**—Choose the type of LDAP authentication you are using. Depending on your choices, the fields below may be required or disallowed. The following choices are available:
     - **Active Directory (LDAP)**—Domain allowed, Organization is not. For more information, see *Using LDAP to Connect to Active Directory* on the facing page.
     - **Novell eDirectory/NDS**—Organization allowed, Domain is not.

- **Sun Iplanet/JSDS**—Domain allowed, Organization is not.
- **Other**—Allows Domain and Organization

- **LDAP Server**—The IP address or name of the LDAP server.
- **Port**—The LDAP server port with which Ektron communicates. If you are unsure of the port number, consult your Directory Service documentation .
- **Organization**—The name of your company or organization. For example, Ektron, Inc. You can leave this field blank if you enter a domain in the **Domain** field.
- **Domain**—Your domain name. For example, www.ektron.com. This should be the name you used when purchasing your license key. You can leave this field blank if you enter an organization in the **Organization** field.
- **Attribute**—Enter the key value used to reference accounts inside LDAP. As examples: dn, sn, cn, uid, and so on.
- **Use SSL**—Check if you want to enforce a secure connection in traffic to the LDAP server.
- **Path**—The next levels below your Organization or Domain. These can include multiple levels of Organizational Units. For example, Content Editors, Marketing, East Coast. Click the **Expand** link to display the **Add** field.
- **Add**—Enter the path to which you would like access in the text field. Then click the **Add** link.

  When adding Organizational Units, paths are comma-separated and run from specific to general. For example, `ou=Amherst,ou=New Hampshire,o=US`. For more information, see *Adding an Organizational Unit During Setup* on the next page.

  Do not add individual Common Names here. Only add Organizational Units that contain people who should have access to Ektron. To add a single individual from a different Organizational Unit, see *Adding User Information from an LDAP Server to Ektron* on the next page

NOTE: You can add additional Organizations below an Organization Units as long as the path on your LDAP server is the same.

Using LDAP to Connect to Active Directory

1. In the `\web.config` file, add the Username and Password for `ek_ADUsername` and `ek_ADPassword`. For example:
```
<add key="ek_ADUsername" value="mwright@ektron.com" />
<add key="ek_ADPassword" value="mypasswordisthis" />
```
2. Go to **Settings > Configuration > Active Directory > Setup**. The Active Directory Setup screen appears.
3. Click **Edit**.
4. Use the following settings in the Active Directory Setup screen.
   - **Type**—Active Directory (LDAP)
   - **LDAP Server**—[IP Address of the AD domain controller]
   - **Port**—389
   - **Organization**—[leave this blank]
   - **Domain**—[dns name of the AD domain]. For example: `internal.domain.com`

- **Path (Organizational Units)**—[any OUs that you want to draw users from] For example: Support, Users, Ektron Corporate or Engineering, Users, Ektron Corporate

Adding an Organizational Unit During Setup

Things to consider when adding Organizational Units:

- Should everyone in the OU have access to Ektron?
- When LDAP is enabled, users are added to the Everyone group upon login. While everyone in the OU has access to Ektron, every user should not necessarily have permission to edit content. To control permissions, set up user groups, add users to groups, and assign permissions to the group. See Also: *Managing Users and User Groups* on page 1099 and *Managing Folder Permissions* on page 257
- Do users in other Organizational Units need access?
- Sometimes, managers or editors are in a different OU. They need to be added manually, or you need to add their OU.
- When adding an Organizational Unit, several entries might cover the same hierarchical path. For example, you might have `ou=Sales`, `ou=Sales_Service`, and `ou=MyCompany`, which lets you authenticate users listed in Sales, Sales_Sevice, and MyCompany.

Adding User Information from an LDAP Server to Ektron

Users at each level are automatically available for adding to Ektron. You do not have to be at the OU or CN level to add a user. If a user is at the DC or OU level, they are available.

After LDAP is enabled, there are several ways to add LDAP user information to Ektron:

- The user logs in. As a result, the user appears in the Users list and is added to the Everyone group. After a user logs in, some fields on the Add User screen can be filled in manually, such as first and last name. For a description of these fields, see *Manually Adding an LDAP User* on the facing page
- Search an LDAP server for LDAP users.
- Add the user's LDAP information manually.
- A combination of searching and manually completing the remaining fields.

Searching an LDAP Server for Users

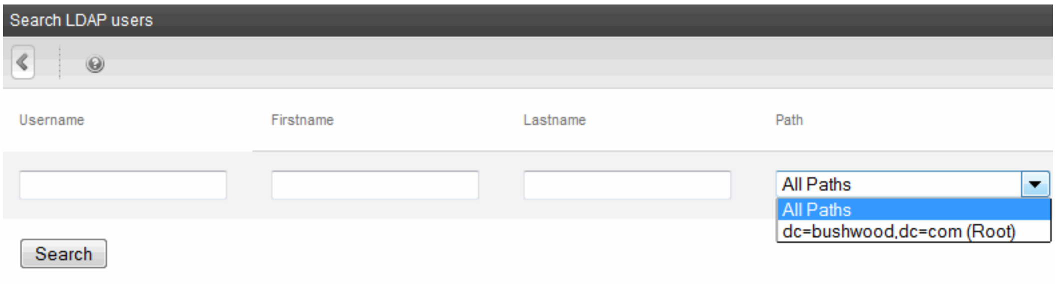
PREREQUISITE

LDAP is enabled. See *Enabling LDAP* on page 1152.

To search for a user on an LDAP server and add the user to Ektron:

1. From the Workarea, navigate to **Settings >Users**.
2. Click **Add Users**. The Add a New User to the System screen appears

3. Click **Browse LDAP** ( ). The Search LDAP Users screen appears.



4. Enter one or more search criteria.
   - **Username**—the username of the user on the LDAP server
   - **Firstname**—the first name of the user on the LDAP server
   - **Lastname**—the last name of the user on the LDAP server
   - **Path**—select a path from the drop-down list. These are the paths that were enabled when you configuredEktron for your LDAP server. If you select a path and enter no other information, you get all users in that path.
5. Click **Search**. The search returns users that match the criteria entered.
6. Check each user to be added.

7. Click **Save** The user is now added to Ektron and the Everyone group. To learn how to assign the user to another user group, see *Assigning Users to User Groups* on page 1106.

Manually Adding an LDAP User

PREREQUISITE

LDAP is enabled. See *Enabling LDAP* on page 1152.

1. Go to **Settings > Users**.
2. Click **Add User**. The Add a New User to the System screen appears.
3. Fill out the fields according to *Creating a New User* on page 1100.
4. Click **Save**. The View Users in Group Everyone screen appears, displaying the new user and the other Ektron users. To learn how to assign the user to another group, see *Assigning Users to User Groups* on page 1106.

Using the Browse Feature to Add an LDAP User

The Browse LDAP feature provides a friendly and intuitive way to find usernames, domains/organizations and organizational units.

IMPORTANT: The default server IP/DNS name and port are taken from the settings specified in the **Configuration > Setup** page. These settings must be specified before connecting to the LDAP server.

Before using the browse feature, you must specify an Organizational Unit that can see the user in the **Configuration > Setup** page.

PREREQUISITE

LDAP is enabled. See *Enabling LDAP* on page 1152.

1. Go to **Settings > Users**.
2. Click **Add Users**. The Add a New User to the System screen appears.
3. Click **Browse LDAP** ( ). The LDAP Explorer appears.
4. Navigate the LDAP server's folders by clicking on the folder images. Each folder represents an Organizational Unit (OU). When you choose an OU level, its users appear.

   NOTE: In the LDAP Explorer, the Path and Org/Domain fields update dynamically as you navigate through the LDAP tree.

5. Select a user. The user is added to Ektron and the Everyone group. To learn how to assign this user to another group, see *Assigning Users to User Groups* on page 1106.

Editing LDAP User Information

It is important to note that Ektron does not write to the LDAP server. So, while you can change fields when editing a user in Ektron, you also need to make the same changes on the LDAP server.

1. Go to **Settings > Users**.
2. In the Username column, click a user to edit. The View User Information screen appears.
3. Click **Edit**.
4. Change the information as needed. For more information on the fields you can edit, see *Creating a New User* on page 1100.
5. Click **Save**.

Deleting Users

If a user is deleted on the LDAP server, Ektron does not automatically delete the user. However, the user's login fails because the login cannot be authenticated. In this case, delete the user from Ektron using the Delete User function.

NOTE: If you mistakenly delete all users with administrative privileges, you can still sign in using the builtin user's username and password. See Also: *Getting Started with Ektron* on page 5

Authenticating Membership Users with AD or LDAP

Usually Membership users are not included in AD or LDAP directories. Ektron's default settings ignore AD or LDAP for membership authentication.

If you want Membership users to authenticate with AD or LDAP, follow these steps.

1. Edit the *siteroot*\`web.config` file.
2. Set `LDAPmembershipUser` to **true**.
   `<add key "ek_LDAPMembershipUser" value="true" />`
   If `ek_LDAPmembershipUser` is **false**, membership users are not authenticated with AD or LDAP.

Disabling LDAP Authentication

To disable LDAP authentication or integration, edit the Active Directory Setup screen and select **Disable Active Directory and LDAP Authentication**.

See Also: *Setting Up Active Directory* on page 1133

(This page intentionally blank.)

29

Managing User Communities

A community is a group of people who network with each other to share information, ideas, likes and dislikes. Typically, people or members in the community are connected by a relationship. For example, they work for the same company, went to the same school, share values, or have a friendship.

When you visit a community site, look around to see the kind of information, people and groups that are on the site. Typically, you can see only limited information initially. To see all information, you need to become a member. When you sign up to be member, you enter information about yourself in a member profile. After becoming a member, you can:

- maintain a personal profile, including an avatar
- search for other members and add them to a friends list
- join or create a community group
- invite non-members to join a community and become a friend
- add photos and documents to a personal or group profile page
- determine which other users and groups can view and update those files
- update status and share that update with selected members
- post public or private messages to another member’s message board
- keep a journal of your thoughts
- create a list of favorite Ektron content links
- have a list of content that you have added
- write content reviews
- flag content

The Community Platform in Ektron is a group of features that lets users network socially on a website. Access to the community platform is available from the website or the Workarea but only Ektron users and administrators can access their information via the Workarea. As an Administrator, you can manage Community features from the Workarea. Membership Users, Ektron users, and administrators can access their profile pages via a website.

This section also contains the following topics.

- *Membership Users and Groups* on the facing page
- *Accessing a User Profile* on page 1175
- *Moderating a Message Board* on page 1175
- *Managing Community Groups* on page 1181
- *Distributing Content to Another Ektron Folder* on page 1188
- *Sending Notifications to a Community* on page 1194
- *Setting Up Email to Communicate Community Activities* on page 1223
- *Activity Streams* on page 1231
- *Using Ektron's Micro-messaging Bookmarklet* on page 1249
- *Defining Flags for Content* on page 1239
- *Generating email Invitations for Community Management* on page 1230
- *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245

To learn about the server controls that let membership users log into an Ektron site, see *Getting Started with Ektron* on page 5 and *Login* on page 1763 server control. For other community-related server controls, see the following:

Membership Users and Groups

Membership users have limited privileges to Ektron. Unlike regular Ektron users, they cannot use the Workarea. When membership users log in, they can view, add and edit content from the website (as permitted)—all other functionality is disabled.

Membership users can be allowed to view private content. This is helpful if your organization has partners who need access to Web pages that should not be visible to the general public. See Also: *Making Content Private* on page 294 If you have a Social Network or Community website, a membership user can create an online area for themselves.

PREREQUISITE

To work with membership users, you must be a member of the Administrators group or assigned to the member admin role. See Also: *Defining Roles* on page 1120

Membership User Privileges

A typical membership scenario is a Partners section of your website that contains private content for partners only. Set up a membership user group with users from your partner's organization. The group is given add and edit permissions to the Partners section. Membership privileges are:

- Create, edit, and view content after log in.
- Subscribe to receive Web Alerts. See Also: *Administering Web Alerts* on page 1567
- View private content.
- Use these Community features See Also: *Managing User Communities* on page 1159
  - Share Document Workspace and Photo Gallery with other site visitors
  - Join a community group
  - Mark content the member likes and allow site visitors to see the list of these Favorites
  - Designate other members or site users as Colleagues
  - Keep a Journal
  - Add and read Message Board comments

   - Send and receive messages with other registered users
   - If a Discussion Board requires sign in, they can view and post to them. See Also: *Working with Discussion Boards* on page 536
- Post blog comments. See Also: *Working with Blogs* on page 491
- If a poll or survey is set up to track participating users, membership users' names appear on the Form reports.

Viewing Membership Users

Use the Membership Module folder to add and edit membership users and user groups.

1. Navigate to the **Workarea > Settings > Community Management > Memberships**.
2. From that folder, you can access the following screens.
   - Users—You can sort the Username, Last Name, and First Name columns by clicking the column headers.
   - Users not Verified—If you are using the Web Alert feature, any site visitor can sign up to be a membership user. *How Users Sign up for Subscriptions* on page 1586
   - User Groups—*Membership Groups* on page 1165

NOTE: The `ek_PageSize` setting in the `web.config` file determines the maximum number of users that can appear on a page before it "breaks." When a page breaks, additional entries appear on another screen, and the following text appears near the bottom of the list:
Page 1 of 2 [First Page] [Previous Page] [Next Page] [Last Page]

Adding Membership Users

1. From the Workarea, click **Settings > Community Management > Memberships > Users**.
2. Click **Add Membership User**. The Add Membership User screen appears.
3. Complete the form using the following list as a reference.
   - **Username**—Enter a unique username for the membership user.
   - **First Name**—Enter the first name of the user.
   - **Last Name**—Enter the last name of the user.
   - **Display Name**—The name used to identify a Membership user on the website. This can be different from the Username, which is the name you use to log into the Ektron website.

     IMPORTANT: This name needs to be unique inside Ektron and it cannot be blank.

   - **Password**—Enter a password for the user.
   - **Confirm Pwd**—Re-type the password to confirm it is correct.
   - **User Language**—Select the language in which the user viewsEktron screens and messages. The language also determines the default value whenever a drop-down list of languages appears within Ektron. The drop-down list of choices at this field is derived from the Language Settings screen, available from the **Settings > Configuration** folder. Do not confuse the system language with the user's ability to create and edit foreign editions of content. This field does not prevent a user from

working with multiple language content. See Also: *Working with Multi-Language Content* on page 1057. If the selected language is not English, French or German, it is only supported after you download the Ektron Language Support Program from Ektron and translate the website.

- **Email Address**—Enter an email address for the user.
- **Forum Editor**—Determines which editor is used when this user replies to a Discussion Board. See Also: *Using Discussion Boards on Your Website* on page 568
- **Avatar**—Click on "Click to upload your Avatar" and choose an image file that you want to associate with your profile. By default, the maximum file size of an avatar is 200 kilobytes. Also, the avatar's height and width cannot exceed 125 pixels preserving the aspect ratio.

Changing the Default File Size

To change the file size limit, edit *Siteroot*\Workarea\Upload.aspx.vb. In this file, change the line below to the maximum file size you want to allow.

```
If (numFileSize > 200) Then
```

For example, to allow 500 kb files, change 200 to 500.

NOTE: Remember, this number is in kilobytes.

Changing the Default Height and Width

To change the default height and width, edit *YourSite*\App_Code\VBCode\Utilities.vb. In this file, change the following lines to the size you wish to allow.

```
Dim Width As Integer = 125
Dim Height As Integer = 125
```

For example, to set avatars' height and width to 166 pixels, change 125 to 166 in both lines.

- **Address**—The address used to find your location when a user is performing a search based on location.
- **Latitude**—The latitude used to find your location when a user is performing a search based on location. Google maps provides a service that takes the address of user and returns its latitude and longitude. You don’t need to use Google’s automatic retrieval of latitude and longitude. Instead, you can enter the values manually.
- **Longitude**—The longitude used to find your location when a user is performing a search based on location. Google maps provides a service that takes the address of content and returns its latitude and longitude. You don’t need to use Google’s automatic retrieval of latitude and longitude. Instead, you can enter the values manually.

User Groups Tab (Tab only appears when editing)—Lists user groups to which the user belongs. See Also: *Assigning Users to User Groups* on page 1106

- **Custom Tab**—Lists any custom user properties. See Also: *Creating Custom User Properties* on page 1108

Activities Tab (Tabs only appear when editing)

NOTE: If you disable Notifications, the **Activities** tab (which lets the user pick Notifications to receive and send) disappears.

- **Colleagues Sub Tab**—Select the notifications you want to receive when a colleague performs an activity, and the agent that transmits the notification. For example, if you want to receive email notifications when a colleague posts a blog message, you would place a check mark in the box for **Blog Post** in the email column. See Also: *Sending Notifications to a Community* on page 1194
- **Community Groups Sub Tab**—Select notifications you want to receive when a member of a community group performs an activity relating to the group, and the agent that transmits the notification. For example, you want to receive email notifications when a community group member posts a blog message to group's blog. To enable this, place a check mark in the box for **Group Blog Post** in the email column. See Also: *Sending Notifications to a Community* on page 1194

  This tab sets preferences for all community groups.
  For Developers: Ektron has created a UserGroupPreferences user control. If you add the control to a community group's profile page, users can specify notification preferences for individual groups. This control comes with Ektron and is located in:

  ```
  [Drive:]\webroot\siteroot\Workarea\Notifications\Controls
  ```

  In this site, when a logged-in member of a community group accesses the group's profile page, there is an **Edit Group Notifications Preferences** link. Clicking this link opens the user control. When you select your preferences, they are stored for that group only.

- **My Activities Sub Tab**—Select notifications you want publish when performing various activities on the website. For example, if you want to publish notifications when you post a blog message to your blog, place a check mark in the box for **Blog Post** in the **Publish** column. See Also: *Sending Notifications to a Community* on page 1194

Profile Links Tab—Lists The user's alias if community aliasing is set for users. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

4. Click **Save**.

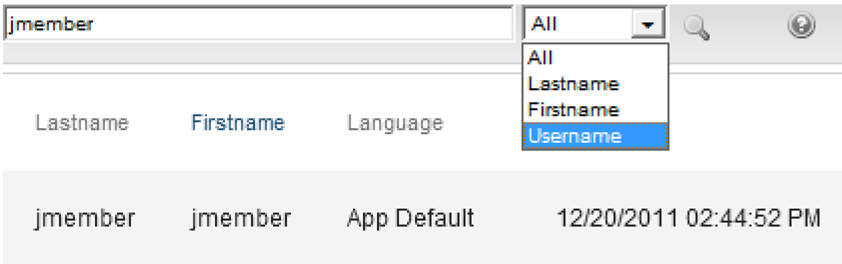
Deleting Membership Users

1. From the Workarea, click **Settings > Community Management > Memberships > Users**.
2. Check the boxes next to the users you want to delete.
3. Click **Delete** (✖). A confirmation message appears.
4. Click **OK**.

Searching for Membership Users

If there are many membership users, use the search to find users who meet your criteria. For example, find members whose username includes **@example.com**. Only users with those characters in that sequence in their username, first name, or last name appear. The search is case-insensitive, so **MI** produces the same results as **mi**.

You can also search by First and Last name.



Troubleshooting Problems with Membership Users and Groups

If you get the following error:

```
Response object error 'ASP 0251 : 80004005'
Response Buffer Limit Exceeded
```

Increase the limit as follows:

1. Stop IIS.
2. Locate the file `%WinDir%\System32\Inetsrv\Metabase.xml`
3. Modify the AspBufferingLimit value. The default value is 4194304, which is about 4 MB. Changing it to 20MB (20971520).
4. Restart IIS.

Membership Groups

You can use a membership group to group similar membership users, reducing the effort required to assign identical permissions to many users.

IMPORTANT: Membership Groups and Community Groups are different concepts. Community Groups allow users with similar interest to join together in a social networking environment. See *Managing Community Groups* on page 1181. Membership User Groups are explained below.

To make friendly URLs that are easy to use and remember for a community user and group, Ektron provides a **Community URL Aliasing** feature. *Creating User-Friendly URLs with Aliasing* on page 835 for more information.

NOTE: Membership users may also be managed with Active Directory and LDAP. For more information, see *Authenticating Membership Users with AD or LDAP* on page 1156.

PREREQUISITE

To work with membership users, you must be a member of the Administrators group or assigned to the member admin role. See Also: *Defining Roles* on page 1120

Viewing Users in a Membership Group

1. From the Workarea, click **Settings > Community Management > Memberships > User Groups**.
2. Click the membership user group you want to view. The View Users In Group screen appears.

Adding a Membership Group

1. From the Workarea, click **Settings > Community Management > Memberships > User Groups**.
2. Click **Add Membership Usergroup**. The Add a New User Group screen appears.
3. Enter a unique name for the group, and optionally add a description.
4. Click **Save**.

Deleting a Membership Group

1. From the Workarea, click **Settings > Community Management > Memberships > User Groups**.
2. Select the group you want to delete. The View user in Group screen appears.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**.

Adding Users to a Membership Group

NOTE: Only membership users can be added to membership user groups.

1. From the Workarea, click **Settings > Community Management > Memberships > User Groups**.
2. Click **Add Membership User**. The Add User to Group screen appears.

   NOTE: Only membership users who do not already belong to the group appear.

3. Click the user you want to add.
4. Click **Save**. A confirmation message appears.

Deleting Users from a Membership Group

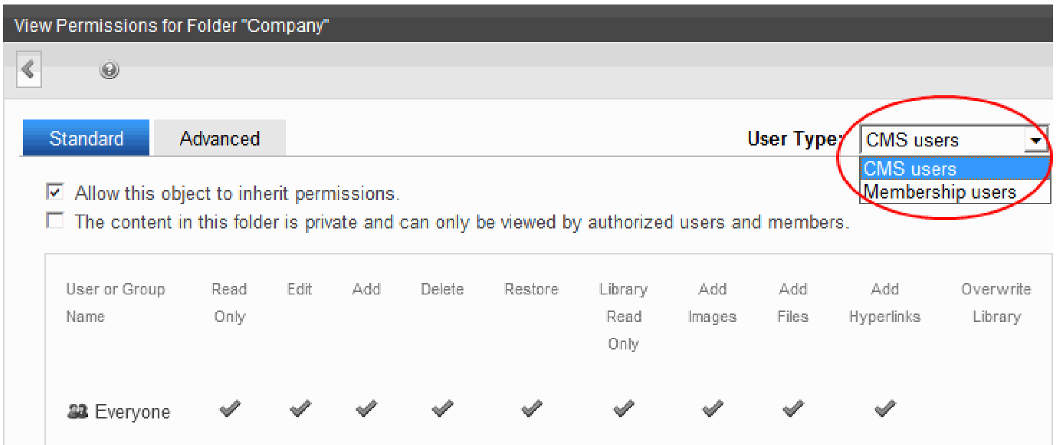
1. From the Workarea, click **Settings > Community Management > Memberships > User Groups**.
2. Click the name of the membership user you want to remove. The View Users screen appears.
3. Check the boxes next to the users you want to delete.
4. Click **Delete** ( ). A confirmation message appears.
5. Click **OK**.

Assigning Membership Permissions

After you create membership users and groups, you can assign them permissions for Community folders only. See Also: *Community Folders* on page 1171

1. Access the permissions table for the content or folder to which you want to assign membership permissions.
   - Content folders—*Managing Folder Permissions* on page 257
   - Content—*Setting Permissions for Content* on page 261

2. If necessary, break the inheritance for the content or folder.
3. If desired, set the folder or item to **Private**. See Also: *Making Content Private* on page 294
4. Click **View Membership Users** on the right side of the permissions table. The membership users/user groups added to the permissions table appear.

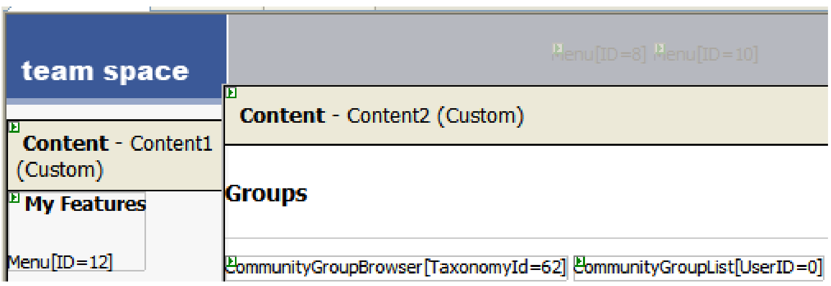


5. Click **Add**. The Add Permissions screen appears.
6. Click a username or user group name to add to the permissions table. The Add Permissions Options screen appears.
7. Check appropriate permissions for the membership user or group.
8. Click **Save**.

Assigning Templates to Groups and Members

Ektron's Community Management feature supports both community and individual member pages. Like other Ektron content, Community Management content appears on a dynamic Web page. Page templates determine each page’s layout and location of elements (menus, content, blogs, and so on). The following samples show the Community Management template.

Sample Group Template in Visual Studio.NET



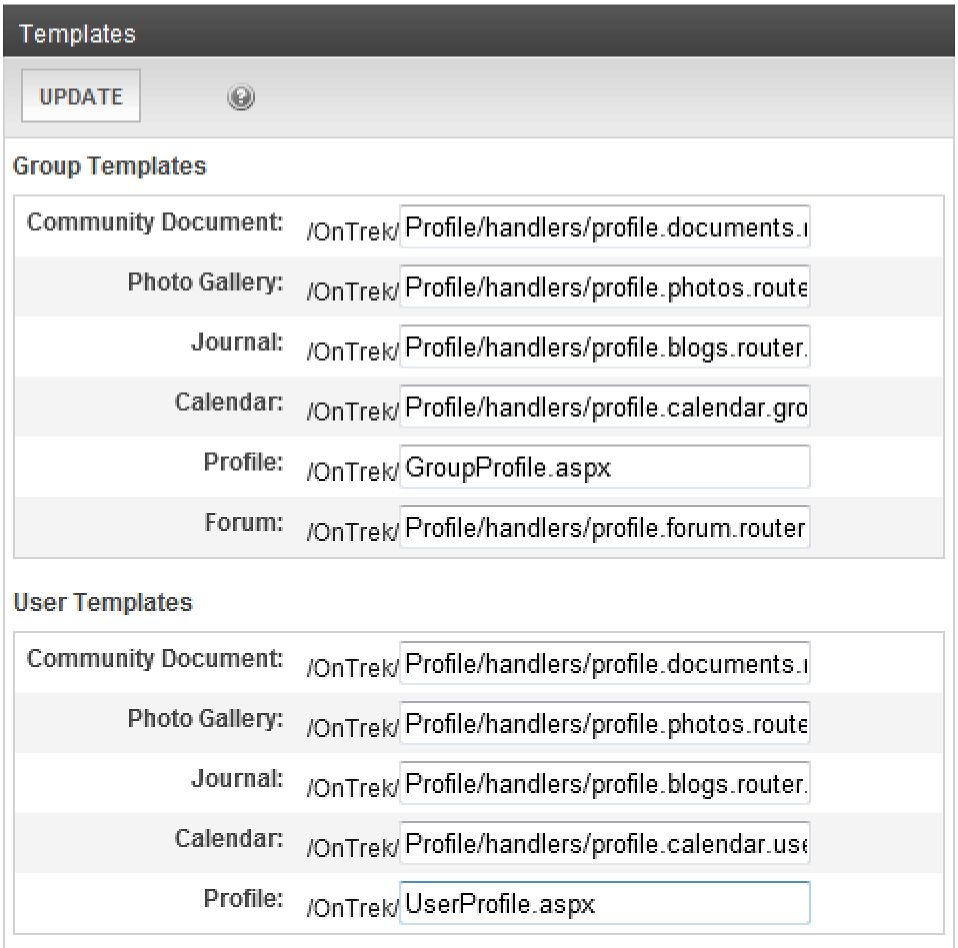
Sample Group Template on a Web Page

The Community Management feature includes six templates:

- Community Group
    - documents
    - photos
    - journal
- User
    - documents
    - photos
    - journal

Ektron provides a sample for each template. You can use the sample or create your own. If you begin with a sample template and modify it, be sure to save it under a different name to prevent it from being overwritten when you upgrade.

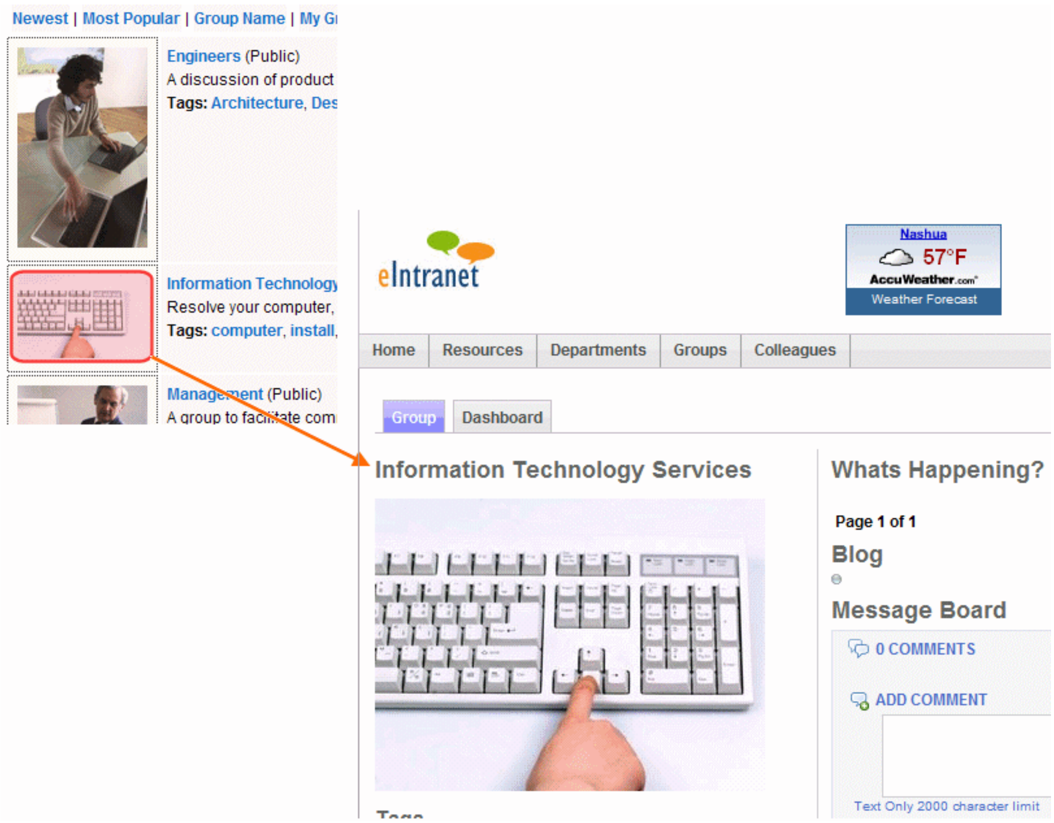
Use the Workarea **Settings > Community Management > Templates** screen to assign templates to Community Management pages.



Group Templates

- **Community Document**—Page hosts the CommunityDocuments server control; ObjectType property is set to **Group**
- **Photo Gallery**—Page hosts the PhotoGallery server control; ObjectType property is set to **Group**
- **Journal**—Page hosts the Blog server control, and the blog was created for a group page
- **Profile**—Page that hosts a CommunityGroupProfile server control.

  Note, however, that a site visitor, while viewing a page, may click an icon to visit a community group profile from there.

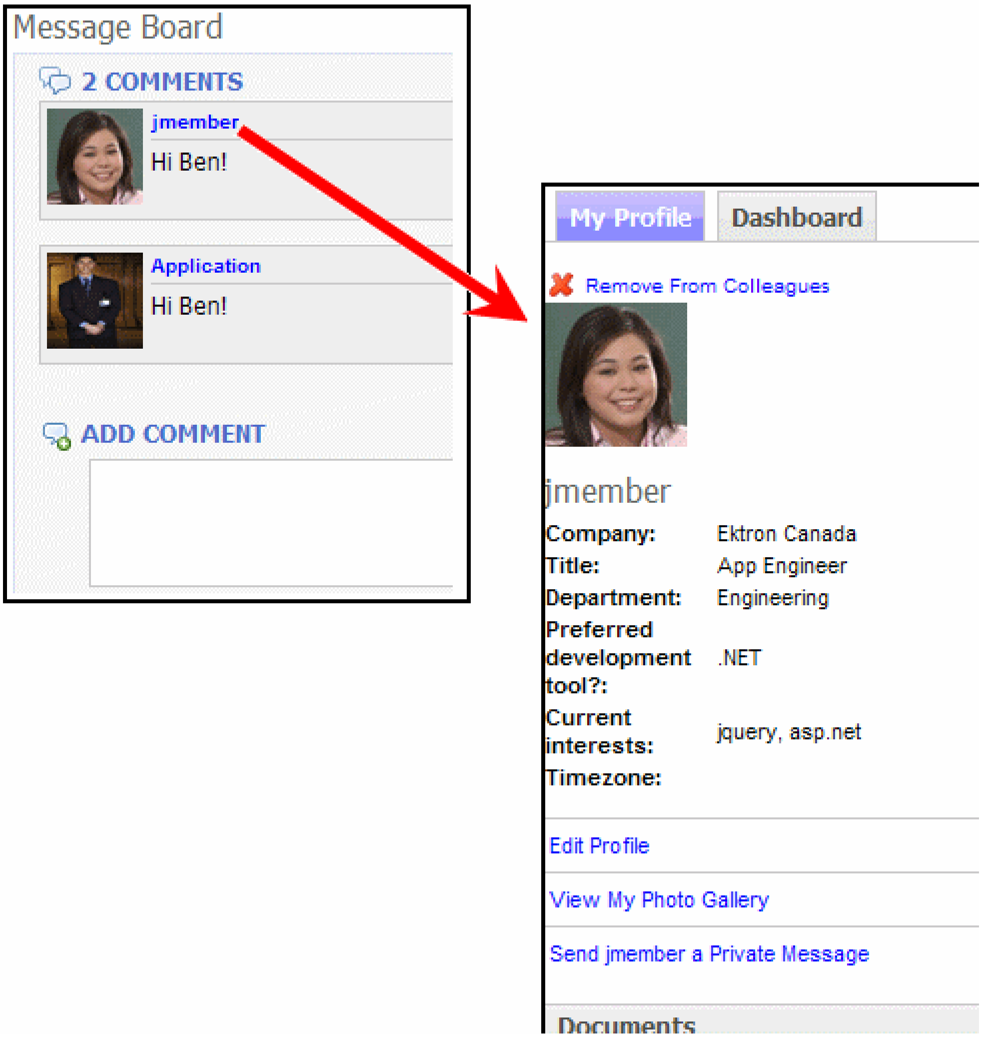


In this case, if the original control has a `TemplateUserProfile` defined, that value overrides this field and defines the template in which the community group profile appears.

User Templates

- **Community Document**—Page hosts the CommunityDocuments server control; ObjectType property is set to **User**
- **Photo Gallery**—Page hosts the PhotoGallery server control; ObjectType property is set to **User**
- **Journal**—Page hosts the Blog server control, and the blog was created for a user page
- **Profile**—Page that hosts a User Profile server control.

  Note that a site visitor may click a user icon to visit a user profile from another page.



In this case, if the original control has a `TemplateUserProfile` property value defined, that value overrides this field and defines the template in which the user profile appears.

See the *Server Control Reference* on page 1636 for information about server controls.

Community Folders

Community folders resemble regular folders in most ways. The only difference is that membership users can add and edit content in these folders only. Community folders have a unique icon, which looks like 2 people ( ).

Membership users add and edit Community folder content after signing in to the website. They do not use the Workarea to add or edit content.

NOTE: Authorized Ektron users can also create and update Community folder content.

Creating a Community Folder

1. In **Workarea > Content**, go to the folder in which you want to create the community folder.

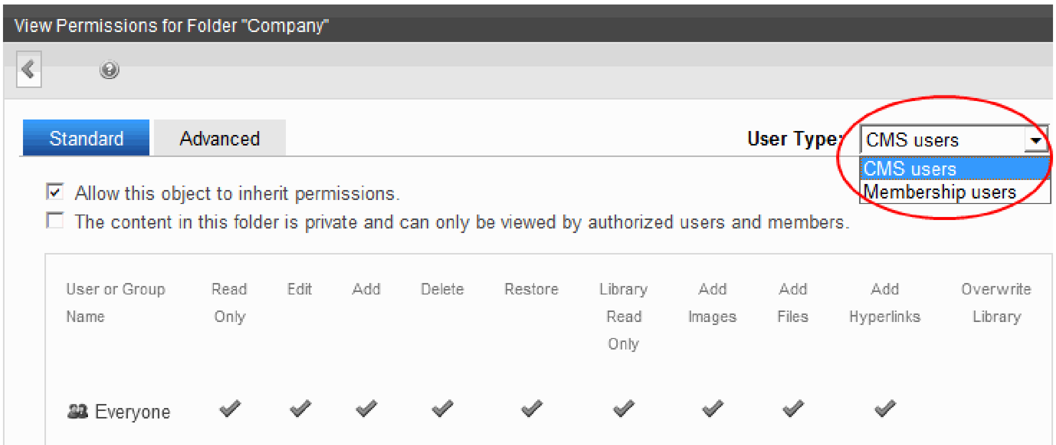
2. Select **New > Community Folder**. Alternatively, you can hover the cursor over the folder, right click the mouse, and choose **Add Community Folder**.
3. Assign properties as you would any other folder. See *Adding a Folder* on page 247

> **NOTE:** The folder properties screen lets you require metadata for any content item. However, membership users cannot enter metadata. Therefore, this requirement is ignored when membership users edit community folder content. If an Ektron user tries to edit that content, the user is required to enter a metadata value.

Assigning Permissions for a Community Folder

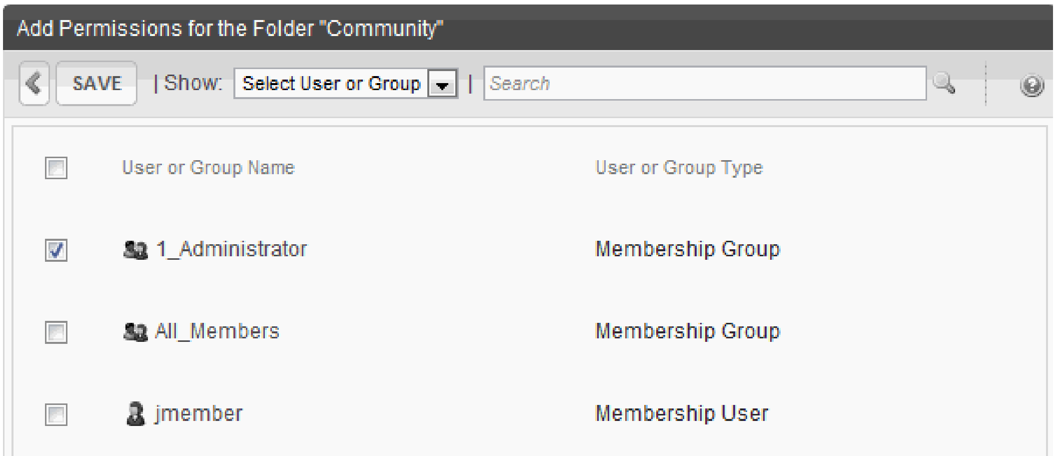
Because Community folders are intended for membership users, this section explains how to assign permissions for them. To assign folder permissions for regular users, see *Managing Folder Permissions* on page 257.

1. Navigate to the folder.
2. Choose **View > Properties**.
3. Click **View Permissions** ( ).
4. If necessary, uncheck the **Allow this object to inherit permissions** checkbox.
5. Click **User Type: Membership Users**.



6. Click **Add Permissions**.
7. Select the membership user or group to which you want to assign permission for this folder.

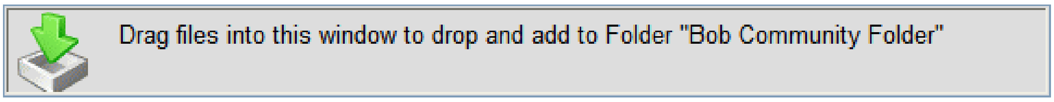
8. Check the permission boxes as appropriate.



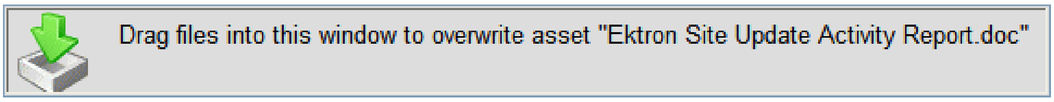
Adding and Updating Assets as a Membership User

First, your developer must create a template, then drop an Asset server control onto it. While adding the Asset Server Control, the developer specifies **Add** at the **Upload Type** property, and the community folder to which the asset will be saved at the **DefaultFolderID** property.

When a membership user is authorized to add content navigates to the page with the server control, the person sees an Asset control area like the one that appears when Ektron users add assets. The user then can drag and drop assets into Ektron.



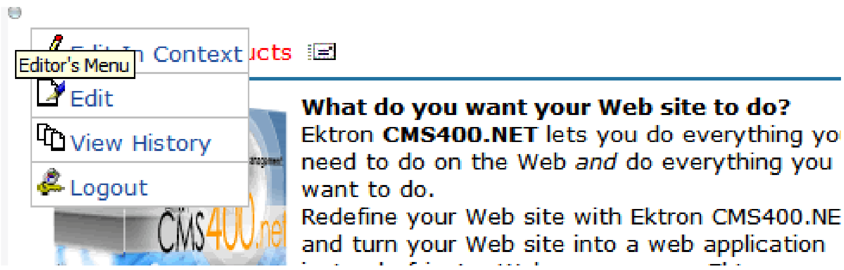
To update an asset, your developer adds the Asset Server Control, as previously described, but specifies **Update** at the **Upload Type** property, and a community folder to which the asset will be saved at the **DefaultFolderID** property. Then, the developer specifies an asset ID number at the **DefaultAsset ID** property. Using that control, the membership user can update the identified asset only.



Additional information about administering assets is found in *Working with Assets in the Document Management System* on page 310.

Viewing and Editing Community Folder Content

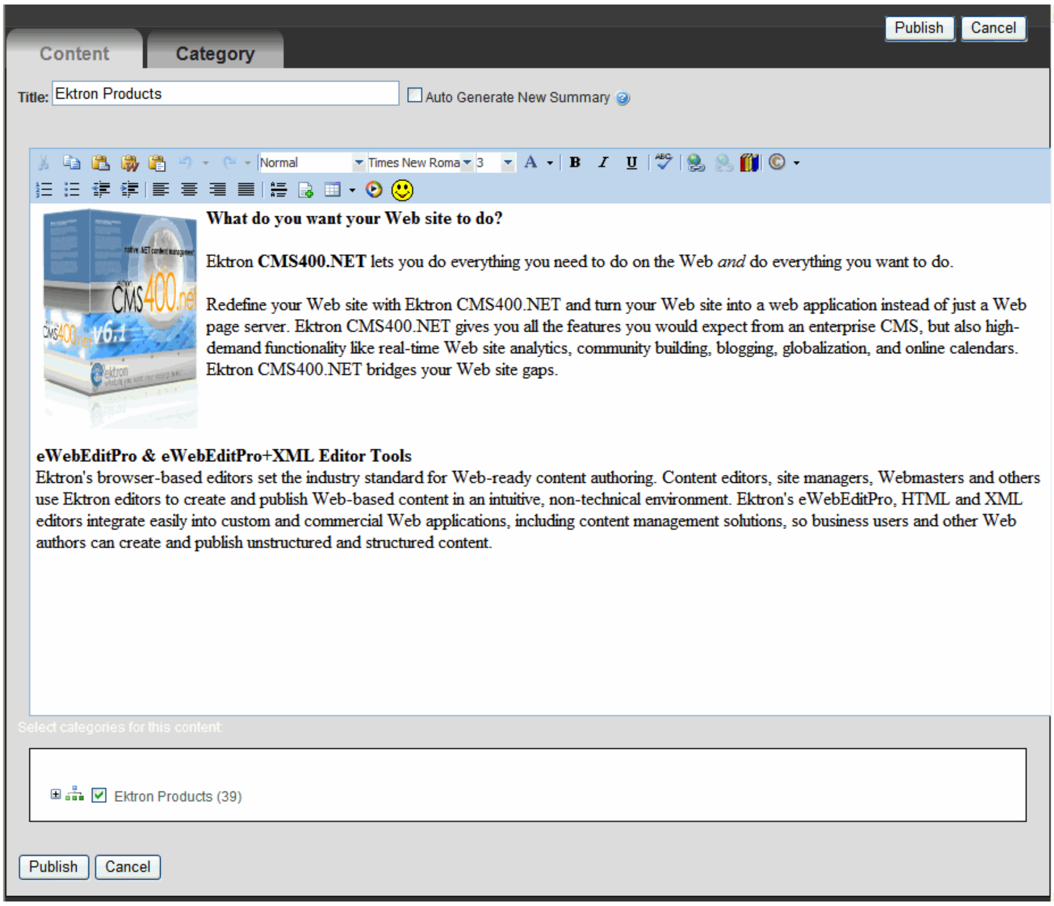
When a user with Read-only or higher permission navigates to a page whose content is in a community folder, the user can view it. If the user has edit permission, a menu appears.



WARNING! Membership users can edit only HTML content and assets. They cannot edit other content types (HTML forms, Smart Forms, and so on).

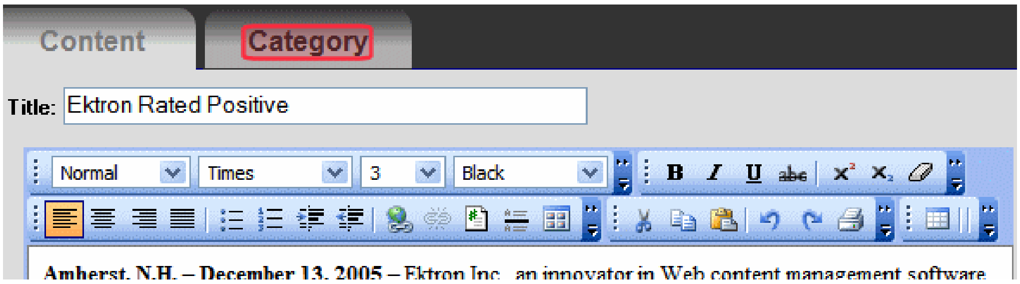
When a membership user clicks **Edit** ( ), a new window displays the content within an editor.

Other membership buttons are **View History** ( ) and **Log out** ( ).



This editor has fewer capabilities than Ektron's editor. However, a membership user can

- add images and files via **library** ( ) if the membership user has **Add Images** and **Add Files** permission. See Also: *Working with the Library* on page 333
- add a wiki using **page link**( ). See Also: *Using the Wiki Feature* on page 1966
- assign a taxonomy category to the content by clicking the **Category** tab. See Also: *Using Taxonomies* on page 777



NOTE: The **Category** tab only appears if a Taxonomy is applied to the content's folder.

- replace the content summary with the first 40 words of the content, using the **Auto Generate New Summary** check box. See Also: *Automatically Creating a Summary* on page 293

When a membership user finishes editing, the user clicks **Publish**. If the content's folder has an approval chain, the content's status changes to submitted, and the border color changes to yellow. If there is no approval chain, the content is published immediately.

Accessing a User Profile

A profile stores and maintains information about a user.

- An Ektron developer inserts a profile on a page using the *UserProfile* on page 1852 server control.
- A membership user can access his or her profile page only from the website.
- An Ektron user can access his or her profile from the Workarea or the website. Navigate to **Settings > Users**. See *Managing Users* on page 1100

IMPORTANT: For Ektron users, some profile information in the Workarea's **View User Information** screen is not available on the website profile page. That information involves Workarea settings.

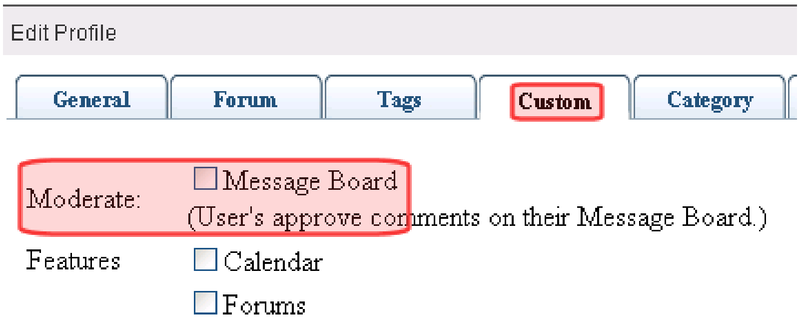
- An administrator can access user profiles from the Workarea. Navigate to **Settings > Community Management > Memberships > Users**. See *Membership Users and Groups* on page 1161

Moderating a Message Board

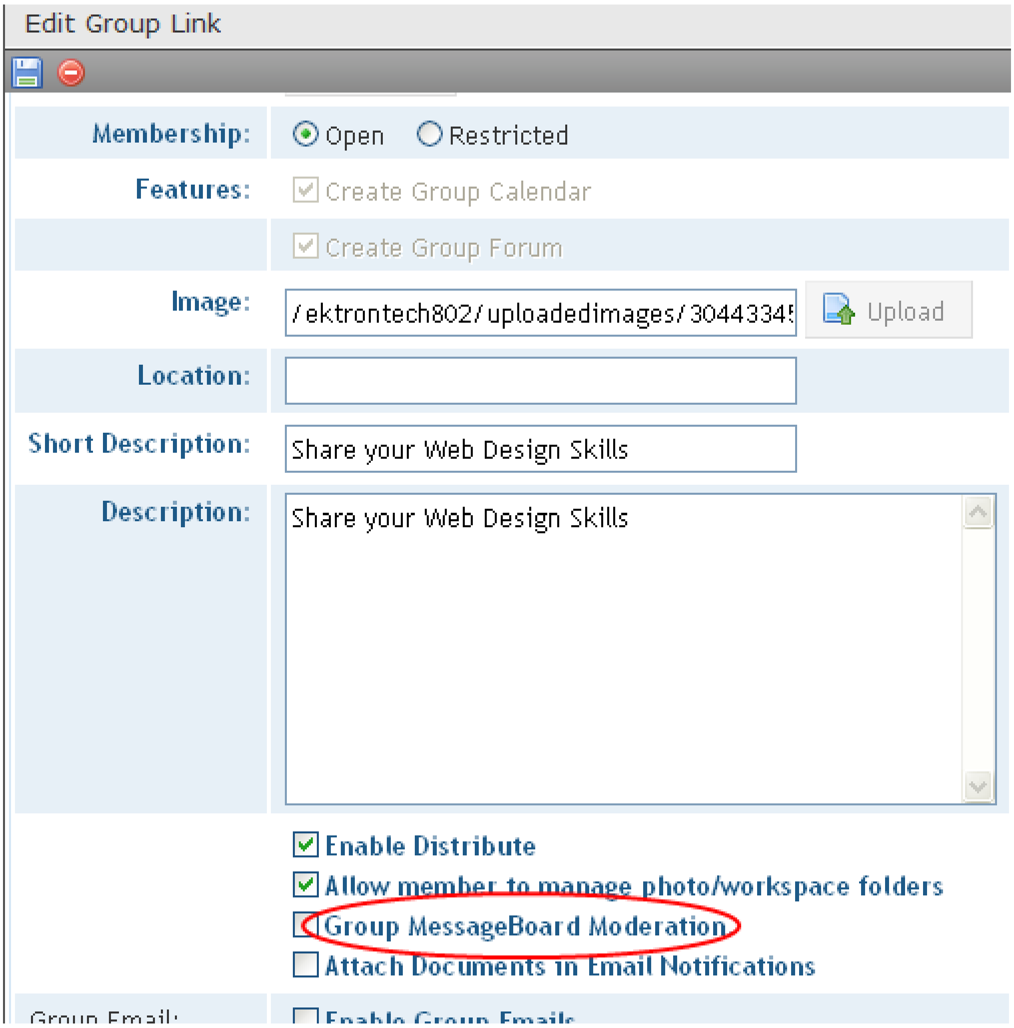
A Message Board can be *moderated*, which means that comments and replies must be approved by an authorized user before they appear. Those users can either approve or delete the comment/reply. To learn which users are authorized to moderate, see *Who Can Moderate Message Board?* on page 1177.

You can force all message boards associated with a MessageBoard control to moderate comments/replies. To do this, set the`Moderate` property to `True`. On the other hand, you can allow the Message Board owners to decide if it will be moderated. To do this, set the control's `Moderate`property to `False`. Then, users and community group administrators can set this property in their user or group profile.

Users determine whether their Message Board is moderated by checking their profile's **Moderate** check box (see below).

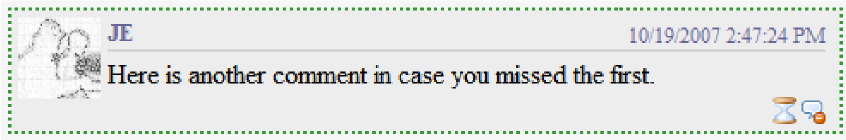


Community group members determine if the group's Message Board is moderated by editing the Group Profile's **Group MessageBoard Moderation** check box.



NOTE: If a Group administrator submits a comment to a moderated Group Message Board, it is automatically approved.

If a comment is submitted to a moderated Message Board, users who can see it notice a green dot border. The user who submitted the comment sees an hour glass icon ( ) until it’s approved. At any time, the user can delete the comment using the delete button ( ).



Who is Authorized to Comment and Reply to a Message Board?

- **User**
  - the logged-in user
  - colleagues
  - users assigned to Message Board Admin role; See Also: *Defining Roles* on page 1120
  - Administrators group member
- **Group**
  - group members
  - users assigned to Community Group Admin role; See Also: *Defining Roles* on page 1120
  - Administrators group member
- **Content item**
  - anyone who can view the content

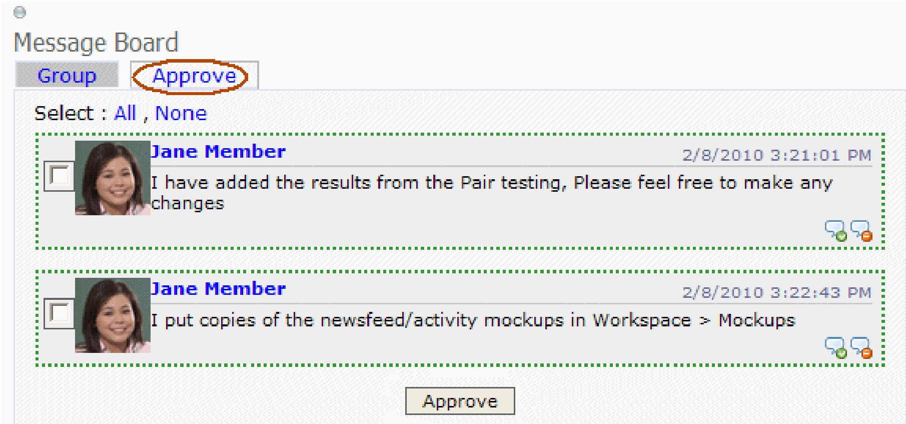
    For example, if a content item is set to private, a user must have at least Read-Only permission for the folder containing the content.

Who Can Moderate Message Board?

- If you submit a comment or reply, you can view and delete it.
- Any of the following can view, delete, and approve pending comments or replies.
  - Administrator group members
  - If you or a group member owns the message board to which a comment or reply was added.
  - Community group administrator
  - User that is assigned to a Message Board Admin role

Approving Message Board Comments

On a moderated message board, approval activity appears on the **Approve** tab. To *approve* a single Message Board comment, an authorized user clicks **Approve.** An authorized user any can approve several or ***all***comments at once. To select several comments, place a check next to each, then click Approve. To select all comments, click Select: All then Approve.



To approve comments from the Ektron Workarea:

1. Navigate to **Settings > Community Management > Message Board**.
2. A list of all unapproved comments appears. You can restrict the list using the drop-down.
3. Place a check next to comments you want to approve. To select all comments, check the box next to **Messages** in the header row.
4. Click **Approve**.

Deleting Message Board Comments

To *delete* a single comment, find the comment and click **Delete.**

Deleting unapproved comments from Workarea:

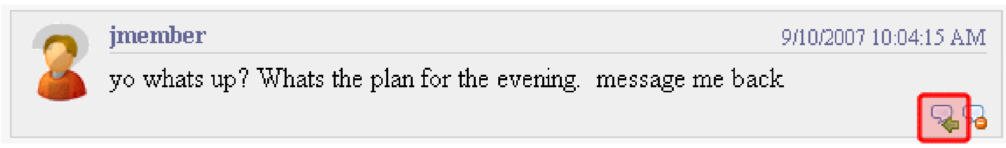
1. Navigate to **Settings > Community Management > Message Board**.
2. A list of all unapproved comments appears. You can restrict the list using the drop-down shown below.
3. Select the comments that you want to delete. To select all comments, check the box next to **Messages** in the header row, as shown below.
4. Click **Delete** ( ).

Replying to Message Board Comments

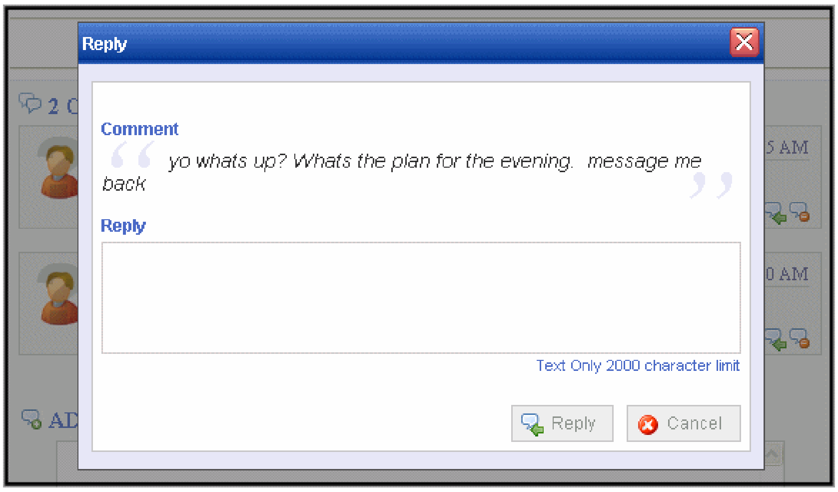
Users can reply to comments on a user's, community group's, or content item's Message Board. For community groups, the group must be public and not restricted; otherwise, only group members can reply.

NOTE: To learn which users are eligible to reply to Message Board comments, see *Who is Authorized to Comment and Reply to a Message Board?* on the previous page
If you are in a load-balanced environment, the same reply may appear several times. If this problem occurs, stop the Ektron notification service on all but one of the servers in the cluster.

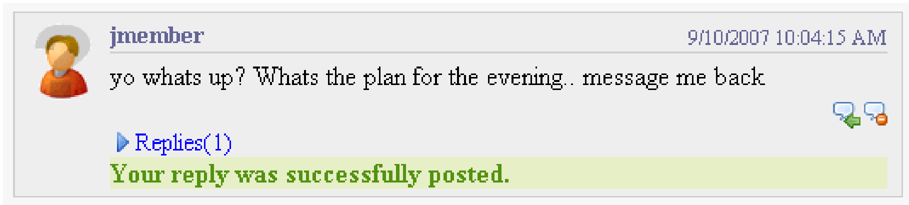
To add a reply, click **Reply** ( ) in a comment's lower right corner (circled below).



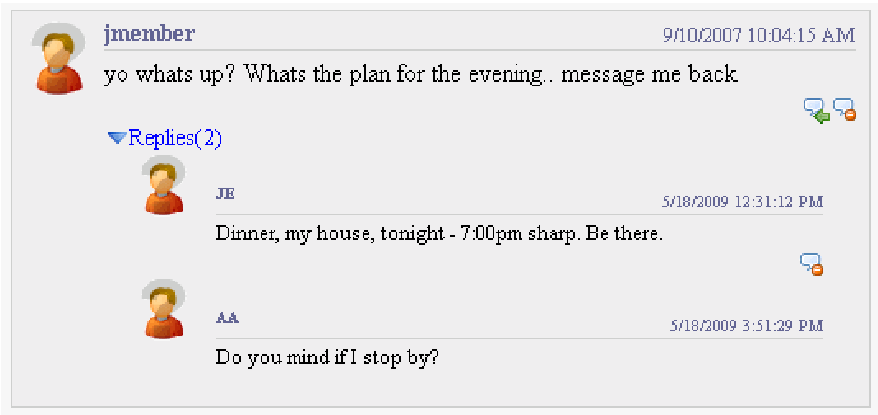
Next, a dialog box displays the original comment and a **Reply** field.



When the reply is submitted, a **Replies** link appears below the comment. The number of replies appears next to the link.



Click the link to view comments. They are arranged from oldest at top to newest at bottom.



Like comments, if the message board is moderated, replies must be approved before everyone can see them.

Enabling Message Board Notifications

You can send email notifications to Message Board owners and community group members whenever someone posts a comment to a board. If a comment is posted to a *community group's* Message Board, all group members are notified.

IMPORTANT: Users' profiles must include a valid email address to receive email notifications.

You can turn this feature on or off in the `siteroot/web.config`file. By default, the feature is turned off. To turn it on, open the`web.config`file and set the following key's value to**True**.

```
<add key="ek_EnableMessageBoardEmail" value= "False"/>
```

NOTE: Message Board notifications are sent from the same email address as the invite system.

When activated, this feature applies to all user and community group message boards.

Filtering Spam

Ektron lets you filter spam from your message boards. Ektron defines *spam filtering* as setting the following limits in MessageBoard server control's SpamControlType property:

- **SameUserSameMessageSameDay**—Prevent a user from posting the same comment more than once a day.
- **SameUserTimeDelay**—set the SpamTimeSpan property to 1800 to prevent a user from posting any other comment for 30 minutes.
- **SameMessageTimeDelay**—set the SpamTimeSpan property to 7200 to prevent a user from posting identical comments for 2 hours.
- **Custom** (and add the code to the code-behind page of the template containing the *MessageBoard* on page 1786 server control)—Use your own spam filter code.

You can create your own spam filter in the code-behind of the page that hosts the Message Board. To do this, set the `SpamControlType` property to `Custom`, call the `CustomSpamMethod` in the page load event, and point it to your custom spam filter method. Your method's signature must include the following parameters:

- `long objectId`—the numeric ID of the object defined in the object type
- `Ektron.Cms.Common.EkEnumeration.MessageBoardObjectType objectType`—the type of object with which the Message Board is associated.
- `long userId`—the numeric ID of a user. For example, you want to block a user with the ID 18 from posting to the board.
- `string messageText`—a string of text you want to block
- `int interval`—the amount of time, in seconds, to block posting on the Message Board. For example, if you want to block a user from posting for 30 minutes, set this property to 900.

The following C# example blocks the text `Hello World`.

```
using System;
using System.Data;
using System.Configuration;
using System.Collections;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;
public partial classWebformCB : System.Web.UI.Page
        {
protected void Page_Load(object sender, EventArgs e)
            {
                this.MessageBoard1.CustomSpamMethod(SpamControl);
            }
private bool SpamControl(long objectId,
```

```
  Ektron.Cms.Common.EkEnumeration.MessageBoardObjectType
  objectType, long userId, string messageText, int interval)
          {
if (messageText == "Hello World")
              {
return true;
              }
return false;
          }
      }
```

Associating Message Board Comments with Content in the Workarea

Message Board comments can be associated with content. This allows a user who views the content on the site to add comments about the content.

NOTE: Message Boards can also be associated with users and groups. See Also: *MessageBoard* on page 1786 server control.
Message Board comments are not the same as the Comments tab on the View Content screen.

You can view these comments in the Workarea.

1. Click the **Content** folder button.
2. Navigate to the content block for which to view messages.
3. Click that content item. The View Content screen appears.
4. Click **View Content Reports** ( ).
5. Click the **Messages** tab. A list of comments associated with the content appears.

Managing Community Groups

IMPORTANT: Membership User Groups and Community Groups are different concepts. Membership User Groups let an administrator create a group of membership users, thereby reducing the effort required to assign identical permissions to many users. See *Membership Groups* on page 1165. Community Groups are explained in this section.

Community groups are another aspect of a community sites. Group members can easily meet people with similar interests, such as car racing for example.

Groups have similar features and functions to user features. For example, a community group can have a Message Board, Discussion Board, maintain a membership list, and keep a group journal. You can manage community groups from the website or the Workarea.

You can assign a taxonomy category to community groups so that users can browse and search for groups by category. You also can assign Tags to a community group which lets users find the group when searching by tag name.

You can access community group information in the following areas of the Workarea:

- **My Workspace > Community Groups**—displays groups to which you belong; also lets you remove yourself from them.

- **Workarea > Settings > Community Management > Community Groups**—displays all groups. You can define a group's details or add and remove members from the group when you are:
  - a Group's Leader (Group's Administrator)
  - an Ektron Administrator
  - an Ektron user or Membership user with the Community Group Admin or Community Group Create role

To view a list of all community groups in the Workarea, click the **Settings > Community Management > Community Groups**.

The following server controls are associated with community groups:

- *CommunityGroupBrowser* on page 1688—lets you browse a taxonomy structure for community groups
- *CommunityGroupList* on page 1691—displays a list of community groups, sorted by name, newest, most popular, and so on.
- *CommunityGroupMembers* on page 1695—lets you display a list of group members, as well as those who have been invited to join or requested to join the group
- *CommunityGroupProfile* on page 1698—lets you display the group profile

Viewing a Community Group's Details

Any user with access to the Workarea can view a group's details. However, they cannot see the members of the group. If a person is the Group Leader (Group's Administrator), an Administrator, or Ektron User with the Community Group Administrator role, that person can edit the group's information, add and remove members, or delete the group.

1. Click **Settings > Community Management > Community Groups**.
2. Click **Group Name**. The group's detailed information appears.

Viewing Community Group Members

Only the Group Leader (Group's Administrator), Administrators or Ektron Users with the Community Group Administrator role can view members of the group. In addition to viewing community group members, you can see add and remove members. You can also accept or decline members' requests to join the group if the group's membership is set to **Restricted**.

1. Click **Settings > Community Management > Community Groups**.
2. Click on a group name.
3. Click **View Community Group Members** (). A list of group members appears.

Adding or Editing a Community Group

1. Click **Settings > Community Management > Community Groups**.
2. If you are adding a new group, click **Add New Community Group**. If you are editing a group, click on the group name and then click **Edit This Community Group**.
   - **Group Name**—The name of the group.
   - **Administrator**—A group administrator has privileges to delete a group or edit its properties. Members of the Administrators group and users assigned to the

Community Group Admin role also have these privileges. By default, the person who created the group is the group administrator. Click **Browse** to change the administrator.

- **Membership**—Select whether the group is **Open** (anyone can join) or **Restricted** (only invited members can join). See Also: *Accepting/Declining Requests to Join a Community Group* on page 1185

> **NOTE:** Restricted groups can be found in the same way that open groups can. Also, their activities are published as notifications. For example, `Tom posted a reply to the forum topic titled 'RoboTech Acquisition'`. So, do not create a group or publish activities that you want to keep secret.

- **Features: Create Group Calendar**—Click inside this circle if you want to allow the group administrator to create a group calendar. See Also: *Creating a Calendar in a Group* on page 523
- **Features: Create Group Forum**—Click inside this circle if you want to allow the group administrator to create a group forum. See Also: *Using Discussion Boards in Community Groups* on page 573
- **Image**—Upload an image to use as an avatar for the group.
- **Location**—The geographical location of the group.
- **Short Description**—A brief description of the group.
- **Description**—A fully detailed description of the group.
- **Enable Distribute**—Check this box if you want the group and system administrator to be able to *distribute* content to any Ektron folder. See Also: *Distributing Content to Another Ektron Folder* on page 1188
- **Allow member to manage photo/workspace folders**—Check this box to allow members to add, remove and control the sharing of folders in a community group's Photo Gallery or Document's Workspace. See Also: *Allowing Community Group Members to Work with Folders* on the next page.
- **Group MessageBoard Moderation**—Check this box if you want this Message Board to be *moderated*. That is, comments and replies must be approved by an authorized user before they appear. See Also: *MessageBoard* on page 1786
- **Attach Documents in Email Notifications**—Check this box if you want set up activity message attachments for a community group. See Also: *Step 6: Enable Attachments to Notifications* on page 1227
- **Group Email**—Check this box to allows emails to be sent to the group.
- **Group Tags** (Tags tab)—From this screen, you can either create a new tag or select from a default list of community group tags. See Also: *Assigning a Tag to a Community Group* on page 1186
- **Category List** (Categories tab)—The categories tab lists all of taxonomy categories associated with the community group. If you have not defined at least one taxonomy for community groups, this tab does not appear.See Also: *Creating a Taxonomy* on page 780
- **Links Tab**—Displays the group's alias if aliasing is set for community groups. You can click the alias to view the community group page. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

3. Click **Save**.

After you create a group, you can add members to it. See Also: *Adding Members to a Community Group* below and *Managing Community Groups* on page 1181

NOTE: The CommunityGroupBrowser server control also has a Create Group link, which lets you create a community group from the website. See Also: *CommunityGroupBrowser* on page 1688 server control

Deleting a Community Group

Only the Group Administrator, Ektron Administrators, or Ektron users with the Community Group Administrator role can delete a group.

1. Click **Settings > Community Management > Community Groups**.
2. Click a group name.
3. Click **Delete This Community Group** ( ).

Adding Members to a Community Group

Only the Group Leader (Group's Administrator), Administrators or Ektron Users with the Community Group Administrator role can add members to a group.

1. Click **Settings > Community Management > Community Groups**.
2. Click on a group name.
3. Click **View Community Group Members** ( ). The View Community Group Members for the group screen appears.
4. Click **Add User(s) to Community Group**. The Add Members screen appears.
5. Using the drop-down box, select the type of name (Display name, Last name, First name, Username) for which to search.
6. Enter a name in the text box.
7. Click **Search**. The results are returned.

   NOTE: If you leave the text box blank and click **Search**, all results for the name type are returned.

8. Place a check mark in the box next to each member to add.
9. Click **Add Selected User(s) to This Community Group**.

Removing Members from a Community Group

Only the Group Leader (Group's Administrator), Administrators, or Ektron Users with the Community Group Administrator role can remove members from a group.

1. Click **Settings > Community Management > Community Groups**.
2. Click a group name.
3. Click **View Community Group Members** ( ). The View Community Group Members for the group screen appears.
4. Place a check mark in the box next to members you want to remove.
5. Click **Remove from Community Group** ( ).

Allowing Community Group Members to Work with

Folders

When you associate the CommunityDocuments or PhotoGallery server control with a community group, you can let members of the group add, remove, and control the sharing of folders in these controls.

1. In the Workarea, navigate to **Settings > Community Management > Community Groups**.
2. Click a community group.
3. Click **Edit This Community Group**.
4. Check the **Allow member to manage photo/workspace folders** check box.
5. Click **Save**.

Accepting/Declining Requests to Join a Community Group

If a group’s membership is set to **Restricted** (on the Community Group screen), users must request to join the group. (If membership is **Open**, users join a group immediately.) In the Workarea, use the **Pending** tab on the View Community Group Members screen to accept or decline a user’s request to join a group.

Only a Group Administrator, Ektron Administrator, or Ektron users with the Community Group Administrator role can do this.

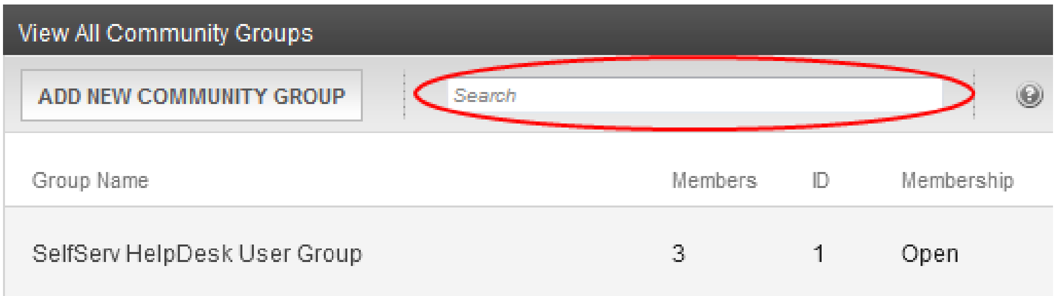
NOTE: On the eIntranet's groups page, a special tab flags users who requested to join a group. The administrator can click the plus sign in the top left corner to admit the user to the group.

To accept or decline a member's request to join a group in the Workarea:

1. From the Workarea, go to **Settings > Community Management > Community Groups**.
2. Click the group for which you want to accept or decline requests to join.
3. Click **View Community Group Members** ( ).
4. Click the **Pending** tab.
5. Check the box next to each member whose request you want to approve or decline.
   - To approve the request, click **Approve**.
   - To decline the request, click **Decline**.

Searching for a Community Group

You can search for a Community Group in the Workarea by using the **Search** box on the View All Community Groups page (circled below).



To search for Community Groups, click **Settings > Community Management > Community Groups**. Enter text in the search box and press **Enter**. Community Groups that match the search term appear.

Assigning a Tag to a Community Group

On the website, Tag information for a group appears in the Group's profile. In the Workarea, Tag information is on the View Community Group's > **Tag** tab. From this tab, you can either create a new tag or select from a list of group tags.

1. In the Workarea, go to the **Settings > Community Management > Community Group**.
2. Click the community group for which to create a new tag.
3. Click **Edit This Community Group**.
4. Click the **Tags** tab.
5. Click **Add Tag**.
6. Add a tag to the **Name** text box.
7. Select a language.
8. Click **Save**.

When the Tag is saved, it appears in the Group Tags area with a check mark in the check box, which means the tag is active for the community group. If you have several tags, use the check boxes to choose the default tags that you want associated with the group.

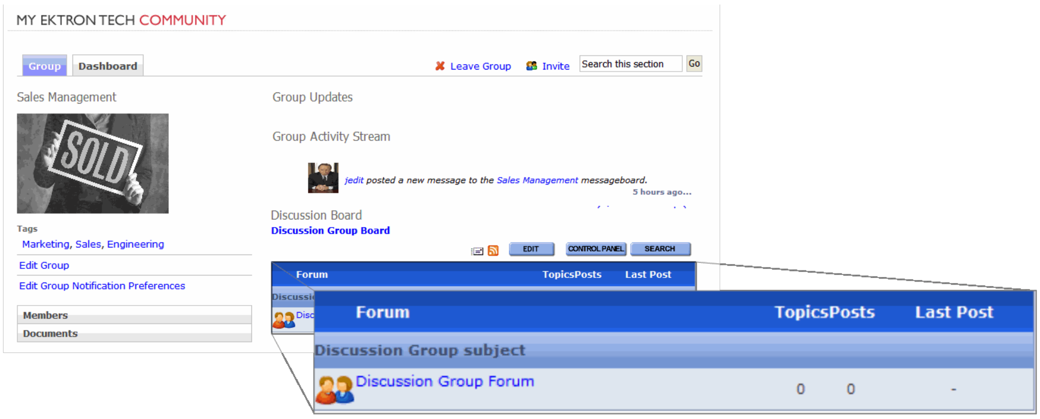
Using Discussion Boards for Community Groups

You can use the Discussion Board feature within a community group to provide Web-based discussions on topics of interest to a group. To use this feature, each group must add the Discussion Board for their group into the database before posts can be added. To do this, see *Using Discussion Boards for Community Groups* above.

Group discussions may include these topics:

- project requirements
- scope and scheduling
- team issues
- frequently asked questions

The following image shows a discussion board on a community group page.



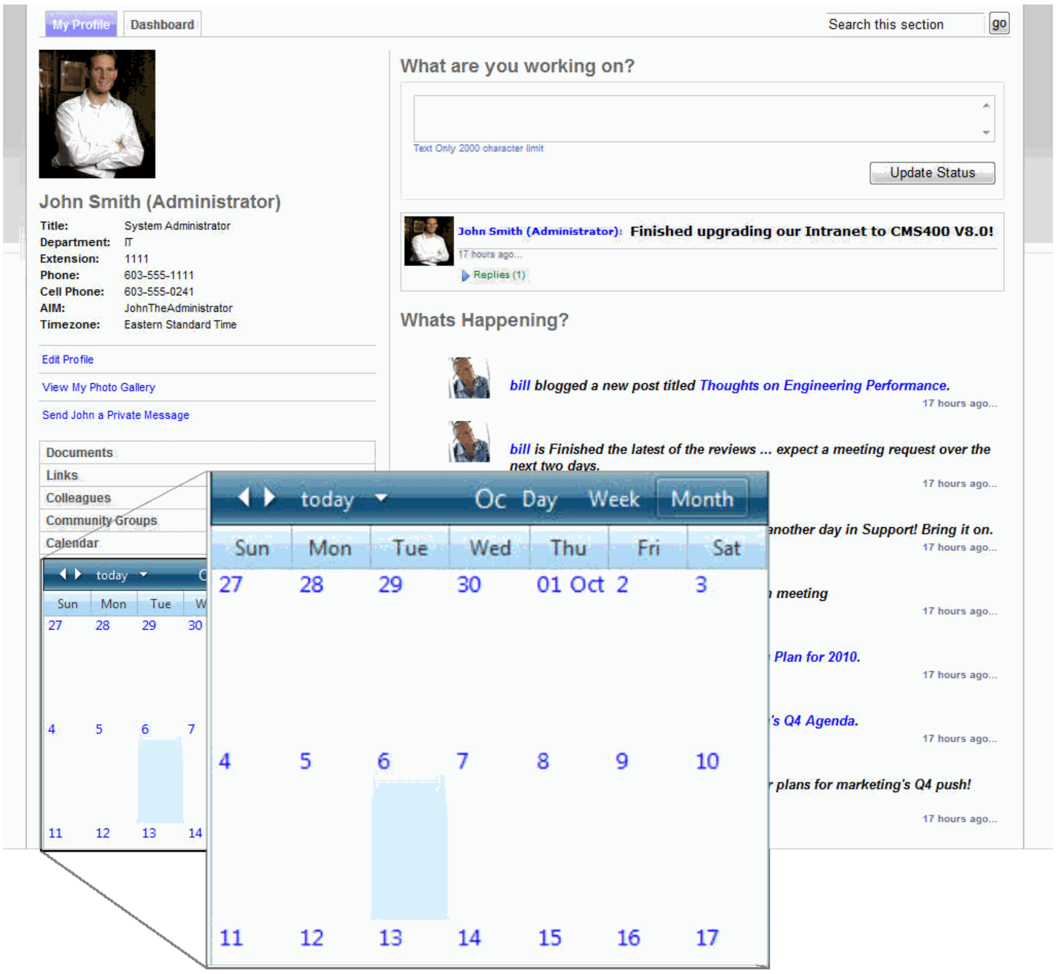
Using Calendars for Community Users and Groups

Ektron's Web Calendar provides the same function as a paper calendar—it keeps visitors informed about upcoming events. Combined with the powerful community features of the Ektron platform, the calendar enhances communication between individuals and groups. To use this feature, each group must add Calendar into the database before events can be added; see *Creating a Calendar in My Profile* on page 522.

Communities calendars events could include

- personal vacations
- special personal occasions
- group milestones
- group meetings

The following image shows a calendar on a personal profile page.



Distributing Content to Another Ektron Folder

Ektron supports the *distribution* of a community document to any CMS folder. For example, your Marketing Department uses the Community Documents server control to create and edit content. After completing a press release, they use the **Distribute** menu option to copy it from the private collaboration folder to a public content folder. When there, the document can pass through an approval chain or be published immediately.

The Distribute option can insert new content or overwrite existing content in any folder.

Enabling the Distribute Option

Only a member of the Ektron Administrators group can enable the Distribute option. Do this for every community group that will use it. You can do so from the Workarea or after logging in to the website.

From the Workarea

1. From the Workarea, go to **Settings > Community Management > Community Groups.**
2. Click the group for which you want to enable the Distribute option.

3. Click **Edit**.
4. Check the **Enable Distribute** check box.
5. Click **Save**.

From the Website

1. Log in to a site that uses the Community Management features as a CMS administrator or a Group Administrator.
2. Navigate to a Web page that hosts a Group Profile page.
3. Click **Edit Group**.
4. Check the **Enable Distribute** check box.
5. Click **Save**.

Distributing a Community Document

WARNING! After a community document is distributed the first time, the original document is forever linked to the destination document. You cannot break the link.

PREREQUISITES

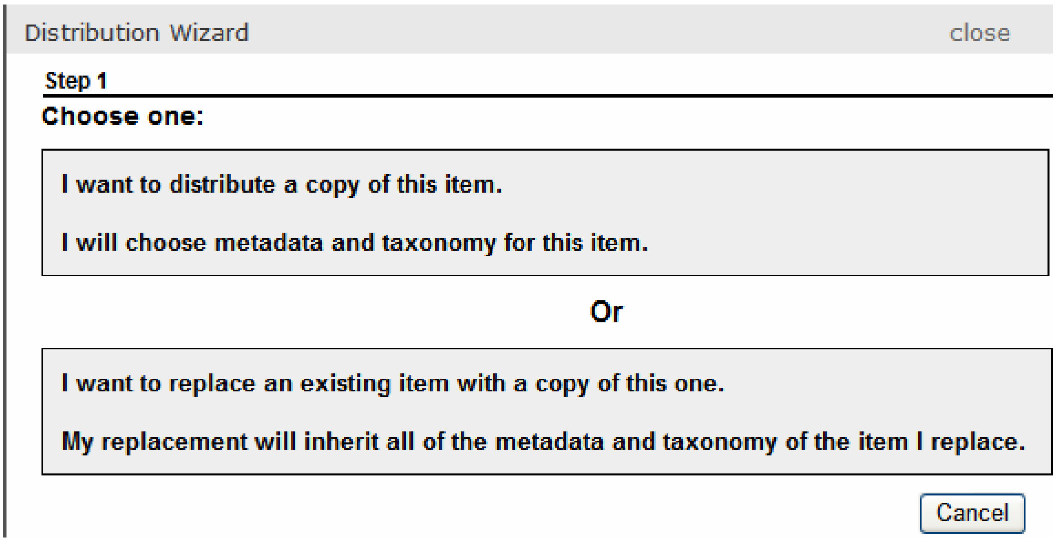
- You log in as one of the following
  - Administrator of the group whose documents are being distributed
  - Ektron user assigned Community Group Administrator role for that group
  - CMS administrator
- The content's status is Approved.
- You have permission to add, delete, and restore content to the destination folder. (If you do not, the folder doesn't appear on the folder selection screen.) See Also: *Managing Folder Permissions* on page 257

Distributing a New Community Document

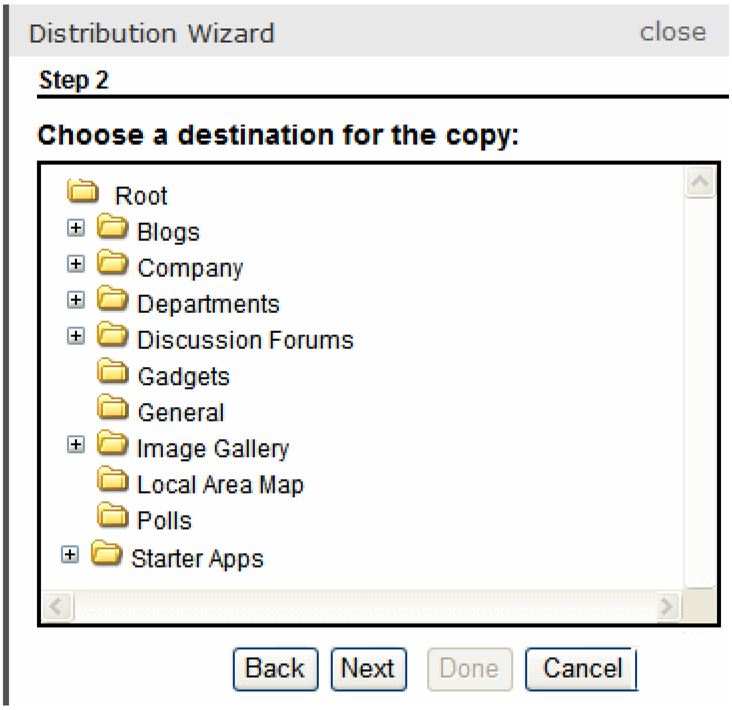
When you distribute a community document that does not exist in Ektron for the first time, you identify a destination folder and, if required, metadata and taxonomy categories. This information is collected through a series of screens that guide you through the process.

1. Log in to the website that contains content you want to distribute.
2. Navigate to the Web page that contains content you want to distribute.
3. Click the triangle to the right of the content or asset you want to distribute.

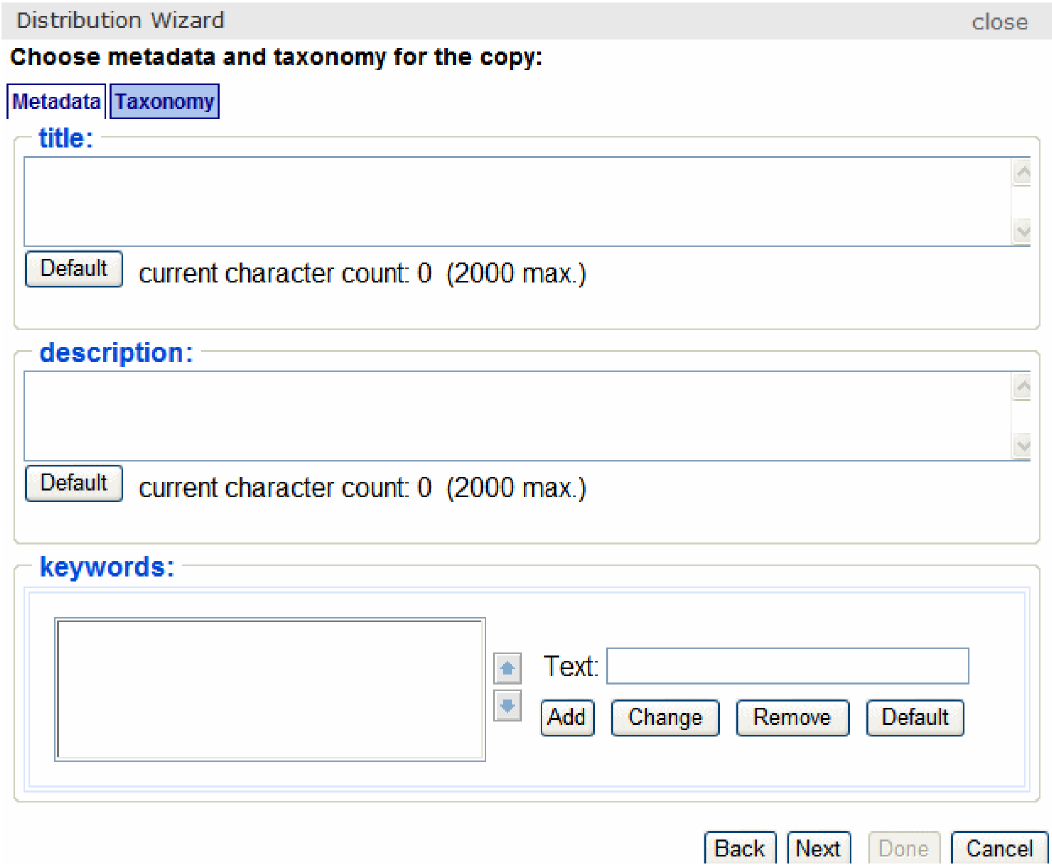
4. Click **Distribute** from the drop-down menu. The following screen appears.



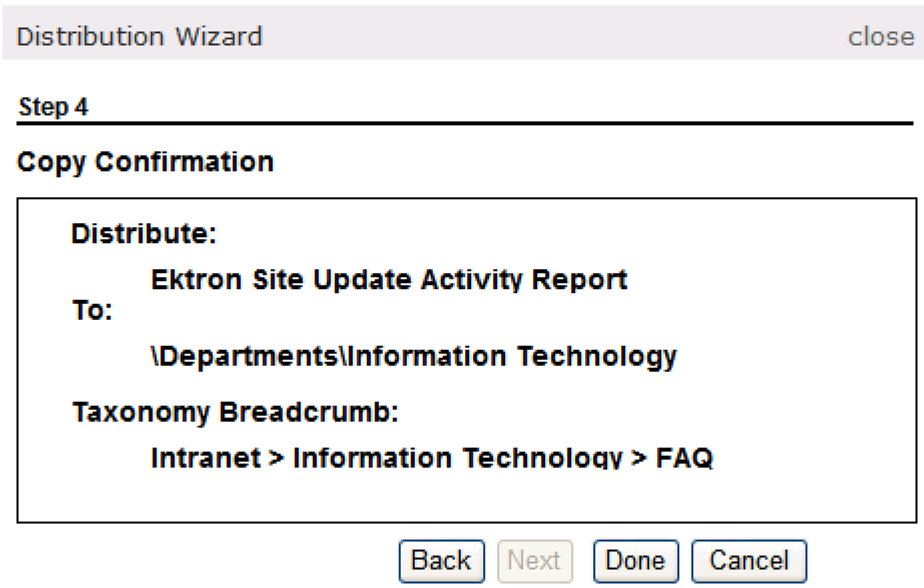
5. Click in the top box, which begins **I want to distribute a copy of this item**. The following screen appears.



6. Select the folder to which you want to distribute the content and click **Next**. The following screen appears if metadata or a taxonomy category is required for the folder.



7. Enter any required metadata or taxonomy. A confirmation message appears.
8. Click **Done**. Ektron copies the selected document to the designated folder.



Distributing and Overwriting a Community Document

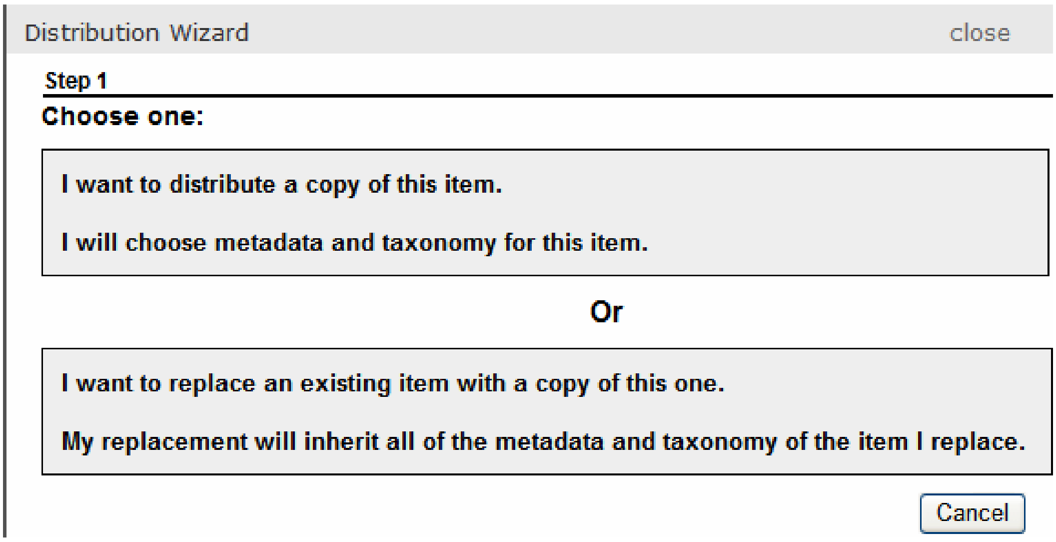
NOTE: This process only occurs the first time you overwrite a document. For a description of subsequent updates, see *Distributing Content After the First Distribution* on page 1193.

During this procedure, you identify a destination folder and content to be replaced. Because the content's type that you are distributing must match the content being replaced, you only see content whose types match.

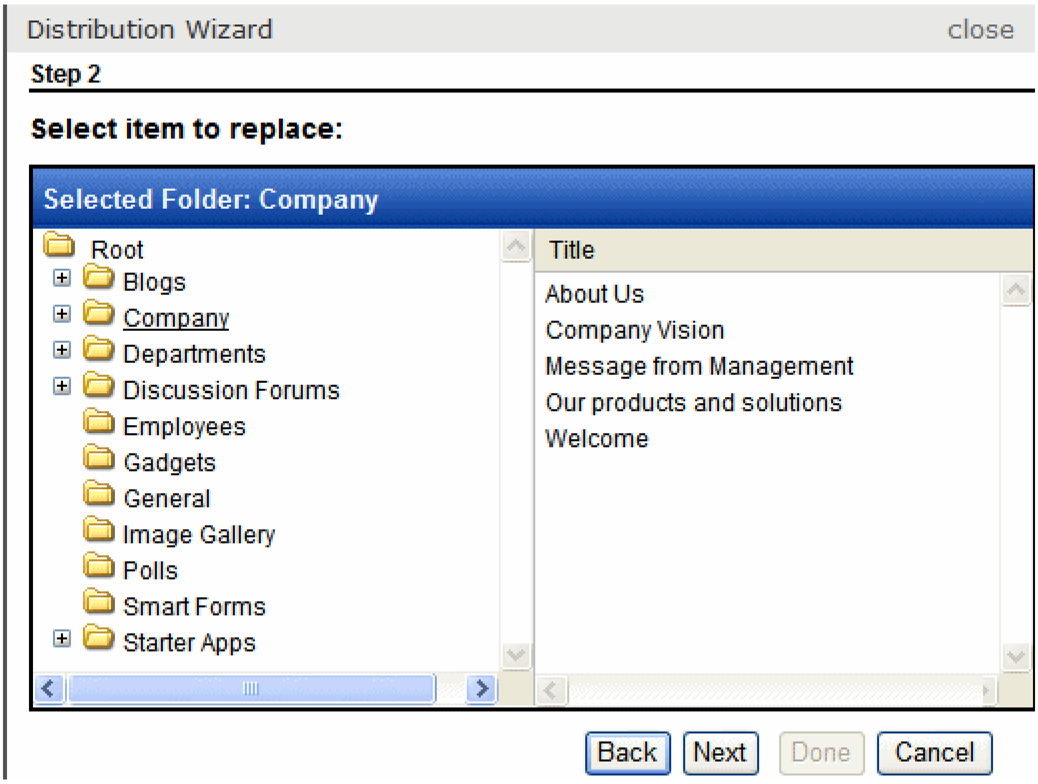
Upon replacing, any metadata and taxonomy categories applied to the existing content are applied to the new. Also, the content title and ID number from the existing content are maintained—they are not replaced by the title and ID number of the new content. Finally, the existing content's summary is maintained and can be edited if needed.

1. Log in to the website that contains the content you want to distribute.
2. Navigate to the page that contains that content.
3. Click the triangle to the right of the document you want to distribute. **Distribute** appears on the drop-down menu.
4. Click **Distribute**. The following screen appears.

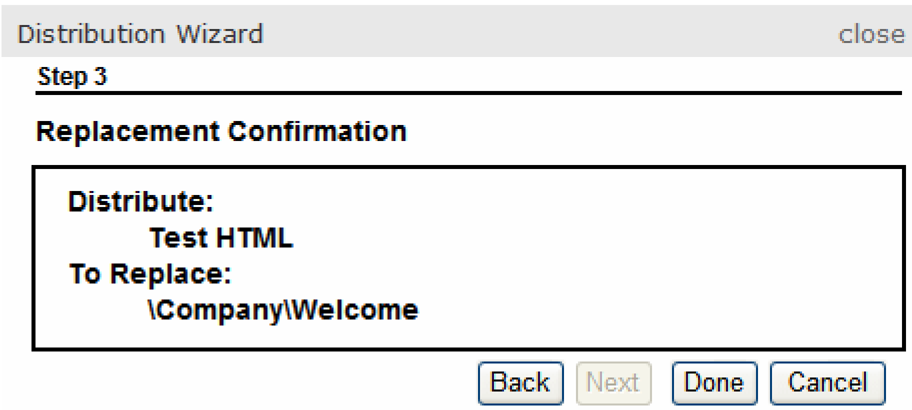
NOTE: The following screen only appears the first time you overwrite a file. To overwrite the file subsequently, see *Distributing Content After the First Distribution* on the facing page.



5. Click the lower box, which begins **I want to replace an existing item**. The following screen appears.



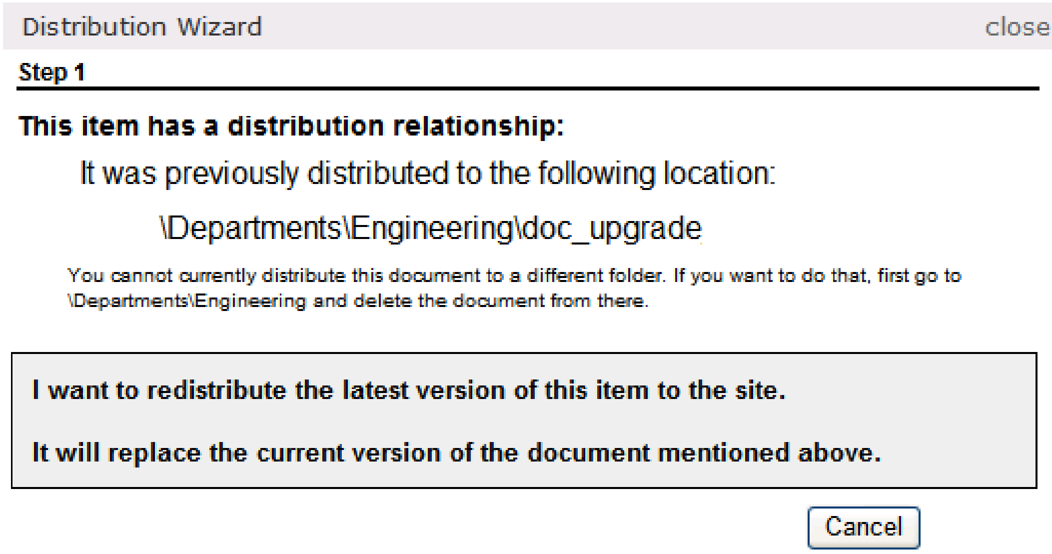
6. Navigate to and select the content you want to replace. Only content whose type matches the document you selected appears.
7. Click **Next**. A confirmation message appears.
8. Click **Done**.



9. Ektron overwrites the selected document with the one you selected.

Distributing Content After the First Distribution

If you later try to **Distribute** the same document (whether you added a new document or overwrote an existing one), a screen like the following appears.



If you really must distribute the document to another folder, delete the document in the destination folder. This action breaks the link between documents. When the link is broken, you can distribute the document to another folder.

To copy the latest version of the document to the distribution folder, click the gray box whose text begins **I want to redistribute...** However, you cannot distribute the document to another folder. (If you want to do so, first delete the document from the destination folder. Then, you can use either procedure to distribute the document to any folder.)

When distributing content after the first time, its metadata and taxonomy categories appear on the Metadata/Category screen by default. You can change them if desired.

As with the replace option, the existing content’s title and ID number are maintained -- they are not replaced by the new content’s title and ID number. And, the existing content’s summary is maintained and can be edited if needed.

Sending Notifications to a Community

Notifications help you build a tighter, more robust community. They drive users to your site by notifying them of a recent event, then directing them to the affected page.

Ektron's notification system creates and transmits a notification message to recipients through various agents, based on Ektron activities. The activities may be performed by a community group, membership user, or an Ektron user. For example, a membership user wants to notify colleagues whenever a documented is uploaded to the profile page. When this occurs, an Ektron event is triggered, which causes a notification agent to send an email to the person's colleagues.

The following overview of the notification system is for developers and database administrators:

1. A user performs an activity in Ektron.
2. Ektron raises a corresponding event.
3. The activity’s data is written to the Activity table in the database.
4. Activity information is sent to the activity queue.
5. Ektron verifies that the notification system is enabled.

6. The notification service gets a list of users who signed up to be notified about that activity when performed by that user. That list also includes the agents that send the message (for example, email or SMS).
7. The notification service gets the message associated with the activity, formats it, and sends it to the appropriate Notification agents.
8. Notification agents send the message to users compiled in Step 6.

Users can decide:

- which activities should send a Notification to their colleagues or community groups
- which Notifications they want to receive from colleagues and community groups

Conditions for Notification Messages

- Notifications must be turned on in **Workarea > Settings > Community Management > Notifications > Settings**.
- A message for the activity must be enabled in **Workarea > Settings > Community Management > Notifications > Messages**. (By default, a message is enabled for each activity.)
- A user who wants to receive notifications must enable each type of Notification for each agent in the profile's **Activities** tab.

  NOTE: A user's profile **Activities** tab has a **Community Groups** subtab, which lets the user set notification preferences for *all* community groups. To refine preferences further, a user can access the profile of any community group and click **Edit Group Notification Preferences** to set preferences for that particular group.

- The user performing the action must allow the Notification to be generated by enabling it on the profile's **Activities** tab.
- To receive notifications for another user's activities, you must be colleague of the user.
- To receive notifications for another user's activities, a community group's activities, you must be a group member.

  NOTE: The above points regarding message recipients are general. For specific details about which recipients receive notification messages, see *Notification Message Recipients* on the next page

- The Notification system respects Ektron's content permissions. As a result, content-related Notifications are only sent to users with at least read-only permission for the content. See Also: *Managing Folder Permissions* on page 257

  For example, Julia adds content to an Ektron folder for which her colleague, Tyler, does not have permission. Tyler is *not* notified when content is added, even though he signed up to be notified about colleagues' activities.

  However Kristin, another colleague who has permission to edit the folder's content and who signed up to be notified about colleagues' activities, does receive Notification of that event.

  Similarly, private content is only viewable by authorized Ektron users or membership users with at least Read-Only permissions for its folder.

Triggering a Notification Message

The following list shows the standard activities that can trigger a notification message, and the **Activities** sub-tab on which they can be enabled or disabled.

C—Colleague Action (available of Colleagues sub-tab)

G—Community Group Action (available on Groups sub-tab)

U—User Action to Notify Others about (available on My Activities sub-tab)

- **Add Colleague** (C, U)—user adds a colleague
- **Add/Edit Group Content** (G, U)—user uploads content to community group Workspace
- **Add/Edit User Workspace Content** (C, U)—user uploads content to a profile
- **Add Site Content** (C, U)—user adds content to Ektron
- **Add/Update Site Calendar Event** (C, U)—event is added or changed on site Calendar
- **Add/Update User Calendar Event** (C, U)—event is added or changed on user Web Calendar
- **Add/Update Group Calendar Event** (G, U)—event is added or changed on Web Calendar
- **Add User Workspace Content** (C, U)—user uploads content to a profile
- **Blog Comment** (C, U)—user comments on a blog post
- **Blog Post** (C, U)—user posts to a blog
- **Community Group Forum Post** (G, U)—user posts to forum
- **Community Group Forum Reply** (G, U)—user replies to forum post
- **Content Messageboard Post** (C, U)—user posts to a message board associated with content
- **Create Community Group** (C, U)—user creates a community group
- **Edit Content** (C, U)—user edits content
- **Forum Post** (C, U)—user posts to a Forum
- **Forum Reply**—user replies to a Forum post
- **Group Blog Comment** (G, U)—user comments on a community group’s blog post
- **Group Blog Post** (G, U)—user posts to community group blog
- **Group Messageboard Post** (G, U)—user posts to a community group message board
- **Join Community Group** (C, U)—user joins community group
- **Micro-message** (C, U)—user posts micro-message
- **User Messageboard Post** (C, U)—user posts to a message board associated with a user

Notification Message Recipients

The following table connects Notification message activities with users who receive the notification.

PREREQUISITES

- users performing the activity must have the **Publish** check box checked for the activity in their profile
- users being notified must have the **Activity Stream**, **SMS**, or **email** box checked for that activity in their profile

Activity that Triggers Message	Users who receive notification
Add Colleague—user adds a colleague	• colleagues of user who adds • added colleague
Add Group Content—user uploads content to community group Workspace	Community group members
Add/Edit User Workspace Content—user uploads content to the user profile	Depends on folder's share setting, which can be • Public—all colleagues • Colleagues—all colleagues • Selected colleagues See Also: *Server Control Reference* on page 1636 • Private—no email
Add Site Content— user adds content to Ektron	User's colleagues
Add/Update Site Calendar Event—event is added or changed on site Web calendar	User's colleagues
Add/Update User Calendar Event—event is added or changed on site Web calendar	User's colleagues
Add/Update Group Calendar Event—event is added or changed on site Web calendar	Community group members
Blog Post—user posts to the user's blog	User's colleagues
Content Messageboard Post—user posts to a message board associated with content	Users who have permission to view the content

Activity that Triggers Message	Users who receive notification
Create Community Group—user creates a community group	Colleagues of user who creates group
Edit Content—user edits content	User's colleagues
Edit Group Content—user edits community group content	Community group members
Forum Post—user posts to a Forum	• Posting user's colleagues • Forum owner and owner's colleagues
Forum Reply—user replies to a Forum post	Posting user's colleagues
Group Blog Comment—user comments on a community group's blog post	Community group members
Group Blog Post—user posts to community group blog	Community group members
Group Messageboard Post—user posts to a community group message board	Community group members
Join Community Group—user joins community group	• Community group members • Colleagues of user who joined
Micro-message—user posts micro-message	User's colleagues
User Messageboard Post—user posts to a message board associated with a user	• colleagues of user who posts • message board owner and the owner's colleagues
User or Community Blog Comment—user comments on a blog post	Posting user's colleagues

Setting Up Notifications

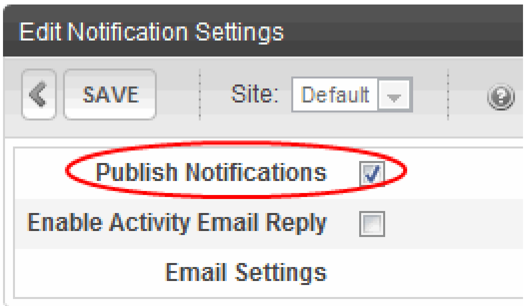
This section shows how to set up email notification to alert a user when someone uploads a document to the Workspace.

Setting up Ektron to Send Notifications

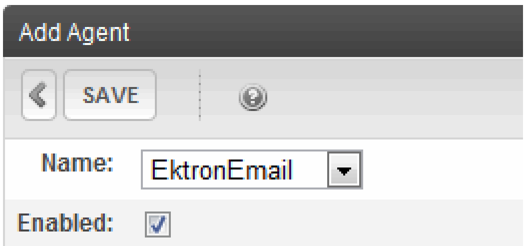
An Ektron Administrator performs these steps.

NOTE: For this example to work, Ektron must be set up to send emails. See *Installing Ektron* on page 9.

1. Navigate to **Settings > Community Management > Notifications > Settings**.
2. Verify that Notifications can be published. If not:
   a. Click **Edit**.
   b. Click the **Publish Notifications** check box.
   c. Click **Save**.



3. Make sure the email agent is enabled by navigating to **Settings > Community Management > Notifications > Agents**.
   a. If the Ektron Email agent does not appear in the list of agents, click **Add Agent**.
   b. Select **EktronEmail** from the **Name** drop-down.
   c. Click the **Enabled** check box.
   d. Click **Save**.



4. Ektron provides a standard Notification message that is sent when you add content to your Workspace. The message’s name is **User Workspace Content Added**. Optionally edit the message.
   a. Navigate to **Settings > Community Management > Notifications > Messages**.
   b. Click **User Workspace Content Added**.
   c. Click **Edit**.
   d. Update the email’s subject in the **Subject** text box.

e. Edit the message in the text editor using a combination of Tokens and text:

```
The document @Content.Title@ was added to @SubjectUser.UserName@'s Workspace.
```

f. If you want SMS type messages, create a shorter version of the message in the **Plain Text** text box.

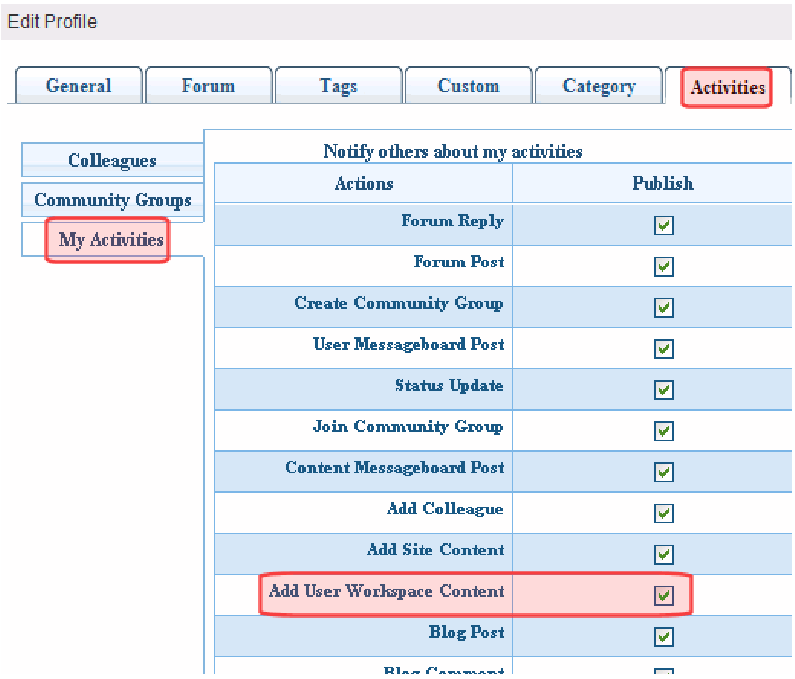
5. If you want to enable SMS messages, do the following:
   - Configure the SMS Agent in the `web.config` file. See *Setting Up SMS* on page 1212
   - Inform users receive SMS messages to perform the verification step on a cell phone.
   - Inform users to check the SMS column on the notifications page for Activities by Colleagues.
6. Click **Save**.

From now on, an email is sent whenever you upload a document to your Workspace to colleagues who signed up to receive them.

Enabling Notification Publishing

You must enable the **Add User Workspace Content** activity in your profile so that whenever you add content to your Workspace, a notification is sent.

1. Log into the site.
2. Navigate to your profile page.
3. Click **EditProfile**.
4. Click the **Activities** tab.
5. Click the **My Activities** sub tab.

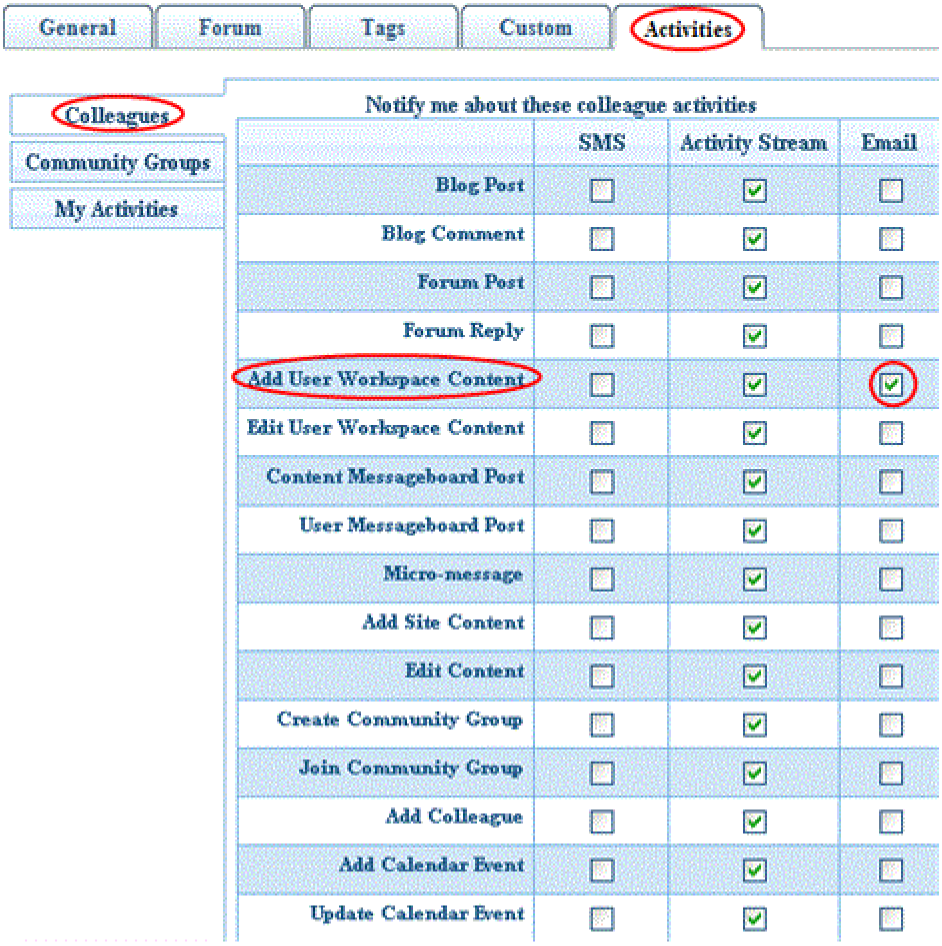


6. Click the **Add User Workspace Content** check box.
7. Click **Save**.

Receiving Notifications

You must enable the receipt of notifications that are sent whenever colleagues upload an item to their Workspace.

1. Log into the site.
2. Navigate to your profile page.
3. Click **EditProfile**.
4. Click the **Activities** tab.
5. Click the **Colleagues** sub tab.



6. Click the **Add User Workspace Content** check box in the **Email** column.

   NOTE: If you want to receive SMS messages, also check the box in the **SMS** column.

7. Click **Save**.

Receiving SMS Messages on Your Cell Phone

NOTE: The following procedure requires that your website has the template `SMSAgentSettings.aspx`. If it does not, you may copy it from the Ektron Developer starter site, or the Ektron eIntranet site.

1. Go to the website page: `http://<host>/SMSAgentSettings.aspx`.
2. Enter a **phone number** and **carrier**.
3. Click **Save**. Within a few minutes, you will receive a verification code on your phone.
4. Enter the code into the `Verification Code` field.

5. Click **Verify**. The page shows that the account is verified. You can begin receiving SMS notification messages on your phone.

Setting Default Notification Preferences

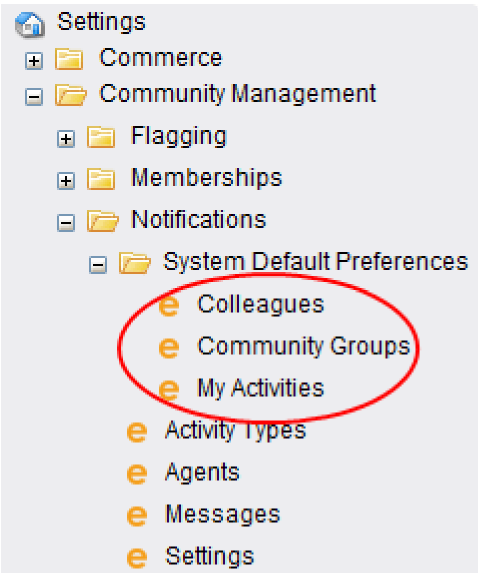
Ektron provides a default set of Notifications that apply to all newly-created users. After a user is created, the use can change the preferences by editing the profile, selecting the **Activities** tab, and checking or unchecking activities and agents. Similarly, a community group member can access any community group profile and click **Edit Group Notification Preferences** to set the group's preferences. You can apply 3 types of default settings via screens on the Workarea Settings tab.

- **Colleagues**—Activities involving colleagues that the logged-in user wants to be notified about
- **Community Groups**—Activities involving community groups that the logged-in user wants to be notified about

  NOTE: The **Community Groups** subtab sets notification preferences for *all* community groups. To refine preferences further, a user can access the profile of any community group and click **Edit Group Notification Preferences** to set preferences for that particular group.

- **My Activities**—Activities involving the logged-in user to display to colleagues and community group.

  NOTE: The Activities tab appears only after the user is registered and if the **Workarea > Settings > Community Management >Notifications > Settings > Publish Notification** setting is checked.



NOTE: Activities are checked for the Activity Stream agent by default. No activities are checked for the other agents by default.

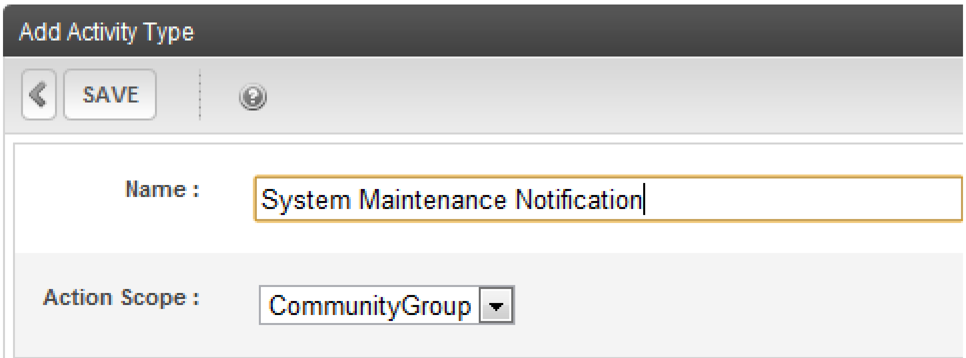
1. Log in to the Workarea as an administrator.
2. Navigate to **Settings > Community Management > Notifications > System Default Preferences > Colleagues**.
3. Click **Edit**.

4. Place a check mark next to each a default notification.
5. Click **Save**.

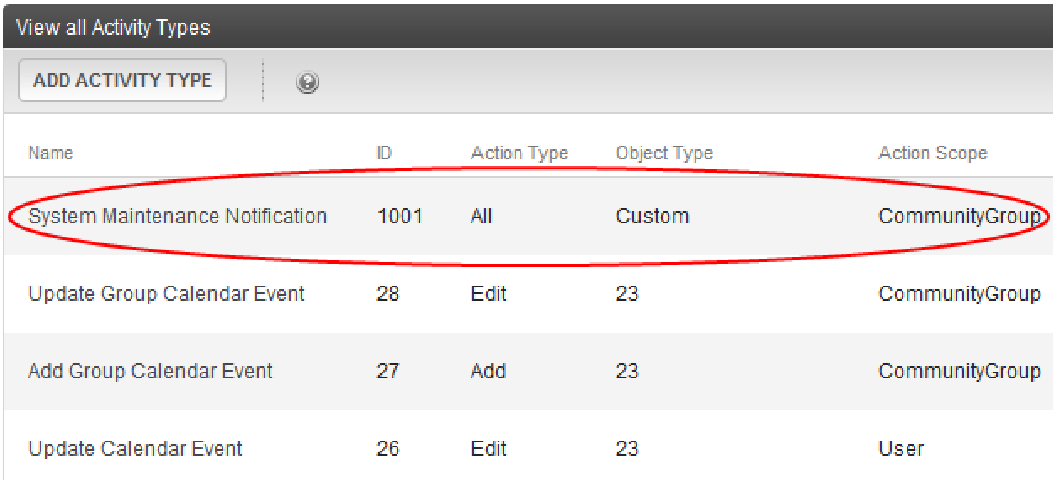
Raising a Custom Activity

Ektron's Notification system lets you create and raise your own activity types. Custom activity types can generate notifications, just like standard activity types.

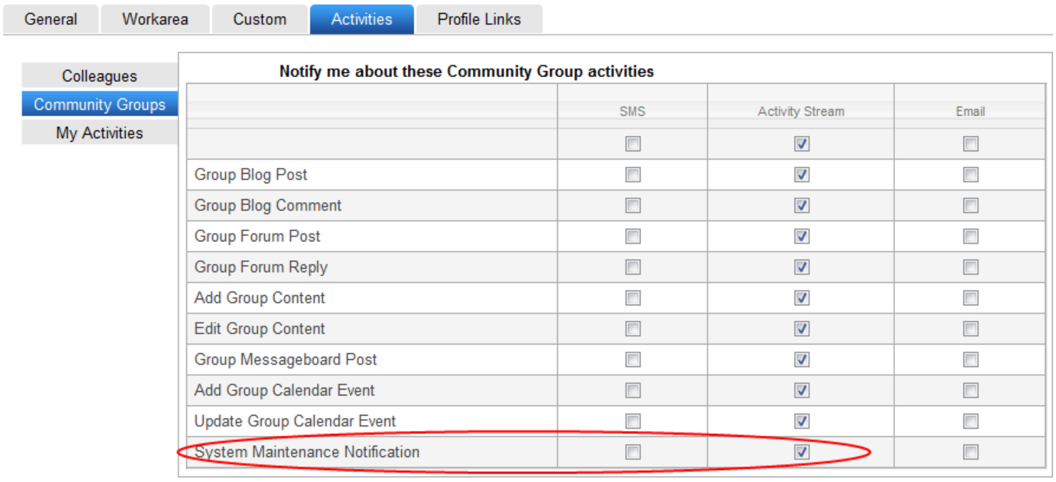
1. In the Workarea, go to **Settings > Community Management > Notifications > Activity Types**.
2. Click **Add Activity Type**. The Add Activity Type screen appears.



3. Enter a unique name.
4. Select an **Action Scope**.
   - **User**—an activity raised by users; their colleagues are notified
   - **CommunityGroup**—an activity raised by a community group user; group members are notified
5. Save the screen. The following image shows a sample custom activity on the View All Activity Types screen.



6. Interested users go to their User Profile screen’s **Activities** tab where they indicate if they want be notified when the custom activity occurs, and if they want to notify others.



7. To raise a custom activity, call the `Ektron.Cms.Framework.Activity.Activity.Publish` method. The method takes an `ActivityData` class. You supply the following:
   - the Id of the Activity Type you want to raise (**1001** in this example)
   - the user causing the activity
   - a message

   NOTE: Custom activity types cannot use Community Management messages as the standard Ektron activities do.

   Here is an example of that method.

```
Activity activityApi = new Activity();
ActivityUserInfo user = new ActivityUserInfo();
user.Id = activityApi.UserId;
ActivityData activityData = new ActivityData();
activityData.ActionUser = user;
activityData.ActivityTypeId = 1001;
activityData.Message = "John Doe just rated Ektron a buy!";
activityData.LanguageId = 1033;
activityApi.Publish(activityData);
```

   When publish is called, the notification service notifies users who signed up to be notified of this activity.

Working with Notification Agents

A notification agent is a component that sends notification messages. Each Agent is responsible for sending notifications to users when Ektron activity occurs. How that notification is sent is up to the Notification Agent itself. When a Notification Agent is created and registered, users can begin setting up notification preferences that use it.

Ektron has predefined Notification agents, including email, SMS, and Activity Stream agents.

- SMS Notifications are sent to a cell phone or another device that receives SMS messages. See Also: *Setting Up SMS* on page 1212
- Activity stream Notifications are posted via the ActivityStream server control. See Also: *ActivityStream* on page 1638

- email Notifications are delivered to appropriate recipients inboxes. See Also: *Setting Up Email to Communicate Community Activities* on page 1223

You can customize these providers or create your own using the extendable Notification agent architecture.

Enabling or Disabling an Agent

NOTE: Ektron's predefined agents are enabled by default.

1. Log in to the Workarea as an administrator.
2. Navigate to **Settings > Community Management > Notifications > Agents**.
3. Click the name of an agent.
4. Click **Edit**.
5. Check (or uncheck) the **Enabled** check box.
6. Click **Save**.

Creating a Custom Agent

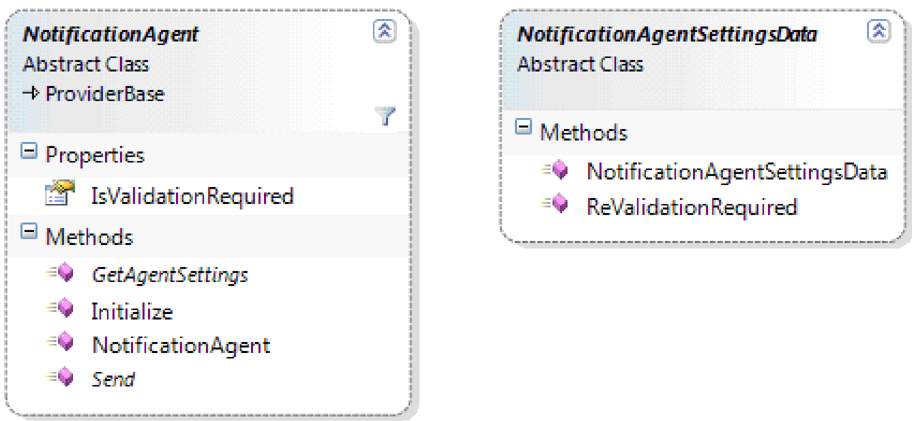
Ektron comes with several standard Notification Agents, including email, SMS, and Activity Stream. You can customize these agents or create your own using the extendable Notification Agent provider architecture. This section explains how to extend the object model to build a customized Notification Agent.

Each type of Notification Agent accepts configuration parameters. For example, email and SMS require an SMTP server, username, and password. These parameters can be specified in the `web.config` file, and read when the Agent is initialized the first time.

Each agent may also require storing settings for each user receiving notifications. For example, the SMS agent requires the user's cell phone number and carrier, which it stores as an SMS email address. To save these properties, each Notification Agent has an associated NotificatAgentSettingsData class. This class defines any properties needed to be supplied by the user. Ektron provides APIs for storing and retrieving this information, but the developer must create an interface for users to supply the information. The SMSAgentSettings.aspx page, supplied with the Developer and Intranet starter sites, provides a good example.

Implementing Your Own Notification Agent Provider

Object Model



The NotificationAgent is the abstract base class you must extend to implement your own notification agent. Details on the class, available properties, and methods you are required to implement are below.

- `virtual void Initialize(string name, Amenable config);`

  The initialize method comes from the ProviderBase base class. It supplies all name value pairs specified in the Providers `web.config` section.

  If custom settings need to be provided to your agent, add them to your provider's `web.config` key, and they will be provided to you at runtime in the Initialize method. If you have no custom settings, this class does not need to be overridden.

- `abstract NotificationAgentSettingsData GetAgentSettings();`

  This method should return a new instance of the NotificationAgentSettingsData class associated with your Agent.

- `abstract void Send(NotificationMessageData message);`

  This method should send the actual notification. It will be called by the notification *engine for each user that needs to be notified.*

  The NotificationMessageData has all the information you need for sending the notification, including

  - the message itself
  - the user to be notified
  - the NotificationAgentSettingsData for the user to be notified.

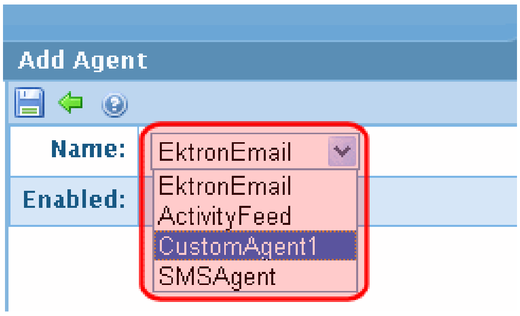
  If your agent has a custom NotificationAgentSettingsData, you need to cast the supplied NotificationAgentSettingsData to the appropriate type so that you can access the appropriate properties.

Adding a Custom Agent

1. Insert the provider between the Notification agent's providers tags in the *siteroot*/`web.config` file.

```
<notificationAgent>
  <providers>
    <add name="CustomAgent1"
      type="Ektron.Cms.Notifications.Providers.CustomAgent1,
      Ektron.Cms.Providers" setting1="" setting2=""/>
    <add name="EktronEmail"
      type="Ektron.Cms.Notifications.Agents.EktronEmailAgent,
      Ektron.Cms.BusinessObjects" useSystemSettings="false"
      smtpServer="amh010" smtpPort="25" userName="" password=""
      fromEmail="admin@example.com"/>
    <add name="SMSAgent"
      type="Ektron.Cms.Notifications.Agents.SMSAgent,
      Ektron.Cms.BusinessObjects" smtpServer="amh010" smtpPort="25"
      fromEmail="SMSAgent@example.com" validationRequired="true"/>
    <add name="ActivityFeed"
      type="Ektron.Cms.Notifications.Agents.ActivityFeedAgent,
      Ektron.Cms.BusinessObjects" validationRequired="false"/>
  </providers>
</notificationAgent>
```

After you add an agent to `web.config`, it appears in the list of available agents in the Workarea.



2. Log into the Workarea as an administrator.
3. Navigate to **Settings > Community Management > Notifications > Agents**.
4. Click **Add**.
5. Select the custom agent from the **Name** drop-down box.

> **NOTE:** If you do not see the custom agent in the **Name** drop-down, check the`web.config` file to verify it is listed between the `<notificationAgent>` tags.

6. Place a check mark in the **Enabled** check box.
7. Click **Save**.

Removing an Agent

When you no longer need an agent, you can remove it. This can be a 2 step process, depending on the level of removal you are trying to achieve. First, remove the agent from the list of agents in the Workarea. At this time, you can easily return the agent to the list. In the second step, you remove the agent from the `web.config` file.

1. Log in to the Workarea as an administrator.
2. Navigate to **Settings > Community Management > Notifications > Agents**.
3. Click the title of the agent.
4. Click **Delete** ().
5. In the Delete Agent dialog box, click **OK**. The page refreshes, and the agent is removed from the agents list.

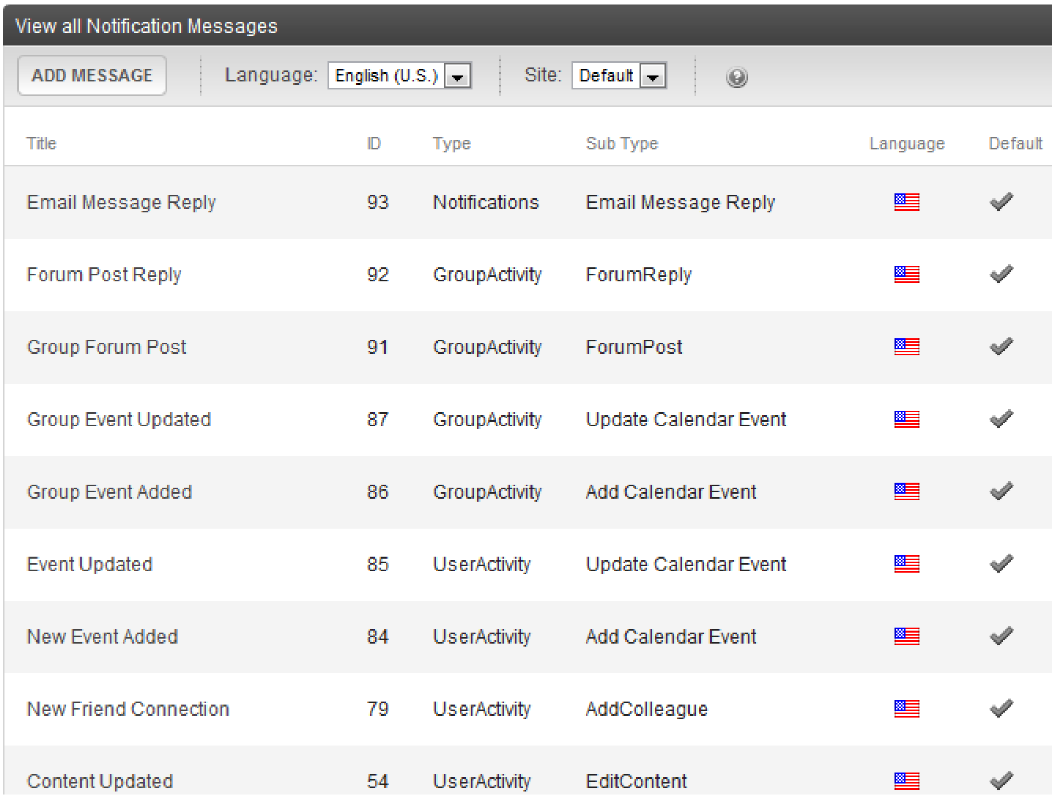
> **NOTE:** To completely remove the agent from Ektron, follow these additional steps.

6. Open the site root folder's `web.config` file.
7. Between the `<notificationagent>`'s `<providers>` tags, remove the agent. The following example shows agents that might appear in the `web.config` file.

```
<notificationAgent>
  <providers>
    <add name="CustomAgent1" type="Ektron.Cms.Notifications...
    <add name="EktronEmail" type="Ektron.Cms.Notifications...
    <add name="SMSAgent" type="Ektron.Cms.Notifications...
    <add name="ActivityFeed" type="Ektron.Cms.Notifications...
  </providers>
</notificationAgent>
```

Managing Notification Messages

Messages are used by the notification system to communicate site activities. You can view each activity’s default message from the **Workarea > Settings > Community Management > Notifications > Messages** screen.



View all Notification Messages

ADD MESSAGE | Language: English (U.S.) | Site: Default

Title	ID	Type	Sub Type	Language	Default
Email Message Reply	93	Notifications	Email Message Reply		✔
Forum Post Reply	92	GroupActivity	ForumReply		✔
Group Forum Post	91	GroupActivity	ForumPost		✔
Group Event Updated	87	GroupActivity	Update Calendar Event		✔
Group Event Added	86	GroupActivity	Add Calendar Event		✔
Event Updated	85	UserActivity	Update Calendar Event		✔
New Event Added	84	UserActivity	Add Calendar Event		✔
New Friend Connection	79	UserActivity	AddColleague		✔
Content Updated	54	UserActivity	EditContent		✔

You can create an HTML-based and a plain text message for each activity. Typically, HTML messages are sent as email or to the ActivityStream server control, while plain text is used in SMS style messages. Messages typically combine text and tokens. See Also: *Working with Tokens* on page 1213

Creating a Message

1. Log into the Workarea as an administrator.
2. Navigate to **Settings > Community Management > Notifications > Messages**.
3. If you are using the Multi-Site feature, select the site with which this message will be associated.
4. Click **Add Message**. The Add Notification Message screen appears.
5. Complete the fields as described below.
   - **Title**—Enter a name for the message.
   - **Type**—Select the type of message you want to create. Choices are:
     - **User**—message sent when user activity occurs
     - **Community Group**—message sent when group activity occurs
   - The activity is specified at the **Sub Type** field.
   - **Sub Type**—Select the activity which triggers the sending of this message. See Also: *Choosing a Message Type* on the facing page.

- **Tokens**—A list of available tokens for the selected Sub Type appears. To easily insert a token into a message, highlight a token, then copy and paste it into the message. For a list of tokens and their sub types with, see *Working with Tokens* on page 1213. To learn about how to make tokens into hyperlinks, see *Making a Token into a Hyperlink* on page 1214.

  WARNING! A message is limited to 3000 characters *after* its tokens are converted to text. After 3000, any remaining characters are removed.

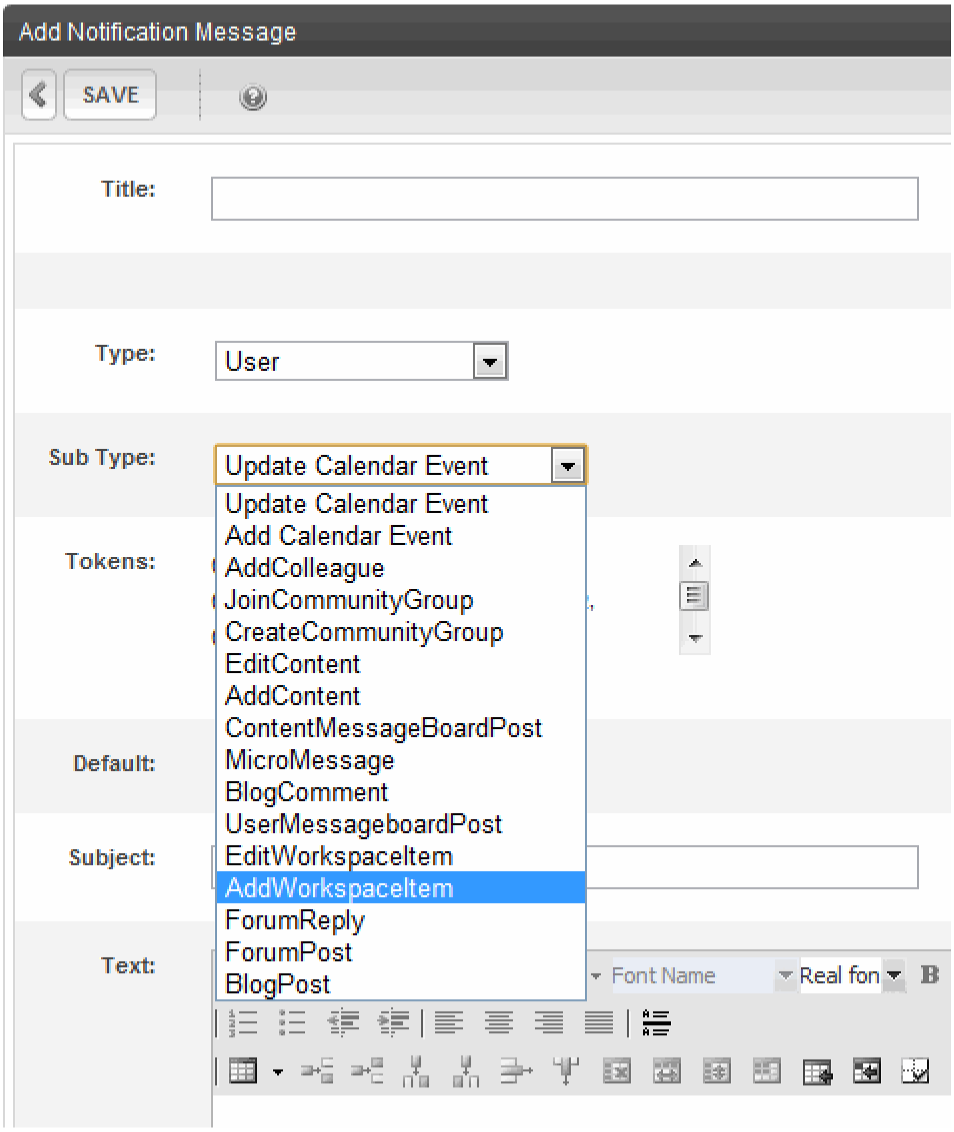
- **Default**—Click this check box if you want the message to be the default one that is sent. See Also: *Choosing a Message Type* below
- **Subject**—Enter a subject to be used if the message is sent as email.
- **Text**—Enter the text and tokens that comprise the message. The editor lets you format the text.
- Use this editor for HTML, email, and activity stream messages. See Also: *Making a Token into a Hyperlink* on page 1214
- **Plain Text**—Enter the text and tokens that comprise the message you want to send. Use this field for SMS type messages and messages to be sent as plain text. (If you already composed the message in the editor above, you can select that text, then copy and paste it into the **Plain Text** field.)

  NOTE: Most SMS systems impose a 160 character limit on messages. If you create a plain text message greater than 160 characters, Ektron divides it into several, smaller messages.

6. Click **Save**. The message now appears in the list of Notification messages. If it is the default and an activity occurs on your website that matches the type and sub type, the message is sent.

Choosing a Message Type

User and Community Group messages contains several sub types of messages. The sub type is the activity that triggers the message. For example, to edit the message that notifies colleagues when you upload a document to your Workspace, select **User** from the **Type** drop-down and **AddWorkspaceItem** from the **Sub Type** drop-down.



When you create a new message, you assign it to a type and sub type, such as **User Activity > Blog Post**. Only the default message is active for any combination of type and subtype. So, while creating a new message, you must make it the default (via the Add Notification Message screen's **Default** check box) if you want it to be sent. When you do, if another message was the default for that type and sub type, it is no longer used. For a list of Sub types, see *Triggering a Notification Message* on page 1195.

Removing a Message

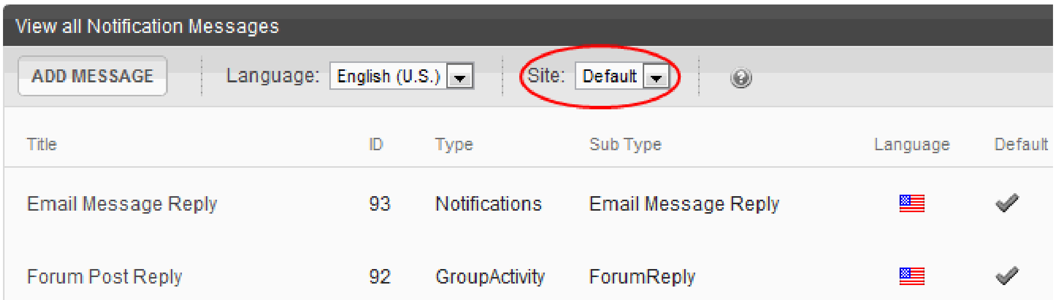
1. Log into the Workarea as an administrator.
2. Navigate to **Settings > Community Management > Notification > Messages**.
3. Click the title of the message you want to delete.
4. Click **Delete** ( ).
5. Click **OK** on the confirmation message. The message is removed.

Managing Notifications in a Multi-Site Environment

In a Multi-site environment, notifications stay within the site where the activity happened. For example, if there are 2 sites—an Intranet and Social Club site—when a user from the Intranet site performs an activity that generates a message, it does not trigger notifications on the Social Club site. Exception: A user's colleagues receive notifications regardless of the site from which the message originated.

When a message type is created, it becomes the default message and is used by all sites. You can assign new messages of the same type to each site in your environment.

To view the messages assigned to each site, go to the View All Notification Messages screen, click the **Site** drop-down, and select the site.



When you create notification messages in a Multi-Site environment, you specify the site associated with message. This lets you create customized messages for each site. For example, you want a "Status Update" message targeted one way for an Intranet site and another way for your Social Club site. To accomplish this, create a 2 messages. The message for the Intranet site might state:

```
@SubjectUser.username@ has an updated status on Intranet with the following:
  @MicroMessage.Message@.
```

While your Social Club site might have a message that states:

```
@SubjectUser.username@ has an updated status on the
Social Club with the following: @MicroMessage.Message@
```

Using SSL with Notifications

If your site uses SSL, you need to update the link in the Ektron notification service configuration file with that information. The file is at: `your-server\Program Files\Ektron\EktronNotificationService\Ektron.Notification.Service.exe.config`.

Change the following tags.

```
<siteNotification>
  <sites>
    <add name="769723537"
      url="https://your server"
      connectionString="server=your server;
      database=Intranet2;
      Trusted_Connection=true;
      User ID=;Password=;" />
  </sites>
</siteNotification>
```

You must restart the Ektron Notification Service to enable these changes.

Using eSync with Notifications

When using eSync with Notifications, new agents are not synched. This means that you must manually add new agents to each server in your configuration.

When the agent exists on all servers in your configuration, eSync keeps them updated. For example, assume a membership user logs into the production server and updates the profile's **Activities** tab by changing the activities a custom agent will perform. eSync will sync those changes with the staging server.

Setting Up SMS

SMS sends community notification messages from the Ektron website to wireless devices such as a cell phone or PDA. To accomplish this, you must configure several items.

- **`web.config`**—Add SMS Agent information.
- **Cell phone**—Verify your Cell Phone with your website.
- **SMS Notification Agent**—Configure the SMS Agent in the Workarea.
- **Messages you send to the community**—Set your activities to publish by SMS in your community profile.
- **Messages you receive from the community**—Set activities to receive by SMS in your community profile.

Setting up web.config for SMS

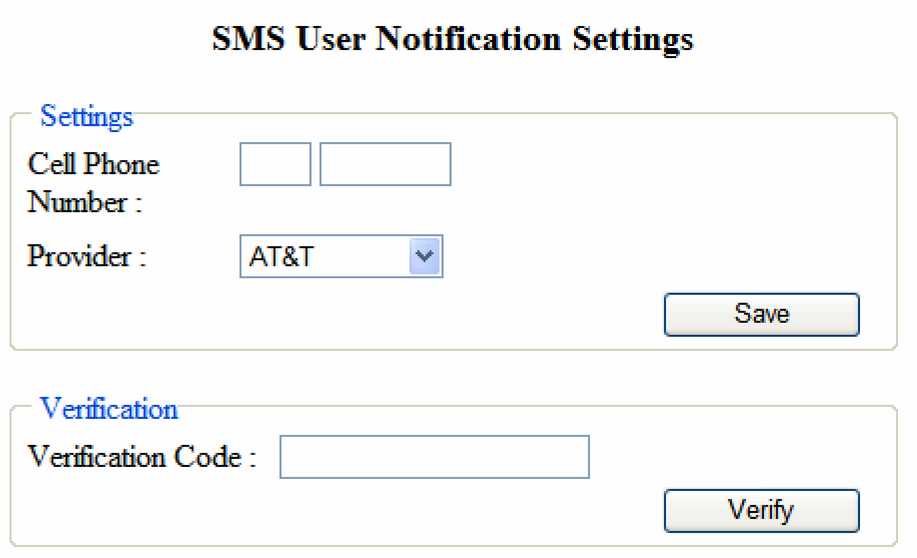
1. Find `web.config` in your website root directory.
2. Make a copy of it for safe keeping.
3. Find the `SMSAgent` tag.
4. Enter the proper value for smtpServer for the server that sends emails in your company. For example:
   ```
   smtpServer="EKMAIL291.internal.mycompany.com"
   ```
5. Replace the value of fromEmail with the email from whom the notices are sent. For example:
   ```
   fromEmail = "noreply@mycompany.com"
   ```
6. Save the file. The completed code looks like this.
   ```
   <add name="SMSAgent"
     type="Ektron.Cms.Notifications.Providers.SMSAgent,
     Ektron.Cms.Providers" smtpServer="EKMAIL291.internal.mycompany.com" |
     smtpPort="25" fromEmail="noreply@mycompany.com" validationRequired="true" />
   ```

Verifying Your Cell Phone for SMS Messages

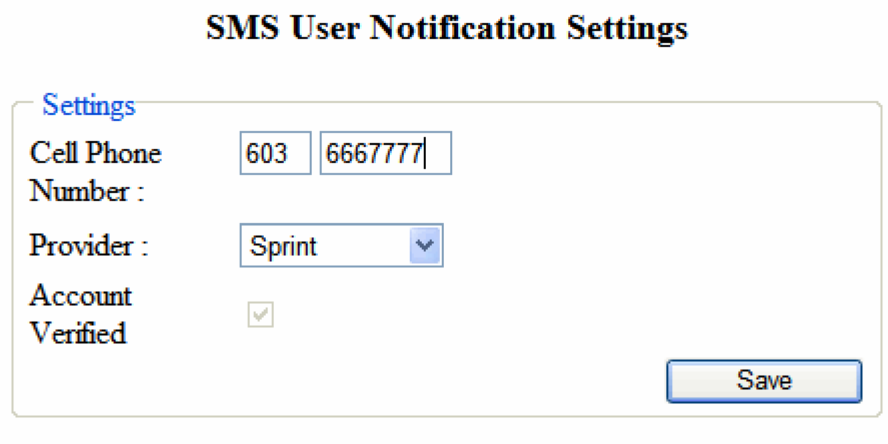
To verify that you have made a proper connection to your cell phone, you must send a verification message from the Ektron website to your phone. To verify your phone, do the following steps.

NOTE: The following procedure requires that your website has the template `SMSAgentSettings.aspx`. If it does not, you may copy it from the Ektron Developer starter site, or the Ektron eIntranet site.

1. In a browser, enter the following address: `http://<hostname>/SMSAgentSettings.aspx`. A screen appears that looks similar to the following:



2. Enter your cell phone area code and phone number.
3. Select your provider.
4. Click **Save**. In a few minutes, your phone receives a message with a validation code.
5. Enter that code into the **Verification Code** field.
6. Click **Verify**. If the proper code is entered, the follow screen appears, showing that the SMS account is verified. If not, check the other configuration settings and try again.



NOTE: When the phone number is verified, the **Account Verified** checkmark appears. This will not change unless you change the cell phone number or provider.

Working with Tokens

A token is an Ektron-defined variables surrounded by at signs (@). When a message is generated, tokens retrieve information about Ektron users, groups, and objects. For example, the following message:

```
@SubjectUser.FirstName@ added a new document, '@Content.title@', to the profile page.
```

might look like this:

“Paul added a new document, ‘How to Write Code’, to the profile page.”

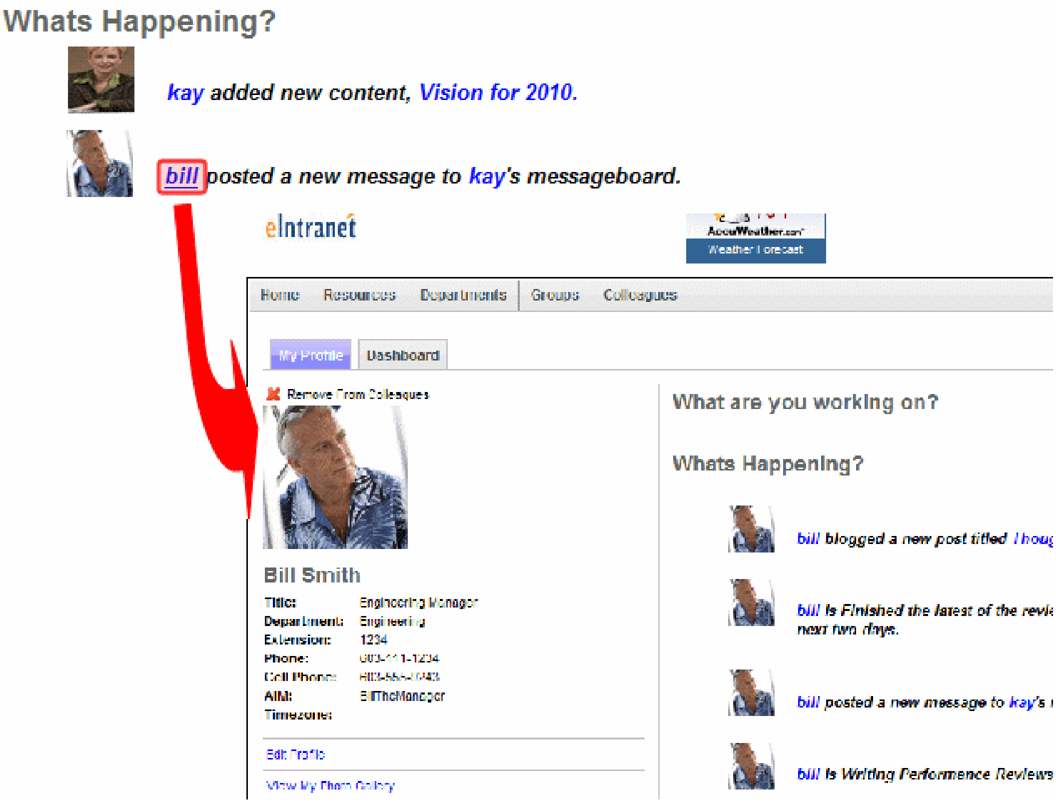
In this example, `@SubjectUser.FirstName@` is the first name of the user performing the action. `@Content.title@` is the title of the object that was uploaded.

A message can include several token types.

- **SubjectUser tokens**—represent the user who performs the activity
- **DirectObjectUser tokens**—represent the user to which the activity is happening
- **Content tokens**—represent the content that was a part of the activity
- **CommunityGroup tokens**—represent the community group that was involved in the activity
- **Blog tokens**—represent the blog use in the activity
- **webEvent tokens**—represents the Web Calendar used in the activity
- **MicroMessage tokens**—represent micromessages used in the activity

Making a Token into a Hyperlink

A message token represent Ektron users, groups, or content. It can become a link that, when clicked, brings the user to content, a user’s profile, or community group’s profile.

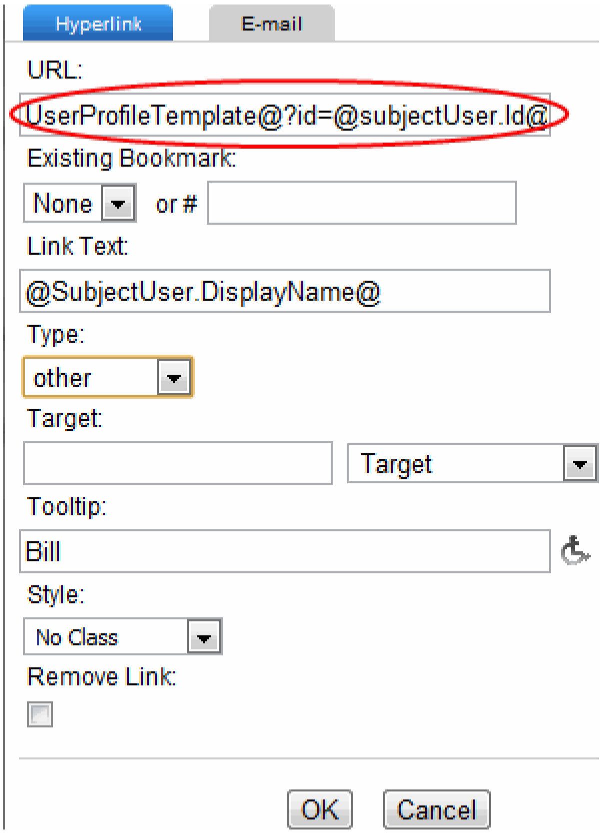


To make a token into a clickable link:

1. Create the message as described in *Creating a Message* on page 1208.
2. While editing the message text, highlight a token and click **Hyperlink Manager** ( ).

   The hyperlink dialog box appears.

3. In the **URL** field, enter the path to the page that displays the content, user, or community group.



Make sure you include the QueryString parameter used to identify the object. The parameter should point to an ID token. For example, a message notifies your colleagues whenever you add a new colleague. The message might be:

```
@SubjectUser.UserName@ and @DirectObjectUser.UserName@ are now colleagues.
```

When creating a link for *@SubjectUser.UserName@*, insert the path to the user's profile page into the **URL** field. It might look like this:

```
http://localhost/Intranet/UserProfile.aspx?id=@subjectUser.Id@
```

Note, the QueryString parameter (`?id=`) points to a token that represents the logged-in user's ID, `@subjectUser.Id@`. See Also: *Working with Tokens* on page 1213

For `@DirectObjectUser.UserName@`, enter the same path and change the dynamic parameter token to `?id=@DirectObjectUser.Id@`.

When hyperlinking content, use its QuickLink token in the path defined in the **URL** field. For example, a message that sends a Notification when a user adds content might look like:

```
@SubjectUser.username@ added new content, @Content.Title@.
```

4. Click **OK**.

Message Tokens: User and Content-Based

Add Calendar Event and **Update Calendar Event**

- @SubjectUser.DisplayName@
- @SubjectUser.Id@
- @SubjectUser.FirstName@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@
- @WebEvent.EndTime@
- @WebEvent.Id@
- @WebEvent.Quicklink@
- @WebEvent.StartTime@
- @WebEvent.Title@

AddColleague

- @DirectObjectUser.FirstName@
- @DirectObjectUser.Id@
- @DirectObjectUser.LastName@
- @DirectObjectUser.TemplateAlias@
- @DirectObjectUser.UserName@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@,
- @System.UserProfileTemplate@

AddContent

- @Content.Icon@
- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@

- @System.SiteURL@
- @System.UserProfileTemplate@

AddWorkspaceItem

- @Content.Icon@
- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteURL@
- @System.UserProfileTemplate@

BlogComment

- @BlogComment.Id@
- @BlogComment.Message@
- @SubjectUser.DisplayName@
- @SubjectUser.Id@
- @SubjectUser.FirstName@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

BlogPost

- @Content.Icon@
- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@

- @System.SiteUrl@
- @System.UserProfileTemplate@

CreateCommunityGroup

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @CommunityGroup.TemplateAlias@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

ContentMessageBoardPost

- @Content.Icon@
- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @MessageBoard.Message
- @MessageBoard.ObjectId@
- @MessageBoard.ObjectType@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@
- @SubjectUser.TemplateAlias@
- @System.GroupProfileTemplate
- @System.SiteUrl@
- @System.UserProfileTemplate@

EditContent

- @Content.Icon@
- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@

- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

EditWorkspaceItem

- @Content.Icon@
- @Content.Id@
- @Content.Title@
- @Content.Quicklink@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl
- @System.UserProfileTemplate@

ForumReply

- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@
- @Topic.Id@, @Topic.Title@
- @Topic.Quicklink@
- @TopicReply.Id@

ForumPost

- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@

- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@
- @Topic.Id@, @Topic.Title@
- @Topic.Quicklink@
- @TopicReply.Id@

JoinCommunityGroup

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @CommunityGroup.TemplateAlias@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

MicroMessage

- @MicroMessage.Id@
- @MicroMessage.Message@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

UserMessageboardPost

- @DirectObjectUser.Id@
- @DirectObjectUser.FirstName@
- @DirectObjectUser.LastName@
- @DirectObjectUser.UserName@
- @MessageBoard.Message@
- @MessageBoard.ObjectId@
- @MessageBoard.ObjectType@
- @SubjectUser.DisplayName@

- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@
- @SubjectUser.TemplateAlias@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

Message Tokens: Community Group-Based

Add Calendar Event and **Update Calendar Event**

- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@,
- @System.UserProfileTemplate@
- @WebEvent.EndTime@
- @WebEvent.Id@
- @WebEvent.Quicklink@
- @WebEvent.StartTime@
- @WebEvent.Title@

AddWorkspaceItem

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @Content.Icon@
- @Content.Title@
- @Content.Id@
- @Content.Quicklink@
- @DirectObjectUser.FirstName@
- @DirectObjectUser.Id@
- @DirectObjectUser.LastName@
- @DirectObjectUser.UserName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@

- @System.SiteURL@
- @System.UserProfileTemplate@

BlogComment

- @BlogComment.Id@
- @BlogComment.Message@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@

BlogPost

- @Content.Id@
- @Content.Quicklink@
- @Content.Title@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@

CreateCommunityGroup

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@

GroupMessageBoardPost

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @CommunityGroup.TemplateAlias@
- @MessageBoard.Message@
- @MessageBoard.ObjectId@
- @MessageBoard.ObjectType@
- @SubjectUser.DisplayName@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.TemplateAlias@
- @SubjectUser.UserName@
- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

JoinCommunityGroup

- @CommunityGroup.Id@
- @CommunityGroup.Name@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@

UserMessageboardPost

- @DirectObjectUser.FirstName@
- @DirectObjectUser.Id@
- @DirectObjectUser.LastName@
- @DirectObjectUser.UserName@
- @MessageBoard.Message@
- @MessageBoard.ObjectId@
- @MessageBoard.ObjectType@
- @SubjectUser.FirstName@
- @SubjectUser.Id@
- @SubjectUser.LastName@
- @SubjectUser.UserName@

Message Tokens: Email Reply Message

Email Message Reply

- @System.GroupProfileTemplate@
- @System.SiteUrl@
- @System.UserProfileTemplate@

Setting Up Email to Communicate Community Activities

Ektron's community feature can generate email when a user completes an activity. For example, if a member posts a comment to a community message board, group members who signed up for email notification in their user profile receive an email that contains the comment. Recipients can reply to the email. Replies are posted on the community group's message board.

You can also enable the attachment of files to email notifications. So, if a group manager uploads a PDF file to a group message board, the email notification message contains the PDF file as an attachment. Users can reply to that message and, if they attach an updated version of the file, it can replace the file on the group's message board.

Finally, you can set up an email address for a group. This makes it easy for anyone to broadcast a message to all group members.

To set up email delivery of and replies to notification messages:

PREREQUISITES

Notifications must be enabled. See *Conditions for Notification Messages* on page 1195.

Step 1: Enter Sending Email Address Information

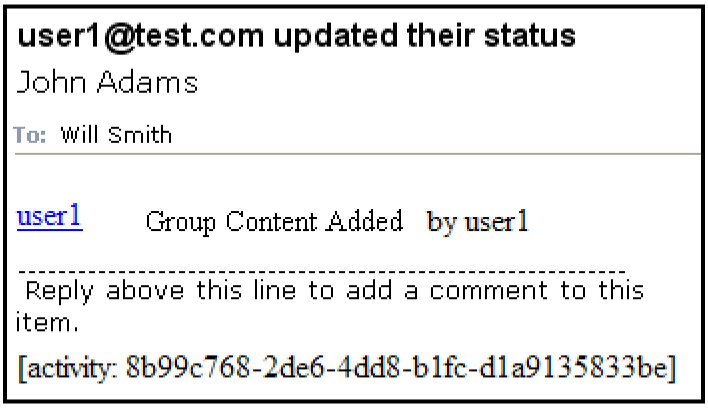
IMPORTANT: You must have permission to edit files on the Ektron server to complete this step.

The *siteroot*/web.config file collects the outgoing email address information. To define the "From:" address of community email sent from your website:

1. On the server that hosts your website, open the *siteroot*/web.config file with a text editor (such as Notepad).
2. Find the section below the `<notificationAgent> <providers>` elements.
3. Define the following elements. Do not change other elements in that section.
   - **smtpServer**—Enter the name of the server that hosts your Ektron website.
   - **smtpPort**—Enter the port that sends outgoing email from the site.
   - **username**—Optionally, enter the username to authenticate against the smtp server.
   - **password**—Optionally Enter the password to authenticate against the smtp server.
   - **from Email**—Enter the "from" email address of all outgoing community email. When a recipient gets an email, this value appears in the `From:` field.

Step 2: Review the Community Activity Notification Message

Ektron provides a message that is emailed when each community activity is completed. To view the message in the Workarea, choose **Settings > Community Management > Notifications > Messages** and click **Email Message Reply**.



Step 3: Set Up email Preferences

Ektron provides a default set of notifications that apply to all newly-created users. This step is almost exactly the same as *Setting Default Notification Preferences* on page 1202.

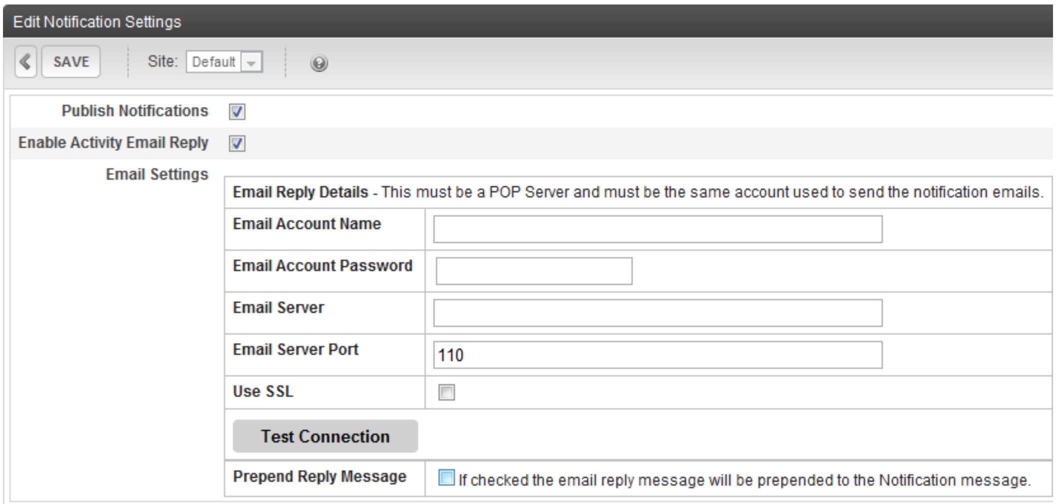
Step 4: Set up the email Reply Feature

The optional email Reply feature consists of additional text in a community notification that prompts a recipient to reply, as shown in the following example.

If the recipient replies, the resulting email is posted to the group's message board.

IMPORTANT: The Community email Reply feature is only available with group activities, such as uploading a document to a group workspace. It is not available with user activities.
Also, you must enable the community notification features as described in *Setting Up Email to Communicate Community Activities* on page 1223.

1. From the Workarea, choose **Settings > Community Group > Notifications > Settings**.
2. Specify the email address to receive email replies in the Edit Notification Settings screen. (You must be a member of the Administrators group or the community group administrator to do this.)



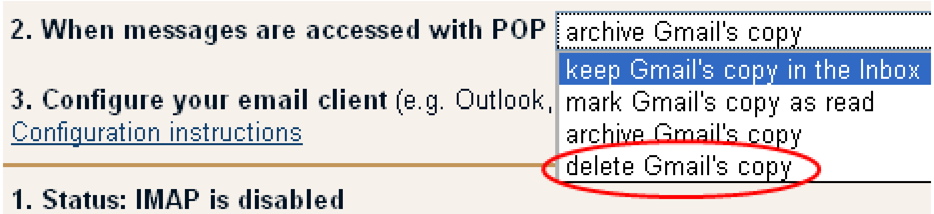
- **Enable Email Replies**—Check this box to access the fields in the lower part of the screen.
- **Email Account Name**—Enter the address that receives email delivered to your website. The email account must be the same as the account used to send email. See Also: *Step 1: Enter Sending Email Address Information* on the previous page

  IMPORTANT: Each community group's email address must be unique.

- **Email Account Password**—Enter the password for that email address.

- **Email Server**—Enter the POP mail server that retrieves email for this account.
- **Email Server Port**—Enter the port number used to retrieve email for this account.
- **Use SSL**—Check this box if you use SSL when retrieving email.
- **Test Connection**—After you complete the above fields, click this button to verify the information and your ability to connect to the mail server.

NOTE: If you are using Gmail as the SMTP server to fetch email replies, after the notification service processes the emails, you probably want to delete them from the Inbox. To set up automatic deletion of this email from the Inbox, got to Gmail's **Settings** screen > **Forwarding and POP/IMAP tab** > **Pop Download Area** > **2. When messages are accessed with POP** > select **delete Gmail's copy.**



Step 5: Review the email Reply Message

Community activity that generates an email also can include a reply statement, as shown in the following example.

NOTE: The activity message text is determined by the activity. For example, if the activity is a blog post, the message text is retrieved from the New Blog Post notification message.

To review and modify email reply text:

1. In the Workarea, choose **Settings > Community Management > Notifications > Messages**.
2. Click **Email Message Reply**.
3. You cannot edit the **Title**, **Type**, **Sub Type** or **Default** check box.
4. The **Subject** field is not used.
5. Edit the message text. You can create an HTML-based and a plain text message for each activity. Typically, HTML messages are sent as email or to the ActivityStream server control, while plain text is used in SMS style messages.

   The line of dashes separates the activity message from the email reply.

Messages typically combine text and *tokens*, Ektron-defined variables surrounded by at signs (@). When a message is generated, tokens retrieve information about Ektron users, groups, and objects. See Also: *Working with Tokens* on page 1213

6. Optionally change the Message's Start and End Delimiters. By default, the email message reply begins with a new line character and ends with the line of dashes you see in the message text. If desired, you can change those defaults. For example, you want to limit the reply to a single paragraph.
   a. On the server that hosts Ektron, open `C:\program files\ektron\ektronnotificationservice\ektron.notification.service.exe.config`.
   b. Find the `<siteNotification> <sites>` element.
   c. Insert the following properties at the end of the `<Add>` tag.
      - `replyStartDelimitter`—marks the beginning of the reply
      - `replyEndDelimitter`—marks the end of the reply

   For example:

```
<siteNotification>
  <sites>
    <add name="dev" url="http://localhost/eintranet"
      connectionString="server=.;database=eintranet;
      Integrated Security=TRUE;user=;pwd=;" services="All"
   replyExtractor="Ektron.Notification.Service.EktronReplyExtractor"
      replyStartDelimitter="^" replyEndDelimitter="\r\n" />
  </sites>
</siteNotification>
```

   You use RegEx expressions to indicate the start and end delimiters. In the above example, the start delimiter (^) is a new line, and the end delimiter (\r\n) is a page break. So, only the first paragraph in the email reply is used.

Step 6: Enable Attachments to Notifications

Ektron can attach assets to a notification. For example, a user uploads a PDF document to a group workspace, which generates a **Group Content Added** notification and attaches the asset. If you enable attachments and the email Reply feature, message recipients can:

- Download the attached asset to their computer.
- Modify it.
- Reply to the email .
- Attach the modified asset.

If they do, Ektron replaces the community group asset with the attached file.

If a group administrator does not want the revision, the administrator can use the asset history to restore the original asset. See Also: *Restoring a Previous Version* on page 303

IMPORTANT: If a message's email signature includes an image, the email Reply feature uploads it as a group asset. To avoid this, remove the image from the signature before replying.

To set up notification attachments for a community group:

1. From the community group page, click **Edit Group**.
2. Alternatively, in the Workarea, choose **Settings > Community Management >Community Groups >** click a community group.
3. Near the bottom of the screen, check the **Attach Documents in Email Notifications** box.
4. Click **Save**.

How email Replies are Handled

Activity notifications can prompt recipients to reply. The following table shows how each activity treats email replies.

NOTE: If you are in a load-balanced environment, the same reply may appear several times. If this problem occurs, stop the Ektron notification service on all but one of the servers in the cluster.

Activity that Triggers Message	How email Reply Handled
User adds a colleague	Comment on Activity Stream
User adds content to Ektron	Post to Content Message Board
Event is added or changed on Web Calendar	Comment on Activity Stream
User uploads content to community group Workspace	Post to Content Message Board
User comments on group workspace content or asset	Comment on Activity Stream
User uploads content to the user's profile	Post to Content Message Board
Comment on user workspace content or asset	Comment on Activity Stream
User comments on a blog post	Comment to same blog post
User posts to the user's blog	Comment on post
User posts to a message board associated with content	Reply to post
User creates a community group	Comment on Activity Stream
User posts to a Forum	Reply to post
User replies to a Forum post	Reply to post
User comments on a community group’s blog post	Comment on same blog post

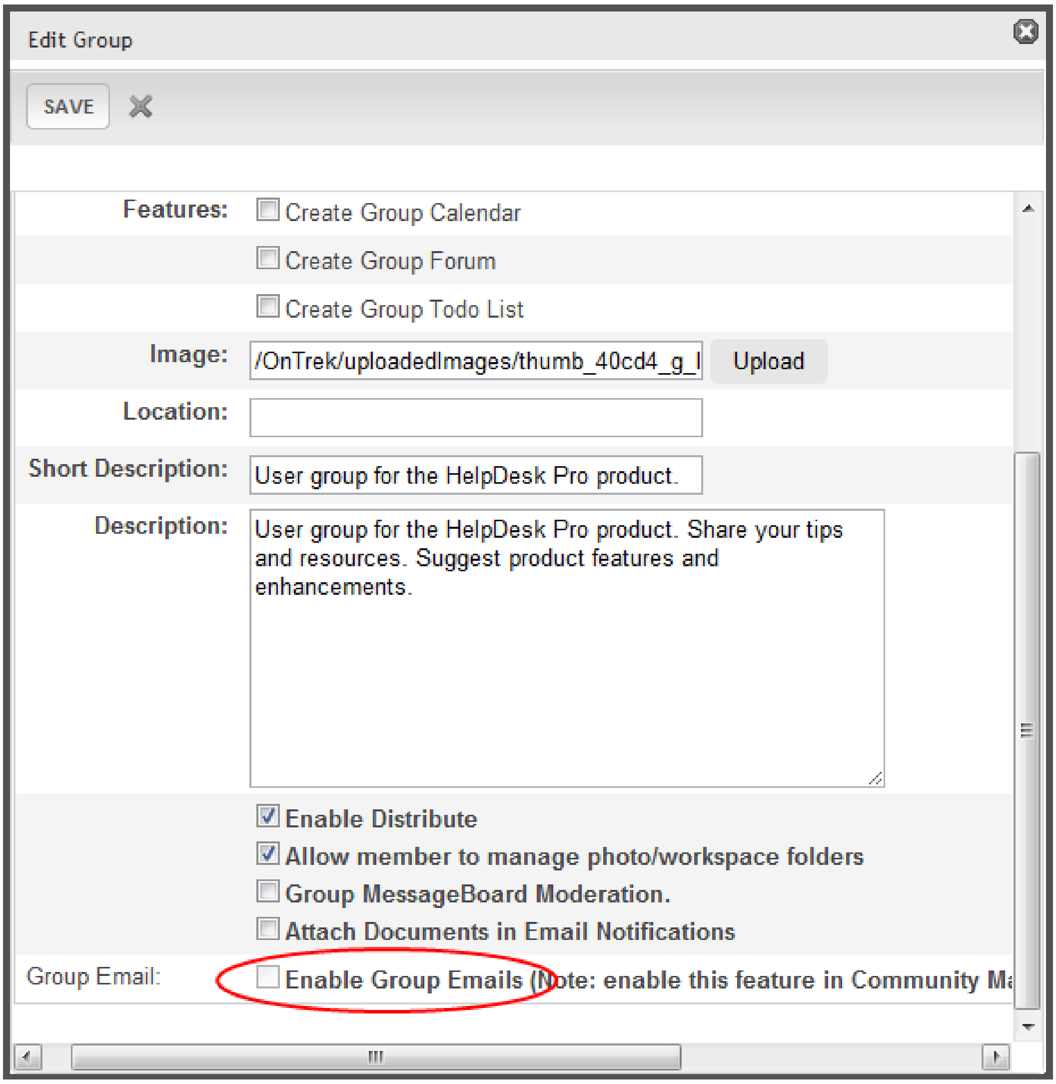
Activity that Triggers Message	How email Reply Handled
User posts to community group blog	Comment on post
User posts to a community group message board	Reply to post
User joins community group	Comment on Activity Stream
User posts micro-message	Comment on Activity Stream
User updates status	Comment on Activity Stream
User posts to another user's message board	Reply to post
Message board reply	Reply to same post

Creating an Email Address for a Community Group

You can set up Ektron's Community Feature to let anyone email a post to a community message board. To set this up, each community group administrator (or Ektron administrator) must define information about the receiving email account.

1. On community site's group page, choose **Manage > Edit Group**. The Edit Group screen appears.

   Alternatively, from the Workarea, choose **Settings > Community Management > Community Groups**. Click the group, then click its **Properties** tab and check the **Enable Group emails** checkbox.



2. Enter the group's **email address**, **account name** and **password**.

Generating email Invitations for Community Management

The Community Platform’s email notification feature enables Ektron to generate email that invites other users to join a community group, join the site, or become a colleague.

To create a message:

1. In the Workarea, go to **Settings > Community Management > Messages**.
2. Click **Add Email Message**.
3. Enter a title that describes the message.
4. At the **Type** field, click the drop-down arrow to choose the message type.
5. Select whether to make the email message a Default message.
6. In the editor, enter the message text. Use the variables in the table below to retrieve information into the invitation.
7. Click **Save**.

Messages can include variables that retrieve information about the user sending the invitation or the link to join a group and display it in the message text.

Variables are surrounded by at signs (@). For example: `@appSenderName@` displays the name of the user sending the invitation. In the email, this text might read:

```
Alan Administrator has invited you to join the Marketing Community Group.
```

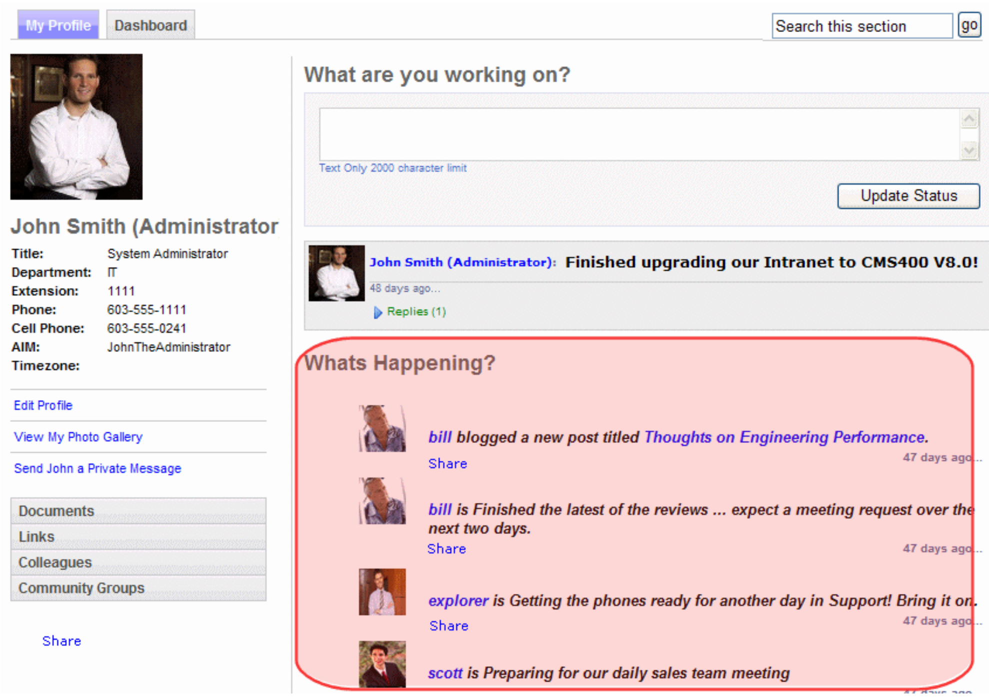
You can use the following variables in the body of email notifications.

- **@appFriendDisplayName@**—The recipient's name.
- **@appFromUserDeleted@**—Token message is from a user that was deleted.
- **@appFromUserDisplayName@**—The name of the user from whom the private message was sent.
- **@appFromUserID@**—The ID of the user from whom the private message was sent.
- **@appGroupName@**—The group a person is being invited to join.
- **@appInvitedEmail@**—The recipient's email address.
- **@appInviteId@**—Appends the invite ID to the registration URL. For example:

  Click `<a href=http://www.example.com/register.aspx&fInvId=@appInviteId@>here</a>` to accept.
- **@appMessage@**—The Message field of the private message (message body text).
- **@appOptionalText@**—Text a user types into the **Optional Message** box on the Invite server control.
- **@appPrivateMessageID@**—The CMS ID for the particular private message.
- **@appSenderName@**—The sender of the invitation.
- **@appSubject@**—The Subject field of the private message.
- **@appToUserDisplayName@**—The name of the user receiving the message.
- **@appToUserID@**—User ID of the user receiving the message.
- **@appToUserMessageID@**—The CMS ID of the recipient's message object.

Activity Streams

An activity stream is a series of chronologically-arranged notification messages describing activities within Ektron's Community Feature. See also: *Sending Notifications to a Community on page 1194*.



The following table describes the various waysof presenting an Activity Stream on your website.

For this kind of Web page	Use this	To see Notifications for
.aspx	*ActivityStream* on page 1638server control	The user or group identified in the page's query string. If none is identified, the logged-in user sees his or her own notifications.
PageBuilder	ActivityStream widget See Also: *Using the ActivityStream Widget on a PageBuilder Page* on page 1236	
Ektron Personalization	ActivityStream widget See Also: *Using the ActivityStream Widget on a PageBuilder Page* on page 1236	• Yourself • Your colleagues • Your community groups
Community Feature: your profile page	No action required—Activity Stream appears by default	Yourself
Community Feature: a colleague's profile page	No action required—Activity Stream appears by default	Colleagues
Community Feature: group profile page	No action required—Activity Stream appears by default	Community group of which you are a member

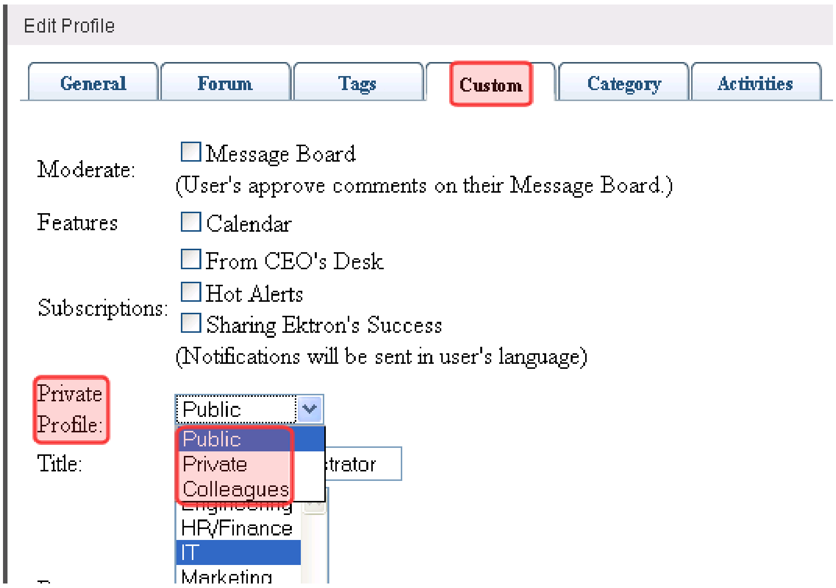
Using the ActivityStream Widget

The ActivityStream widget is installed with Ektron.

When you drag and drop an ActivityStream widget onto a Personalization page, it displays activities performed by

- you, the logged-in user
- your colleagues
- community groups to which you belong

When you view *another user's* personalization page containing this widget, the activities you see are controlled by that user's **Private Profile** setting and whether that person is your colleague.



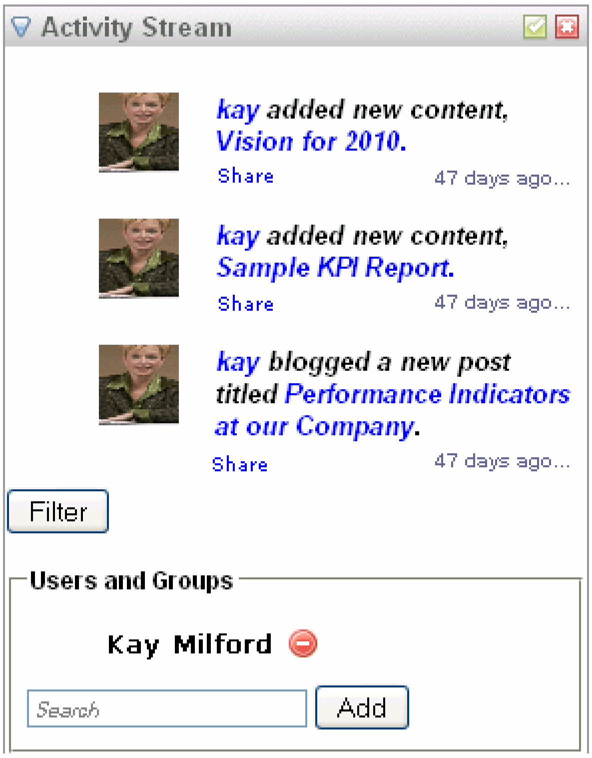
The following table describes when you can see another user's Activity Stream.

If the user's Private Profile Setting is...	and the user is...	you can...
Public	a colleague	view the person's activities
Public	not a colleague	view the person's activities
Private	a colleague	view the person's activities
Private	not a colleague	only view the person's activities if you are an administrator
Colleague	a colleague	view the person's activities

If the user’s Private Profile Setting is...	and the user is...	you can...
Colleague	not a colleague	only view the person's activities if you are an administrator

If you can view another user’s activities, you see activities that person performs and activities that person's colleagues perform.

From this widget, you can filter the Activity Stream to view only activities from specific users and community groups. Filtering the ActivityStream widget means restricting notifications to those from selected users or groups. For example, you want to see only activities performed by Kay Milford. In the filter, select Kay Milford, and the ActivityStream widget shows messages only from her.



As another example, you are the head of the Engineering department and want to see your employees’ activities. To accomplish this, add them as colleagues. Then, in an ActivityStream widget, create a filter with their names. That widget only shows your employees’ activities.

If your department has a community group, you could add that group to the filter. Then, in addition to your employees’ activities, you would see the group’s activities.

This feature, combined with the ability to add multiple ActivityStream widgets to a page, lets you create separate activity streams that focus on people and groups of interest.

The following image shows 1 ActivityStream widget that displays a user’s colleagues (on the left), and 3 other widgets with filters that focus on individual users.

You could take this example one step further. If Leah Mathis and Scott Markey both work in “Sales & Marketing” and Bill Smith, Works in “Engineering,” you might only have 2 widgets, one for Scott and Leah and another for Bill.

Filtering the ActivityStream Widget

1. Click **Filter** at the bottom of the widget.
2. In the**Users and Groups** box, enter the name of a user or community group by which to filter. As you start typing, AutoComplete helps you narrow the selection.
3. Click **Add**. The ActivityStream widget refreshes and only activities performed by the selected user or community group members appear.

IMPORTANT: A valid name is one that exactly matches a user’s Display Name or community group’s Group Name. If your entry does not match, the widget refreshes and no filter is added.

Also, the users or community groups you selected appear in the widget’s filter area.

You can add as many users or community groups to the filter as you like, one at time. After you finish, you can hide the filter by clicking **Hide**.

Removing an Entry from the ActivityStream Widget Filter

NOTE: If you remove all users and groups from the filter, the widget shows notifications from *all* users whose activities you can view.

1. If you cannot see the filter's users or community groups, click **Filter** at the bottom of the widget.
2. Click **Delete** () next to the user or community group you want to remove. The ActivityStream widget refreshes, and the removed user or community group's activities disappear from the stream.

Using the ActivityStream Widget on a PageBuilder Page

NOTE: To learn about Ektron's PageBuilder functionality, see *Creating Web Pages with PageBuilder* on page 659.

When used on PageBuilder page, the ActivityStream widget shows the logged-in user's activities by default. However, you can modify the widget to focus on another user's or community group's activities.

For example, you create a PageBuilder page about your company's CEO and want to display notifications about activities that the CEO, colleagues, and community groups perform on the site.

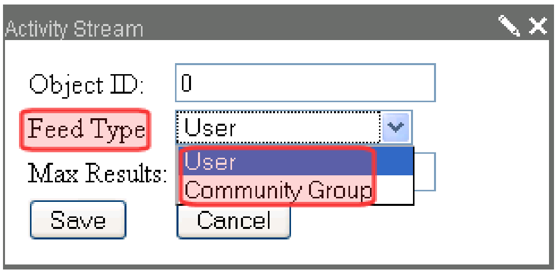
To accomplish this, add the ActivityStream widget to a "See what the CEO is Up To" page. While doing that, specify the user ID assigned to your CEO (available from the CEO's User Profile). When an Intranet user visits the page, the user sees a list of the CEO's activities.

To display another user's or community group's activities in the ActivityStream widget:

PREREQUISITE

The ID number of the user or community group whose notifications will appear

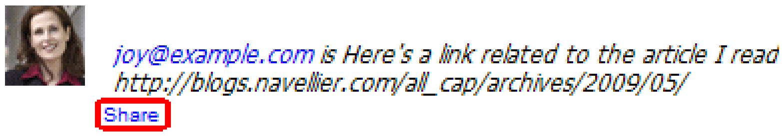
1. Drag and drop the ActivityStream widget. The following dialog appears.



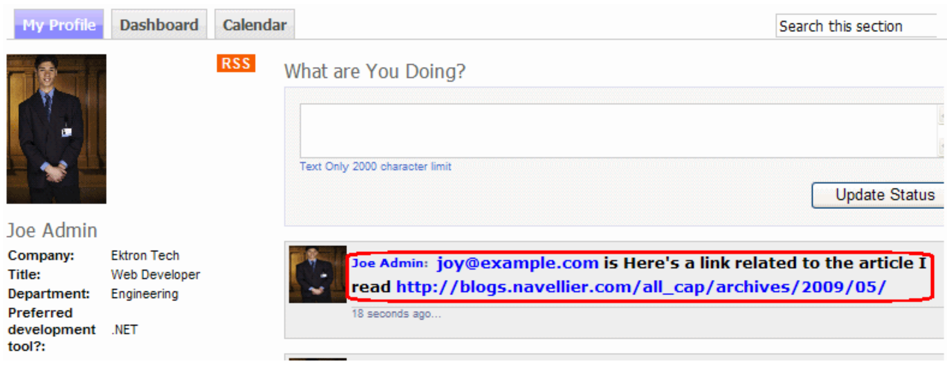
2. Use the **Feed Type** drop-down to select **User** or **Community Group**.
3. In the **Object ID** field, enter the user’s or community group’s ID.
4. Click **Save**.

Sharing an Activity Stream Event on Your Profile

Each activity in a stream has a **Share** link below its text.

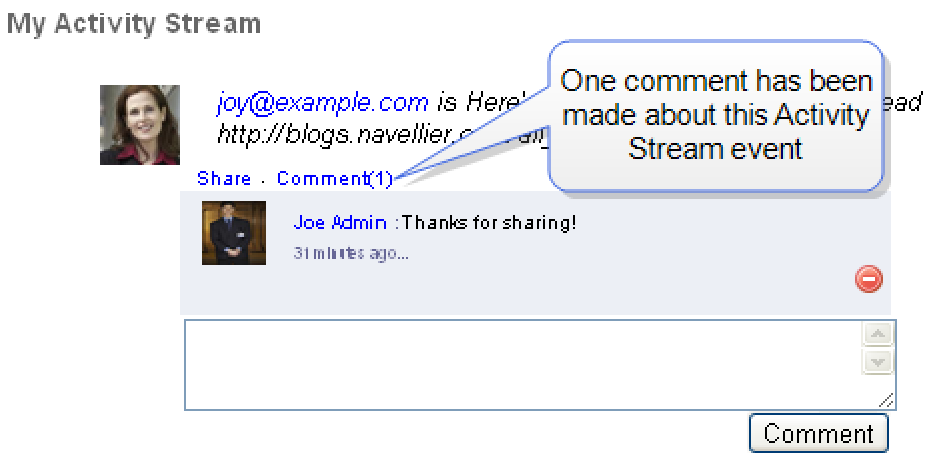


When you click **Share** on someone's status, it appears in your profile's status, too.



Commenting on an Activity Stream Event

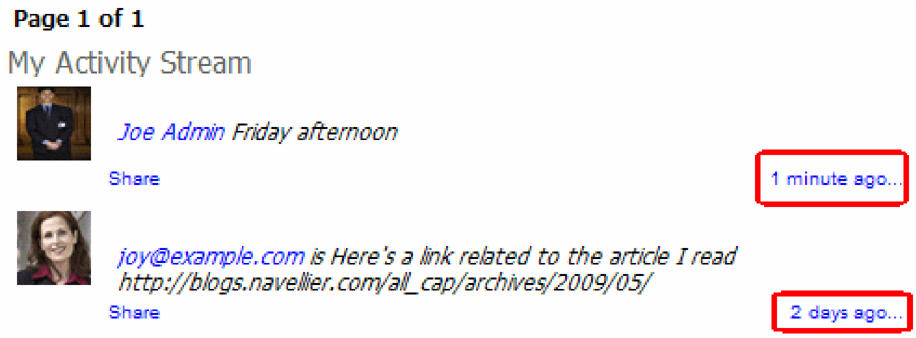
Each activity in a stream has a **Comment** link below its text. When you click it, a Comment box opens for you to add a comment. When you finish, the **comment** link displays the number of comments on that activity. Users can click the number to view the comments.



Only the user who made the comment or a member of the Ektron Administrators group can delete the comment.

Setting Up a Time Display for Activity Stream Events

You can set up an activity stream to assign a ***time* ago** link to each event.



When a site visitor clicks that link, the activity stream event is launched in a new browser. From there, the site visitor can use the page's URL to uniquely identify the event. For example, the user can forward the URL to other users to notify them about the event.

To add a ***time* ago** link to a page:

1. Create a Template Activity page. It must be an .aspx template with an activity stream server control that includes these properties.
   - `ObjectType`—enter `Activity`
   - `DynamicObjectParameter`—enter `id`

   NOTE: A sample of this page, `activity.aspx`, is provided with the Ektron Tech site, in the site root folder.

2. Open the template that hosts the ActivityStream server control to which you want to add a ***time* ago** link.
3. To the ActivityStream server control, add the `TemplateActivity` property. As the value for that property, enter the template page you created. That page appears when a site visitor clicks the ***time* ago** link.

   Here is an example of an Activity Stream server control with a sample value for that property.

```
<CMS:ActivityStream ID="ActivityFeed1"
  runat="server" EnablePaging="true" DynamicObjectParameter="id"
  TemplateUserProfile="profile.aspx" TemplateActivity="activity.aspx" />
```

NOTE: A sample of this page, `profile.aspx`, is provided with the Ektron Tech site, in the site root folder.

Displaying RSS Feed Links

Ektron provides the following RSS feed links that can display activity stream events.

- `http://your website/workarea/webservices/feeds.svc/userstatuses/user ID number.rss`

  For example: http://*your zwebsite*/workarea/webservices/feeds.svc/userstatuses/*1*.rss

  Displays the specified user's status updates. For example, `1.rss` shows all status updates of the user whose ID is 1.
- `http://your website/workarea/webservices/feeds.svc/publictimeline.rss`

  Displays all public status updates
- `http://your website/workarea/webservices/feeds.svc/publictimeline.rss?search=new`

  Displays all public status updates that include the term "new"

You can use these feeds with Ektron's API to access and display status updates.

Troubleshooting Activity Streams

Problem: Notifications do not appear in my Activity Stream and the configurations are set for Notifications and User/Group Activities. Also, the Application Event log shows the following error: *An exception occurred while enqueueing a message in the target queue. Error: 15404, State: 11, Could not obtain information about Windows NT group/user 'WIN-I2VJT0GQ8I2\Administrator', error code 0x534.*

This occurs when the person who created the database is not the same person who created the queues. This creates permission issues when trying to write to the queue.

Solution: Do 1 of the following:

- Set the user that writes to the queue with the permission level of "dbo."
- Run the script `sp_changedbowner` "sa" where "sa" is the user name who writes to the queue.

Defining Flags for Content

Flagging lets site visitors provide feedback about a piece of content, thereby enabling site visitors to moderate your site. This is especially important for sites with large amounts of visitor-generated content. Flagging also helps site visitors feel invested in the site.

For example, a flagging list can describe types of inappropriate content, such as:

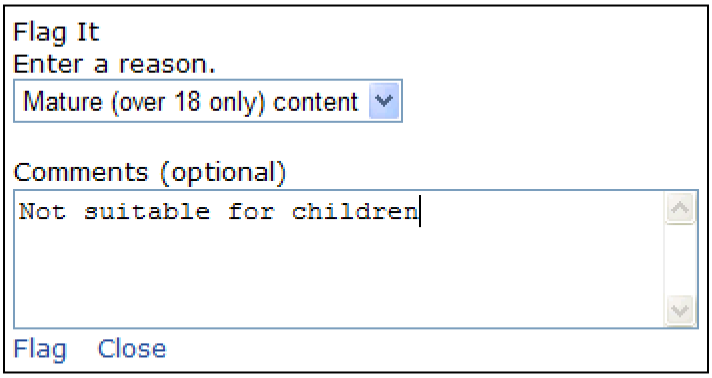
- Sexually Explicit
- Mature (over 18 only) content

- Graphic Violence
- Hate Speech

Flagging can also indicate the quality of content, so can help create a recommended content list. For example:

- I loved this content.
- I hated this content.
- I am neutral about the content.

Flagging is similar to the ContentReview server control, except flagging feedback is not displayed on the site. Also, the Flagging control provides a list of reasons for the flag. So, a flagging definition describes how a content item may be reviewed, and provides a list of reasons for the flag. For example:



After creating a flagging definition, you assign it to relevant folders. All content in those folders can be flagged with that definition.

IMPORTANT: As the final step in letting site visitors flag content, a developer adds a *ContentFlagging* on page 1707 server control to a Web page, and assigns to it the ID of the content being flagged.

Flagged content appears in the following Workarea locations.

- **ContentFlags** list on the Smart Desktop
- **Settings > Community Management > Flagging > Flagged Content**
- a content item's **View Content Reports > Flagging** tab

The Flagging Definitions screen is located in the **Workarea > Settings > Community Management > Flagging**. Here, you can view a list of flagging definitions, work with them, or create new ones.

This screen contains the following information about a flagging definition.

- **ID**—The ID of the flagging definition.
- **Name**—The name of the flagging definition.
- **Description**—A description of the flagging definition.
- **Language**—The national flag of the language. For example, American English is .
- **Items**—The number of flags in a definition. For example, the number is 4 if you have a flag definition for these movie ratings: G, PG, PG-13, and R.

Adding a Flagging Definition

1. In the **Workarea**, navigate to **Settings > Community Management > Flagging > Flagging Definitions**.

2. Select a language with which the flagging definition will be associated.
3. Click **Add New Flag Definition**. The Add Flagging Definition screen appears.
4. Enter a **Name** and **Description** for the flagging definition.
5. Click **Option** ( ) to add a flag choice to this flagging definition.
6. Continue to click the **Option** button to add additional flag choices.
7. Optionally change the order of the flag choices by clicking the **Sorting** buttons (▼ ▲).
8. Click **Save**.

Editing a Flagging Definition

1. In the **Workarea**, navigate to **Settings > Community Management > Flagging > Flagging Definitions**.
2. Click the flagging definition **Name** link or the **ID** link.
3. Edit the options. If desired, you can change the order of the flagging options by clicking the Sorting buttons (▼ ▲).
4. Click **Save**.

Deleting a Flagging Definition

When a flagging definition is deleted, it is removed from all folders with which it was associated.

1. In the **Workarea**, navigate to **Settings > Community Management > Flagging > Flagging Definitions**.
2. Click the flagging definition **Name** link or the **ID** link.
3. Click **Delete** ( ).

Assigning a Flagging Definition to a Folder

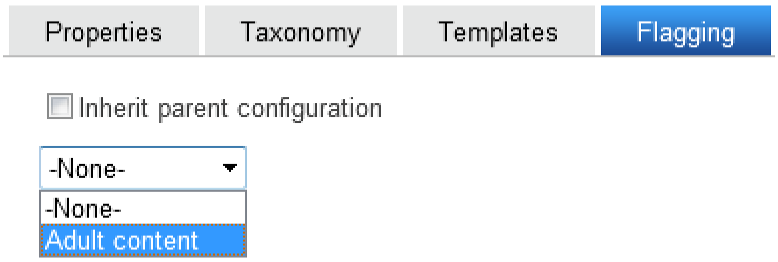
After creating a flagging definition, you may assign it to folders. If you do, the flagging definition is applied to all content in that folder.

Like other folder properties, a folder's flagging definitions may be inherited by its child folders, although this does not occur by default.

To assign a flagging definition to a folder:

1. Create a flagging definition, as explained in *Adding a Flagging Definition* on the previous page.
2. Click the Workarea **Content** tab.
3. Navigate to the folder that contains the content to be flagged.
4. Select **View > Properties** from the View menu. The View Properties screen appears.
5. Click **Edit Properties**.
6. Click the **Flagging** tab.
7. Make sure the **Inherit Parent Flagging Configuration** check box is not checked.

8. Select a flagging definition from the **Flagging** drop-down.



9. Click **Update**.

Working with Flagged Content

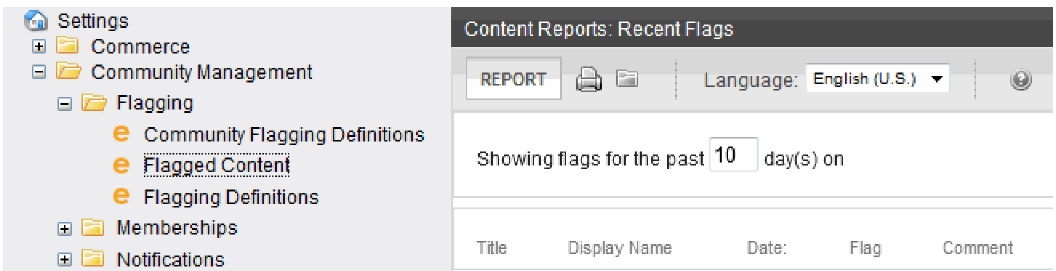
From the Smart Desktop

To see content flags, you must add the Content Flags widget to your desktop. The Content Flags widget lists the 10 most recently-added content flags. From there, you can view a flag by clicking its title. To view all recent flags, click the **View recent flags** link. Clicking this link takes you to the Content Reports: Recent Flags screen.

From the Settings Tab

Settings > Community Management > Flagging > Flagged Content shows all flagged content.

NOTE: You can also access this report from the **Workarea > Reports > Contents > Content Flags**.



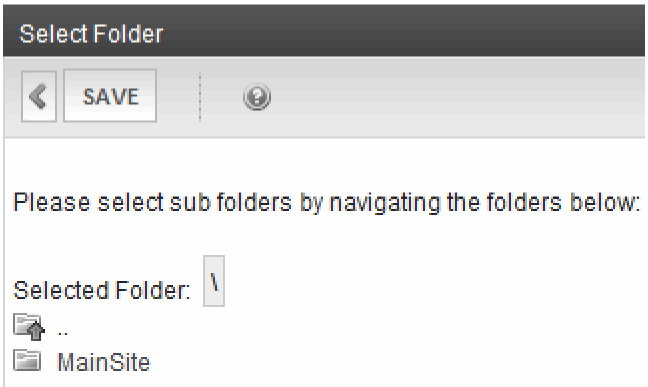
- **Showingflagsforthelast#days**—Enter a new number of days for which to show Flagged Content. Click **Report** to refresh the display.
- **Title**—The title of the content block being flagged. Clicking this link brings you to a detailed description of the content's flag.
- **Display Name**—The name of the user who flagged the content.
- **Date**—The date the content was flagged.
- **Flag**—The specific flag from the flagging definition for this content.
- **Comment**—Comments added by the site visitor who flagged the content.

To print the flagged content report, click **Print** ( ).

Filtering Flagged Content by Folder

From the Content Reports: Flagged Content screen, you can filter flagged content by folder. To do so:

1. In the Workarea, navigate to **Settings > Community Management > Flagging > Flagged Content**.
2. Click **Filter Reports by Filter** (). The Select Folder screen appears.



3. Select a folder.
4. Click **Save**. The page refreshes, and any flagged content in the folder is shown.

NOTE: Only content flagged within the time frame for the **Showing flags for the past # days** field is shown. For example, if the field is set to 5, only content that's been flagged in the last 5 days appears.

Filtering Flagged Content by Language

To see flagged content for a specific language, select the language from the **Language** drop-down box.

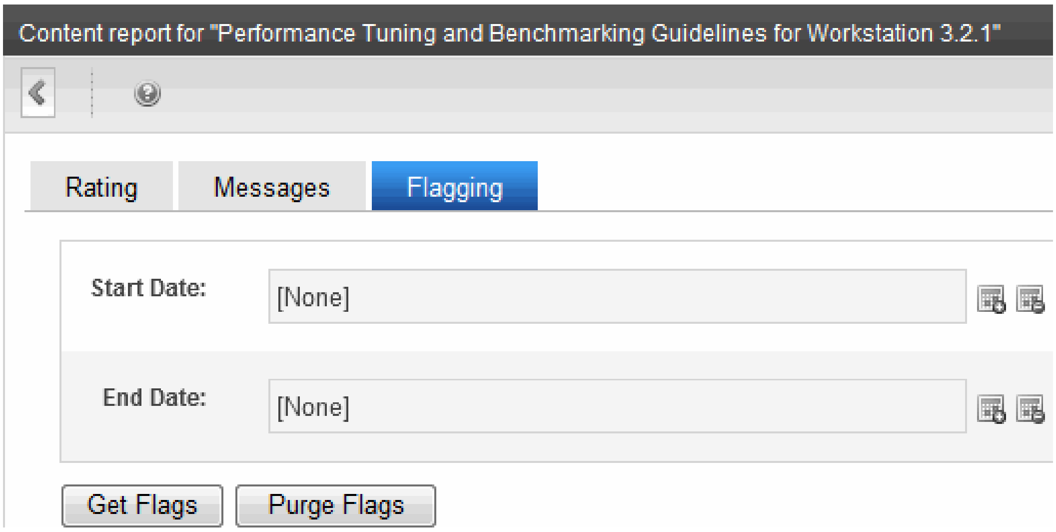
From the Content Report

You can also view flags for a content from the **Content Report** screen's **Flagging** tab. You can filter flags by a date range or see all flags associated with the content. This screen also contains a purge button, which removes all flags associated with this content.

Viewing Flags Applied to a Content Item

1. In the **Workarea**, find the content for which to retrieve content flags.
2. Click the content title. The **View Content** screen appears.

3. Click **Content Reports** ( ). The Content Report screen appears.



4. Click **Start Date** ( ) and **End Date** ( ) to select a date range.

NOTE: To retrieve all flags, leave Start Date and End Date blank.

5. Click **Get Flags**. A list of flags applied to that content within the selected date range appears.

Purging a Content Item's Flags

1. In the Workarea, find the content block for which to purge content flags.
2. Click the content title. The View Content screen appears.
3. Click **Content Reports** ( ).
4. Click **Start Date** ( ) and **End Date** ( ) to select a date range.

NOTE: To retrieve all flags, leave Start Date and End Date blank.

5. Click **Purge Flags**.

Viewing the Details of a Flag

Viewing a flag's detail lets you read the entire comment, even if it is truncated in one of the lists. You can also edit or delete a flag from this screen.

1. Navigate to one of these area in the Workarea:
   - **Smart Desktop > Content Flags** widget
   - **Settings > Community Management > Flagging > Flagged Content**
   - **Reports > Contents > Content Flags**
2. Click either a flag's content title or its date. The flag's detail information appears.

Editing the Details of a Flag

Edit a flag when you want to change the selection or the comments of a flagged content item. This can be useful if a user selects a flag by mistake, or you want edit its comments. For example, a user selected the “Offensive Content” flag but the user meant to choose “Copyright Violation”.

1. Navigate to one of these area in the Workarea:
   - **Smart Desktop > Content Flags**
   - **Settings > Community Management > Flagging > Flagged Content**
   - **Reports > Contents > Content Flags**
2. Click either a flag’s content title or its date. The flag’s detail information appears.
3. Click **Edit**.
4. Change the flag or edit the comments.
5. Click **Save**. The flag’s information is changed.

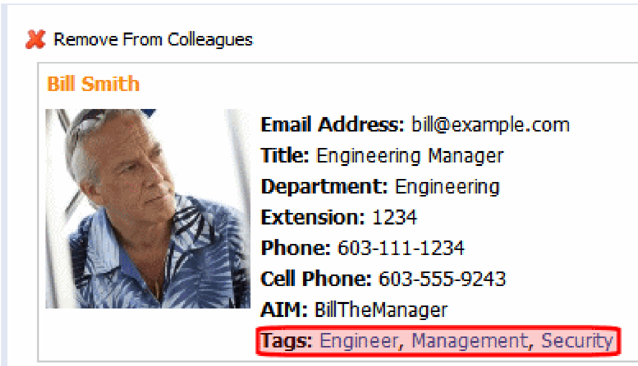
Deleting a Flag

NOTE: To remove all flags for a content item, see *Purging a Content Item’s Flags* on the previous page.

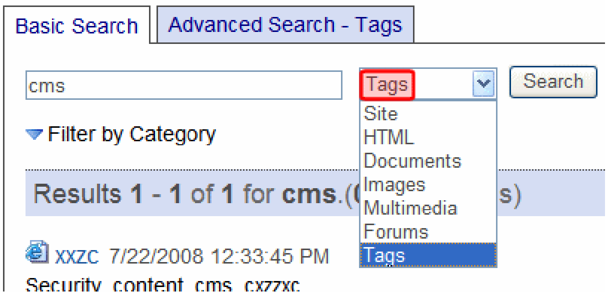
1. Navigate to one of these area in the **Workarea**:
   - **Smart Desktop > Content Flags**
   - **Settings > Community Management > Flagging > Flagged Content**
   - **Content Reports > Flagging tab** for a content item
2. Click either a flag’s content title or its date. The flag’s detail information appears.
3. Click **Delete** ( ).

Tagging Content, Library Items, Users, and Groups with Keywords

Tags are keywords that you can assign to users, groups, content, and library items. On a website, tags for a user or group appear in a profile, helping site visitors learn about a user or group.



You also can perform tag-based searching.



For example, you tag content related to a new product release with “Widgets 2.0.” Anyone could enter that term into the Search box, click **Tags** from the drop-down list, then **Search** to find all related content.

Tags are used in these Workarea locations:

- User Information screen’s **Tags** tab, for users or membership users
- Community Group screen’s **Tags** tab
- A content item’s **Metadata** tab > **Tags** area
- A library item’s **Metadata** tab > **Tags** area
- **Settings > Community Management > Tags**

NOTE: The CommunityGroupBrowser, CommunityGroupProfile, and CommunityGroupList server controls can display group tags and link them to a list of all groups that share the tag. Also, the *TagCloud* on page 1848 server control displays a weighted list of tags.

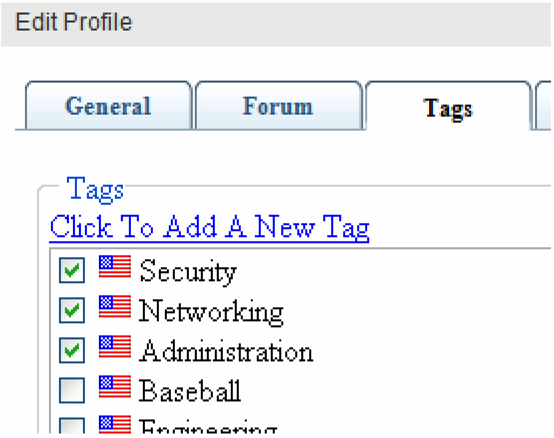
Tag Types

There are 2 tag types:

- Default
  - Created by system administrator in **Settings > Community Management > Tags** area
  - Appear as checkbox options where tags can be applied
- User-created
  - Created by user wherever tags can be applied

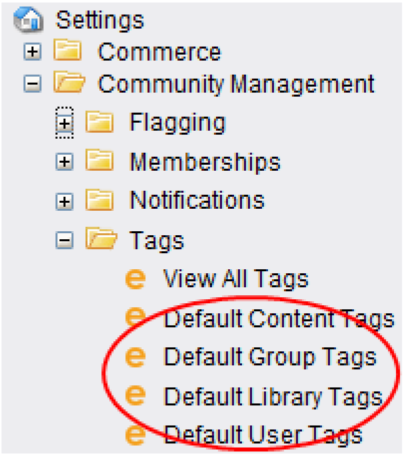
Creating Default Tags as Administrator

An Ektron administrator can create default tags for each object (user, user group, content or library item). For example, you want to let users associate themselves with a favorite race car driver. You create a default user tag for each driver’s name. When a user creates or edits an item for which you created the default tags, the tag appears and the user clicks check boxes to assign them.



Ektron provides screens for creating default tags for user groups, users, content and library items. They are available via **Settings > Community Management > Tags**.

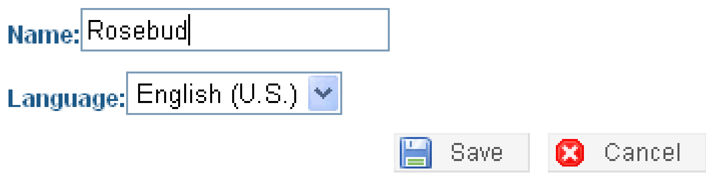
1. In the Workarea, navigate to **Settings > Community Management > Tags** and select on the the default tag items.



2. Select a language for the tag.
3. Add the tag in the empty text box. If no empty box appears, click **Add** ( ) then enter the tag.
4. Click **Save Tag**.

Creating Tags as End User

Users, community group leaders, and content editors can create their own tags. For example, while you are editing content, you decide that none of the default tags is correct. So, you create and assign a new tag: **Rosebud**. That tag is now applied to that content.

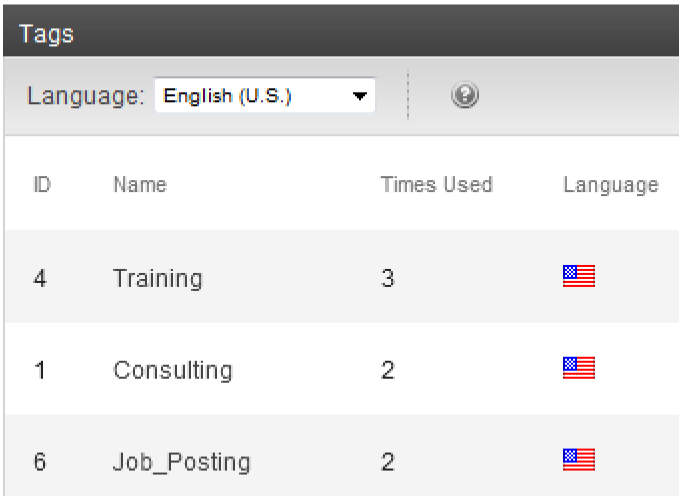


The tag also appears on the **Settings > Community Management > Tags** screen, where you can see its ID number. If someone creates another tag with the same name, it shares the

ID number with the previous one, and the **Times Used** increases from **1** to **2**. However, the new tag does not appear as a default on any screen.

Managing Tags

Administrators manage tags from the **Settings > Community Management > Tags** screen. This screen displays all default and user-created tags. You can filter the list by language. Click any tag's name to see its details.



This screen displays the following information about each tag.

- **ID**—Tag's integer ID
- **Name**—Tag's title
- **Times Used**—The number of times a tag has been assigned
- **Language**—Its language. This appears as a national flag. For example, American English appears as .

When you click a tag's name, its details appear on the View Tag screen.

- **ID**—Tag's integer ID
- **Language**—Tag's language
- **Name**—Tag's title
- **Tagged Type**—Shows how the tag is assigned: to a community group, user, content, or library item.
- **Times Used**—The number of times this tag is assigned to each Tagged Type

Deleting Tags

To delete each tag type:

- **User-created**
  - Deleting a single tag
    1. Open the item's **Tags** area. For example, for content, edit the **Metadata** tab.
    2. Uncheck the checkbox next to the tag.
    3. Publish the content.

- Deleting all occurrences of a tag
  1. Go to the **Settings > Community Management > Tags** screen.
  2. Click the tag.
  3. Click **delete** ( ). A confirmation message appears.
  4. Click **OK**.

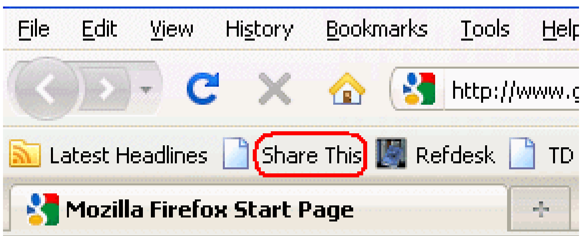
- **Default**—There are 2 methods for deleting default tags. Each has different results.
  - **Deleting a Default Tag**
    - No longer available for assignment to users, content, and so on.
    - Existing links to it remain
    1. Go to **Settings > Community Management > Tags**
    2. Select the screen for the kind of tag you want to delete (group, user, content or library).
    3. Select the language.
    4. Click ( ) to the right of the tag you want to delete. You are asked if you are sure. Click **OK**.
    5. Click **Save**.
  - **Deleting a Default Tag and All of its Links**
    - No longer available for assignment to users, content, and so on.
    - Existing links to it are deleted
    1. Go to the **Settings > Community Management > Tags** screen.
    2. Click the tag.
    3. Click **Delete** ( ). A confirmation message appears.
    4. Click **OK**.

Using Ektron's Micro-messaging Bookmarklet

A Micro-messaging bookmarklet, a feature of Ektron's Community Management, lets you use a micro-message to inform colleagues about a Web page without leaving it. To create this micro-message:

1. Navigate to a Web page.
2. Click a **Share This** link on the browser's Bookmark or Favorites menu/toolbar.

   NOTE: In Internet Explorer, these toolbar shortcuts are known as favorites. In Firefox, they are known as bookmarks. This documentation calls them bookmarks.

3. That action generates a link to that Web page as a micro-message. You can add a

comment.

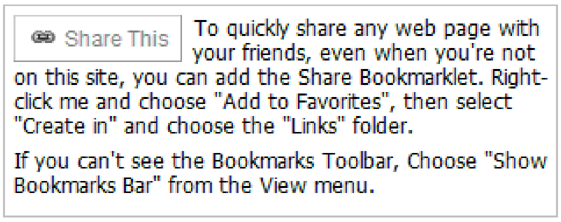
Submitting a Web Page Link as a Micro-message

PREREQUISITE

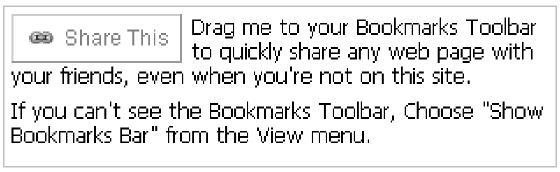
To enable the Bookmarklet feature, a developer places a *Bookmarklet* on page 1661server control on a page and (if desired) *Review and Modify the Post to Profile Form* on the facing page.

Before anyone can use the Micro-messaging bookmarklet feature, you must add a Bookmarklet link to your bookmark toolbar or menu.

1. Navigate to a page that contains a Micro-messaging bookmarklet link.



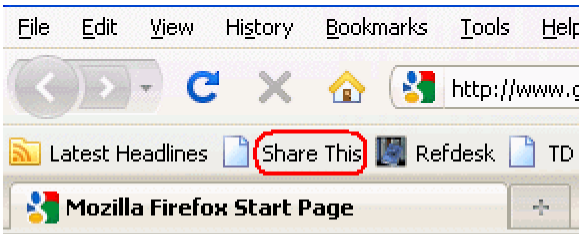
"Share This" button in Internet Explorer



"Share This" button in Firefox

NOTE: The text of the Micro-messaging bookmarklet link changes according to the user's browser. Also, the image above text reflects default text; developers can easily change it.

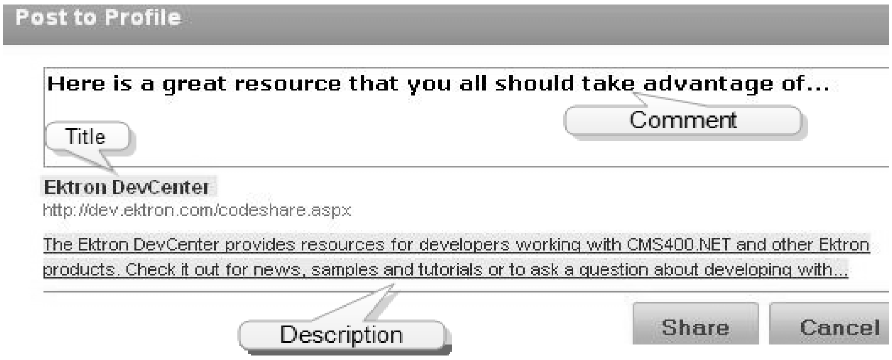
2. Right click a bookmarklet link and follow the screen instructions to add it as a Bookmark. The Bookmarklet appears on the toolbar.



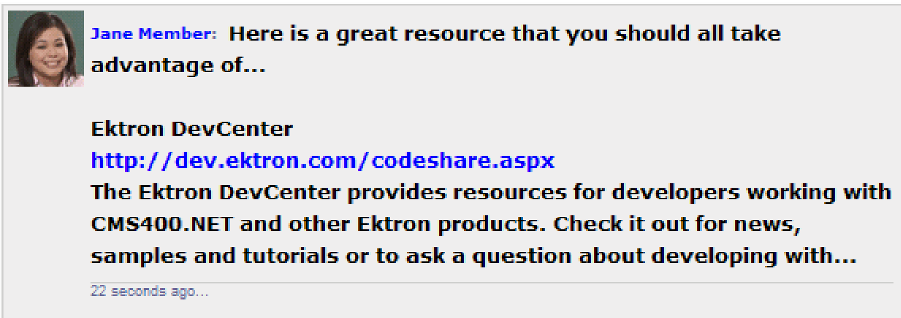
3. Navigate to a page that you want to post as a micro-message.
4. Click the bookmarklet link. The following screen appears.

NOTE: If you are not logged in to Ektron, you are prompted to do so.

5. Add comments to replace *What would you like to say?*
6. Click to edit the title and description.



7. Click **Share**. The post is shared in a micro-message with colleagues.



The micro-message appears in the user's Activity Stream if it is set up to track micro-messages.

Review and Modify the Post to Profile Form

Ektron provides the following sample form to appear when a user clicks the Micro-messaging bookmarklet link on the browser's Bookmarks menu.

The sample form is `siteroot/Workarea/share.aspx`. To modify this form or create your own, enter the new path into the Micro-messaging Bookmarklet server control's `FormURL` property.

NOTE: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

Here are a few things to note about this form's behavior.

- If a user is not logged it, a Login server control must be added to prompt the person to do so.
- The form lets the user enter or update 3 fields
  - comment entered by user
  - title tag text
  - meta description
- All text on the form (including the URL) cannot exceed 2000 characters.
- The form accepts plain text only—no formatting or images are allowed.
- This size of the screen is determined by the Bookmarklet server control's `PopupHeight` and `PopupWidth` properties.
- The form generates a Micro-message, so it follows the conditions for how Micro-messages are published.

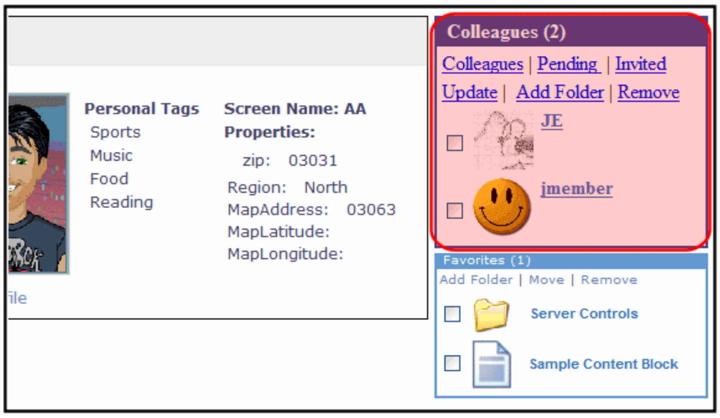
Using the Friends Server Control

The Friends server control displays a list of:

- **current colleagues**—users who accepted your invitation to be a colleague, or whose invitation to be a colleague you accepted
- **pending colleagues**—users who sent you a colleague request, which you have not yet accepted
- **invited colleagues**—users to whom you have sent colleague requests, which have not yet been accepted

The control can lets you navigate between views.

The Friends server control also lets you designate a *Selected Colleague*, a special category whose members can view documents and photos that regular colleagues and the public cannot view. For information about the Friends server control properties, see *Friends (Colleagues)* on page 1747.



To manage existing colleagues on the website, find the **Colleague** area of your profile page where you can view, approve, and remove colleagues.

Managing Colleagues

The following sections explain how to manage colleagues.

Viewing Pending Colleague Requests

Pending colleagues are users who sent you a colleague request which you have not yet accepted. To view pending colleagues on the website, navigate to the **Pending Colleagues** area of your profile page. From this area, you can accept or decline colleague requests.

Accepting a Colleague Request

Accepting a colleague request adds the user to your colleagues list. This lets you access additional information on the colleague's profile page.

1. Navigate to the **Pending colleagues** area of your profile page.
2. Place a check in the box next to each colleague whose request you want to accept.
3. Click **Approve**. The page refreshes, and the selected users are removed from the Pending Colleagues list and added to the colleagues list.

Declining a Colleague Request

Declining a colleague request cancels the request. When you decline the request, it is removed from your Pending Colleagues list and the requester’s Invited list.

1. Navigate to the **Pending Colleagues** area of your profile page.
2. Place a check in the box next to each colleague whose request you want to decline.
3. Click **Remove Selected**. A dialog box asks you to confirm that you are declining the colleague.
4. Click **OK**. The page refreshes, and the selected users are removed from your Pending Colleagues list and requester’s Invited list.

Viewing Invited Colleagues

The Invited colleagues list displays users to whom you've sent colleague invites. From this screen, you can delete requests that have not yet been accepted. See Also: *Viewing Invited Colleagues* above To view sent colleague requests, navigate to the **Invited Colleagues** area of your profile page.

Canceling Invited Colleagues

1. Navigate to the **Invited Colleagues** area of your profile page.
2. Place a check in the box next to each colleague whose invite you want to cancel.
3. Click **Remove Selected**.

Removing Colleagues

1. Navigate to the **Colleagues** area of your profile page.
2. Place a check in the box next to each colleague you want to remove.
3. Click **Remove Selected**.

Designating a Selected Colleague

Selected colleague is a special category of user who can be given access to documents and photos that regular colleagues cannot view. A user makes this designation when sharing a Workspace, which can be shared with the Public, all colleagues, or selected colleagues. See Also: *Using the Friends Server Control* on page 1252

1. Navigate to the **Colleagues** area of your profile page.
2. Check the box next to each colleague you want to make a Selected Colleague.
3. Click **Update**. **Selected Colleague** appears next to the colleague.

To change a selected colleague back to a colleague, check the box next to a selected colleague and click **Update**.

Creating a Colleague Group Folder

Grouping lets you organize colleagues by folder. For example, you place all family members in a "Family" folder. You can only group current colleagues, not colleagues who are pending or invited.

The following sections explain how to work with Colleague folders.

- *Creating a Colleague Group Folder* below
- *Placing a Colleague in a Group Folder* below
- *Renaming a Folder* below
- *Deleting a Folder* below

Creating a Colleague Group Folder

1. Make sure the `DisplayMode` property of the Friends server control is set to **Directory**.
2. Log in to the website.
3. Navigate to your profile page or a page the contains a Friends server control.
4. Click **Add Folder** in the Friends server control.
5. Enter a **Name** and **Description** for the folder.
6. Click **OK**.

Placing a Colleague in a Group Folder

1. Navigate to your profile page or a page the contains a Friends server control.
2. Check one or more colleagues.
3. Click **Move** on the Friends server control. A list of folders appears. Select the folder to which you want to move them.
4. Click **OK**.

Renaming a Folder

1. Navigate to your profile page or a page the contains a Friends server control.
2. In the **Colleagues** section of the screen, click **Edit Folder** () next to the folder's title. A dialog box appears.
3. Change the name, description or both.
4. Click **Save**.

Deleting a Folder

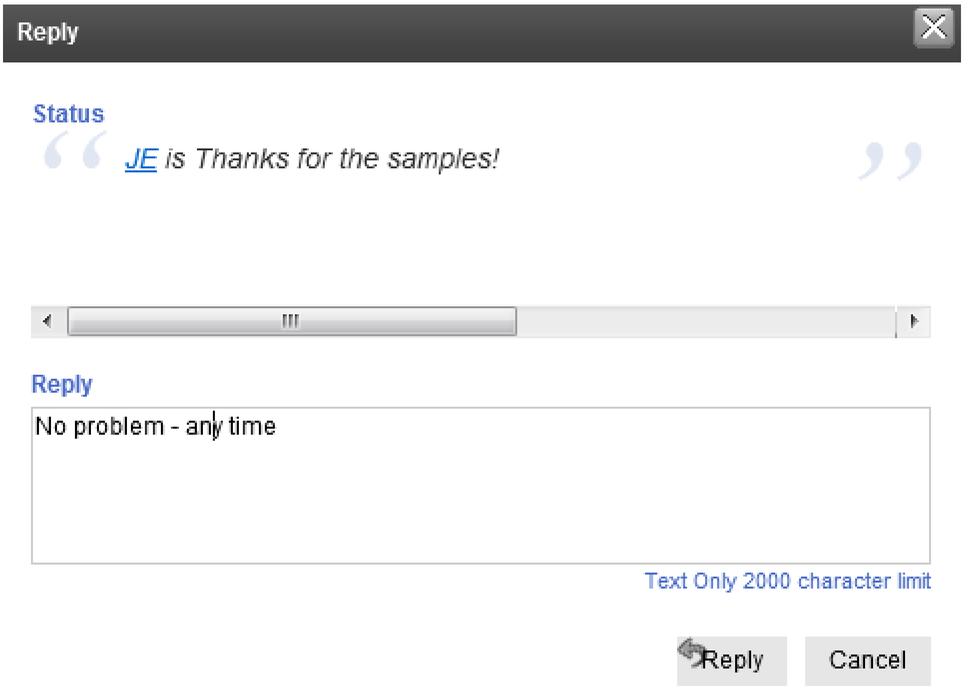
WARNING! Deleting a folder deletes all colleagues within it. To retain the colleagues, move them from the folder first by clicking the folder, checking the colleague, and clicking **MoveUp One Level**. Deleting a folder also deletes all of its subfolders.

1. Navigate to your profile page or a page the contains a Friends server control.
2. In the **Colleagues** section of the screen, click **Edit Folder** () next to the folder's title. A dialog box appears.
3. Click **Delete**.
4. Click **Save**.

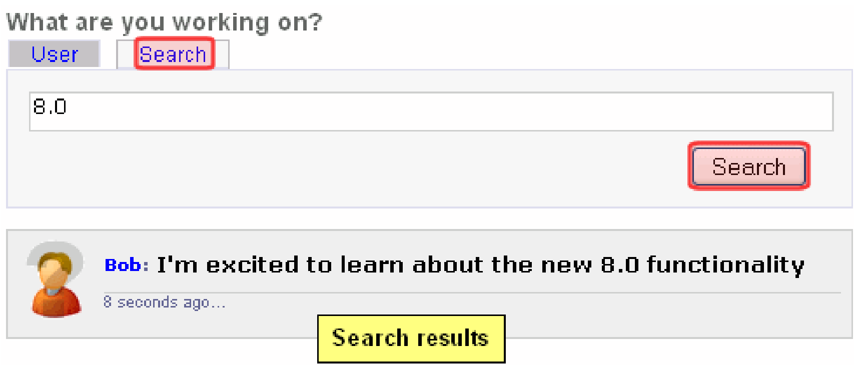
Using the Micro-messaging Server Control

The Micro-messaging server control allows users to post brief messages. It resembles micro-blogging services like Twitter. For information about the Micro-messaging server control properties, see *Micro-messaging* on page 1801.

A user can reply to another user's micro-message.



The control also lets users search micro-messages. See Also: *Searching for Micro-messages* on page 1263



In addition, Micro-messages are a type of notification.

This feature builds tighter-knit communities by allowing members to share information and feel they have a personal stake in that information.

NOTE: If you are in a load-balanced environment, the same reply may appear several times. If this problem occurs, stop the Ektron notification service on all but one of the servers in the cluster.

This section also contains the following topics.

NOTE: A user's **Private Profile** setting has 3 possible values: **Public**, **Private** and **Colleague**. When discussing this control and these settings, **Private** and **Colleague** both act as **Colleague**.

Micro-Message Controls on Sample Sites

You can find examples of the Micro-message server control in these Ektron sample sites. You can copy and edit the samples as needed to build your own pages.

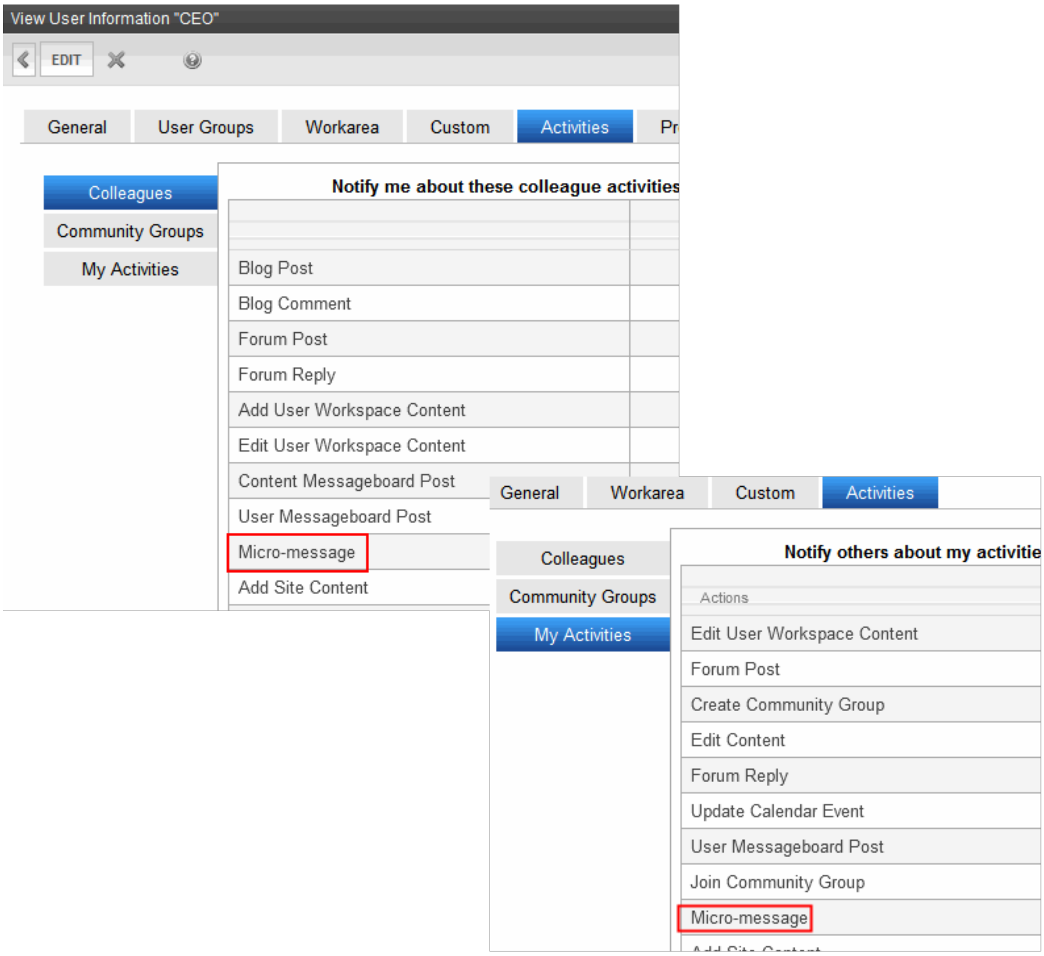
- Ektron Technology site > Login
  - user or colleague mode—User Profile page (top right corner)
  - time line mode—`http://your server/Ektrontech/timeline.aspx`

Micro-messages are an Activity Type

A micro-message is type of Ektron activity, *like adding content or joining a Community Group*. As such, a new micro-message can generate a notification. See Also: *Sending Notifications to a Community* on page 1194

Like other notifications, Micro-messages can appear on an Activity Stream control.

Users can determine if they want to be notified about colleagues' Micro-messages on the **User Profile > Activities > Colleagues** tab, and if want to notify others on the **My Activities** tab.



Micro-messaging Display Modes

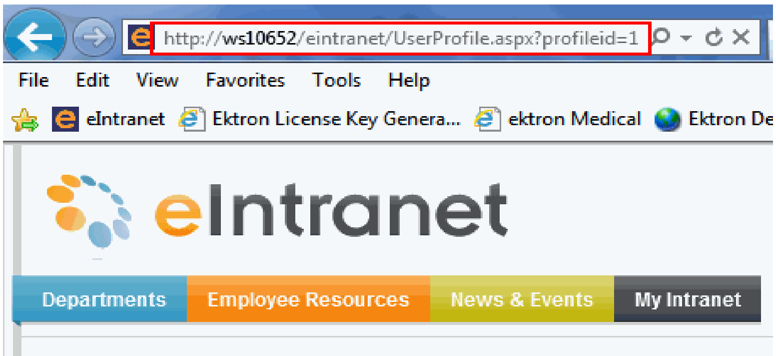
This Micro-messaging server control has 4 modes, which let you control the messages being displayed.

Associating the Control with a User

Like other Ektron server controls, there are 2 ways to specify the user associated with the control.

- the server control's `DefaultObjectID` property. Do this to display a particular user's micro-messages on a page.
- the user ID is retrieved from the page URL, which typically contains the logged-in user

ID (see example below). Do this to display micro-messages of the logged-in user.



User Mode

Use this mode to show micro-messages for a specified user, such as on a User Profile page. For example, when you view your own page in User Mode, you can

- see your messages
- submit a new micro-message. For example, you update your status.
- search micro-messages. See Also: *Searching for Micro-messages* on page 1263.

The following example of the Micro-messaging server control with the Mode property set to `User`.

In User Mode, you can view the control that is associated with another user. For example, when you view another's profile, which contains the Micro-messaging control in User Mode, you see only micro-messages of the user who owns the profile. You cannot submit a micro-message from your colleague's profile page, nor can you search micro-messages. For example, you and Steve are colleagues. When you view Steve's profile page:

- you can see all of Steve's messages
- you can see messages from colleagues they have in common
- you *cannot* update Steve's status
- you *cannot* search messages

Colleagues Mode

Colleagues Mode displays micro-messages from the user associated with the control *and the user's colleagues*. Use this mode to show micro-messages for these users, such as on a user profile page. When you are logged in and visit a page containing a Micro-messaging control in colleagues mode, you can:

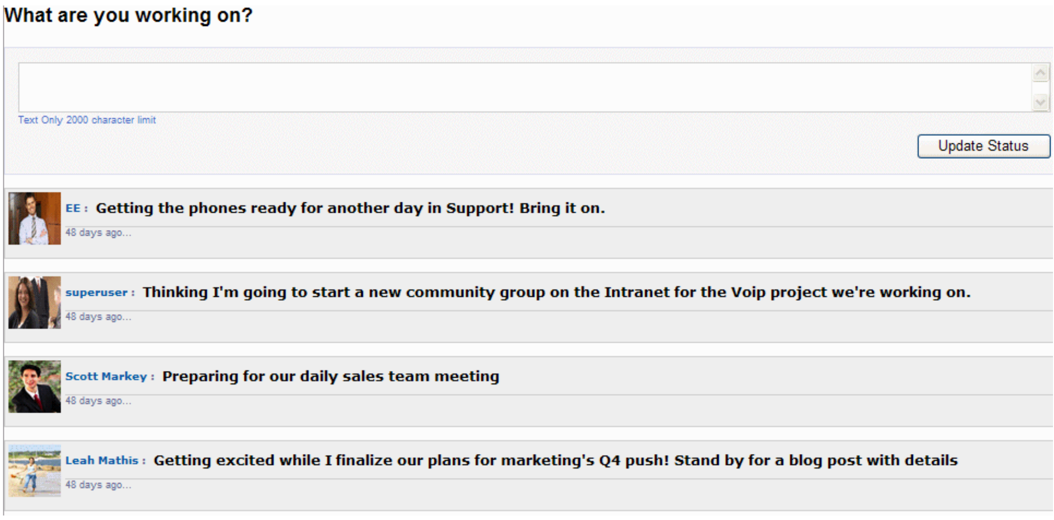
- see the colleague's messages
- see the colleagues’ messages from other colleagues
- update the colleague's profile
- search micro-messages. See Also: *Searching for Micro-messages* on page 1263

You also can view the control in Colleagues Mode when it is associated with another user. For example, when you view another user’s profile, which contains the Micro-messaging control in Colleagues Mode, you see only micro-messages from the user who owns the profile and the colleagues that you have in common with the user. You cannot submit a micro-message from the colleague’s profile page, nor can you search micro-messages. For example, you and Steve are colleagues. When you view Steve’s profile page:

- you can see Steve’s messages
- you can see messages from colleagues you have in common
- you *cannot* update Steve's status
- you *cannot* search messages

TimeLine Mode

This mode displays micro-messages for a site’s users whose **Private Profile** setting is set to **Public**. This mode displays a chronological stream of micro-messages from all such users, with the most recent at top.

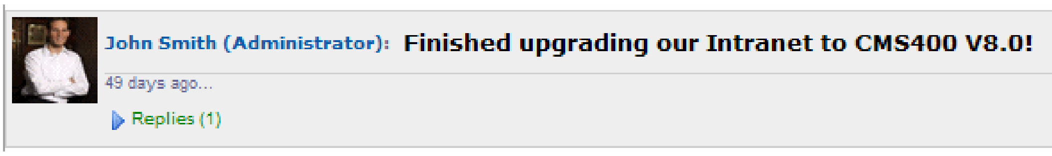


Whenever a user whose profile is set to Public submits a micro-message, it’s added to the time line.

From the time line page, logged in users can reply to and search micro-messages. See Also: *Replying to a Micro-message* on page 1265, *Searching for Micro-messages* on page 1263

Message Mode

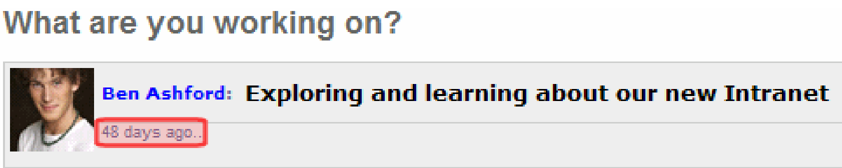
This mode displays a single micro-message on a page.



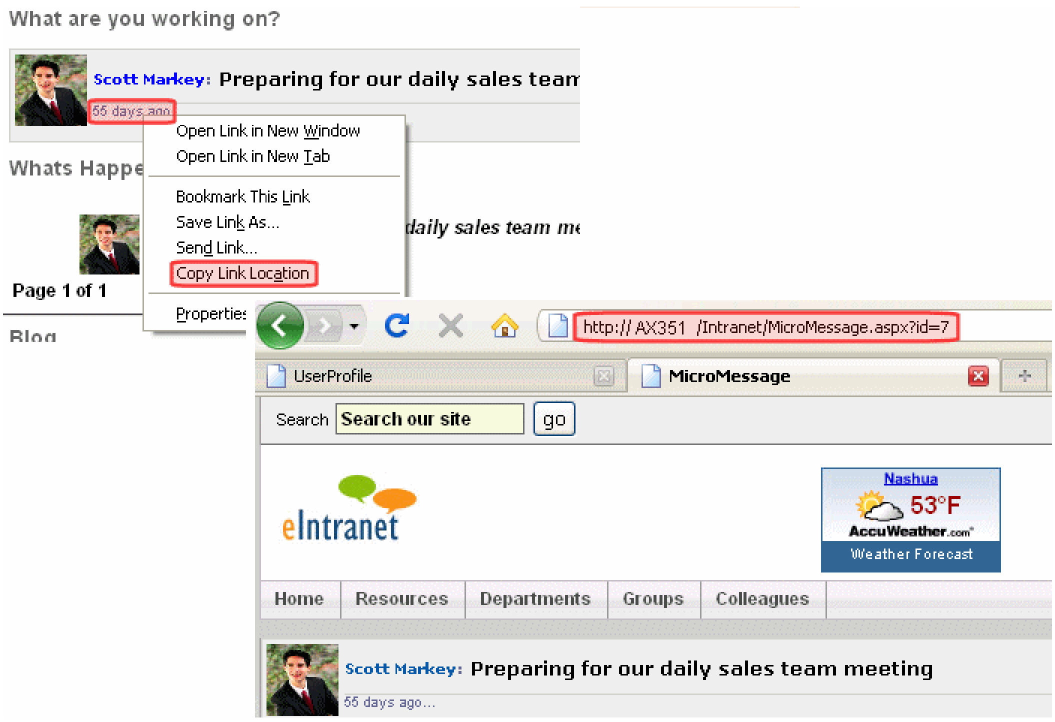
For example, John sends his boss a link to a micro-message that praises his work. When John's boss clicks the link, a page that contains this control appears. See Also: *Making a Hyperlink to a Single Page Version of a Micro-message* below

Making a Hyperlink to a Single Page Version of a Micro-message

Each micro-message includes a *time lapse*, that is, the length of time since a message was submitted. See example below.



Each micro-message's time lapse can become a hyperlink that contains the ID of that message and a destination window. Users can click the link to view that message in the new window.



The destination window must

- be identified in the properties of the Micro-messaging server control that displays the original message
- contain a Micro-messaging server control in Message Mode

Users can also copy the link and send it to another user, who can then view the message. To copy a time lapse's link information, hover over the link, right click, and select **Copy Shortcut** (if using Internet Explorer) or **Copy Link Location** (if using Firefox).

NOTE: If someone sends a micro-message link to another user who is ineligible to see the message, it does not appear. To see the message, either the user who submitted it has the profile set to **Public,** or the link recipient must be a colleague of the message's creator.

The following example shows how to set up this capability.

- `Page1.aspx` contains a Micro-messaging server control that displays a user's micro-messages. The messages' time lapses are hyperlinks.
- `Page2.aspx` has a Micro-messaging server control in Message Mode. It displays the individual message whose time lapse was clicked on the first page.

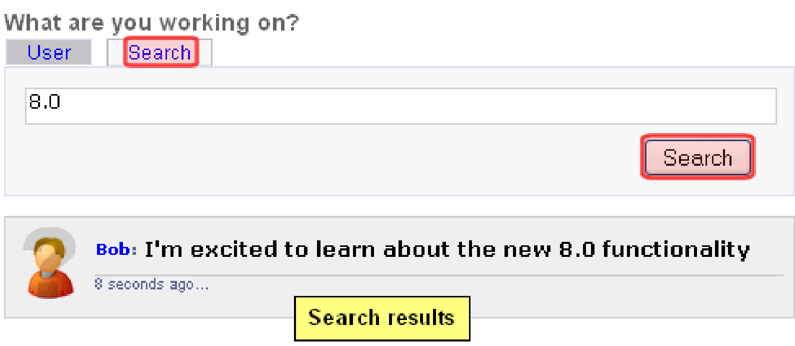
NOTE: For a full description of the Micro-message properties, see *Using the Micro-messaging Server Control* on page 1256.

1. On `Page1.aspx`, add a Micro-messaging server control.
2. Set the `DynamicObjectParameter` to `id`.
3. Set the `TemplateMessage` to the path to `Page2.aspx`.
4. Set the `Mode` property to anything other than `Message`.
5. Save `Page1.aspx`.
6. On `Page2.aspx`, add a Micro-messaging server control.
7. Set the `DynamicObjectParameter` to `id`.
8. Set the `Mode` property to `Message`.
9. Save `Page2.aspx`.

Now, when you log in to your site and navigate to `Page1.aspx`, you see a list of your micro-messages. If you click the time lapse on any message, `Page2.aspx` loads, showing the message you clicked.

Searching for Micro-messages

The Micro-messaging server control includes search functionality that prompts a user to enter terms and returns micro-messages that match them. The search looks through micro-messages only. It does *not* search content, products, users, or groups.



When searching, a user can only find micro-messages submitted by

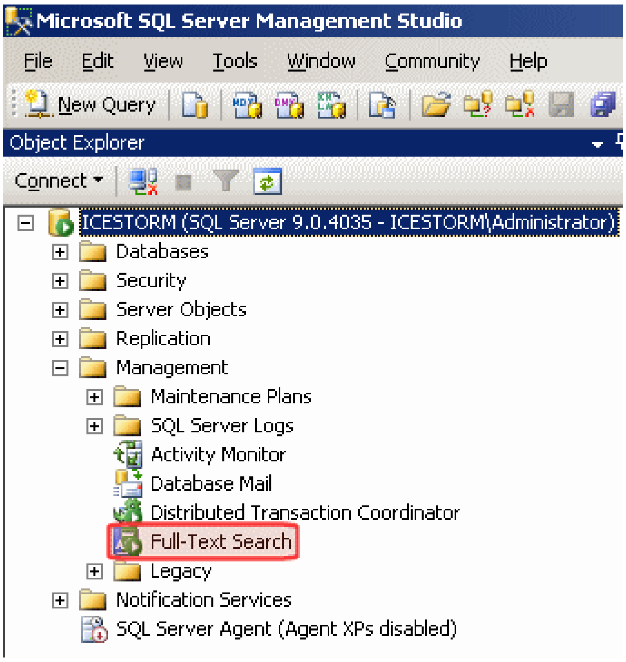
- one's self
- one's colleagues

- users whose profile is set to public

The following topics explain how to enable and use the micro-message search.

Enabling the Micro-message Search

The micro-message search requires your server to have the Full Text Search component of Microsoft SQL Server.



You can install the Full Text Search component during the installation of Microsoft SQL Server.

Installing the Full Text Search Component

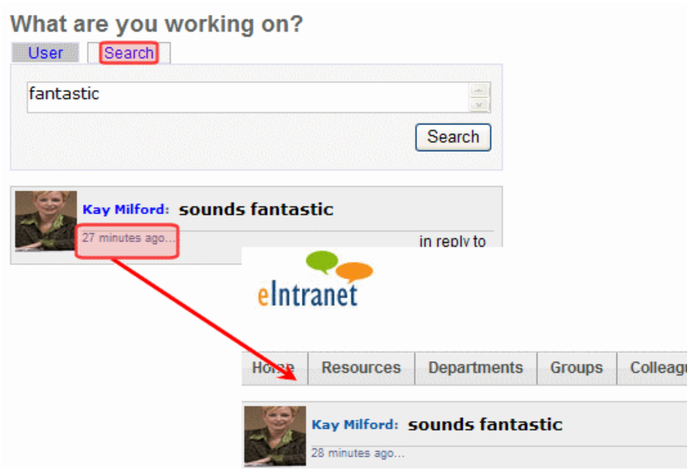
If the Full Text Search component is not installed, and you want to use the Micro-messaging search functionality, insert the SQL Server installation disc into your computer and look for **Full Text Search**.

After the Full Text Search is installed, run the FullTextIndex.sql script on your database. This script is located in:

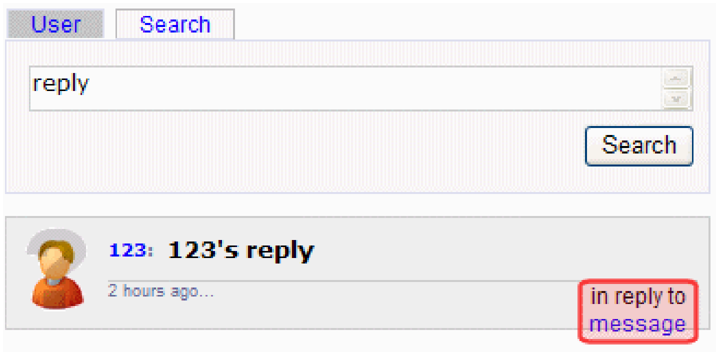
```
Program Files\Ektron\CMS400vxversionnumber\
  Utilities\SiteSetup\Database\FullTextIndex.sql
```

Running a Micro-message Search

When Micro-message search is enabled, a **Search** tab appears on the control. To use the search, click the tab and enter search terms.



When results appear, you can click any message's time span to proceed to the message itself. If a reply appears among search results, you can click the link indicated below to view the original message.



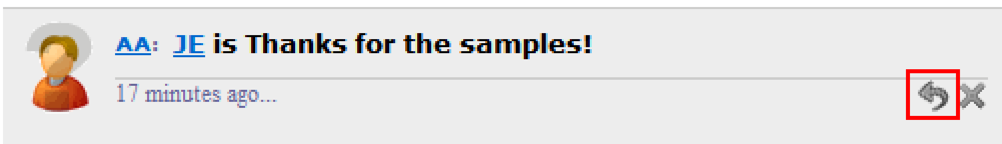
Entering Multiple Search Terms

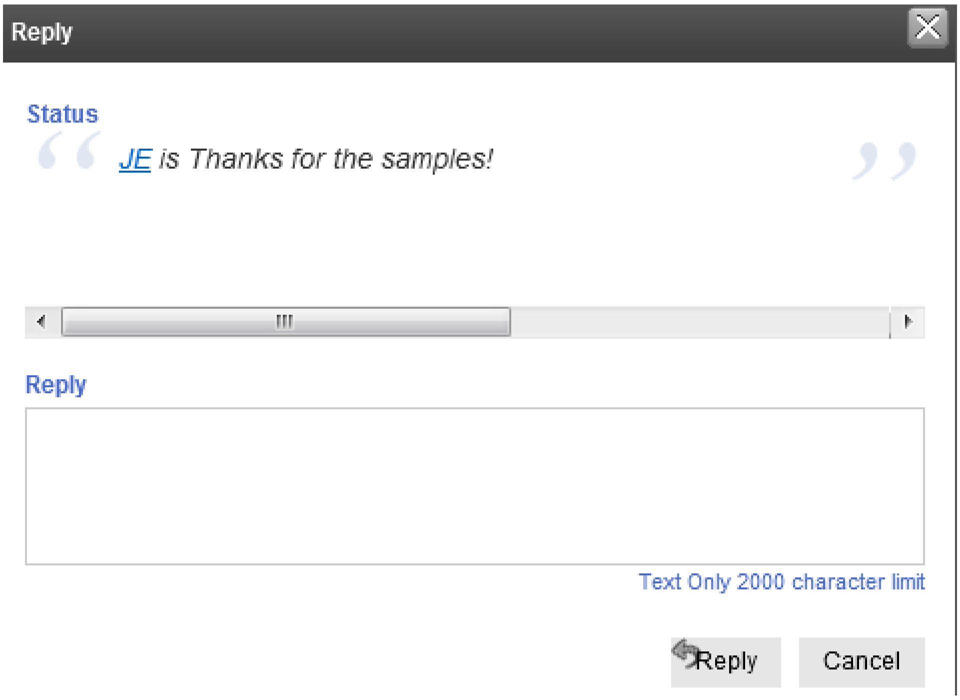
You can enter more than one search term. If you do, the terms have an "and" relationship. For example, if you enter **Community** and **Group**, only messages containing *both* Community *and* Group are found.

Replying to a Micro-message

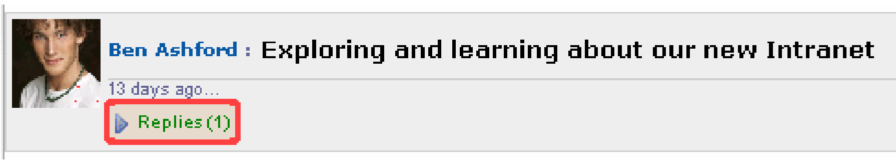
The Micro-message control lets users reply to micro-messages and nests the reply with the original message. Anyone who can see a message can reply to it, and see all other replies.

To add a reply, hover over a message and click **Reply** (). When you do, a dialog box prompts you to submit a reply of up to 2000 characters. The box also displays the original message.

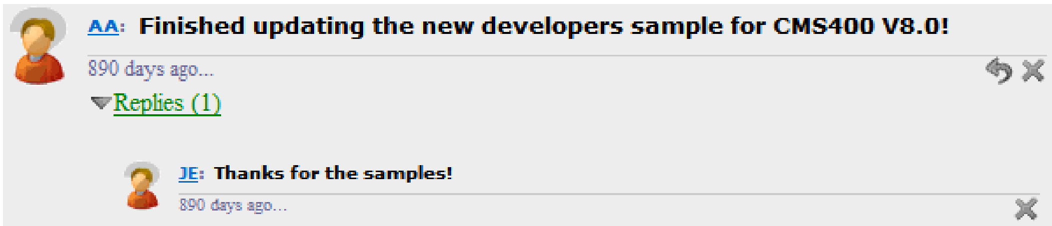




Replies do not appear when a micro-message is viewed. Instead, a **Replies** link appears below the comment. The number of replies appears next to the link.



Click **Replies** to view them. The newest replies are at the top.



To remove a reply, click **Delete** ( ), which appears when you hover over the reply. Only the user who submitted the reply and the message board owner can delete replies.

NOTE: If you are in a load-balanced environment, the same reply may appear several times. If this problem occurs, stop the Ektron notification service on all but one of the servers in the cluster.

Filtering Micro-message Spam

You can filter spam from Micro-messages. Ektron defines spam filtering as preventing users from posting a micro-message or replying using:

- the same message more than once a day
- any second message within a specified time period after posting a first
- the same message within a specified time period

NOTE: If a user enters a micro-message and a reply that have the same text, each can be sent once without being stopped by the spam filter. However, if either is sent a second time within the specified time period, the spam filter blocks it.

The Micro-messaging server control also lets you define custom spam filters.

To define a spam filter, use the `SpamControlType` property on the MessageBoard server control. The table below provides possible values and examples of how to set that property.

Ektron lets you filter spam from your message boards. Ektron defines *spam filtering* as setting the following limits in MessageBoard server control's SpamControlType property:

- **SameUserSameMessageSameDay**—Prevent a user from posting the same comment more than once a day.
- **SameUserTimeDelay**—set the SpamTimeSpan property to 1800 to prevent a user from posting any other comment for 30 minutes.
- **SameMessageTimeDelay**—set the SpamTimeSpan property to 7200 to prevent a user from posting identical comments for 2 hours.
- **Custom** (and add the code to the code-behind page of the template containing the MessageBoard server control)—Use your own spam filter code.

Creating a Custom Spam Filter

You can create your own spam filter in the code-behind of the page that contains the Micro-messaging control. To do this, set the `SpamControlType` property to `Custom`, call the `CustomSpamMethod` in the page load event, and point it to your custom spam filter method.

The following Visual Basic example blocks the text "Hello World."

```
Partial Class Default
Inherits System.Web.UI.Page
Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles
Me.Load
Me.MicroMessaging1.CustomSpamMethod(AddressOf SpamHandler)
End Sub
Private Function SpamHandler(ByVal data As   Ektron.Cms.MicroMessageData) As Boolean
If data.MessageText = "Hello World" Then
Return True
End If
End Function
End Class
```

Using the PhotoGallery Server Control

NOTE: The PhotoGallery server control is deprecated. If you are already using the PhotoGallery server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The PhotoGallery server control helps users and community groups track and manage images. They can organize the images in any number of taxonomy categories. For example, a user might have the following organization.

- Science
    - Biology
        - Animals
            - Mammals
                - Lions
                - Bears

After you upload an image to the a Photo Gallery, site visitors can navigate through its taxonomy and view the image.

When you associate this control with a community group, you can allow group members to add, remove and control the sharing of folders in a workspace. Because this feature is implemented on a group-by-group basis, it is controlled in the Workarea's **Edit Community Group** screen. See Also: *Allowing Community Group Members to Work with Folders* on page 1184

For information about PhotoGallery properties, see *PhotoGallery* on page 1808.

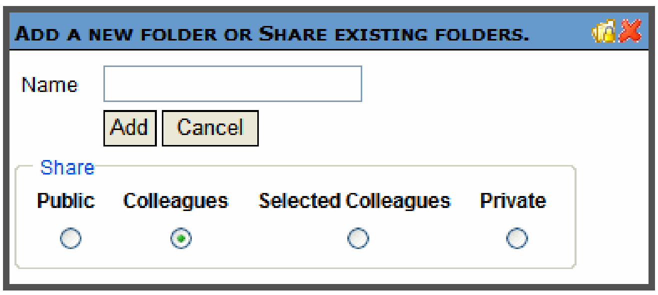
This section also contains the following topics.

Categories

Adding a Category

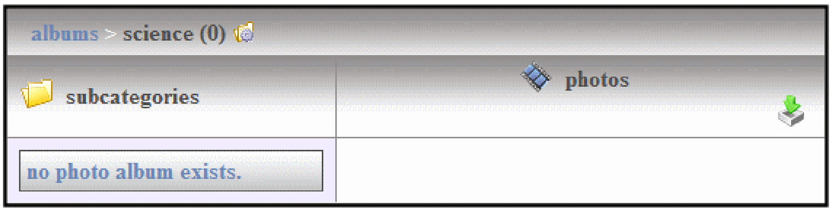
You can add categories to your photo gallery to sort your photos. You also can use categories to identify the types of users who can view the photos. For example, one category of photos may be private, while another may be shared with all of your colleagues.

1. On the website, navigate to a **User's Profile Page > Photo Gallery**.
2. Click **Manage Folder** ( ). The Add box appears.



3. Enter a **Name** for the folder.

4. In the **Share** area, select with whom you want to share your photos.
   - **Public**—Anyone who can access your profile
   - **Colleagues**—Only colleagues (either you accepted their invitation, or they accepted yours)
   - **Selected Colleagues**—Colleagues that you designated as *selected*. See Also: *Using the PhotoGallery Server Control* on page 1267
   - **Private**—Only you
5. Click **Add**. When the page refreshes, it opens to the newly added folder.



Renaming a Category

1. On the website, navigate to a **User's Profile Page > Photo Gallery**.
2. Click **Edit** ( ), located to the left of the category's title. The Edit box appears.
3. Change the name of the category.
4. Click **Save**.

Deleting a Category

WARNING! Deleting a category permanently deletes all photos, as well as its subcategories.

NOTE: You can not delete the top-level folder, Albums.

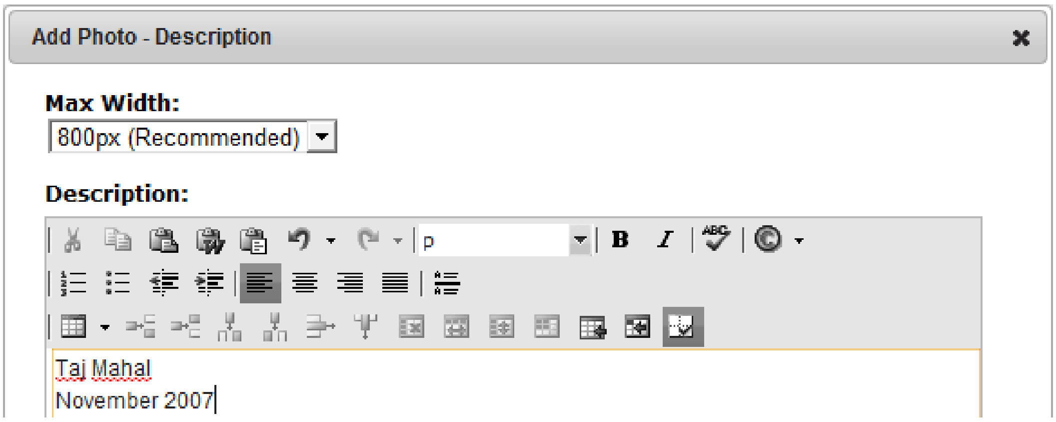
1. On the website, navigate to a **User's Profile Page > Photo Gallery**.
2. Click **Edit** ( ), located to the left of the category's title. The Edit box appears.
3. Click **Delete**. A dialog box appears asking you to confirm.
4. Click **OK**.

Photos

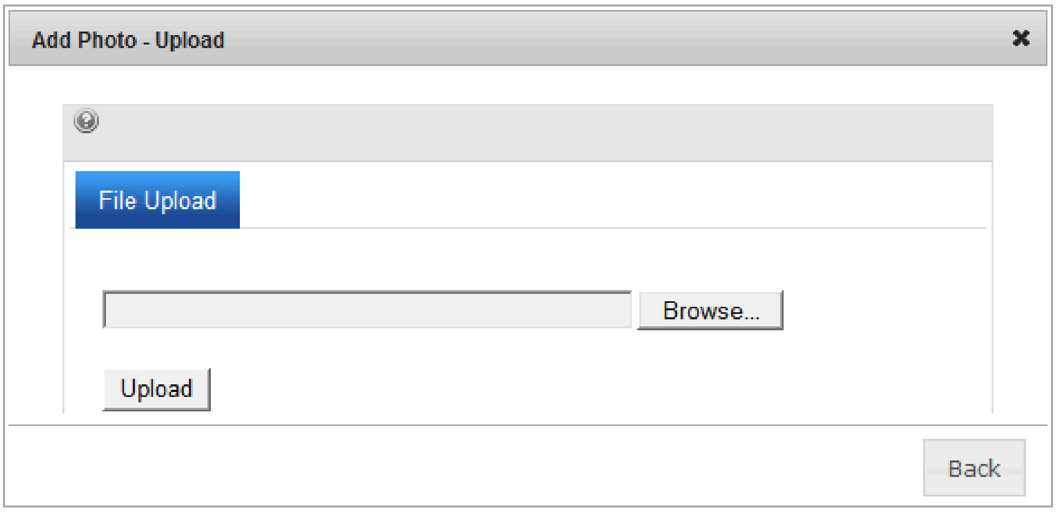
Adding Photos to a Photo Gallery

1. On the website, navigate to a **User's Profile Page > Photo Gallery**.
2. Select a category where the photo will be added. If you want to create a new category, see *Adding a Category* on the previous page
3. Click **Add Photo**. The Add Photo box appears

4. In the Photo Data area, enter a Description and Maximum Width.



5. Click **Next**. The Add Photo dialog appears. Its appearance varies according to your browser, as explained in *Working with Assets in the Document Management System* on page 310.



6. User the **Browse** or **Choose File** button to navigate to the photo in your file system. Or, you may be able to click the **Drag Drop** tab and drop a photo in the Add box. A status box shows the files being uploaded. The page refreshes, and the photo appears in the gallery.

Changing a Photo Title or Description

1. On the website, navigate to a **User’s Profile Page > Photo Gallery**.
2. Select the category which contains the photo you want to change.
3. Click the triangle to the right of the photo’s title and choose **Edit Properties**.
4. Edit the photo’s Title, Description, or both.
5. Click **Save**.

Moving and Copying Photos

1. On the website, navigate to a **User’s Profile Page > Photo Gallery**.
2. Select the category from which to move or copy the photo.
3. Click the triangle to the right of the photo’s title and choose **Copy**.
4. Select the category to which the photo will be moved and click **Manage**.
5. Click **Move** or **Copy**. A dialog box asks you to confirm the action.
6. Click **OK**.

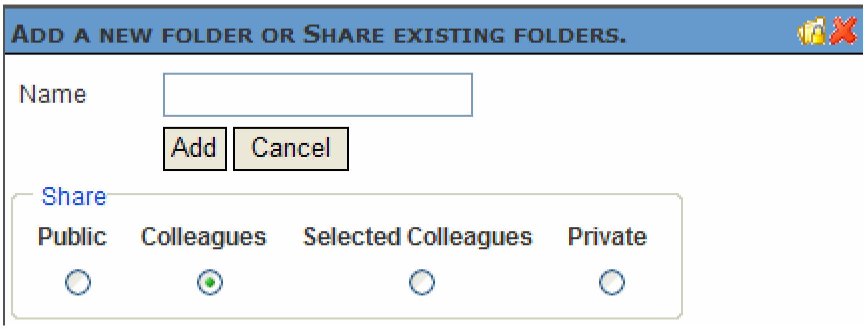
Deleting a Photo

1. On the website, navigate to a **User’s Profile Page > Photo Gallery**.
2. Select the category which contains the photo you want to delete.
3. Click the triangle to the right of the photo’s title and choose **Delete**. A dialog box asks you to confirm.
4. Click **OK**.

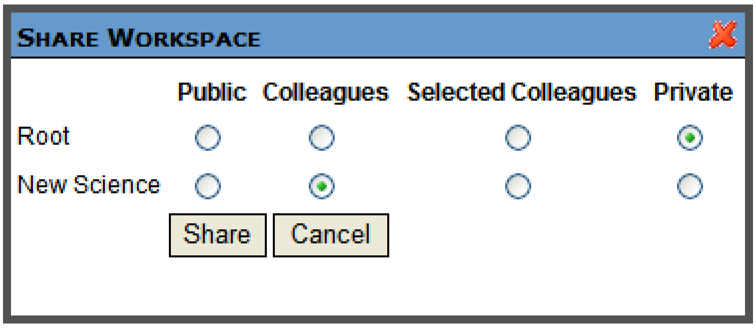
Sharing Photos

The Photo Gallery lets you share photos with your colleagues. You can share photos with the Public, Colleagues, Selected Colleagues, or keep them private. You apply sharing options to categories, not individual photos. See Also: *Public—Anyone who can access your profile* on page 1269

1. On the website, navigate to a user's **Profile Page > Photo Gallery**.
2. Click **Manage Folder** ( ). The Add box appears.



3. Click **Share Folder** ( ). The Share Workspace box appears.



4. Select with whom to share your photos.
   - **Public**—Anyone who can access your profile
   - **Colleagues**—Only colleagues (either you accepted their invitation, or they accepted yours)
   - **Selected Colleagues**—Colleagues that you designated as *selected*. See Also: *Using the PhotoGallery Server Control* on page 1267
   - **Private**—Only you
5. Click **Share**.

Saving a Photo to Your Local System

1. On the website, navigate to a **User's Profile Page > Photo Gallery**.
2. Select the category that contains the photo you want to save.
3. Click the triangle to the right of the photo's title and choose **Save As...** A dialog box asks you to open or save the file.
4. Click **Save**.

Using the SocialBar Server Control

The SocialBar server control lets users of a community website bookmark colleagues, community groups, and content. The following table explains the details.

Item being bookmarked	Description
Users	• Sends colleague requests • Removes colleagues when a user visits another user's profile page
Group	• Join and leave community group • Invite others to join group
Content	Add or remove content and URLs from a user's Favorites. See Also: *Favorites* on page 1723

The Social Bar control also is used to bookmark Web pages with Social Bookmarking services, such as Digg.com or del.icio.us. By default, Digg.com and del.icio.us are loaded in the `Items` property of the server control.

In addition, the Social Bar control can print or email a Web page, and invite non-site users to become members of the site. Clicking **Invite** links to a Web page that hosts the Invite server control. See Also: *Using the SocialBar Server Control* above.

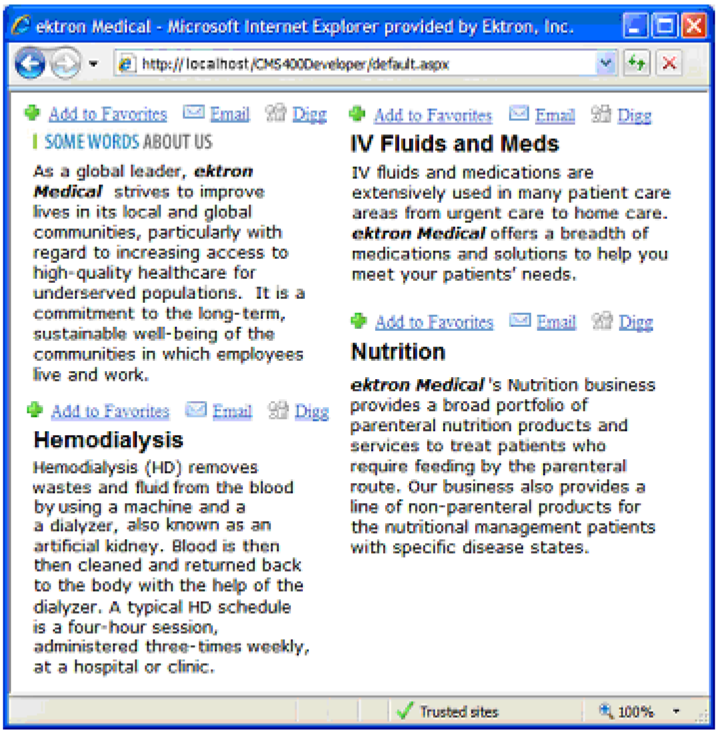
For information about SocialBar properties, see *SocialBar* on page 1845.

Adding a Web Page URL to a Favorites Via the Social Bar

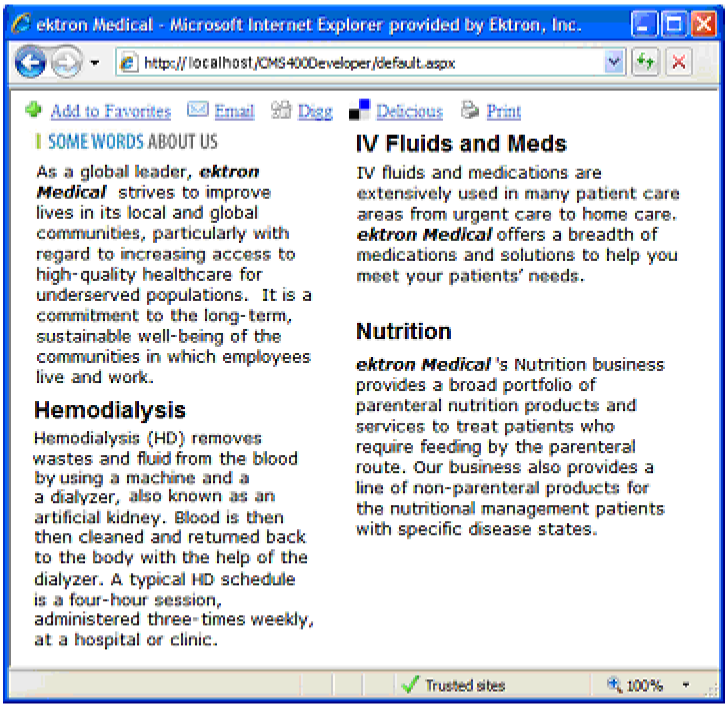
You can let users add a Web page's URL to their Favorites when they click **Add to Favorites** on the Social Bar. Typically, you would do this if more than one content item appears on a Web page, but you want only one Social Bar control on the page.

1. Drag and drop a SocialBar server control on a Web form.
2. Set the `DefaultObjectID` property to **0** (zero).
3. Leave the `DynamicObjectParameter` property blank.
4. If it is not already there, copy the comma-separated list of items from the `Items` property to the **Addto** item property.
5. Set the `ObjectType` property to **Content**.

The image below shows a Web page with several content items. A Social Bar control is associated with each one. In this example, when a you click **Add to Favorites**, you add the associated *content item* to your Favorites.



In the second image, one Social Bar appears on the Web page with several content items. In this example, if you click **Add to Favorites** on the Social Bar, you add the Web page's *URL* to your Favorites.



See Also: *Using the SocialBar Server Control* on the previous page

Sending a Private Message from the Social Bar

You can send private messages to another user or the community group administrator from the Social Bar control.

1. Drop a SocialBar server control on a user's profile or community group's page.
2. Set the `ObjectType` property to User or Group.
3. Add either **PrivateMessageUser** or **PrivateMessageAdmin** to `Items` property.
   - Use `PrivateMessageUser` to let a user send a message to the user whose profile is being viewed.
   - Use `PrivateMessageAdmin` to let a user send a message to the group administrator.
4. In the `MessagingUrl` property, identify a page that contains the Messaging server control. See Also: *Using the SocialBar Server Control* on page 1273
5. Make sure the `DynamicObjectParameter` is set, if necessary.

Tweeting the Current URL

You can let site visitors use Twitter to tweet their current browsing location by adding the Twitter item to the list of parameters in the SocialBar's `Items` property. After the item is added, a Twitter icon and link appear in the Social Bar. When you click the link, Twitter is launched. After you log into your Twitter account, your current browsing location appears in the "What are you doing?" status box. You then can click Twitter's **Update** button to post the status.

1. Drag and drop a SocialBar server control on a Web form.
2. Make sure the `DefaultObjectID` property is set to **0** (zero).
3. Leave the `DynamicObjectParameter` property blank.
4. If it is not already there, add the **Twitter** item to the comma-separated list in the `Items` property.
5. Set the `ObjectType` property to **Content**, **User** or **Group**, depending on the type of page you are editing.

Using the CommunityDocuments Server Control

Part of the Community Platform, this server control lets users create and upload individual user content to the user profile or group content to the group profile. The content can be HTML content or an asset, such as a .PDF document or a .jpeg file. For reference information, see *CommunityDocuments* on page 1685.

Using the CommunityDocuments Server Control in an Individual User Profile

Adding Folders to Your Workspace

1. On the website, navigate to a **User's Profile Page** > **Workspace**.
2. Click **Manage Folder** (). The Add Folder box appears.
3. Enter a **Name** for the folder.

4. Determine with whom you want to share the folder's documents. For a description of the **Share** options, see *Sharing Workspace Content* on the facing page.
5. Click **Add**. The page refreshes and displays the newly added folder.

Editing a Folder Name in Your Workspace

1. On the website, navigate to a **User's Profile Page** > **Workspace**.
2. Click **Edit** ( ), located to the left of the folder's title. The Edit Folder dialog appears.
3. Change the name of the folder.
4. Click **Save**. The page refreshes and shows the folder's new name.

Deleting a Folder from Your Workspace

NOTE: You can not delete the top-level folder, Workspace.

WARNING! Deleting a folder permanently deletes the assets and HTML content in the folder, and its subfolders.

1. On the website, navigate to a **User's Profile Page** > **Workspace**.
2. Click **Edit** ( ), located to the left of the folder's title. The Edit Folder dialog appears.
3. Click **Delete**. A dialog box asks you to confirm.
4. Click **OK**.

Adding Assets to a Workspace

Assets are files that are not HTML content, such as an Office document or PDF.

1. On the website, navigate to a **User's Profile Page** > **Workspace**.
2. Select a folder to which the asset will be added. If you want to create a new folder, see *Adding Folders to Your Workspace* on the previous page
3. Click **Add Asset** ( ). The Add Asset box appears. Its appearance varies depending on your browser, and so on. To learn about these variations, see *Methods for Importing Assets* on page 315.
4. Import one or more assets, depending on the screen. A status box shows the files being uploaded and then the asset(s) appear in the file list.

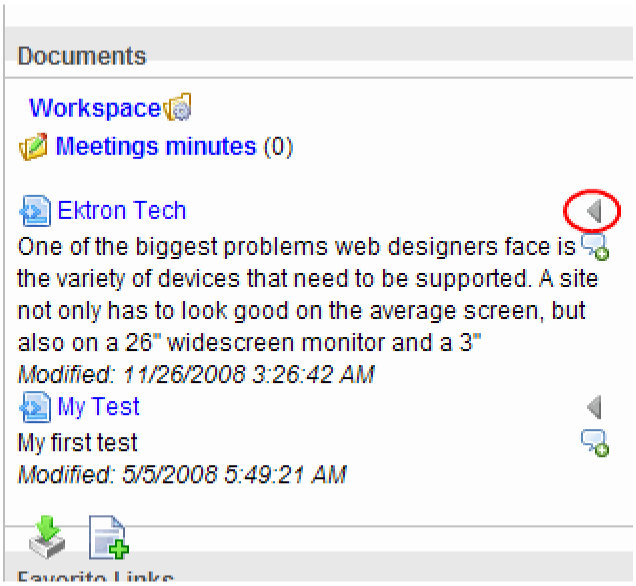
Creating HTML Content in Your Workspace

1. On the website, navigate to a **User's Profile Page > Workspace**.
2. Select a folder where the content will be added. If you want to create a new folder, see *Adding Folders to Your Workspace* on the previous page
3. Click **Add HTML Content** ( ). The Add HTML Content window appears.
4. Add a title and content.
5. Click **Publish** to publish the content.
6. The HTML content appears in the file list.

Moving and Copying Content in Your Workspace

You can move or copy assets and HTML content from one folder to another. To accomplish either action:

1. On the website, navigate to a **User's Profile Page** > **Workspace**.
2. Select the folder from which to move or copy the content.
3. Click the drop-down triangle to the right of the content title.



4. From the drop-down list, select **Copy**.
5. Select the folder to which the content will be moved.
6. Click **Manage**.
7. Click **Move Items** ( ) or **Copy** ( ). A dialog box asks you to confirm.
8. Click **OK**. The moved or copied content appears in the folder.

Sharing Workspace Content

The Workspace area allows users to share content with colleagues. Users can share content with the Public, Colleagues, Selected Colleagues or keep the content private.

Users apply sharing options to *folders*, not individual content items. To share a folder:

1. On the website, navigate to a user's or community group's **Profile Page > Workspace**.
2. Locate the folder you want to share.
3. Click **Manage Folder** ( ). The Add or Share Folder dialog box appears.
4. Click **Share Folder** ( ) in the top right corner. The Share Folder dialog box appears.
5. Select with whom to share your folders.
   - **Public**—Everyone viewing your Workspace
   - **Colleagues**—Only colleagues. See Also: *Using the CommunityDocuments Server Control* on page 1275 server control
   - **Selected Colleagues**—Only selected colleagues See Also: *Using the CommunityDocuments Server Control* on page 1275
   - **Private**—Only you

6. Click **Share**.

Documents in the folder are now available for viewing by the selected viewer type.

Using CommunityDocuments with a Group Profile

Adding Folders to the Group Workspace

Community group members can add folders to the Workspace to help organize items in the **Documents** area.

1. On the website, navigate to a community group's **Profile Page > Workspace**.
2. Click **Manage Folder** ( ). The Add Folder dialog appears.
3. Enter a **Name** for the folder.
4. Determine with whom you want to share the folder's documents.
   - **Public**—anyone can view and edit the document
   - **Private**—only group members can view and edit the document

   NOTE: If you want to later change a folder's share setting, follow the directions in *Sharing Workspace Content* on the previous page.
5. Click **Add**. The page refreshes and displays the newly added folder.

Editing a Folder Name in a Group Workspace

1. On the website, navigate to a community group **Profile Page > Workspace**.
2. Click **Edit** ( ), located to the left of the folder's title. The Edit Folder dialog appears.
3. Change the name of the folder.
4. Click **Save**. The page refreshes and shows the folder's new name.

Deleting a Folder from a Group Workspace

NOTE: You can not delete the top-level folder, Workspace.

WARNING! Deleting a folder permanently deletes all of the assets and HTML content in the folder, as well as its subfolders.

1. On the website, navigate to a community group's **Profile Page > Workspace**.
2. Click **Edit** ( ), located to the left of the folder's title. The Edit Folder dialog appears.
3. Click **Delete**. A dialog box asks you to confirm.
4. Click **OK**.

30

Conducting eCommerce

NOTE: eCommerce requires a special license from Ektron. If you do not see the Commerce folder under **Settings** tab of the Workarea, it may be because your license does not support eCommerce. For licensing information, contact sales@ektron.com.

Ektron eCommerce gives you an entire tool set for building the online marketplace you want. Ektron lets you manage both your website and online marketplace from the same interface.

eCommerce Feature Overview

Ektron's eCommerce solution is a flexible and feature-rich platform that offers the functionality that shoppers expect in an online marketplace.

- eCommerce reuses many standard Ektron components, so you can leverage existing Ektron experience to quickly build the store and use server controls to create the Web pages that customers (site visitors) use to purchase goods and services on the site.
- Administrators manage products, review inventory, and use Ektron's powerful taxonomy to enhance product SEO.
- Developers use the flexible and scalable API to import an existing store, configure a customized integration with a payment gateway and integrate with financial software.
- You can sell memberships and/or access to premium content.
- State and local governments can process online vehicle registration and tax payments, and event sites can sell tickets.

NOTE: Only members of the Administrators group or those assigned the Commerce Admin role can access the eCommerce screens within the Workarea. See Also: *Defining Roles* on page 1120.

Core Features

- Shared data—As a .NET application, eCommerce uses the same database as Ektron (to maximize efficiencies) and takes advantage of SQL cluster capabilities to be scalable. You do not need "glue code" to tie a third-party eCommerce application to your website. Ektron eCommerce integrates with an IT infrastructure using Ektron's existing customizability. Open architecture and a new `ektron.cms.commerce`API makes any commerce configuration possible, letting you connect it to your back-end systems.
- Imported data—Import existing product data into eCommerce using Ektron's API.
- Flexiblility—eCommerce supports single items, complex products (for example, movies on DVD, Blu-ray®, or other formats), bundles, and kits.
- Enhance your SEO—You can enhance product SEO in the Smart Form by setting attributes, adding metadata, and including photos and other media.
    - eCommerce uses key Ektron technologies, including Smart Forms, taxonomy and search. Smart Forms standardize how product information is entered; information, attributes, and descriptive text are entered in one place and goes into the database as structured XML data (making it easy to re-purpose this content wherever and whenever you need it).
    - Adding images of products automatically generates thumbnail images and gives you complete control over sizes and number of images, as well as a click-through image gallery. You also can define images for a product type via the taxonomy.

- Classify products in multiple ways—taxonomies help customers find what they are looking for by associating them with multiple categories. For example, a wireless mouse and an external hard drive may each belong to a computer peripherals category, but also in categories about mouses and disk storage. Control over your product catalog extends to cross-sell and upsell features.
- Web 2.0 controls—include memberships, ratings, forums and commenting that let you quickly implement an eCommerce site with the community-based information customers want to help them to make buying decisions. Your customers can post opinions and ratings on products. The product search uses taxonomy, which you can filter by price, ratings, reviews, and more.
- eCommerce customer memberships—Customers can create and save shopping baskets for future purchases, or create wish lists and registries. Your site administrators can see which baskets are open.
  - When an order is reviewed and submitted (and payment is authorized), it can go through a simple or complex routing through your processing setup or plug-in to your existing CRM or ERP to process the order.
  - When the order is processed, the CRM/ERP notifies Ektron that it is complete. Online inventory is kept up-to-date; you can set properties so that when items on hand drop below a certain level, it triggers a sequence to notify your inventory control.
  - You can display the checkout process on a single page or distribute them across multiple pages. Customers can save one or more shipping addresses, or check "same as billing" when they check out.
  - You can accept credit cards, checks, and PayPal accounts. Ektron also supports payment gateways (such as Payflow and Authorize.Net) to authorize and capture transactions. You can create your own payment gateway (that allows terms or other payment options, for example).
  - Connect with external providers to use real-time rates for shipping, or you can use your own rates by setting up an internal shipping provider. You can customize rates and set up rates by package size, product weight, and even product price ranges.

Coupons, Taxes and Pricing

- eCommerce supports an array of pricing schemes: individual pricing, separate pricing within complex products, tiered pricing to support volume discounts, and more.
- Online coupon capability is also included, letting you set the type (dollar amount, percentage) and at what level those coupons are applied (product level, basket level and type of item).
- For global business opportunities, international currencies are available. You can use conversion rates to determine prices or set flat costs for each product. This goes hand-in-hand with the tax options available.
- Set tax classes, including country, state, and local (by postal code), and taxes for specific classes of goods.

Sample eCommerce Site

Ektron OnTrek is a sample eCommerce site. Within that site, you can try out a customer shopping experience by going to `http://[siteroot]/OnTrek/`. Login to OnTrek and go to **Products > Software**. A product catalog screen appears. For information about Ektron OnTrek, see the .

Click the **Add to Cart** link below a product. You can proceed through a sample checkout process.

OnTrek uses the following eCommerce server controls to facilitate this process.

- *Cart* on page 1672
- *Checkout* on page 1673

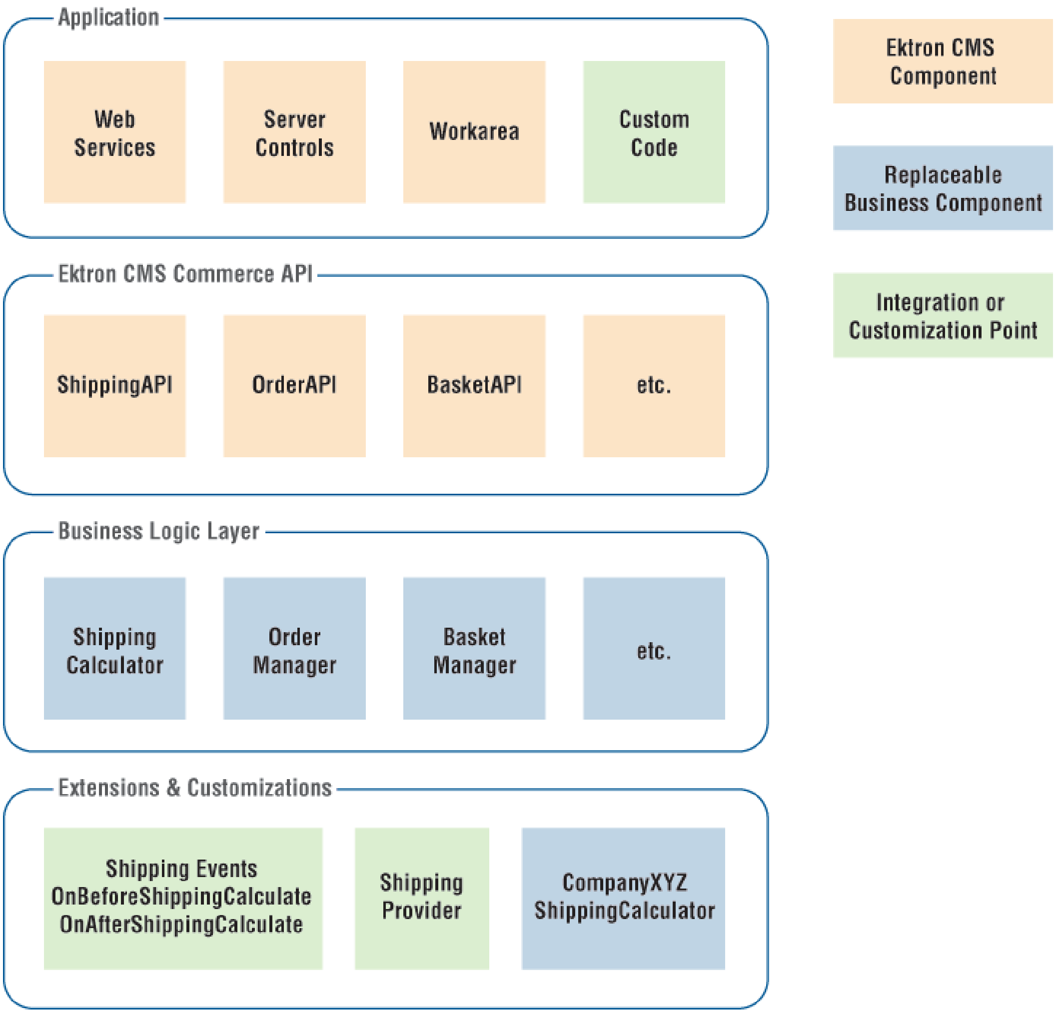
eCommerce Architecture

The Ektron eCommerce architecture is composed of several key systems:

- Catalog/Inventory systems
- Order system
- Shipping system

The eCommerce API sits within the core Ektron system with customization and integration points. The following figure shows how the eCommerce API fits into the overall Ektron architecture.

Architecture



The following topics provide an overview of several key eCommerce systems.

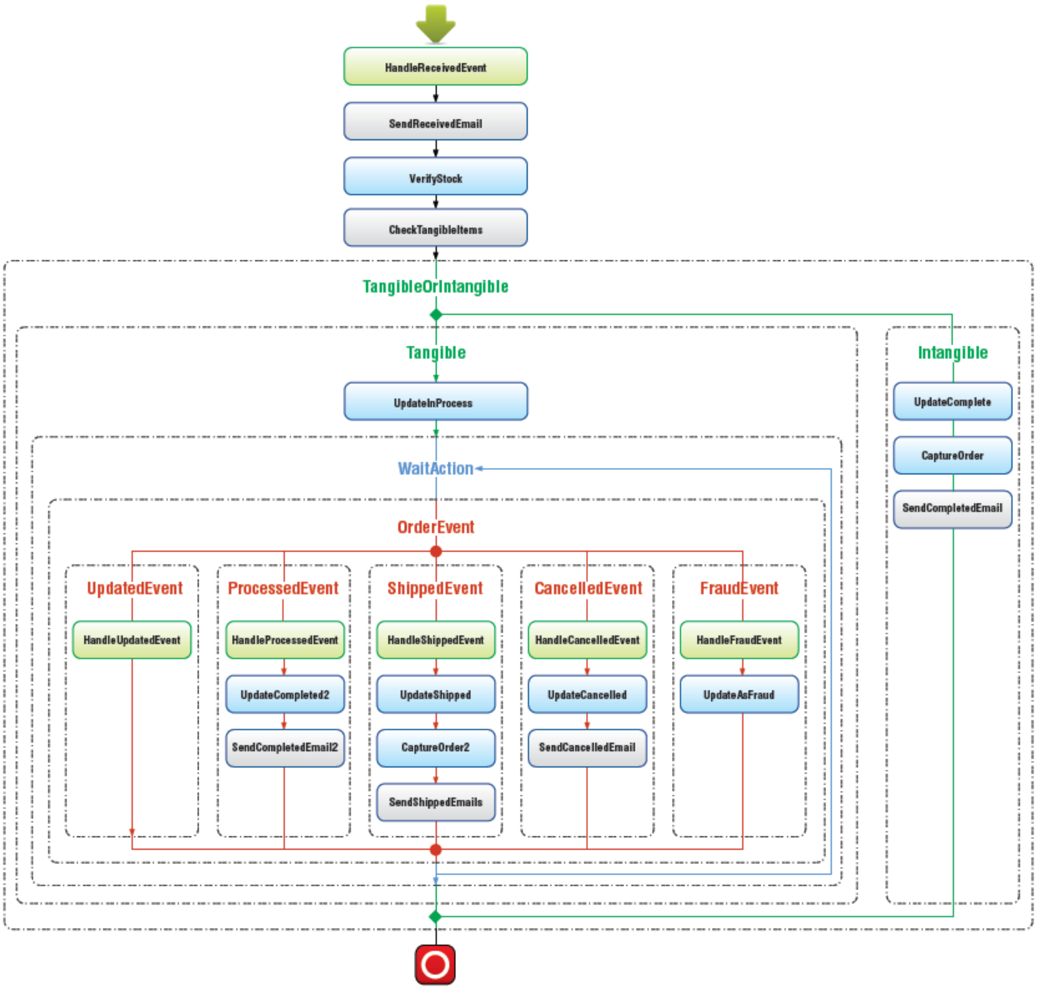
- *eCommerce Workflow* below
- *eCommerce Order Fulfillment* on the next page
- *eCommerce Inventory Process* on page 1285
- *eCommerce Subscription Model* on page 1286
- *eCommerce Shipping Process* on page 1287
- *Conducting eCommerce* on page 1279

eCommerce Workflow

Ektron leverages Windows Workflow Foundation for order processing.

Windows Workflow Foundation is a framework that enables users to create system or human workflows. It consists of a namespace, an in-process workflow engine, and designers for Visual Studio. It comes with a programming model, a re-hostable and customizable workflow engine, and tools for quickly building workflow-enabled applications on Windows.

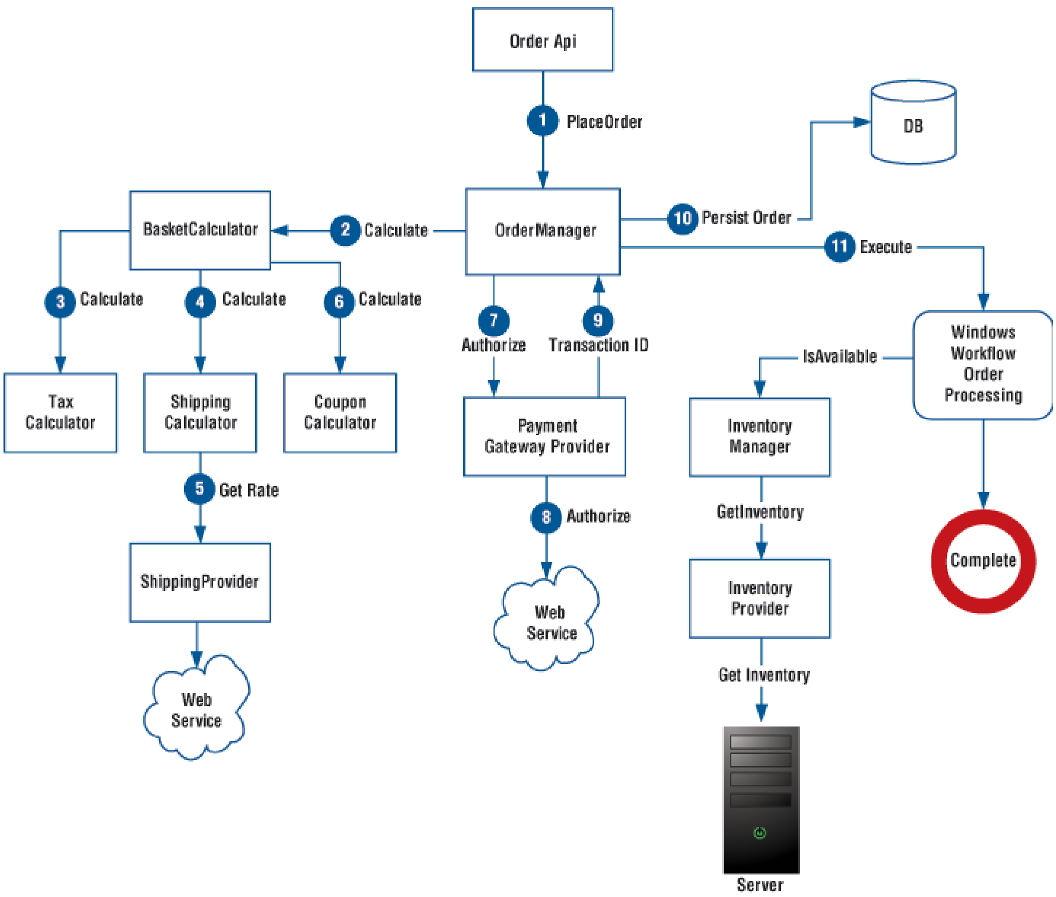
Windows Workflow Foundation gives site developers complete control over how your store "works". The workflow is completely extensible and can integrate with third-party ERP/CRM systems. There are default Ektron activities such as email notification and inventory checks, and the workflow can be customized to match the organization's business processes.



eCommerce Order Fulfillment

Order processing in Ektron includes the management of custom coupons, shipping providers, tax calculation and payment providers.

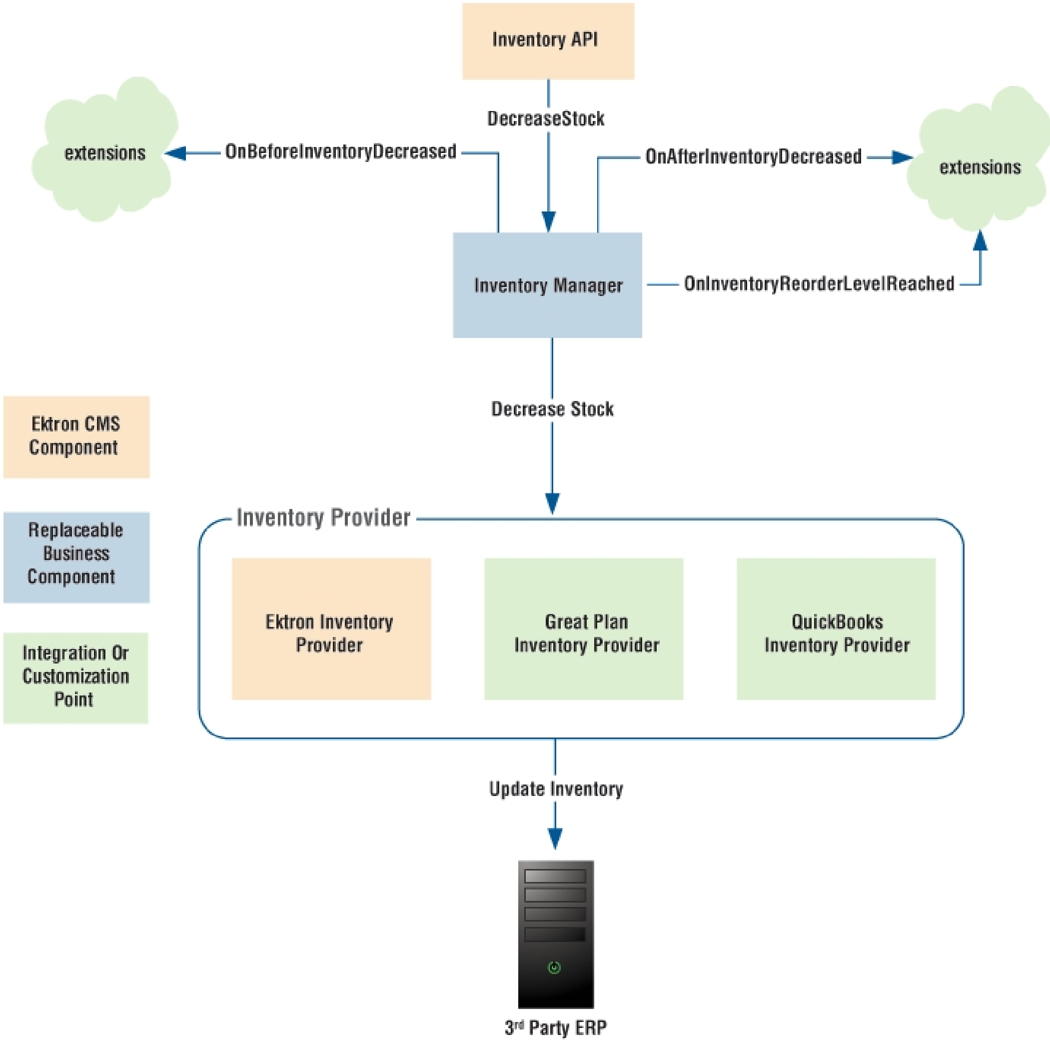
Order Process



eCommerce Inventory Process

The inventory process uses an inventory provider model. You can use the inventory system included as part of Ektron's eCommerce module, or plug into external systems. It is called from the order workflow and is completely extensible.

Inventory

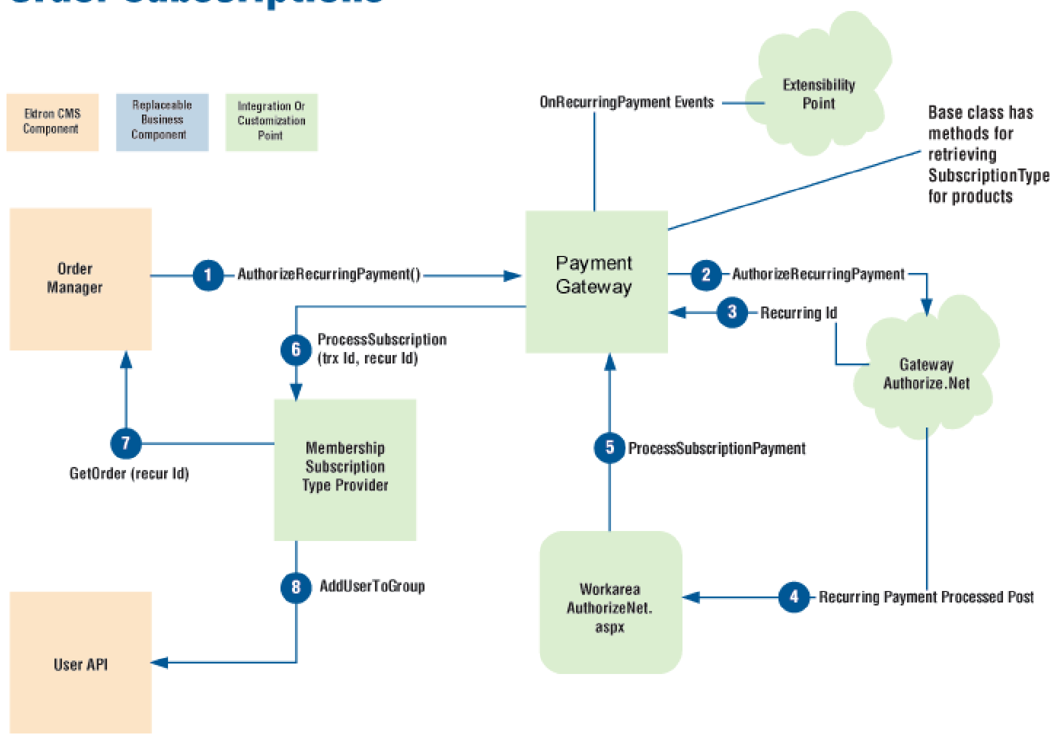


eCommerce Subscription Model

Ektron's eCommerce solution lets you not only sell durable goods, but also memberships and subscriptions. It uses a provider model, and the default implementation provisions users into groups.

You let shoppers buy membership directly on your site (access to assets or content) and configure recurring billing at any interval.

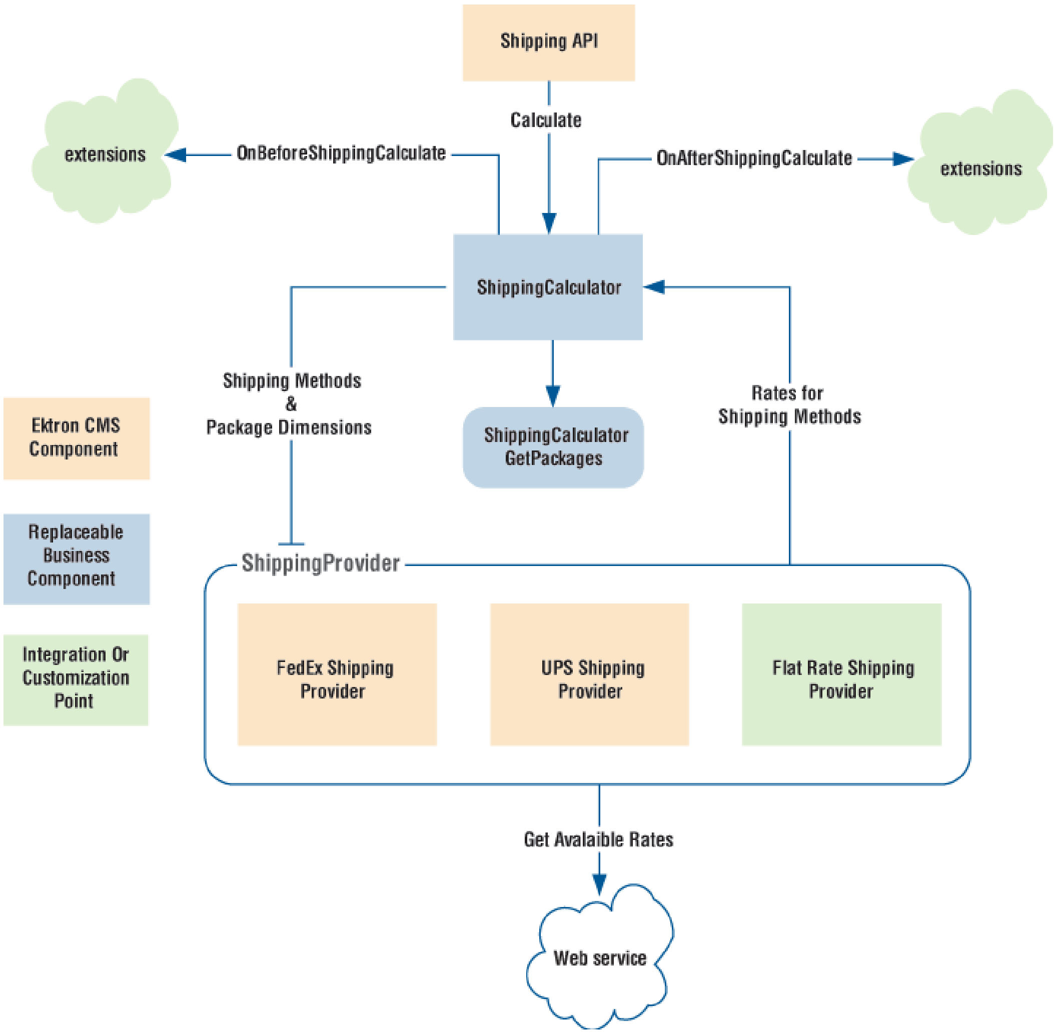
Order Subscriptions



eCommerce Shipping Process

The shipping system calculates real-time shipping rates from FedEx or UPS by default. However, its provider model lets you configure the API to access rates from any provider. It is completely customizable and extensible.

Shipping



Additional eCommerce Topics

This chapter also contains the following topics.

See Also: *Using eSync with eCommerce* on page 1563

Designing an eCommerce Site

This chapter uses a fictitious site, EktronStore.com, to demonstrate how to set up, build, and deploy an online marketplace using Ektron. EktronStore.com sells furniture and accessories and leverages many eCommerce features.

Before starting to build EktronStore.com, consider the goals of your online marketplace. Do you want to simply sell as many products as possible? Or, do you see your store as a value-added component designed to enhance the customer (site visitor) experience?

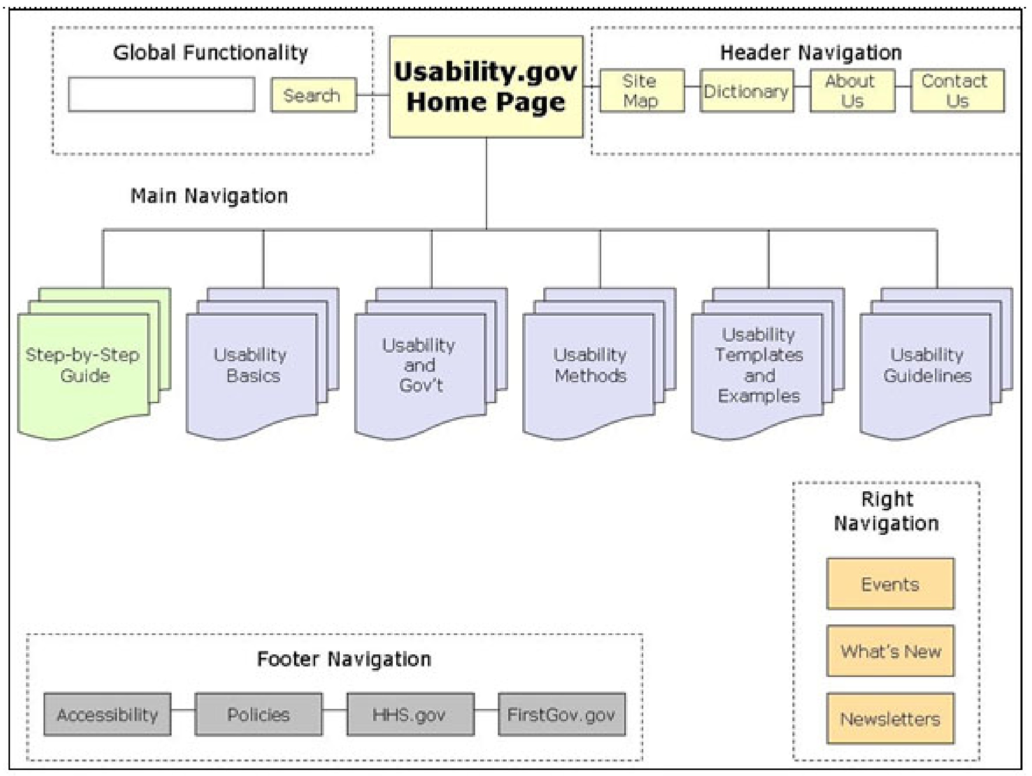
When considering store design and functionality, what you intend to sell plays a significant role in this endeavor. For example, are you selling durable goods? Subscriptions? Access to premium content? All of the above? Make sure you consider this when planning the store's layout.

Shipping options, payment methods, taxation, and the general look-and-feel of your store also need to be determined. Make sure you address the general workflow of your store—that is, how shoppers are guided through the entire shopping experience.

Designing the Sitemap

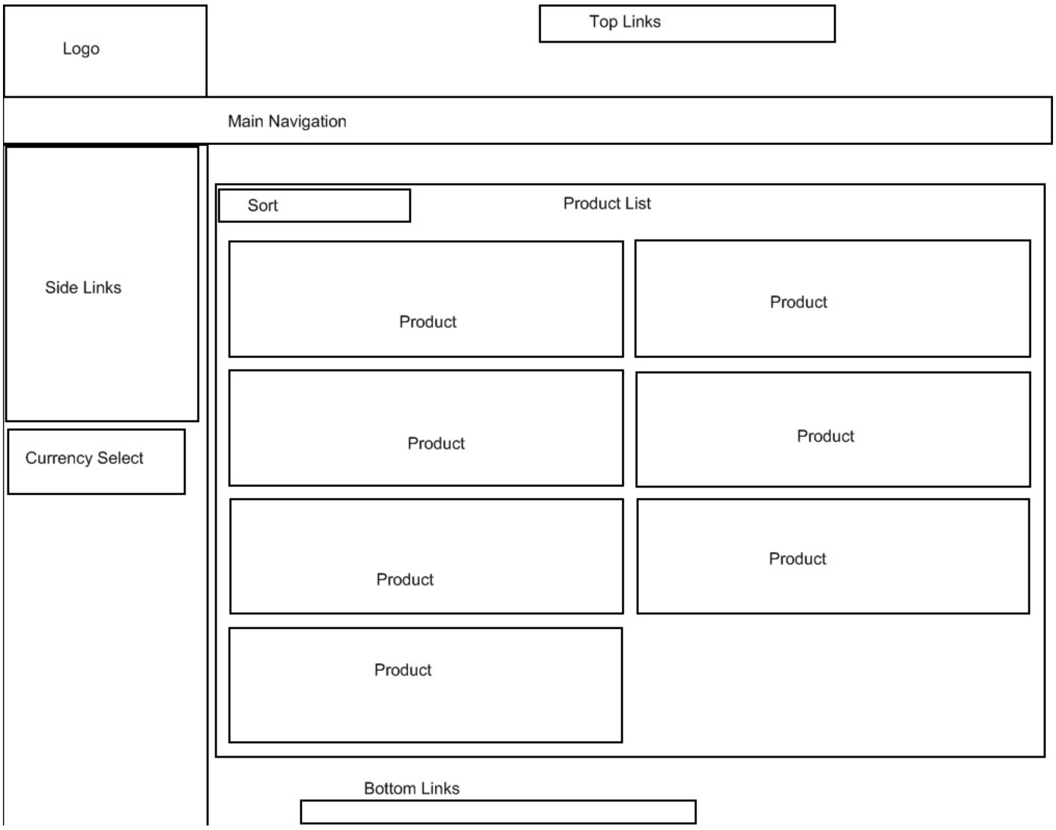
It all starts by planning the basic architecture of the store. This is called a "sitemap," and depicts the architecture of the website. It can be either a document used as a planning tool for Web design, or a Web page that lists the pages on a website, typically organized in hierarchical fashion.

Essentially, the sitemap identifies the major pages, sections, sub-sections, and shared elements of the site.



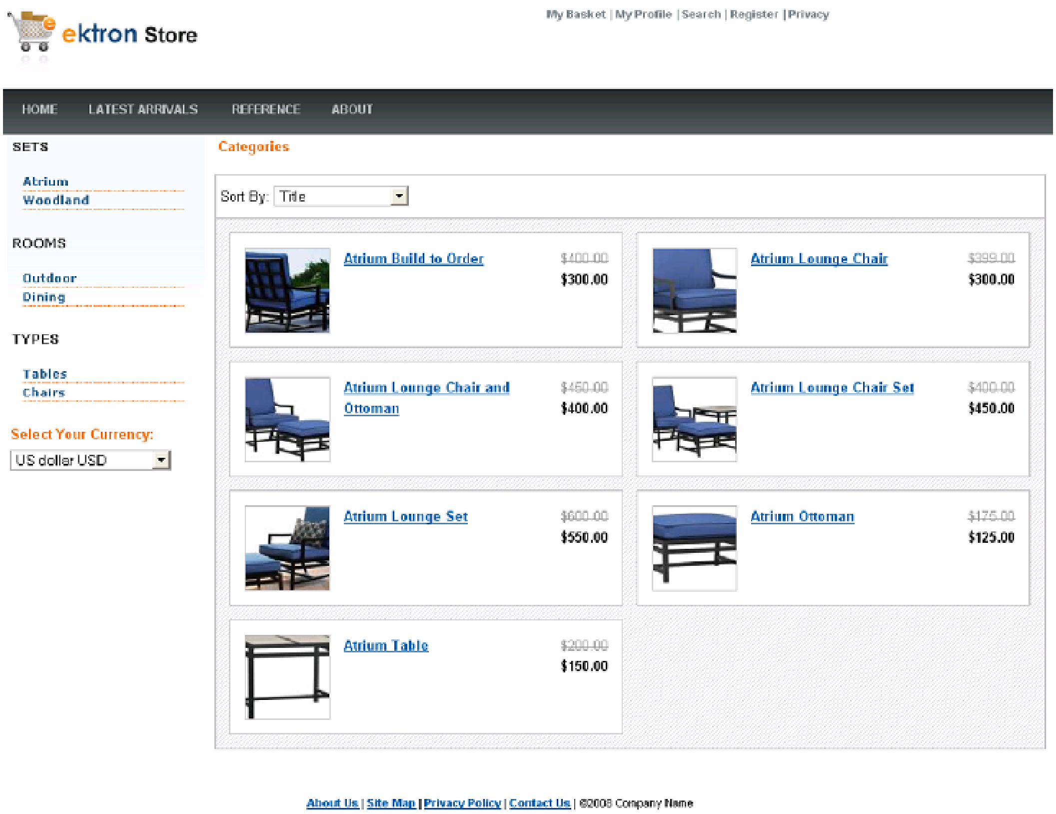
Designing the Wireframes

Next, plan and scope out the major pages in your store. Using pencil and paper or software, sketch the basic architecture and components of individual store pages. This visual guide is referred to as a “wireframe”.



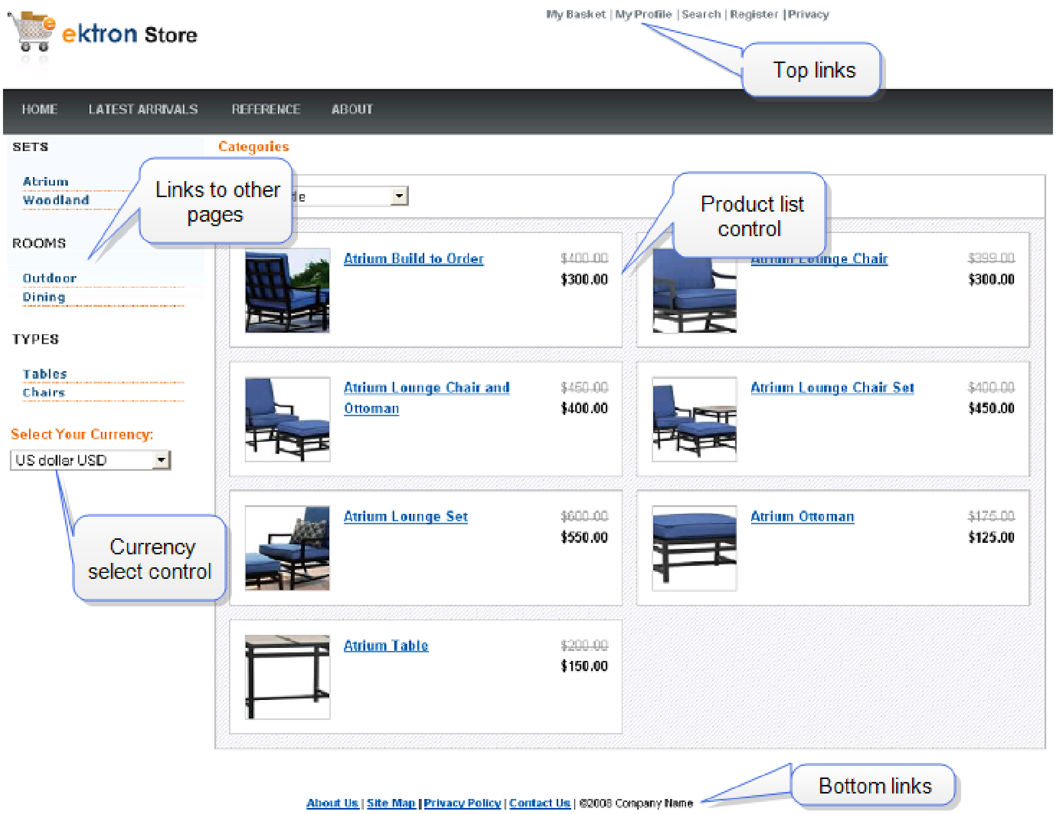
Creating Mockups

The wireframe helps inform visual design. Typically, a graphic artist creates mockups (or visual preview) of store pages for stakeholders to see without actually building Web pages.



Creating Callouts

Callouts help identify functional areas on store pages. Using the mockups, identify navigation areas, locations for promotional information, header and footer details, and the location of Ektron controls.



Using Images in eCommerce

When using eCommerce, a customer sees images that represent products or services for sale. The following list shows each image that appears on an eCommerce website, and its source.

- Product Server Control, main image, located on the catalog entry's **Content** tab.

> **NOTE:** The sample catalog entries are based on Product Types whose XML Smart Form includes an Image field. As a result, the product description, (which appears at the top of the Product Server control) includes an image. This is not required, merely a suggested implementation.

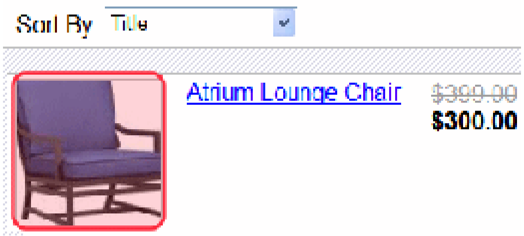
- Product Server Control, thumbnails, located on the catalog entry's **Media** screen.

  NOTE: To control the thumbnail display, use the XSLT files generated by the Product, Product List, Product Search, and Recommendation server controls.

  When a customer clicks a thumbnail, the corresponding full image appears.

  Because the Media screen can have several images, several thumbnails can appear. They appear left to right reflecting their sequence (top to bottom) on the **Media** screen. If an image's **Gallery Display** field is set to **Yes**, its smallest thumbnail appears on the Product server control, below the content area. (This assumes you are using the control's default XSLT.) See Also: *Determining Thumbnail Size* on page 1367

- Product List, Product Search, and Recommendation server controls located on the catalog entry's **Media** tab, the image designated as **Product Icon**. See Also: *Entering a Catalog Entry's Media* on page 1366



Setting Up an eCommerce Website

This section describes how to set up a basic eCommerce website. This walkthrough explains everything you need to set in the `web.config` file and the Workarea. It also includes a list of templates needed and how to set up Ektron's eCommerce server controls on them.

Required Templates

To create a basic eCommerce site, you need the following templates.

- **Master page**—recommended, but not absolutely necessary. This template could contain any of the following:
  - **Select Currency**—allow customers to choose a currency with the *CurrencySelect* on page 1716server control.

- **View Cart** link—links to the template containing the *Cart* on page 1672 server control.
- **View My Account / Orders** link—links to the template containing the *MyAccount* on page 1804 and *OrderList* on page 1806 server controls.
- **Login** server control—allows customers and users to log in from any page.

- **Landing page**—this page should enable customers to start shopping and could contain a *Product* on page 1815 server control.
- **Product Display page**—use the *Product* on page 1815 server control on a template to display the details of a catalog entry (product). If you are using the Cross Sell or Up Sell functionality, add a recommendation server control to this template.
- **Product Search page**—use the *Product Search Server Controls* on page 1822 on a template to let customers search for product.
- **Cart page**—use the *Cart* on page 1672 server control on a template to allow a customer to work with the items they have selected to purchase.
- **Checkout page**—use the *Checkout* on page 1673 server control on a template to facilitate the check out process.
- **My Account / Order History page**—use a *MyAccount* on page 1804 and an *OrderList* on page 1806 server controls to display a customer's account information and a list their order history.

Step 1. Set Keys in `web.config` File

WARNING! Do not change the settings for the default currency or measurement system after the site is live.

In the website's `web.config` file, set the following keys:

- <add key="ek_ecom_DefaultCurrencyId" value="840" />

  This key determines the base currency for your website. The default is 840 (the US Dollar). If needed, change this to the Numeric ISO code for the default currency. A list of currencies and their Numeric ISO codes can be found in the **Workarea > Settings > Commerce > Configuration > Currencies** section. The ID is the Numeric ISO code.See Also: *The Default Currency* on page 1308

- <add key="ek_MeasurementSystem" value="English" />

  For each item sold on your website, you define a height, length, depth, and weight. If English, the units are inches and pounds. If Metric, the units are centimeters and kilograms. This information is used to calculate shipping costs. By default, this is set to English. Change to **Metric** to use the Metric system. See Also: *Configuring Packages* on page 1330

- <add key="ek_ecom_ComplianceMode" value="false" />

  Set this key to "true" when you want your site to be Security Compliant. This means the Workarea will be encrypted in an SSL session and Logging is started.

Step 2. Select Inventory System

Decide whether you want to use Ektron's inventory system or another system.

If you are not using Ektron's inventory system, create a custom inventory provider and add it to the `web.config` file's InventoryProvider. Ektron's Inventory Provider feature lets you work with an existing inventory system.

Add the custom provider between the InventoryProvider's <providers> tags and change the default provider to the name of your custom inventory provider. For example:

<inventoryProvider defaultProvider="MyCustomInventoryProvider">

See Also: *Customizing the Inventory Provider* on page 1463

Step 3. Select a Default Payment Gateway

1. Navigate to **Settings > Commerce > Configuration > Payment Gateway**.
2. Click a payment gateway's name.
3. Click **Edit**.
4. Add your User ID, Password and any needed Custom Values.
5. Click the **Default** check box to make that selection the default.
6. Click **Save**.

NOTE: If you decide to use PayPal instead of one of the default payment options, see *Using PayPal with Ektron eCommerce* on page 1312.

If you are not using one of these gateways, create a custom payment provider and add it to the `web.config` file's EktronPaymentGateway. Add the custom provider between the EktronPaymentGateway's <providers> tags. When added, the option should appear in the Workarea's Payment Gateway screen.

If you want to override the Workarea settings, change the default provider in the `web.config` file from "Automatic" to the name of the desired payment gateway. For example:

<EktronPaymentGateway defaultProvider="AuthorizeNet">

See Also: *Configuring Payment Options* on page 1311.

Step 4. Set up a Shipping Provider

If you are not using the default flat rate shipping provider, open the shipment.config file and set the default provider in formation in: <shipmentProvider defaultProvider="FlatRateShipmentProvider"> to either "FedExShipmentProvider" or "UPSShipmentProvider". If you are using either of these shipping methods, make sure you fill in the following information in the <providers> tags. This information is provided by FedEx and UPS.

- key=""
- password=""
- accountNumber=""
- meterNumber=""

In addition to using these providers, you can add additional providers.

See Also: *Configuring eCommerce Shipping Screens* on page 1329

Step 5. Enable Countries

Enabling a country where your website will sell its products:

- makes it available for customers to use as part of an address for shipping and billing purposes
- makes it available when you add a warehouse
- automatically enables its corresponding tax table in the Country Tax Table section of the Workarea

NOTE: The United States is enabled by default.

To enable countries:

1. Navigate to **Settings > Commerce > Configuration > Countries**.
2. Click a country's name.
3. Click **Edit**.
4. Click the **Enabled** check box.
5. Click **Save**.

See Also: *Configuring Countries* on page 1305

Step 6. Add and Enable Regions

Add and enable regions for each country your eCommerce site will service.

NOTE: All states in the US are enabled by default.

Regions can represent states, provinces, territories, and so on and further define areas of a country. Adding and enabling regions:

- makes it available for customers to use as part of an address for shipping and billing purposes
- makes it available when you add a warehouse
- automatically enables its corresponding tax table in the Regions Tax Table section of the Workarea

To add and enable regions:

PREREQUISITE

The region's country is defined in the Countries screen.

1. Navigate to **Settings > Commerce > Configuration > Regions**.
2. Click **New > Region**.
3. Enter a name.
4. Click the **Enabled** check box.
5. In the **Code** box, enter an abbreviation for this region.
6. Select this region's country from the pull down list.
7. Click **Save**.

See Also: *Configuring Regions* on page 1306

Step 7. Enable Currencies

If your website is selling products in another country and you want to display prices in its currency, enable it in the Workarea:

NOTE: By default, U.S. dollar, Euro, and Australian dollar are enabled.

1. Navigate to **Settings > Commerce > Configuration > Currencies**.
2. Click a currency.
3. Click **Enable**.
4. Set the Exchange Rate. The default currency (set in the `web.config` file) is the base reference currency when setting an exchange rate.
5. Click **Save**.

See Also: *Configuring Currencies* on page 1307

Step 8. Select Credit Cards

Decide which credit cards your eCommerce site will accept.

Credit cards are used during the checkout process, by the Checkout server control, during the submit phase. During this phase, all enabled credit cards appear in a drop-down, which customers use to select their choice.

Add credit card types in the Workarea.

1. Navigate to **Settings > Commerce > Configuration > Credit Card**.
2. Choose **New > Credit Card** Type.
3. Enter the credit card's name; for example, Visa.
4. Check the **Accepted** check box.
5. Add an image.
6. Add a Regex Expression to validate the credit card number.
7. Click **Save**.

See Also: *Configuring Credit Card Types* on page 1327

Step 9. Add or Edit Notification Messages

Email notifications are sent to your customers after their order has been received, canceled, shipped or completed. Ektron provides 4 predefined messages, 1 for each event. For messages to be sent, content notifications must be enabled and the customer must enter a valid email address.

1. Navigate to **Settings > Commerce > Configuration > Messages**.
2. Click the title of the message.
3. Click **Edit**.
4. Change the properties and fields as necessary.
5. Change the text as needed.

See Also: *Configuring eCommerce* on page 1305

Step 10. Create Tax Classes (Optional)

If you are collecting taxes for transactions on your eCommerce site, create a Tax Class for each taxable category of products. For example, if your eCommerce site sells alcohol and tobacco, set up a tax class for each type. Ektron provides 4 default tax classes:

- Alcohol
- Goods
- Services
- Tobacco

Tax classes are applied to Postal, Regional and Country Tax Tables. In those tables, you define a separate rate for each Tax Class.

1. Navigate to **Settings > Commerce > Tax > Tax Classes**.
2. Choose **New > Tax Class**.
3. Enter a name; for example, Food.
4. Click **Save** .

See Also: *Cataloging Entries that Can Be Taxed* on page 1338

Step 11. Set Tax Rates

When your Tax Classes are set up, set a tax rate for each class in the Postal, Regional, or Country Tax Tables.

- Postal Tax Tables—use when there is a city or county tax. If there are postal, regional and country taxes applied to a given area, roll them all into this table.
- Regional Tax Tables—Use when there is a state, provincial or territorial tax. If only regional and country taxes are applied to a given area, roll them into this table.
- Country Tax Tables—Use when there is country-wide tax. If only country level taxes are applied to a given area, use this table.

Ektron checks these tables in the following order: Postal, Regional, then Country. When it finds a tax, it stops. Therefore, if a postal zone has several taxes (for example, a local tax and a regional tax), build the combined percentage into the postal code tax. So, if New York City has a 4% tax, and New York state has a 3% tax, enter 7% into all Postal Tax Tables within New York City.

While you need to create each Postal Tax Table, Regional and Country Tax Tables are automatically generated when a country or region is added to Ektron. However, no tax rates are defined in these tables.

To create a new Postal Tax Table:

1. Navigate to **Settings > Commerce > Tax > Postal Tax Tables**.
2. Choose **New** > **Postal Code**.
3. Enter a Postal Code.
4. Select the Country and Region.
5. Enter a tax rate for each Tax Class as needed.
6. Click **Save**.

To edit a Region’s or Country’s Tax Table:

1. Navigate to **Settings > Commerce > Tax > Regional Tax Tables** or **Country Tax Tables**.

2. Click the **Id** or **Code** of the Region or Country.
3. Click **Edit**.
4. Change the information as needed.
5. Click **Save**.

See Also: *Applying Local Taxes* on page 1339, *Configuring Regional Tax Tables* on page 1340, *Configuring Country Tax Tables* on page 1341

Step 12. Select Shipping Methods

When you set up a shipping provider, define your customers' shipping options. For example, if you use UPS, define whether to allow Next Day, 2nd Day, 3rd Day, Ground, World Wide Standard, and so on. When enabled, a Shipping Method appears in the Shipping Method phase of the Checkout server control.

1. Navigate to **Settings > Commerce > Shipping > Methods**.
2. Choose **New > Shipping Method**.
3. Enter a Name. This name represents the option in the Shipping Method phase of the checkout server control.
4. Click the **Active** check box to enable this method.
5. Click **View Options**.
6. From the Provider Service drop-down, select a shipping method.
7. Click **Save**.
8. Repeat these steps for all shipping methods.

See Also: *Configuring Shipping Methods* on page 1331

Step 13. Add a Warehouse

Add a warehouse from which your products will be shipped. This does not have to be the actual shipping address for the products. Ektron uses this information to determine the “from” address when calculating shipping cost.

1. Navigate to **Settings > Commerce > Shipping > Warehouses**.
2. Choose **New > Warehouse**.
3. Complete the address information fields. Only countries and regions that have been enabled for eCommerce appear in the drop-down lists.
4. Click the **Default Warehouse** check box if you want this to be the default warehouse. Only the default warehouse is used in the checkout process.
5. Click **Save**.

See Also: *Using a Warehouse* on page 1329

Step 14. Define Package Sizes

Define each package size your shipping department uses to ship your products. Tangible products have size and weight dimensions. Ektron’s shipping calculator uses this information to fit the order into the smallest-sized and fewest packages. It then passes packaging information (number, sizes and weight) to the shipping provider, which returns the order’s shipping costs.

1. Navigate to **Settings > Commerce > Shipping > Packages**.
2. Choose **New > Package**.
3. Enter a **Name**, **Length**, **Height**, **Width** and **Maximum Weight** a package can handle.
4. Click **Save**.
5. Repeat these steps for all package sizes your company uses.

See Also: *Configuring Packages* on page 1330

Step 15. Create Product Type Definitions

NOTE: The remaining steps in this example are based on selecting a Product for the Product Type Class.

Product types are applied to catalog folders and let you control the way product information is added to a catalog. This is similar to how Smart Form configurations, once applied to content folders, affect the way Smart Forms are created. You can apply multiple product types to a catalog.

1. Navigate to **Settings > Commerce > Catalog > Product Types**.
2. Choose **New > Product Type**.
3. Define the Product Type.
4. Click **Save** and move to the next step.

More Information: *Creating Product Types* on page 1343

Step 16. Create Content Page

After clicking **Save** from the previous step, a content editor appears and lets you enter XML Smart Form information. A user completes this Smart Form when creating a Catalog Entry (Product).

The information appears on a product’s details page on your website.

You might want to create these fields on your smart form.

- Title
- Description
- Image

After you complete the Smart Form, click **Save**.

See Also: *Creating Product Types and Catalogs* on page 1343, *Working with Smart Forms* on page 423

Step 17. Create a Catalog

A catalog folder is an Ektron folder designed to hold eCommerce catalog entries (products). This is similar to the way content folders hold HTML or Smart Form content. By assigning a product type to the folder, you can control the way products are added to the catalog.

1. Click the **Content** folder bar to display the list of content folders.
2. Choose **New > Catalog**.
3. Set the catalog’s Properties, Metadata, Web Alerts and Breadcrumb information. (Similar to creating a Content Folder.)

4. On the Product Types Tab, select a Product Type from the drop-down list.
5. Click **Add**.
6. Click **Save**.

See Also: *Creating a Catalog Folder* on page 1354, *Assigning a Catalog Folder's Product Type* on page 1355

Step 18. Add Catalog Entries

Catalog Entries are products you offer on your eCommerce website. For example, a catalog entry could be a CD, a subscription-based service, or a computer that a customer can customize and the price adjusts accordingly.

1. Navigate to a catalog folder.
2. Click **New** and select a product type.
3. In the **Title** field, enter a name for the catalog entry.
4. Fill out the fields in the Smart Form as necessary.
5. Select the **Summary** tab and add a summary. (Optional)
6. Select the **Properties** tab and enter an SKU and the number of units that equal one purchase.
7. Select a Tax Class.
8. If the product is a tangible product, click **Expand** next to Dimensions, click the **Tangible** check box and enter the product's physical dimensions. If you are using Ektron as your inventory system, click **Expand** next to Inventory and enter the information.
9. Select the **Pricing** tab and enter the product's list and sales price. If you offer a quantity discount, click **Add Pricing Tier** and add a quantity and a tier price. If you enabled multiple currencies, select a currency from the drop-down and add pricing information as needed.
10. Select the **Attributes** tab and fill out or change attributes as needed. (If you did not define attributes in *Step 15. Create Product Type Definitions* on the previous page, the **Attributes** tab does not appear.)
11. Select the **Media** tab and click **Add Images** to associate images with the catalog entry.
12. The **Items** tab is used to create a complex product. This lets you offer variants of a product at different price points. For this example, we will skip this tab. See Also: *Creating a Complex Product* on page 1348.
13. Enter information as needed on these tabs: **Metadata**, taxonomy and **Schedule**.
14. Choose **Action > Publish**.

To add Cross Sell or Up Sell items associated with this catalog entry, click its **Title** and then click **View > Cross Sell** or **Up Sell**. These items appear in the Recommendation server control when it is associated with this catalog entry.

See Also: *Creating a Catalog Entry* on page 1356

Step 19. Create a Master Page

Create a master page and add the following items to a header area or left side column.

- **CurrencySelect server control**—Lets customers select from available monetary types. This control displays currencies that have been enabled in *Step 7. Enable*

Currencies on page 1296. A **My Cart link** that leads to a template containing the *Cart* on page 1672 server control. See Also: *CurrencySelect* on page 1716 server control

- **My Account / Order History link**—Leads to a template containing the MyAccount and OrderList server controls. See Also: *OrderList* on page 1806 server control
- **Product Search link**—(Optional) Adds a link that leads to a template containing a ProductSearch server control. See Also: *MyAccount* on page 1804 server control
- **Product Search server control**—(Optional) Allows user to search for a product from anywhere on the site. Note: Adding this option is involves more than just dragging and dropping a server control to the header or the left side column. It includes advanced customizations and coding to pass a search term from one form to another. See Also: *ProductSearchInputView* on page 1823 and *ProductSearchResultsView* on page 1824 server controls
- **Login server control**—(Optional) Allows existing customers to log in upon arrival at your site. If you only want customers logging in through this control, set the `OnlyAllowMemberLogin` property to True. See Also: *Login* on page 1763 server control.

Step 20. Create a Landing Page

This template should be the first page a customer sees when arriving at your site. It should have a mechanism that lets customers start shopping. Make sure this page has one of the following:

- **ProductList server control**—Use this control to display products by taxonomy, Catalog or ID. See Also: *Creating Product Types and Catalogs* on page 1343
  - To display a single taxonomy, set the `SourceType` property to Taxonomy and enter a single Taxonomy ID in the `SourceId` property.
  - To display multiple taxonomies, set the `SourceType` property to TaxonomyList and enter a comma-separated list of Taxonomy IDs in the `IdList` property.
  - To display a single catalog, set the `SourceType` property to Catalog and enter a single catalog ID in the `SourceId` property. If you want to display sub catalogs for a given ID, set the `Recursive` property to True.
  - To display multiple catalogs, set the `SourceType` property to CatalogList and enter a comma separated list of catalog IDs in the `IdList` property.
  - To display products by their ID, set the `SourceType` property to IdList and enter a comma-separated list of product IDs in the `IdList` property.
  - Set the `TemplateProduct` property to the template containing the Product server control.
- **ProductSearch server control**—This control provides the means for customers to search your website for products. If this control is not on your landing page or part of your master page, you should create a separate template containing this control.
  - Set the `CatalogId` property to the ID of the catalog to search.
  - Set the `TemplateCart` property to the template containing the *Cart* on page 1672 server control.
  - Set the `TemplateProduct` property to the template containing the Product server control.

    See Also: *Product Search Server Controls* on page 1822

Step 21. Create a Product Page

This page allows a customer views a product's details. It contains a Product server control and optionally a Recommendation server control.

- **Product server control**—This control displays a product's details. See Also: *Product* on page 1815 server control
  - Make sure the `DynamicParameter` property is set to the parameter name used to pass product IDs to the QueryString.
  - If you want a default product to display when no ID is passed, set the `DefaultProductID` property to the ID of a product.
  - Set the `TemplateCart` property to the template containing the *Cart* on page 1672 server control.

  Login server controlLogin server control
- **Recommendation server control**—This control displays Cross Sell and Up Sell opportunities associated with a product. These are set in Workarea, under the View menu's Cross Sell and Up Sell selections for a catalog entry. See Also: *Recommendation* on page 1826 server control
  - Set the `RecommendationType` property to CrossSell or UpSell.
  - Make sure the `DynamicProductParameter` property is set to the parameter name used to pass product IDs to the QueryString.
  - If you want a product's default Cross Sell or Up Sell items to display when no ID is passed, set the `DefaultProductID` property to the ID of a product.
  - Set the `TemplateCart` property to the template containing the Cart server control.
  - Set the `TemplateProduct` property to the template containing the Product server control.

Step 22. Create a Product Search Page

This page lets customers search for products on your website.

- **ProductSearch server control**—This control provides the means for customers to search your website for products. If this control is not on your landing page or part of your master page, you should create a separate template containing this control.
  - Set the `CatalogId` property to the ID of the catalog to search.
  - Set the `TemplateCart` property to the template containing the Cart server control.
  - Set the `TemplateProduct` property to the template containing the `Product` server control.

    See Also: *Product Search Server Controls* on page 1822

Step 23. Create a Cart Page

This template contains a Cart server control.

- **Cart server control**—This control allows a customer to work with products they have selected to purchase. As a customer navigates around your site selecting products to purchase, they are added to a cart. See Also: *Cart* on page 1672 server control

- Set the `TemplateCheckout` property to the template containing the CheckOut server control.
- Set the `TemplateProduct` property to the template containing the Product server control.
- Set the `TemplateShopping` property to the Landing page template or a template containing a ProductList or ProductSearch server control.
- If you are using coupons, make sure the `EnableCoupons` property is set to **True**.

Step 24. Create a Checkout Page

This template contains a Checkout server control.

- **Checkout server control**—This control allows a customer to navigate through the checkout process.See Also: *Checkout* on page 1673 server control
  - Set the `DefaultCountryID` property to the country you want to be the default selection in the Billing and Shipping address sections.
  - Set the `TemplateCart` property to the template containing the Cart server control.
  - Set the `TemplateOrderHistory` property to the template containing the OrderList server control.
  - Set the `TemplateShopping` property to the landing page template or a template containing a ProductList or ProductSearch server control.
  - If you are using SSL Encryption, set the `IsSSLRequired` property to **True**.

WARNING! You should use SSL Encryption for this page because credit card information is entered into the Checkout server control.

Step 25. Create a My Account Page

This template contains a MyAccount and an OrderList server control. See Also: *MyAccount* on page 1804 server control

- **MyAccount server control**—This server control lets customers view billing, shipping and alternative shipping information associated with their account.
  - Set the `DefaultCountryID` property to the country you want to be the default selection in the Billing and Shipping address sections.
  - (Optional) Set the `CustomPropertyID` property to the ID or list of comma separated IDs that represent custom properties associated with users. Custom Properties are set up in Ektron's Workarea > Settings > Configuration > Custom Properties.
- **OrderList server control**—This server control lets customers view a list of their processed orders.
  - Make sure the `DynamicOrderParameter` is set to the parameter name used to pass order IDs to the QueryString.
  - Make sure the `DynamicProductParameter` is set to the parameter name used to pass product IDs to the QueryString.

Configuring eCommerce

This section describes the configuration screens located in the **Workarea** at **Settings > Commerce > Configuration** and **Settings > Commerce > Tax**.

This section also contains the following topics.

Configuring Countries

Use the Countries screen to modify existing country information or add new countries to eCommerce.

How Countries are Used

- **to define country tax tables**—For example, assume Canada has a national tax of 5% that applies to the sale of certain goods. National tax tables are defined in the Country Tax Tables screen.
- **to determine shipping costs**—In the checkout process, a purchaser selects a shipping address, which includes country. So, be sure to enable countries from which customers (site visitors) can enter orders. Countries are also part of the location on the Warehouse screen. An order's shipping cost is determined by the distance between the warehouse and the destination.

Default Countries

By default, Ektron provides information for countries on the ISO list of English country names and code elements (`ISO 3166-1-alpha-2 code`).

The following is provided for each country.

- name
- numeric ISO code
- long alphabetical ISO code
- short alphabetical ISO code

The countries screen lets you enter new countries, and edit information for provided countries.

Creating a Country

PREREQUISITE

The new country's ISO codes.

To add a new country:

1. From the Workarea, choose **Settings > Commerce > Configuration > Countries**.
2. Click **New > Country**.
3. Enter information in the following fields:
   - **Name**—Enter the country's name.
   - **Numeric ISO**—Enter the country's ISO 3166-1 3-digit numeric ISO code. See Also: ISO 3166-1 numeric
   - **Enabled**—Check this box if you want this country to be active. Only active countries can be selected on the Edit Billing Information screen, which appears during the Checkout procedure.
   - **Long ISO**—Enter the country's ISO 3166-1 alpha-3, 3-letter country code. See Also: ISO 3166-1 alpha-3
   - **Short ISO**—Enter the country's ISO 3166-1 alpha-2, 2-letter country code. See Also: ISO 3166-1 alpha-2
4. Click **Save**.

Editing a Country

1. Go to **Workarea > Settings > Commerce > Configuration > Countries**.
2. Click the name of the country that you want to edit.
3. Click **Edit**.
4. Edit any of the fields, which are described in *Creating a Country* on the previous page

Deleting a Country

1. Go to **Workarea > Settings > Commerce > Configuration > Countries**.
2. Click the name of the country that you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**. The country is deleted.

Configuring Regions

The Regions screen lets you define geographic regions within countries that your eCommerce site services. For example, in the United States of America, each state is a region.

Regions are used in the same way that countries are used. See Also: *How Countries are Used* on the previous page By default, the Regions screen includes 50 United States of America, the District of Columbia, and 9 Canadian Provinces.

Creating a Region

PREREQUISITE

The region's country is defined in the Countries screen

1. Go to Workarea > **Settings > Commerce > Configuration > Regions**.
2. Choose **New > Region**.
3. Use the following information to complete the screen.
   - **Name**—Enter the region's name.
   - **Enabled**—Check this box if you want this region to be active. Only active regions can be selected on the Edit Billing Information screen, which appears when customers enter billing information during the Checkout procedure.
   - **Code**—Enter an abbreviation for this region.
   - **Country**—Select this region's country from the pull down list. If the country is not there, exit this screen, and create the country using the Countries screen.
   - **Add another region to this country?**—This field saves the effort of selecting a country when entering several regions for one country.

     To add more regions for this country, check this box and press **Save**. When you do, the screen refreshes, and the most recently selected country appears as the default.
4. Click **Save**.

Editing a Region

1. Go to Workarea > **Settings > Commerce > Configuration > Regions**.
2. Click the name of the region that you want to edit.
3. Click **Edit**.
4. Edit any of the fields, which are described in *Creating a Region* on the previous page

Deleting a Region

1. Go to Workarea > **Settings > Commerce > Configuration > Regions**.
2. Click the name of the region that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**.

Configuring Currencies

eCommerce supports all currencies. However, customers can choose only enabled currencies. The Currency screen lets you enable and edit information for installed currencies.

Installed Currencies

By default, Ektron provides currencies on the ISO 4217 Current Currency & funds code list.

The following information is provided for each installed currency.

- name
- enabled (yes or no)
- numeric ISO code
- alpha ISO code
- exchange rate

Enabling Currencies

When users are setting prices in the Workarea or site visitors are shopping, they can only choose enabled currencies. When you install Ektron, the following currencies are enabled.

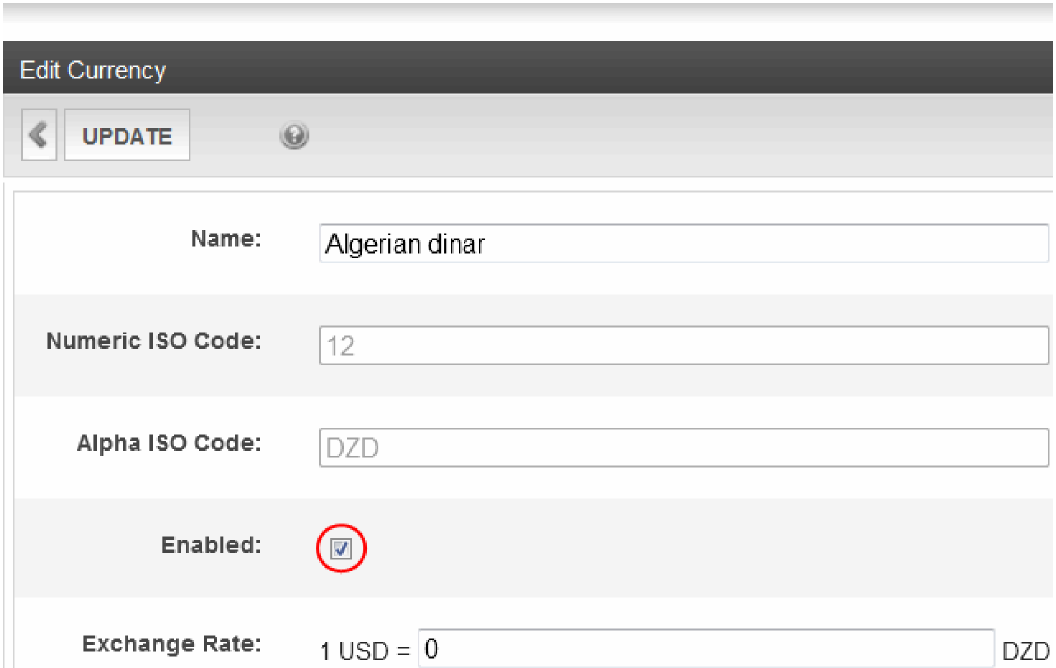
- U.S. dollar, the *default currency*. See Also: *The Default Currency* below
- Euro
- Australian dollar

To see which currencies (other than the default) are enabled, click **Action > Edit Exchange Rates** from the Currencies screen. Only non-default, enabled currencies appear.

WARNING! The Euro and Australian dollar are shipped with a default exchange rate. If you will support these currencies, you should update the rate to its current value before going live. See Also: *Defining and Updating Exchange Rates* on page 1310

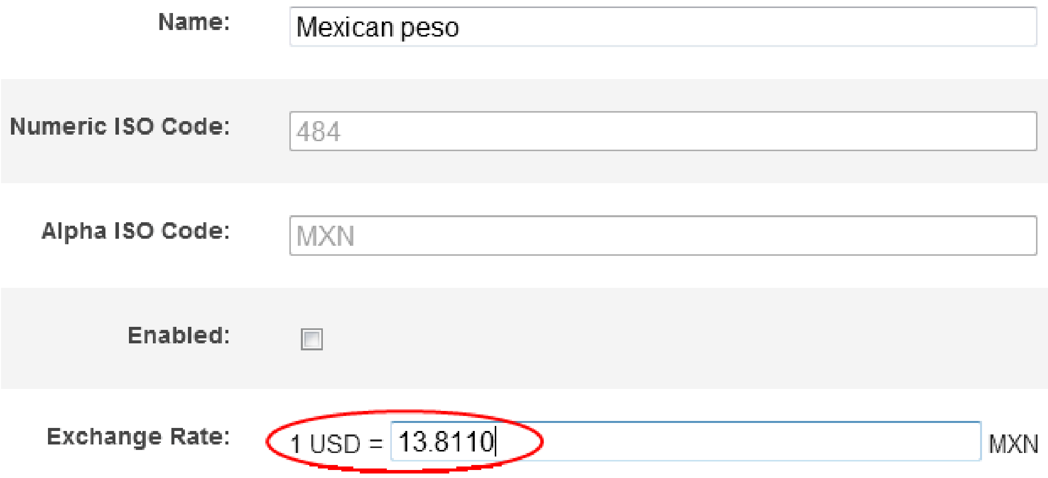
To enable any installed currency:

1. From the Workarea, choose **Settings > Commerce> Configuration > Currencies**.
2. Click the currency you want to enable. (Use the **Search** box to quickly find a currency.) The Edit Currency screen appears.
3. Check the **Enabled** check box.
4. Click **Update**.



The Default Currency

The default currency is the reference currency when setting the exchange rate on the Edit Currency screen. For example, if the default is US dollars, **USD** appears on the left of the exchange rate equation, as shown below.



The default currency is also the default value in the Currency Selector server control, and on the **Pricing** tab of the View/Edit Catalog Entry screen. See Also: *CurrencySelect* on page 1716

Viewing and Changing the Default Currency

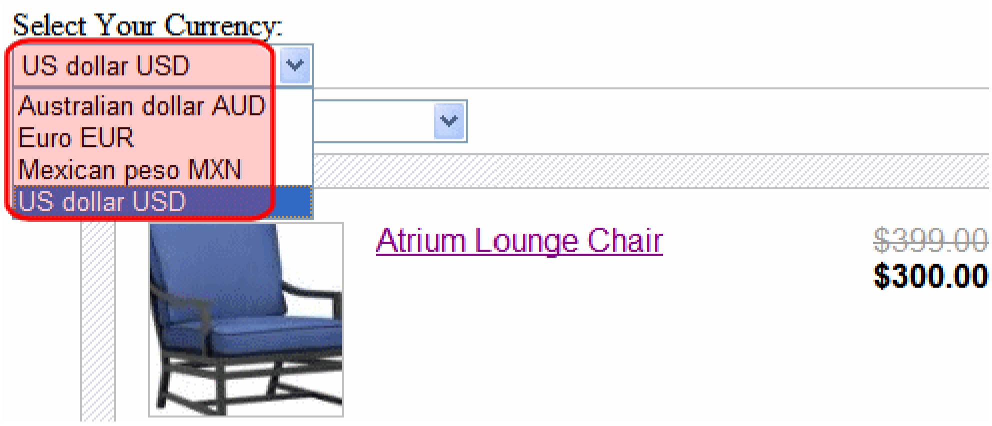
When you install Ektron, the default currency is U.S. dollars, indicated by the Numeric ISO code 840. At that time, you can change this by editing the value for the web.config file's `ek_ecom_DefaultCurrencyId` tag. You must enable the new default currency in the Workarea before changing it in the web.config file.

WARNING! After your eCommerce feature goes live, do **not** change the `ek_ecom_DefaultCurrencyId` value in `web.config`.

IMPORTANT: If you edit the siteroot/web.config file's `ek_ecom_DefaultCurrencyId` property, you must begin a manual crawl. See Also: *Starting Crawls Manually* on page 932 You will only see the new default currency in search results when that crawl is complete.

How Currencies Are Used in the CurrencySelect Server Control

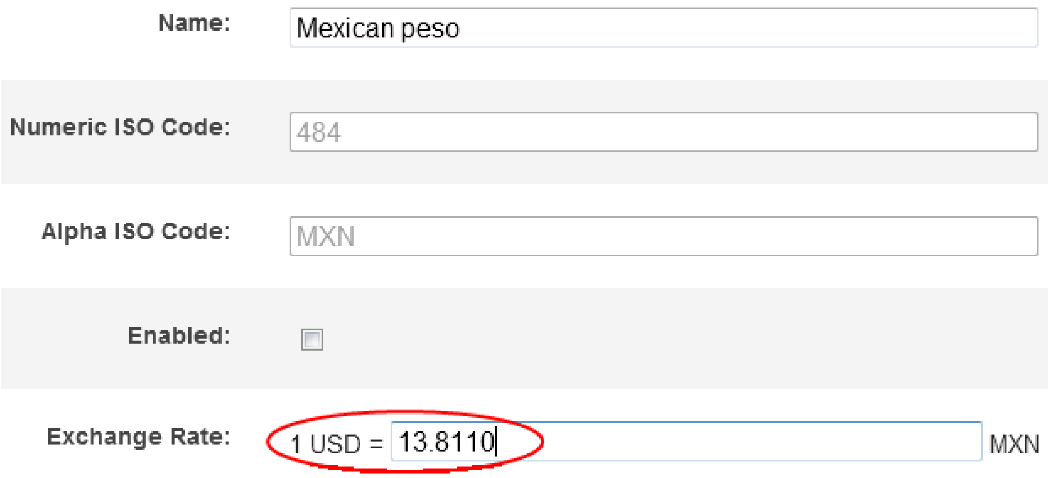
If your developer places a CurrencySelect server control on a page, a site visitor can use it to select any enabled currency. See Also: *CurrencySelect* on page 1716



After a currency is selected, the prices change to that currency. From that point on, the cart and order use the selected currency. See Also: *Defining and Updating Exchange Rates* below

Defining and Updating Exchange Rates

The Edit Currency screen lets you define an exchange rate between the default and any other currency. A good website for finding exchange rates is http://www.xe.com.



The exchange rate can dynamically adjust prices when the rate changes. See Also: *Alternate Currency Pricing* on page 1362

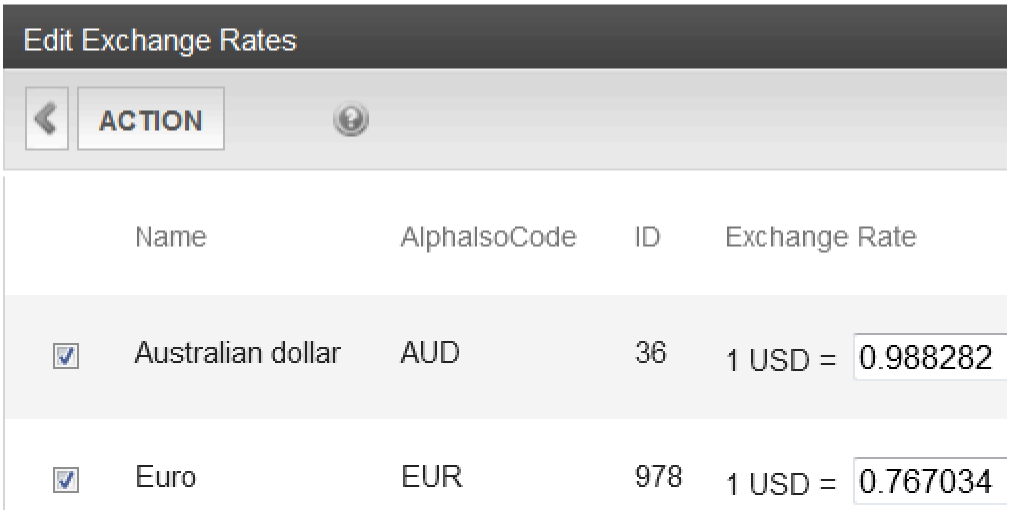
You can update the exchange rates using:

- the Ektron API
- the Edit Exchange Rates screen

The following Ektron API supports calling an exchange rate service to update rates automatically: `Ektron.Cms.Commerce.ExchangeRateApi`. For more information, see the Ektron API documentation (http://reference.ektron.com/developer/).

The Edit Exchange Rates screen lets you update the exchange rate for enabled currencies:

1. In the Workarea, go to **Settings > Commerce > Configuration > Currencies**.
2. Choose **Action > Edit Exchange Rates**. The Edit Exchange Rates screen appears, showing enabled currencies and their exchange rates.



3. Update rates as needed.
4. Choose **Action > Update**.

Editing a Currency

1. Go to the Workarea > **Settings > Commerce > Configuration > Currencies**.
2. Click the currency you want to edit.
3. You can only edit the **Name**, **Enabled**, and **Exchange Rate** fields. The Numeric ISO Code and Alpha ISO Code are not editable and are determined by the currency selected.
   - **Name**—Enter the currency's name.
   - **Enabled**—Check this box to enable this currency.
   - **Exchange Rate**—Enter the exchange rate between this currency and the default one.
4. Click **Update**.

Deleting a Currency

1. Go to the Workarea > **Settings > Commerce > Configuration > Currencies**.
2. Check the box next to the currency that you want to delete.
3. Choose **Action > Delete Selected**. A confirmation message appears.
4. Click **OK**. The currency is deleted.

Configuring Payment Options

The Payment Options screen lets you determine which options are available for your customers to pay for their purchases.

- PayPal—The **PayPal** checkbox is not available for selection until you have set up a PayPal account. See Also: *Using PayPal with Ektron eCommerce* on the next page
- a Payment Gateway, such as AuthorizeNet—See Also: *Configuring Payment Gateways* on page 1317

Both options can be enabled, but only one gateway can be enabled at a time.

PayPal payments work like checks in that they need to be settled. After an order is placed, the payment must be marked as “settled” for the workflow to proceed.

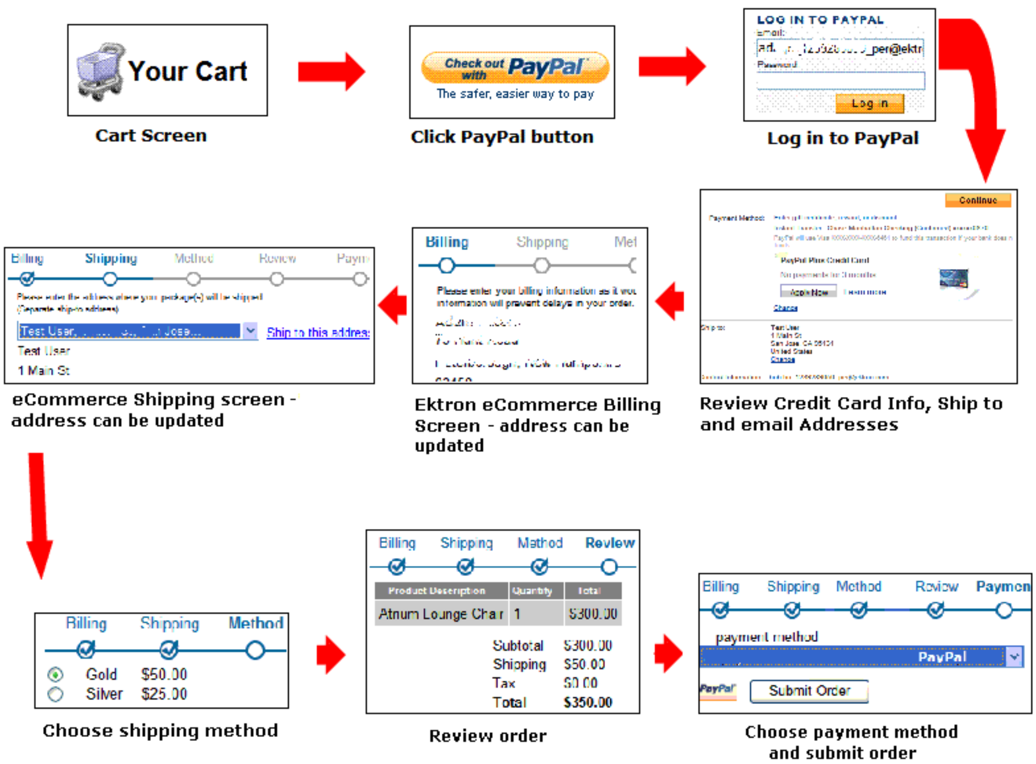
Using PayPal with Ektron eCommerce

Customers can use PayPal to pay for purchases from either of 2 points in the checkout process

- the shopping cart screen
- the payment screen

IMPORTANT: PayPal requires you to place the **Pay with PayPal** option on both the shopping cart and payment screens.

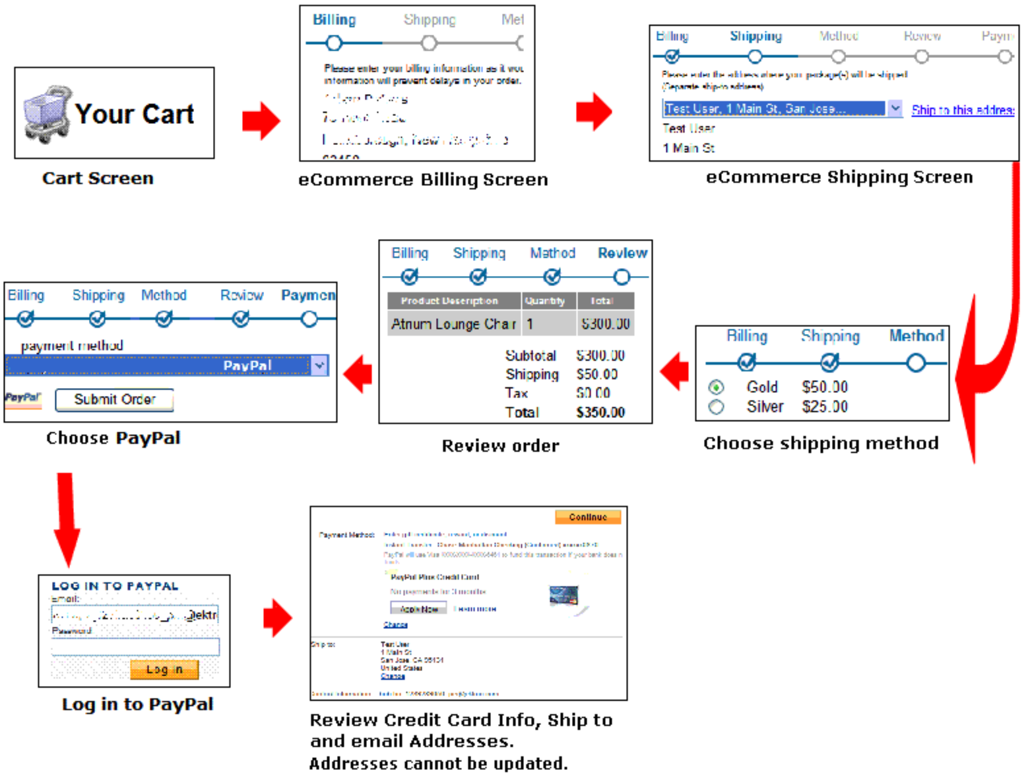
If you access PayPal via the shopping cart screen, you follow these steps.



Here is the sequence illustrated above.

1. From the Cart screen, a site visitor clicks **PayPal**.
2. The site visitor logs into his or her PayPal account.
3. Account information populates the shipping and billing addresses.
4. The site visitor can change addresses if needed. If the PayPal account address is used for the order, it is saved as part of the site visitor’s eCommerce account information.
5. Shipping costs are added.
6. The order is confirmed.
7. Site visitor checks out via PayPal.

Alternatively, the site visitor can use the standard eCommerce checkout process, select PayPal on the payment screen, and complete the order using the PayPal payment screen. That sequence is illustrated below.



PayPal Documentation

Use the following PayPal technical documentation resources when integrating PayPal into your eCommerce site: PayPal Express Checkout Integration Guide and Payflow ACH Payment Service Guide, located at [PayPal: Development & Integration Guides].

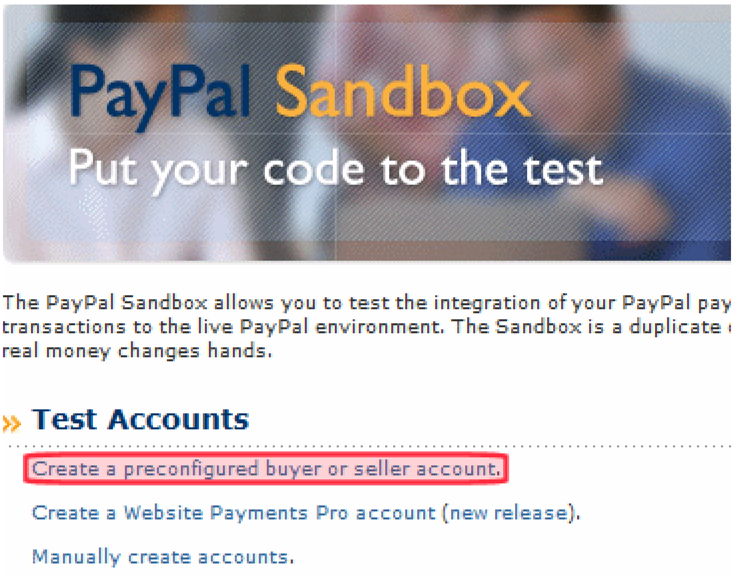
Enabling PayPal Support

1. *Create a Sandbox Account* below. This step includes updating Ektron's web.config file.
2. *Begin Using PayPal* on page 1316
3. *Enable PayPal in the Workarea* on page 1317

Create a Sandbox Account

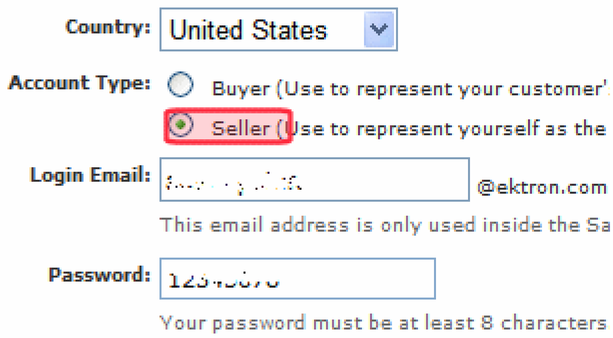
1. Sign on to [PayPal Sandbox].
2. Sign up for an account.
3. You receive an email confirmation that directs you to another page.
4. Log in using the information you provided in Step 2.

5. Under **Test Accounts**, click **Create a preconfigured buyer or seller account**.



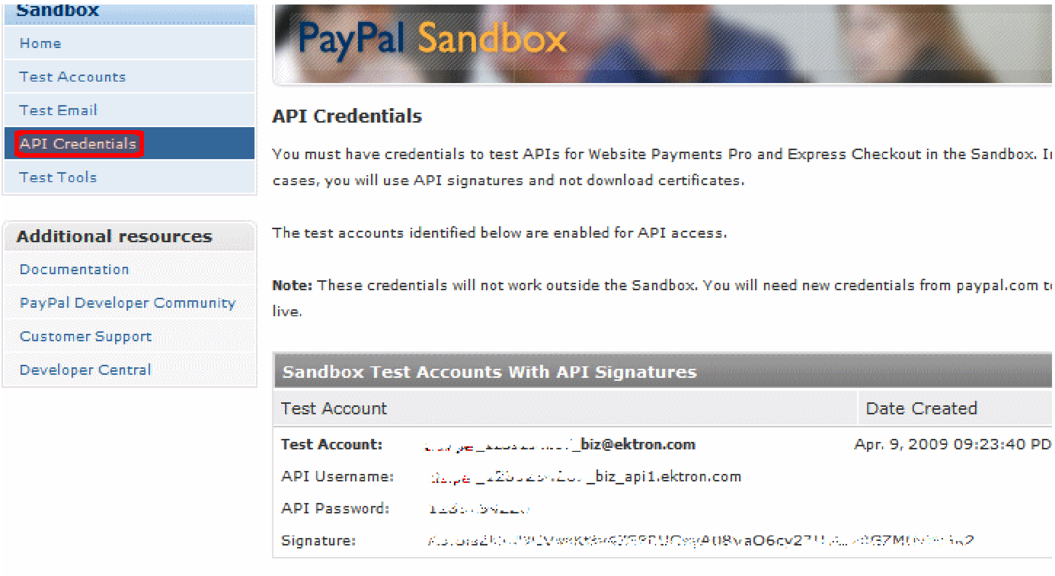
6. Create a buyer account. You will use this to test the customer experience.
7. Change the password to one you can easily remember.

8. Click **Home > Test Accounts > Create a preconfigured buyer or seller account**.
9. Click **Account Type Seller**.



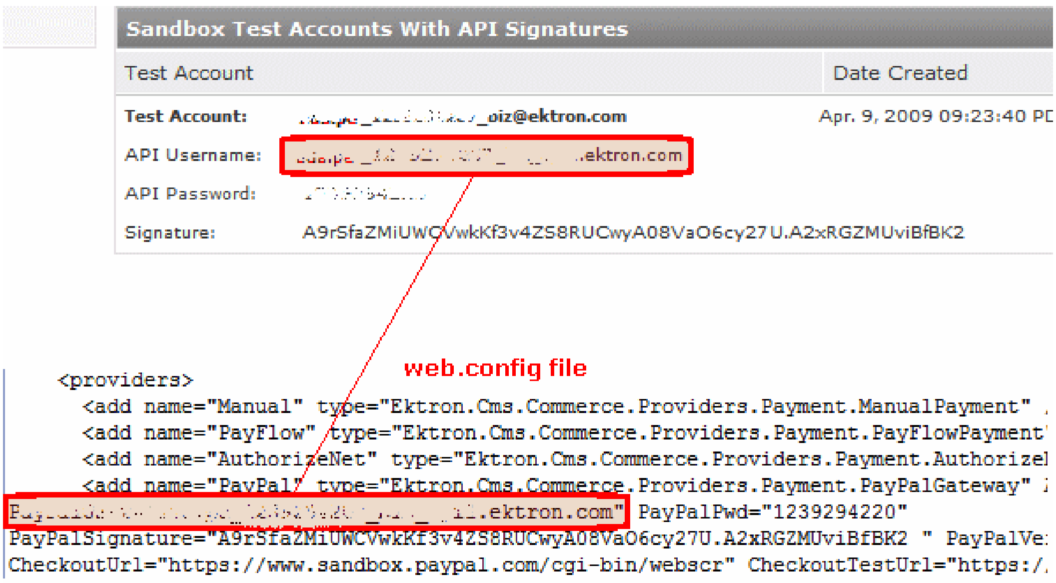
10. Create a seller account. You will use this to test the merchant experience.
11. Change the password to one you can easily remember.

12. In the upper left corner of the screen, click **API Credentials**.



13. Open your *siteroot*/web.config file.
14. Copy the following values from the API Credentials screen into the web.config's providers/paypal element. Save web.config.
    - API Username > PayPalUser
    - API Password > PayPalPwd
    - Signature > PayPalSignature

The following illustration shows the PayPal API Username copied into the web.config file's PayPalUser property.



Encrypting PayPal Authentication Values

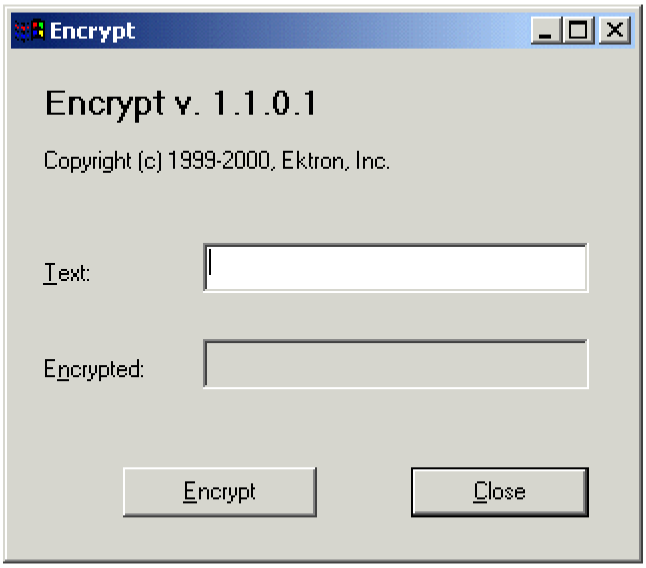
Follow these steps to encrypt the following values in the web.config file's providers/paypal element.

- PayPalUser
- PayPalPwd
- PayPalSignature

1. Open the *siteroot*/web.config file.
2. Set the AuthValuesEncrypted element to true.

```
<DocumentManagerData configSource="AssetManagement.config" />
<EktronPaymentGateway defaultProvider="Automatic">
  <providers>
    <add name="Manual" type="Ektron.Cms.Commerce.Providers.Payment.ManualPayment" />
    <add name="PayFlow" type="Ektron.Cms.Commerce.Providers.Payment.PayFlowPayment" />
    <add name="AuthorizeNet" type="Ektron.Cms.Commerce.Providers.Payment.AuthorizeNetPayment" />
    <add name="PayPal" type="Ektron.Cms.Commerce.Providers.Payment.PayPalGateway"
AuthValuesEncrypted="false"
```

3. Save and close web.config.
4. Open C:\Program Files\Ektron\CMS400vxx\Utilities.
5. Run EncryptEmailPassword.exe. The Encrypt Utility dialog appears.



6. Enter the PayPal user name into the **Text** field.
7. Click **Encrypt**. The screen displays encrypted text in the **Encrypted** field.
8. Copy the encrypted text and paste it into the web.config file's PayPalUser element value.
9. Repeat Steps 6 through 8 for PayPalPwd and PayPalSignature.

Test the Sandbox Account

1. Sign into Workarea **> eCommerce > Cart**.
2. Click the **PayPal** button.
3. Enter the buyer account user name and password that you created in *Create a Sandbox Account* on page 1313. You proceed to the Ektron Checkout screen.

After completing these steps, you have verified your PayPal buyer experience and are ready to begin using PayPal.

Begin Using PayPal

1. Sign on to PayPal.
2. Create a new account.
3. Follow the instructions to obtain API credentials.
4. Copy the following values from the API Credentials screen into the `web.config`'s `providers/paypal` element. Save `web.config`.
   - API Username > PayPalUser
   - API Password > PayPalPwd
   - Signature > PayPalSignature
5. If you want to encrypt these values, see *Encrypting PayPal Authentication Values* on page 1315.
6. *Enable PayPal in the Workarea* below.
7. If desired, customize the PayPal page on your website.

Enable PayPal in the Workarea

1. From the Workarea, choose **Settings > Commerce > Configuration > Payment Options**.
2. Click **Action > Edit Payment options**. The Edit Payment Options screen appears.
3. Check **PayPal**.
4. Click **Save**.

Customizing the PayPal Page

If you are using Ektron's sample site and PayPal is enabled, the login screen contains an Ektron logo for demonstration purposes.

You can replace the logo using the `apiparamHDRIMG` property of the `<providers> add name="PayPal"` element in the `web.config` file.

```
  <EktronPaymentGateway  defaultProvider="Automatic">
    <providers>
      <add name="Manual" type="Ektron.Cms.Commerce.Providers.Payment.ManualPaymen
      <add name="PayFlow" type="Ektron.Cms.Commerce.Providers.Payment.PayFlowPaym
      <add name="AuthorizeNet" type="Ektron.Cms.Commerce.Providers.Payment.Author
      <add name="PayPal" type="Ektron.Cms.Commerce.Providers.Payment.PayPalGatewa
 PayPalUser="ada.pe_1239294207_biz_api1.ektron.com" PayPalPwd="1239294220"
 PayPalSignature="A9rSfaZMiUWCVwkKf3v4ZS8RUCwyA08VaO6cy27U.A2xRGZMUviBfBK2" PayPal'
 CheckoutUrl="https://www.sandbox.paypal.com/cgi-bin/webscr" CheckoutTestUrl="http
 NVPUrl="https://api-3t.sandbox.paypal.com/nvp" NVPTestUrl="https://api-3t.sandbox
 apiparamHDRIMG="https://ektron.com/images/homepage-logo-small.jpg" />
    </providers>
  </EktronPaymentGateway>
```

To change the logo, change the referenced image.

To learn how to customize other aspects of the page, see PayPal's "Express Checkout Integration Guide" section "PayPal Page Style." The guide is located at PayPal: Development & Integration Guides.

When setting values in the `web.config`'s `providers/add name=" PayPal"` element, prefix any variable with `apiparam`. For example, to set the header background color, enter `apiparamHDRBACKCOLOR="FFF666"`.

Configuring Payment Gateways

A payment gateway provider is a pluggable component that is integrated into the Ektron eCommerce module. A payment provider handles eCommerce customer payments by using third-party payment gateways. Ektron eCommerce module accepts payments such as credit cards or checks. Then, it passes that information to a third-party service. The third-party service processes the payment and returns a transaction ID that is stored with the customer's order.

Your company needs to set up an account with a third party payment service before using the payment provider. Ektron provides 4 standard payment gateways: authorize.net, Payflow, Sage Pay and PayFlowWebsite Payments Pro along with manual. The manual gateway accepts credit cards. In this case, the merchant emails the credit card information to the credit card company. You can customize these providers or create your own using the extendable Payment Gateway Provider architecture. See *Customizing the Payment Gateway Provider* on page 1449.

In addition, some payment gateways might support recurring payments, while others might not. Recurring payments let you create a payment that recurs at a given interval for a specified period of time. For example, you could create a payment for $9.99 that occurs on the first of every month for the next 12 months. This is something to consider if your site relies on a subscription service.

Ektron lets you edit information on any provided gateway as well as create a new one.

Processing Credit Card Transactions via a Gateway

The following sequence explains typical processing of credit card transactions. `(source: www.authorize.net)`

1. A customer purchases a product from your site and submits payment information.
2. Ektron passes the information to your payment gateway.
3. The payment gateway provider (PGP) receives secure transaction information and passes it via secure connection to the Merchant Bank’s Processor.
4. The Merchant Bank’s Processor submits the transaction to the Credit Card Interchange (a network of financial entities that manage credit card transactions).
5. The Credit Card Interchange sends the transaction to the customer’s Credit Card Issuer.
6. The Credit Card Issuer approves or declines the transaction, based on the customer’s available funds. It then passes the transaction results and, if approved, the appropriate funds back through the Credit Card Interchange.
7. The Credit Card Interchange relays the transaction results to the Merchant Bank’s Processor.
8. The Merchant Bank’s Processor relays the transaction results to PGP.
9. The PGP stores transaction results and sends them to the customer and/or the merchant. This communication process averages 3 seconds or less.
10. The Credit Card Interchange passes the transaction’s funds from the Credit Card Issuer to the merchant’s bank account.

Processing Check Transactions via a Gateway

The following sequence explains how a payment gateway processes checks. `(source: www.authorize.net)`

1. Customer authorizes merchant to charge the customer's bank account for an amount.
2. Order and payment information is securely transmitted via the Internet to the payment gateway.
3. The transaction is accepted or rejected based on initial data validation and security criteria defined by the payment gateway.
4. If accepted, the transaction is sent to the ACH Network for settlement.
5. The ACH Network uses the transaction's bank account information to determine the bank that holds the customer's account (the RDFI).
6. The ACH Network instructs the RDFI to charge or refund the customer's account.
7. The RDFI transfers funds from the customer's account to the ACH Network. The RDFI also notifies the ACH Network of any returns (if funds could not be collected from the customer's bank account) or charge backs (if a customer disputes a purchase).
8. The ACH Network transfers funds for the transaction to the payment gateway's bank.
9. After a holding period, the payment gateway provider initiates a ACH transaction that deposits the funds into the merchant's bank account.

Establishing a Relationship with a Payment Gateway Provider

You need to set up an account with a third-party payment service before using a payment provider. Each payment gateway provider accepts configuration parameters. For example, Authorize.NET requires a username and password, while PayFlow requires a Username, password, vendor, and partner.

In addition, some payment gateways do not support subscription payments. Consider this if your site relies on subscriptions. See Also: *Creating a Subscription* on page 1349

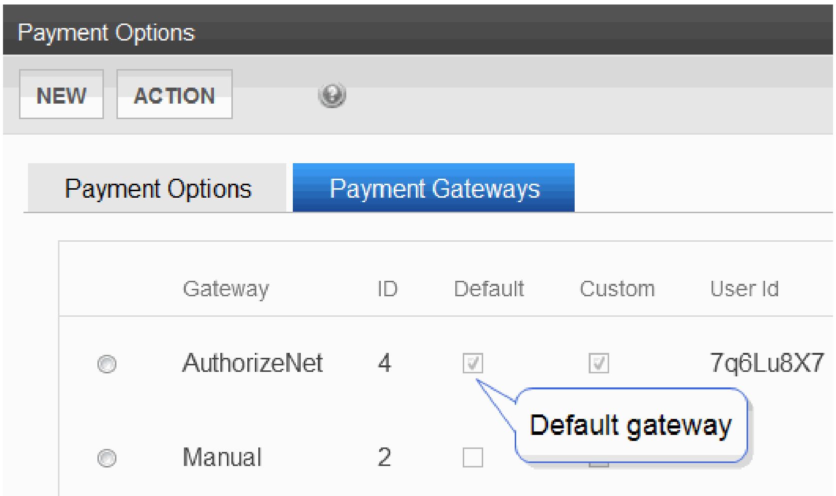
The Default Gateway

The eCommerce checkout uses the default gateway only. Additional gateways are unused unless one is changed to the default.

You cannot delete the default gateway. If you want to delete it, you must first make another gateway the default.

To change the default gateway:

1. Go to **Settings > Commerce > Configuration > Payment Options**.
2. Click the **Payment Gateways** tab. The currently-defined default has a check in the **Default** column.



3. Click the radio button next to the gateway you want to make the default.
4. Choose **Action > Mark as Default**. A confirmation message appears.
5. Click **OK**.

Adding a Payment Gateway

NOTE: To create a new payment gateway provider, see *Customizing the Payment Gateway Provider* on page 1449.

1. In Ektron, go to **Settings > Commerce > Configuration > Payment Options**.
2. Choose **New > Payment Gateway**.
3. Enter information or select options for the following fields:
   - **Name**—Enter the name of the gateway.
   - **Default**—Check this box if this is the default gateway. If you do, and another gateway is currently the default, it is replaced by this one.
   - **User ID**—Enter your User ID. This ID will identify your account with this gateway provider.
   - **Password**—Enter the password for your account with this gateway provider.
   - **Expand Custom Values**—If this gateway provider needs additional fields of information, enter those values into the **Custom 1** and **Custom 2** fields.
   - **Credit Cards**—Check if this payment gateway accepts credit cards.
   - **Checks**—Check if this payment gateway accepts checks.

The following sections explain how to set up standard Payment gateways.

- *Setting up a PayFlow Payment Gateway* on the facing page
- *Setting up a PayFlowWebsite Payments Pro Payment Gateway* on the facing page
- *Setting up an Authorize.Net Payment Gateway* on page 1322
- *Setting up a SagePay Payment Gateway* on page 1322

NOTE: When setting up a payment gateway, you are asked to enter authentication codes, such as user name and password. To keep them safe, Ektron encrypts these values when saving them to the database.

Setting up a PayFlow Payment Gateway

NOTE: See PayFlow's website for additional instructions on setting up the PayFlow Gateway.

When setting up a PayFlow payment gateway:

1. Set up an account with PayFlow. To do this, go to Paypal: Payflow Payment Gateway. During this process, you should obtain a Login ID and password.
2. Go to **Settings > Commerce > Configuration > Payment Options**.
3. Choose **New > Payment Gateway**.
4. Enter information or select options for the following fields:
   - **Name**—Choose **Payflow**.
   - **Default**—Check this box to make PayFlow the default gateway.
   - **User ID**—Enter the user ID provided to you by the authorized PayPal Reseller who registered you for the Payflow SDK. If you purchased your account directly from PayPal, use PayPal.

     Limitations: 64 alphanumeric, case-sensitive characters.
   - **Password**—Enter the password you defined while registering for account.

     Limitations: 6- to-32 alphanumeric, case-sensitive characters
   - **Expand Custom Values**—Click this text to open the **Custom 1** and **Custom 2** fields.
     - **Custom 1—**Enter the merchant login ID sent to you when you registered the account.

       Limitations: 64 alphanumeric, case-sensitive characters.
     - **Custom 2—**Enter the Partner ID sent to you by the authorized PayPal Reseller who registered you for the Payflow SDK. If you purchased your account directly from PayPal, use PayPal.

       Limitations: 12 alphanumeric, case-sensitive characters.
   - **Credit Cards**—Check if this payment gateway accepts credit cards. You should verify that this payment gateway supports credit card payments.
   - **Checks**—Check if you will accept checks with this payment gateway. You should verify that this payment gateway supports check payments.

Setting up a PayFlowWebsite Payments Pro Payment Gateway

The PayFlowWebsite Payments Pro payment gateway is used in the United Kingdom and Australia.

1. Set up an account with PayFlowWebsite Payments Pro. To do this, go to Paypal: Payflow Payment Gateway.
2. In the Workarea, go to **Settings > Commerce > Configuration > Payment Options**.
3. Choose **New > Payment Gateway**.

4. Enter information or select options for the following fields:
   - **Name**—Choose **PayFlowWebsite Payments Pro**.
   - **Default**—Check this box to make PayFlow the default gateway. See Also: *The Default Gateway* on page 1319
   - **User ID**—Enter the API username sent to you by the authorized PayPal Reseller who registered you for the Payflow SDK. For example, **sellUK_1271963915_biz_api1.ektron.com**. If you purchased your account directly from PayPal, use PayPal.

     Limitations: 64 alphanumeric, case-sensitive characters.
   - **Password**—Enter the API password you defined while registering for the account.For example,**1234567891**.

     Limitations: 6- to-32 alphanumeric, case-sensitive characters
   - **Expand Custom Values**—Click this text to open the **Custom 1** and **Custom 2** fields.
     - **Custom 1—**Enter the API signature sent to you by the authorized PayPal Reseller who registered you for the Payflow SDK. For example, AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA Limitations: 64 alphanumeric, case-sensitive characters.
     - **Custom 2—**Not used
   - **Credit Cards**—Check if this payment gateway accepts credit cards. You should verify that this payment gateway supports credit card payments.

After defining the payment gateway, you typically want to test it. See *Testing a Payment Gateway* on the facing page

Setting up an Authorize.Net Payment Gateway

1. Set up an account with Authorize.Net. To do this, go to Authorize.Net . During this process, you should obtain a Login ID and password.
2. In the Workarea, go to **Settings > Commerce > Configuration > Payment Options**.
3. Choose **New > Payment Gateway**.
4. Enter information or select options for the following fields:
   - **Name**—Choose **Authorize.Net**.
   - **Default**—Check this box to make Authorize.Net the default gateway.
   - **User ID**—Enter the Login ID you obtained in Step 1.
   - **Password**—Enter the password you obtained in Step 1.
   - **Custom 1** and **Custom 2**—Not used.
   - **Credit Cards**—Check if you will accept credit cards with this payment gateway. You should verify that this payment gateway supports credit card payments.

This gateway accepts only credit cards. No checks.

After defining the payment gateway, you typically want to test it. See*Testing a Payment Gateway* on the facing page

Setting up a SagePay Payment Gateway

NOTE: SagePay does not support recurring billing nor check payments.

1. Set up an account with SagePay. To do this, go to Sage Pay. During this process, you should obtain a Login ID and password.
2. Set up a SagePay simulator account using Sage Pay Account Registration.
3. From the Simulator Main Menu, click Account > Valid Currencies for this Account. Enable currencies set up in your Workarea's Currencies screen. See Also: *Configuring Currencies* on page 1307
4. In Ektron, go to **Settings > Commerce > Configuration > Payment Options**.
5. Choose **New > Payment Gateway**.
6. Enter information or select options for the following fields:
   - **Name**—Choose **SagePay**.
   - **Default**—Check this box to make SagePay the default gateway.
   - **User ID**—Enter the User ID you obtained in Step 1.
   - **Password**, **Custom 1**, **Custom 2**—Not used.
   - **Credit Cards**—Check if this payment gateway accepts credit cards. You should verify that the gateway supports credit card payments.
   - **Checks**—Not available with SagePay.

After defining the payment gateway, you typically want to test it. See*Testing a Payment Gateway* below and *Testing SagePay Payment Gateway* below

Testing a Payment Gateway

Typically, you test a default payment gateway before going live with it. eCommerce provides a test mode for this purpose. While eCommerce is in test mode, customers cannot purchase goods. So, disable test mode before going live with a new default payment gateway.

To test a payment gateway, open the `siteroot/web.config` file and set `<ektronCommerce> ek_ecom_TestMode` to `true`.

```
<ektronCommerce>
   <add key="ek_ecom_ComplianceMode" value="false" />
   <!-- This is used only when compliance mode is on, and cannot be less than 4. -->
   <add key="ek_ecom_PasswordHistory" value="4" />
   <add key="ek_ecom_OrderProcessingDisabled" value="false" />
   <add key="ek_ecom_TestMode" value="true" />
    ....
```

When testing is done, change the value of `ek_ecom_TestMode` to `false`.

Testing SagePay Payment Gateway

Do not use the following cards with the SagePay test card number when testing the SagePay payment gateway:

- Japan Credit Bureau (JCB)
- Mastercard
- Visa Electron UK Debit
- Visa Delta Debit
- American Express

Because these cards do not have a cardholder field, the following error is displayed: `The CardHolder field should be between 1 and 50 characters long`.

To test the SagePay Payment Gateway:

1. Follow instructions in *Testing a Payment Gateway* on the previous page.
2. Open your siteroot/web.config file.
3. Set <EktronPaymentGateway>/<providers> SagePay SimulatorMode to true.

```
<EktronPaymentGateway defaultProvider="Automatic">
  <providers> . .
    <add name="SagePay"
      type="Ektron.Cms.Commerce.Providers.Payment.SagePayGateway"
      SagePayVersion="2.23" SimulatorMode="true"
      Description="Ektron CMS Order" />
  </providers>
</EktronPaymentGateway>
```

4. When testing is complete, change the value of SimulatorMode to false.

Editing a Payment Gateway

1. Go to Workarea > **Settings > Commerce > Configuration > Payment Options**.
2. Click the payment gateway that you want to edit.
3. Click **Edit**.
4. Edit any of the fields, which are described in *Adding a Payment Gateway* on page 1320.
5. Click **Save**.

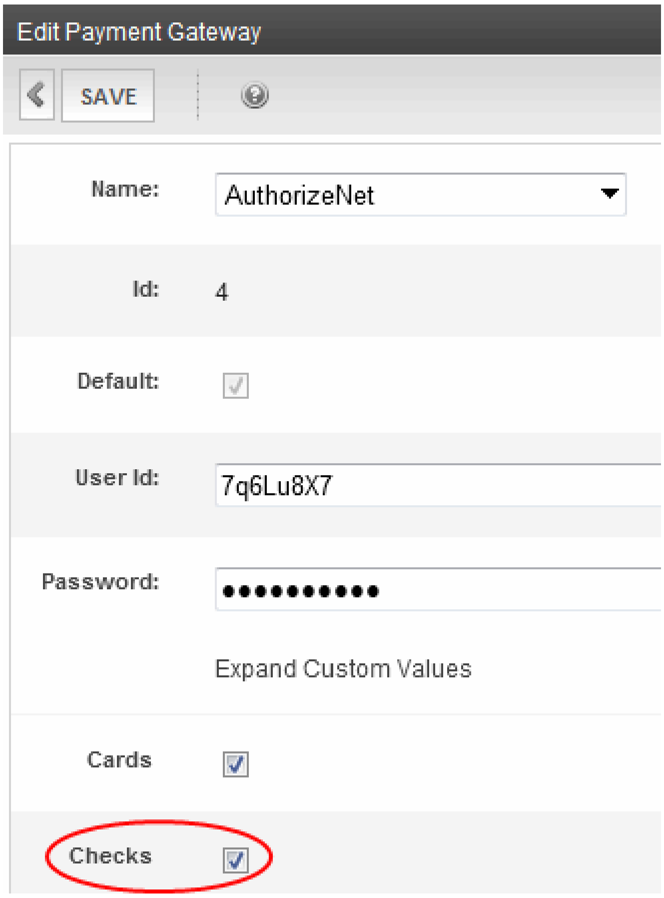
Deleting a Payment Gateway

NOTE: You cannot delete the default gateway. If you want to delete it, you must first make another gateway the default.

1. From Workarea, choose **Settings > Commerce > Configuration > Payment Options**.
2. Click the payment gateway that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**.

Check Support

Payment gateways generally offer 2 payment mechanisms: credit cards and checks. You can enable or disable check support for a gateway via the **Settings > Commerce > Configuration > Payment options > Edit Payment Gateway** screen.



If checks are enabled for the default payment gateway, a site visitor can pay by **Check** on the payment screen. If check support is not enabled, the **Payment Method** field does not appear.

Check Support Integration Documentation

Use the following resources to familiarize yourself with integrating checks into your eCommerce site.

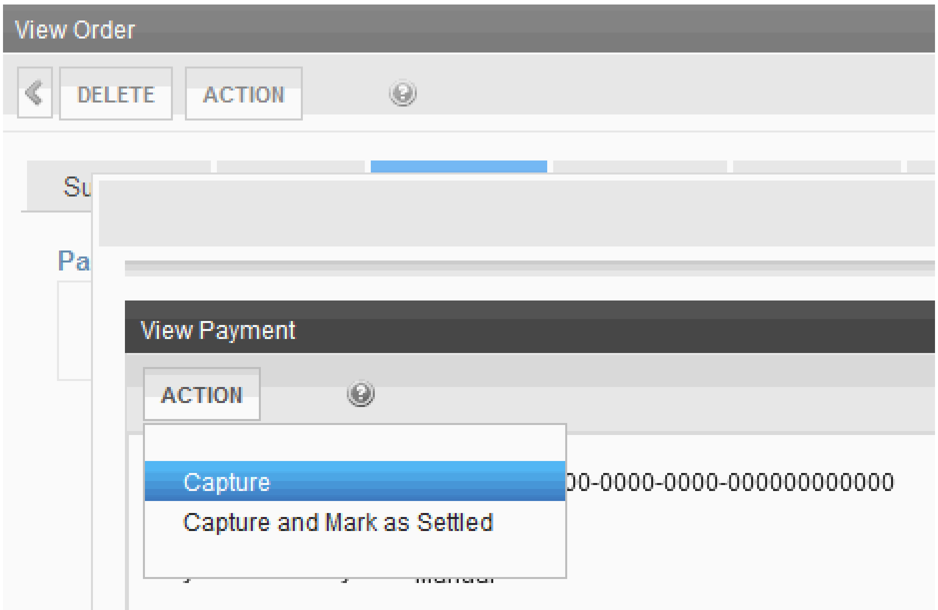
- Authorize.Net: eCheck.Net Operating Procedures and User Guide
- PayFlow: Payflow Link User's Guide ; see the chapter "Integrating TeleCheck Transactions."

Effect of Check Payment on Order Processing

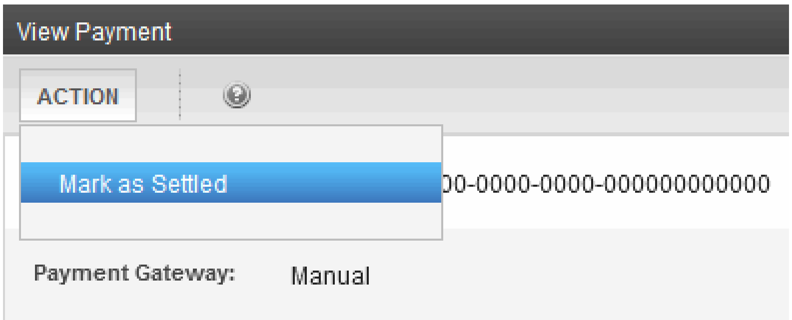
The following describes a typical sequence of events when processing a check for eCommerce payment.

However, Ektron is very flexible and does not enforce this sequence. For example, you can enter a tracking number and mark an order shipped even though its payment has not been captured yet.

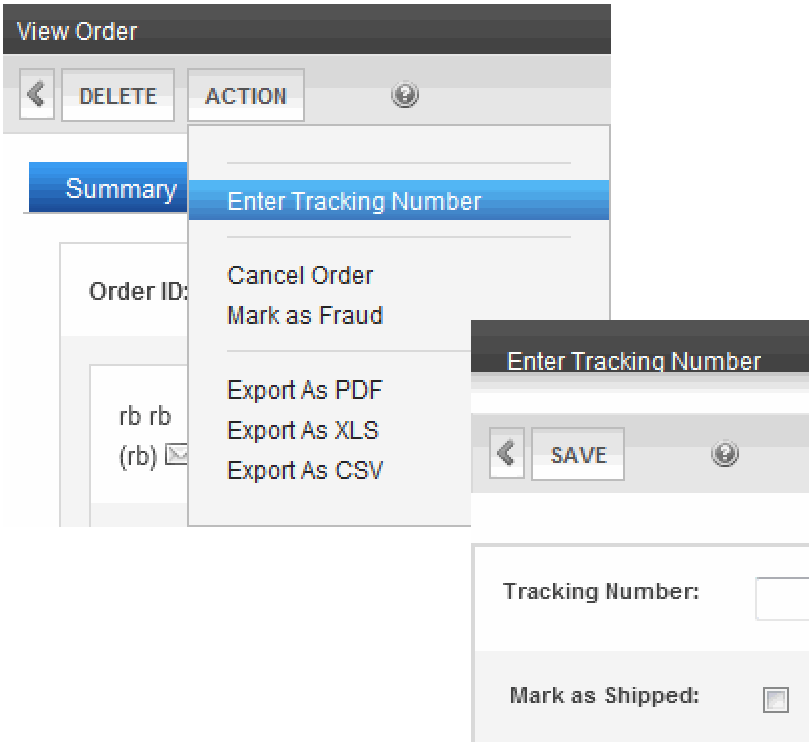
1. eCommerce user accesses the View Payment screen's **Capture** option, which submits a payment request to the customer's bank.



2. A few days later, the funds are transferred to the merchant's account.
3. eCommerce user accesses the View Payment screen's **Mark as Settled** option to confirm the receipt of funds.



4. If goods are *tangible*, eCommerce user ships the merchandise, using the View Payment screen's **Enter Tracking Number** option to insert the tracking number and confirm the shipment.



5. If goods are *not* tangible, the workflow sends the customer an email with purchase details, such as how to download it.

Configuring Credit Card Types

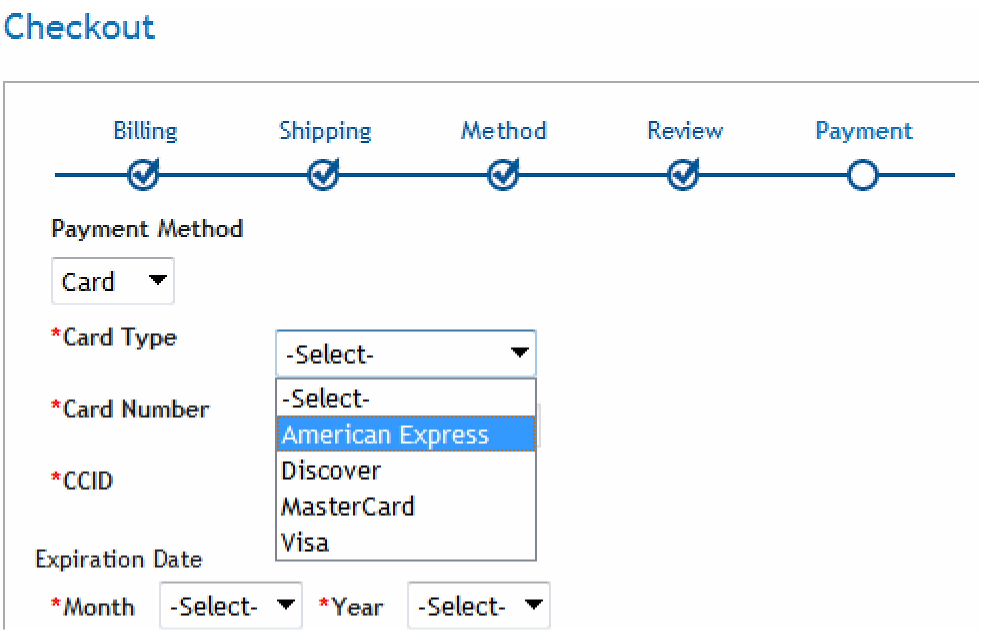
Use this screen to enter types of credit cards that your eCommerce system may use. By default, Ektron's sample sites provide the following card types.

- American Express
- Diners Club (not accepted by default)
- Discover
- MasterCard
- Visa

You can edit the information provided for these types or enter a new one.

Where Credit Card Types are Used

During the checkout process (managed by the *Checkout* on page 1673 server control), the Payment screen includes a drop-down list of enabled credit cards.



Creating a Credit Card Type

To create a new credit card within Ektron:

1. From the Workarea, choose **Settings > Commerce > Configuration > Card**.
2. Choose **New > Card Type** to see the Add Card Type screen.
3. Enter the credit card's name in the **Name** field.
4. Enable the **Accepted** check box if site visitors can use this card to make purchases on your website.
5. Add an image for the credit card. The image must reside on your computer.The image does not appear on the standard checkout screen, but it is a field in the XML, so you can enable it using XSLT.
   a. Click **Change**. The Library Upload screen appears.
   b. Click **Add Library**.
   c. Click **Browse** and navigate to the folder that contains the image.
   d. Choose the image file.
   e. Enter a title in the **Title** field.
   f. Click **Add Library**. The file name appears in the Image field with the image directly below.
6. Enter a Regex expression. See Also: *Using RegEx Expressions for Validation* below
7. Click **Save**.

Using RegEx Expressions for Validation

A RegEx expression is a simple way to validate a credit card account number. (See Also: http://regexlib.com/.) Validation occurs when a site visitor completes the Checkout procedure's Submit Order screen

RegEx prevents the submission of invalid account numbers to a payment gateway, which may charge a fee for such failures.

Ektron provides a RegEx expression for the credit cards supplied with the medical sample site. You can modify them as needed. If you enter a new credit card, you can enter a RegEx expression for it.

Editing a Credit Card Type

1. From the Workarea, choose **Settings > Commerce > Configuration > Card**.
2. Click the Credit Card Type that you want to edit.
3. Click **Edit**.
4. Edit any of the fields, which are described in *Creating a Credit Card Type* on the previous page
5. Click **Save**.

Deleting a Credit Card Type

1. From the Workarea, choose **Settings > Commerce > Configuration > Card**.
2. Click the Credit Card Type that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**. The Credit Card Type is deleted.

Configuring eCommerce Shipping Screens

The eCommerce shipping screens let you specify information about where catalog entries are stocked, how they are packaged, and the available shipment methods.

This section contains the following topics.

- *Using a Warehouse* below
- *Configuring Packages* on the next page
- *Configuring Shipping Methods* on page 1331

Using a Warehouse

Use the Warehouses screen to enter information about warehouses that stock your catalog entries. eCommerce uses this location as the "from" address when calculating shipping costs.

Only the default warehouse is used by the checkout process. Additional warehouses are unused until they are made the default. See Also: *Changing the Default Warehouse* on the next page

PREREQUISITE

Configuring Regions on page 1306 and *Configuring Countries* on page 1305 must be set up

Creating a Warehouse

1. Go to **Settings > Commerce > Shipping > Warehouses**.
2. Choose **New > Warehouse**.

3. Enter information or select options as follows:
   - **Name**—Enter the warehouse's name.
   - **Street1, Street2**—Enter the warehouse's street address
   - **City**—Enter the warehouse's city.
   - **Postal Code**—Enter the warehouse's postal code.
   - **Country**—Select the warehouse's country from the pull-down list.
   - **State/Province**—Select the warehouse's state or province from the pull-down list.
   - **Default Warehouse**—This check box indicates if this is the default warehouse.
4. Click **Save**.

Changing the Default Warehouse

NOTE: You can also specify a warehouse as the default via the Edit Warehouse screen's **Mark Default Warehouse** toolbar button ().

1. Go to Workarea > **Settings > Commerce > Shipping > Warehouses**.
2. Click the radio button next to the warehouse that you want to make the default.
3. Choose **Action > Mark Default Warehouse**. A confirmation dialog appears.
4. Click **OK**.

Editing a Warehouse

1. Go to Workarea > **Settings > Commerce > Shipping > Warehouses**.
2. Click the warehouse that you want to edit.
3. Click **Edit**.
4. Edit any of the fields as described in *Creating a Warehouse* on the previous page.
5. Click **Save**.

Deleting a Warehouse

You cannot delete the default warehouse. However, you can designate another warehouse as the default, then delete the one that was the default.

1. Go to Workarea > **Settings > Commerce > Shipping > Warehouse**.
2. Click the warehouse that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**. The warehouse is deleted.

Configuring Packages

How Packaging Information Is Used

Each item in an order has size and weight dimensions. The shipping calculator uses them to fit the order into the smallest-sized and fewest packages. It then passes packaging information (number, sizes and weight) to the shipping provider, which returns the order's shipping costs. If a catalog entry's dimensions exceed all box sizes, eCommerce passes those dimensions to the shipping provider.

NOTE: Some shipping providers, FedEx and UPS for example, have size and weight limits on packages. If the size or weight exceeds the limit, shipping rates may not be returned when a site visitor is checking out. In this case, a site visitor cannot continue the checkout process and an application error is logged in the Event Viewer.

Size and Weight Units of Measure

By default, Ektron uses English units of measure (inches and pounds) for package size and weight. At the beginning of your eCommerce implementation, you can change to metric units of measure by updating the `web.config` file's `ek_measurementsystem` tag value to `metric`.

WARNING! After your eCommerce feature goes live, do *not* change the `web.config ek_measurementsystem` value.

Creating a New Package

1. Go to **Settings > Commerce > Shipping > Packages**.
2. Click **New > Package**.
3. Enter package information in the following fields:
    - **Name**—Enter a text description of this package size.
    - **Length**—Enter the package's length in the units of measure that appear to the right (inches or centimeters). See Also: *Size and Weight Units of Measure* above
    - **Height**—Enter the package's height in the units of measure that appear to the right (inches or centimeters).
    - **Width**—Enter the package's width in the units of measure that appear to the right (inches or centimeters).
    - **Max Weight**—Enter the package's weight in the units of measure that appear to the right (pounds or kilograms).
4. Click **Save**.

Editing a Package

1. Go to Workarea > **Settings > Commerce > Shipping > Packages**.
2. Click the package that you want to edit.
3. Click **Edit**.
4. Edit any of the fields, which are described in *Creating a New Package* above.
5. Click **Save**.

Deleting a Package

1. From the Workarea, choose **Settings > Commerce > Shipping > Packages**.
2. Click the package that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**. The package is deleted.

Configuring Shipping Methods

Use the Shipping Methods to define choices your site visitors will have for delivering their purchases.

PREREQUISITES

- Default warehouse with an address
- A default shipping provider is defined in the *siteroot*\shipment.config file

Defining Shipping Providers

When you instEktron, several providers exist in the *siteroot*\shipment.config file:

- FedExShipmentProvider
- FlatRateShipmentProvider
- UPSShipmentProvider

However, the FedEx and UPS information is for testing purposes only. To use FedEx, UPS, or another shipping provider, obtain the following information from them. (The information can vary slightly for each provider.)

- service URL
- key
- password
- account number
- meter number
- transactionId

Then, enter that information into `shipment.config`, following the format of providers already in the file.

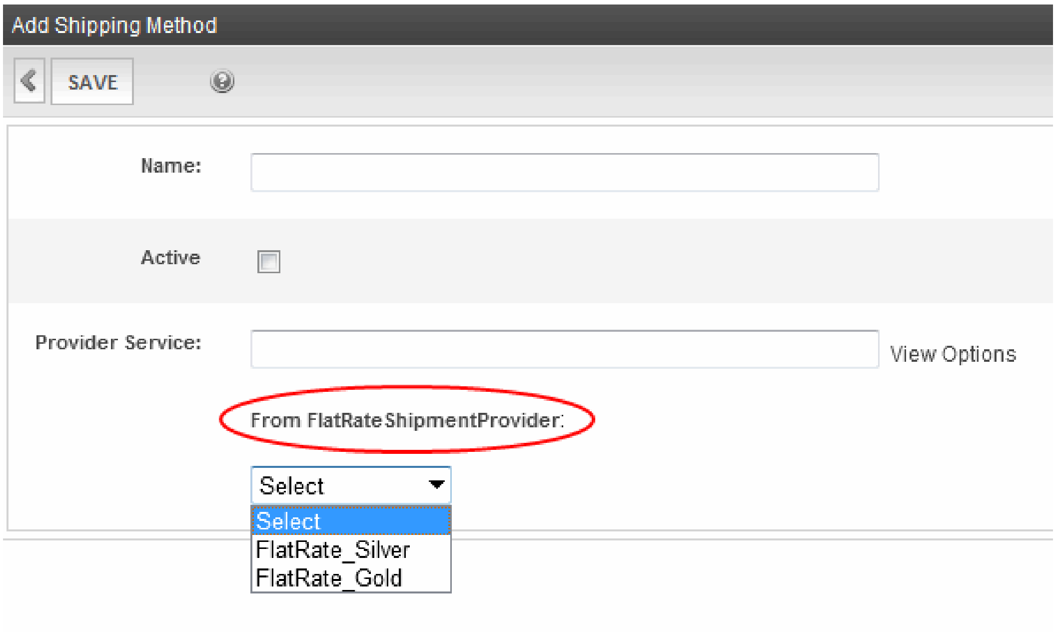
The `shipment.config` file also contains `name` and `type` properties for each provider. The specific text you insert is not important, but the name and type strings must match.

```
name="FedExShipmentProvider"
  type="Ektron.Cms.Commerce.Shipment.Services.FedExShipmentProvider,
    Ektron.Cms.Commerce"
```

To define a custom shipping provider, see *Customizing the Shipment Provider* on page 1456.

Defining the Default Shipping Provider

While you can define any number of shipping providers in the shipment.config file, only one can be active. The active provider appears on the **Settings > Commerce > Shipping > Methods > New > Shipping Method** screen when you click **View Options**.



Specify the default shipping provider via the `defaultprovider` property in *siteroot*`\shipment.config`.

```
<?xml version="1.0" encoding="utf-8" ?>
<shipmentProvider defaultProvider="FedExShipmentProvider">
  <providers>
    <add name="FedExShipmentProvider" ...
</shipmentProvider>
```

Adding a Shipping Method

Use the Add Shipping Method screens to select shipping methods you will support. When a site visitor submits an order, these shipping choices appear on the Shipping screen.

1. Go to Workarea > **Settings > Commerce > Shipping > Methods**.
2. Choose **New > Shipping Method**. The Add Shipping Method screen appears.
3. Enter information or make selections in the following fields.
   - **Name**—Enter the name of the shipping method. Site visitors select a shipping method for their order using this name
   - **Active**—Check this box if you want site visitors to be able to select this shipping method.
   - **Provider Service**—As explained in *Defining the Default Shipping Provider* on the previous page, a default shipping provider is defined in your site’s shipment.config file. To view the methods offered by that provider, click **View Options**. Then, select from the drop-down list that appears.
4. Click **Save**.

Editing a Shipping Method

1. Go to Workarea > **Settings > Commerce > Shipping > Methods**.
2. Click the Shipping Method that you want to edit. The View Shipping Method screen appears.

3. Click **Edit** ( ).
4. Edit the fields described in *Adding a Shipping Method* on the previous page.

Deleting a Shipping Method

1. Go to Workarea > **Settings > Commerce > Shipping > Methods**.
2. Click the Shipping Method that you want to edit.The View Shipping Method screen appears.
3. Click **Delete** ( ).

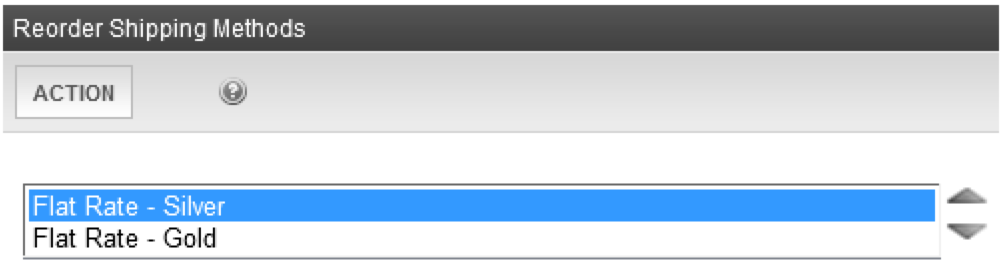
Changing the Order of the Shipping Method

Each shipping method you define has an **Order** field. This determines the sequence in which shipping methods appear on the Shipping Rates screen when a site visitor is submitting an order.

The shipping method with **1** in the **Order** field appears at the top of the list.

By default, every shipping method's order is set to **1**. To set a sequence for shipping methods, follow these steps

1. Go to Workarea > **Settings > Commerce > Shipping > Methods**.
2. Choose **Action > Reorder Items**.
3. Use the selection bar and arrows to arrange methods in the desired sequence.



4. Choose **Action > Save**.

Configuring eCommerce Tax Screens

eCommerce provides a set of tax screens in the Workarea that lets you:

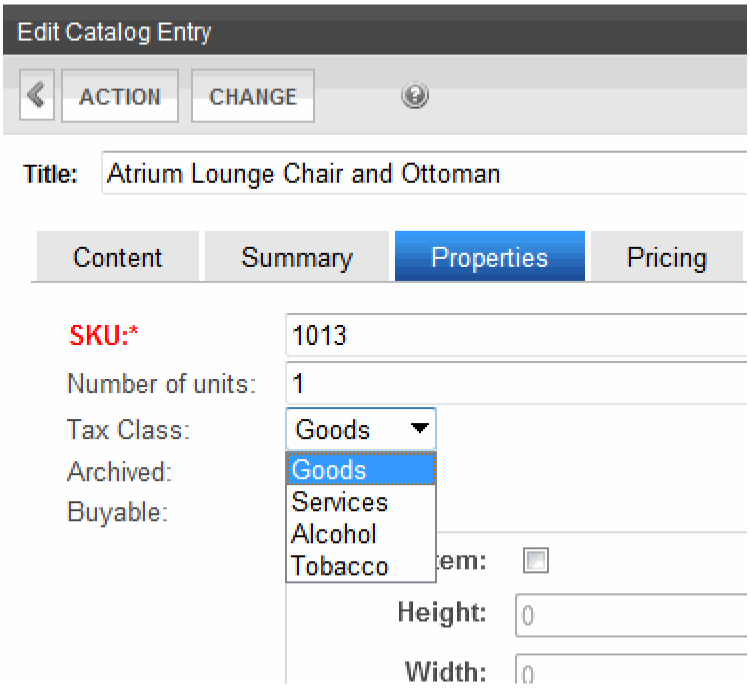
- set up tax classes (for example, goods, services, tobacco)
- define tax rates for these geographic entities (from most to least specific)
  - postal code
  - region
  - country
- apply tax classes
  - for tax classes except shipping
  - applying shipping taxes

This section also contains the following topics.

- *Applying Tax Classes to Catalog Entries* on the facing page
- *Calculating an Order's Tax Amount* on the facing page

Applying Tax Classes to Catalog Entries

You assign a tax class (except shipping) to a catalog entry via its **Properties** tab's **Tax Class** field (Content tab > select catalog entry > **Action** > **Edit**).



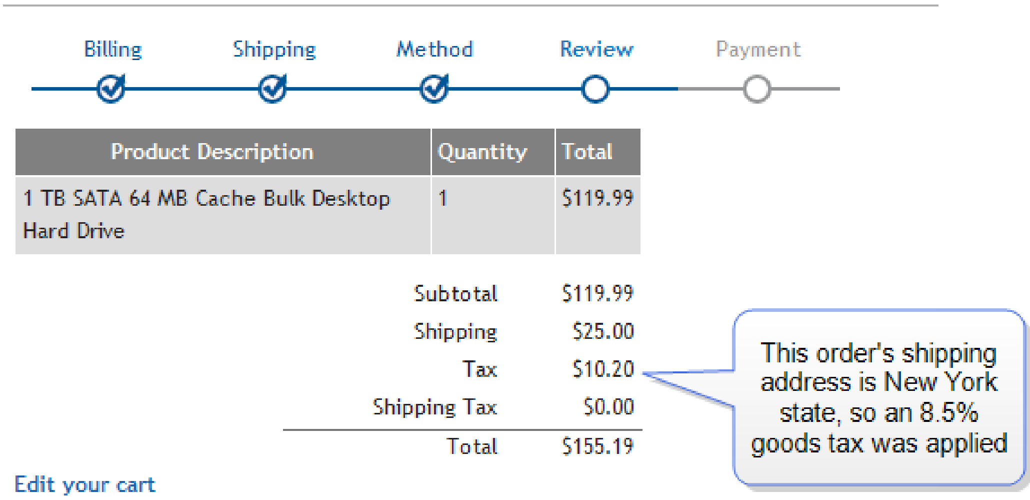
Calculating an Order's Tax Amount

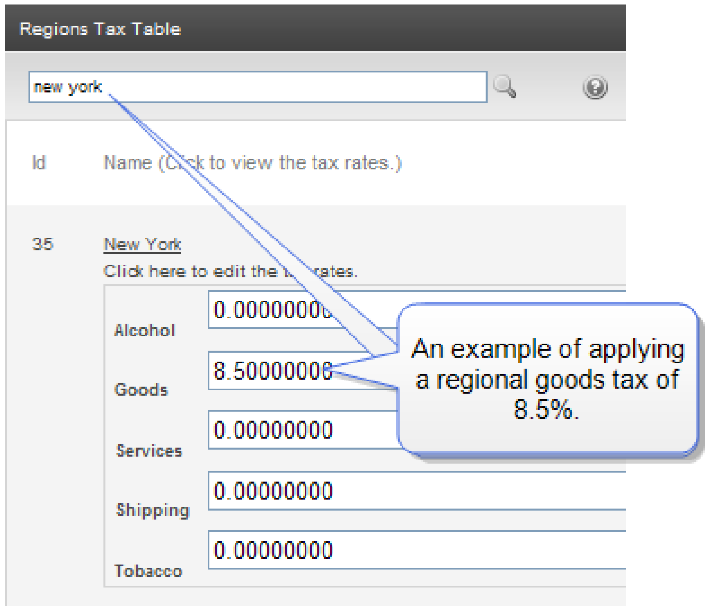
During checkout, Ektron tries to find a tax rate for each catalog entry's Tax Class and the shipping address's geographic entity.

Ektron checks the shipping address for each item's tax class	If it finds a tax rate for the geographic entity	If it does *not* find a tax rate for the geographic entity
1. Postal code	It adds that amount and stops. For example • an item costs $100.00 • the *postal code* tax rate = 5% • a tax of $5.00 is applied	It checks the shipping address for a regional tax code.
2. Region	It adds that amount and stops. For example • an item costs $100.00 • the **regional** tax rate = 7% • a tax of $7.00 is applied	It checks the shipping address for a country tax code.
3. Country	It adds that amount. For example • an item costs $100.00 • the **country** tax rate = 10% • a tax of $10.00 is applied	No tax is added to the order.

If a postal zone has several taxes (for example, a local tax and a regional tax), build the combined percentage into the postal code tax. So, assume New York City has a 4% tax, and New York state has a 3% tax. Enter a combined total of 7% into postal zones within New York City. See Also: *Cataloging Entries that Can Be Taxed* on page 1338

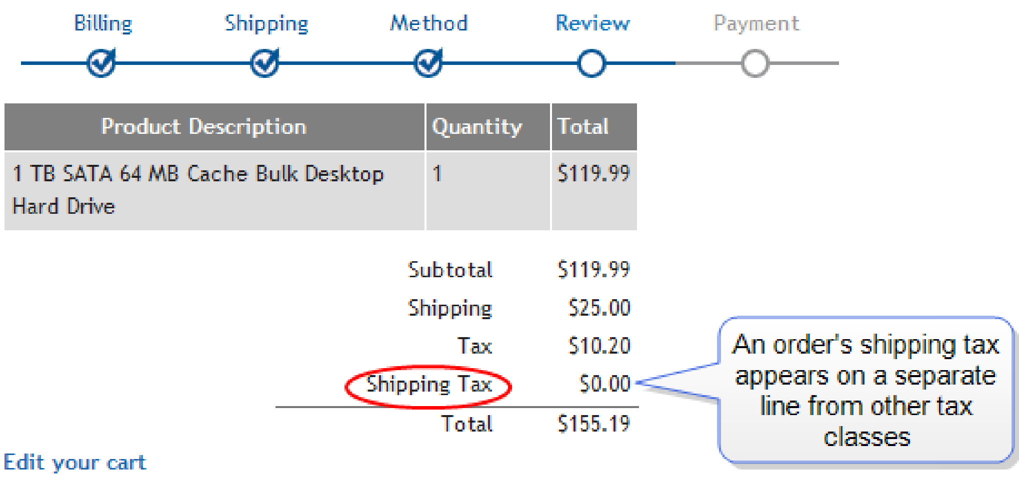
For example, the atrium chair is assigned to the **Goods** Tax Class. A person who lives in New York state purchases the chair. Although no postal tax class is defined for the shipping address, a regional tax of 8.5% is set up for New York state, and so is applied to the order.





Calculating an Order's Shipping Tax Amount

The shipping tax is separate from the other taxes, and appears on a separate line of the order.



A shipping tax is applied to an order if

- shipping tax is enabled in `web.config`
  and
- a tax rate is applied to one of the geographic regions in which the shipping address falls.

Unlike the other tax classes, you do not apply shipping tax to catalog entries. Instead, you apply them to geographic regions only. However, each tax class compares an order's shipping address against regional tax tables to calculate the tax.

Enabling the Shipping Tax within Ektron

To enable the shipping tax, open your *`siteroot`*`/web.config` file and change the value of the `ek_ecom_ApplyTaxestoShipping` element to `True`.

Enabling the Shipping Tax for a Geographic Region

You apply a shipping tax to every applicable geographic region. As explained in *Calculating an Order’s Tax Amount* on page 1335, the eCommerce module first looks for a tax applied to the order's postal code. If one is found, that shipping tax is applied. If none is found, eCommerce looks for a shipping tax applied to the order's region. If no regional shipping tax is found, eCommerce looks for a shipping tax applied to the order's country.

Applying a Shipping Tax to a Geographic Region

You apply a shipping tax rate to geographic regions as you do with the tax classes. See Also: *Applying Local Taxes* on the facing page, *Configuring Regional Tax Tables* on page 1340, *Configuring Country Tax Tables* on page 1341

Cataloging Entries that Can Be Taxed

Use the Tax Class screen to define classes of catalog entries that can be taxed. When you install eCommerce, the following tax classes are installed.

- alcohol
- goods
- service

- tobacco
- shipping

You can modify or delete all classes except shipping, which you can modify but not delete. You also can add new classes.

Creating a New Tax Class

1. Go to **Settings > Commerce > Tax > Classes**.
2. Choose **New > Tax Class**.
3. Enter the name of the tax class.
4. Click **Save**.

Editing a Tax Class

1. Go to **Settings > Commerce > Tax > Classes**.
2. Click the Tax Class that you want to edit.
3. Click **Edit**.
4. Edit the name of the tax class.
5. Click **Save**.

Deleting a Tax Class

If a tax class has been assigned to a catalog entry that appears on any order, the Delete button does not appear.

1. Go to **Settings > Commerce > Tax > Classes**.
2. Click the Tax Class that you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**. The Tax Class is deleted.

Applying Local Taxes

Use postal code tax tables to identify local areas (cities, counties, and so on) that apply taxes to eCommerce catalog entries. The areas are identified by their postal code. For example, London, England taxes alcohol delivered to addresses within it.

You only need to create a postal tax table if the area that applies the tax is smaller than a country’s geographical *regions* (states, provinces, and so on). If an entire region applies a tax, use a regional tax table.

Creating a New Postal Code Tax Table

PREREQUISITE

The postal code’s country and region are defined in the Regions and Countries screens

1. Go to **Settings > Commerce > Tax > Postal Tax Tables**.
2. Choose **New > Postal Code**.

3. Enter information into the following fields:
   - **Postal Code**—Enter the postal code for which you want to enter a tax rate. If this is for a US state, the code must consist of 5 or 9 digits.
   - **Region**—Enter the geographic region (for example, state or province) in which the postal code resides.
   - **Country**—Enter the country in which the postal code resides.
4. Select the Tax Rates tab and specify values for the tax rates, for example, Alcohol, Goods, Services, Shipping, Tobacco. For any tax class, enter a tax rate as a whole number. For example, if the tax is 7%, enter **7**.
5. Click **Save**.

Editing a Postal Code Tax Table

1. Go to **Settings > Commerce > Tax > Postal Tax Tables**.
2. Click the ID of the tax table that you want to edit.
3. Click **Edit**.
4. Edit the fields described in *Creating a New Postal Code Tax Table* on the previous page.
5. Click **Save**.

Deleting a Postal Code Tax Table

1. Go to **Settings > Commerce > Tax > Postal Tax Tables**.
2. Click the ID of the tax table that you want to delete.
3. Click **Delete** (). A confirmation message appears.
4. Click **OK**. The postal code tax table is deleted.

Configuring Regional Tax Tables

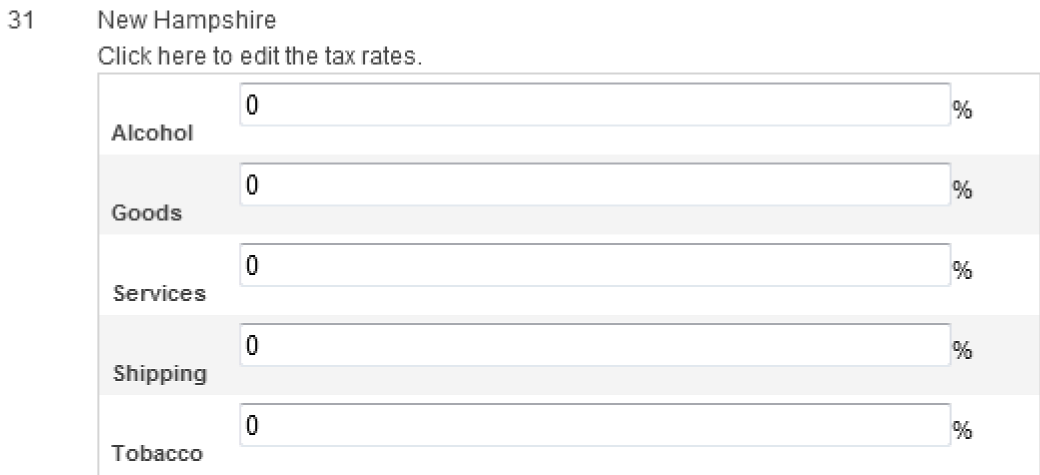
Use regional tax tables to identify regions (states, provinces, and so on) that apply taxes to eCommerce catalog entries. For example, within the United States of America, the state of New Jersey applies a 5% tax on goods purchased on the internet and shipped to it.

You only need to define a regional tax table if the area that applies the tax is smaller than a country. If an entire country applies a tax, use a country tax table.

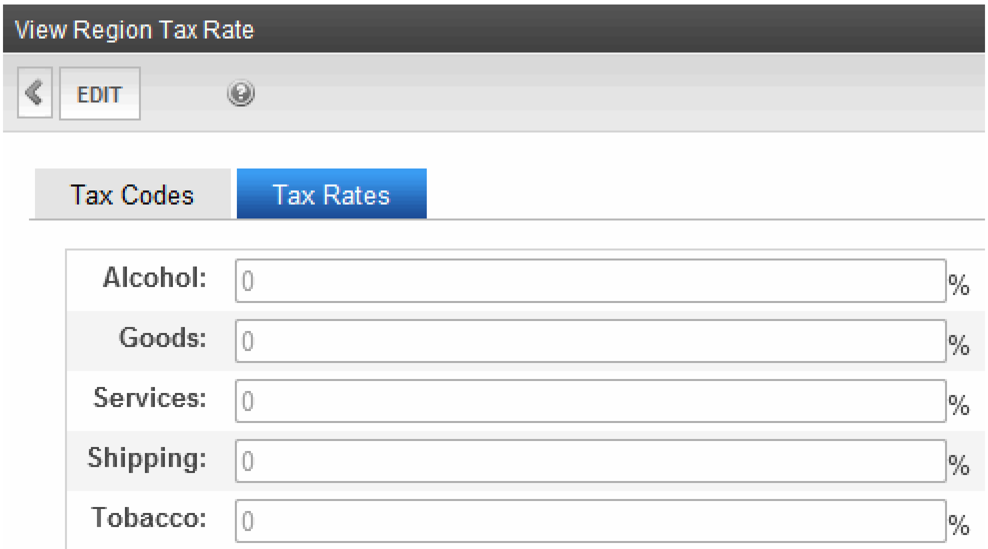
Editing a Regional Tax Table

A regional tax table is automatically created for every existing region. By default, tax rates are zero (0). To change any tax rate:

1. Go to **Settings > Commerce > Tax > Regional Tax Tables**.
2. Click on the name of the region for which you want to set tax rates. The View Region Tax Rate screen appears.



3. Click **Click here to edit the tax rates**.



4. Click **Edit**.
5. Enter information into the following fields.
   - **Name**—Select the region for which you want to enter a tax rate.
   - **Enabled**—Enable or disable the regional tax entry as required.
6. Select the **Tax Rates** tab and specify regional tax rates by class. For example, Alcohol, Goods, Services, Tobacco, and Shipping. For any tax class, enter a tax rate.
7. Click **Save**.

Deleting a Regional Tax Table

1. Go to **Settings> Commerce > Tax > Regional Tax Tables**.
2. Click the ID of the tax table that you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**. The regional tax table is deleted.

Configuring Country Tax Tables

Use country tax tables to identify nations that apply taxes to eCommerce catalog entries. For example, Ethiopia applies a 5% tax on goods purchased on the internet and shipped to it.

Editing a Country Tax Table

A country tax table is automatically created for every existing country. By default, tax rates are zero (0). To change any country tax rate:

1. Go to **Workarea > Settings > Commerce > Tax > Country Tax Tables**.
2. Select the country for which you want to edit a tax table. The View Country Tax Rate screen appears.
3. Click **Click here to edit the tax rates**.
4. Click **Edit**.
5. Select the Tax Rates tab and edit the tax rates, for example, Alcohol, Goods, Services, Tobacco, and Shipping. For any tax class, enter a tax rate.
6. Click **Save**.

Deleting a Country Tax Table

1. Go to **Workarea > Settings > Commerce> Tax > Country Tax Tables**.
2. Click the ID of the tax table that you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**. The country tax table is deleted.

Creating Product Types and Catalogs

After you configure the eCommerce site, build eCommerce products in the following order:

1. *Creating Product Types* below
2. *Creating a Catalog Folder* on page 1354
3. *Creating a Catalog Entry* on page 1356

Creating Product Types

Create a separate *product type* definition for each category of catalog entries that you sell. For example, you might have a product type for movies, another for books, a third for electronics, and so on.

When thinking about creating new product types, the most significant differences are the **Class** field and the content page, which defines the XML Smart Form for products you will create for a Product Type.

Product Classes

A catalog entry's *product class* affects customers' purchasing options. Classes are explained below.

- **Kit**—Lets a customer (site visitor) select from any number of free-text options. Options can increase or decrease the overall price. See Also: *Creating a Kit* on page 1345

  Example: A computer whose price changes as a customer selects RAM, hard drive, monitor, and so on.

- **Bundle**—A catalog entry consisting of several other catalog entries bundled together. Its pricing, shipping, images, and so on, are independent of the individual items. See Also: *Creating a Bundle* on page 1347

  Example: A living room set: couch, end tables and lamps. Instead of buying each item separately, the customer buys all for a "package" price.

- **Product**—Simple or complex catalog entries. A complex product is a "wrapper" that provides links to related simple products. Each simple product has its own SKU, price, inventory data, and so on. See Also: *Creating a Complex Product* on page 1348

  Example: A movie in 3 formats and prices:

  - VHS ($12.95)
  - DVD ($14.95)
  - Blu-ray ($17.95)

- **Subscription**—A catalog entry which can provide access to designated site pages, and may billed on a recurring basis. See Also: *Creating a Subscription* on page 1349

  Example: website content that is only available to subscribed members

How Product Types Affect the Creation of Catalog Entries

Catalog folders generally contain the same kind of catalog entries, such as DVDs or digital cameras. Some information applied to a catalog folder is inherited by all entries in the folder.

After you create product types, apply appropriate types to existing catalog folders using the Catalog Properties screen's **Product Types** tab. Then, when creating a new catalog entry, you first navigate to a catalog folder. Next, click **New** and choose a product type assigned to the folder. See Also: *Assigning a Catalog Folder's Product Type* on page 1355

A product type determines the following aspects of the associated catalog entries:

- Product class—*Product Classes* on the previous page
- Attributes—*Step 1: Defining Properties, Attributes, and Media Defaults* below Attributes define additional information about catalog entries based on this product type. For example, if the Product Type is for movies, attributes might be Actors, Running Time, Rating, Year Released, and so on. In another example, you want an attribute that describes a chair's dimensions. You create a text-based attribute for the Product Type you will use to add chairs to a catalog. Then, whenever you add a new chair to the catalog, you enter its dimensions into the **Attributes** tab's **Dimensions** field. By default, Attributes appear on the Product server control.
- Media defaults (that is, size of thumbnail images added to a catalog entry)—*Step 1: Defining Properties, Attributes, and Media Defaults* below
- Content page—*Step 2: Creating the Content Page* on page 1353

There are 2 steps to creating a product type.

- *Step 1: Defining Properties, Attributes, and Media Defaults* below
- *Step 2: Creating the Content Page* on page 1353

Step 1: Defining Properties, Attributes, and Media Defaults

To create a product type:

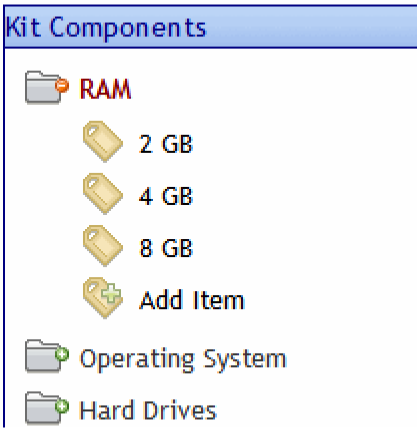
1. Go to **Workarea > Settings > Commerce > Catalog > Product Types > New > Product Type**.
2. Click the **Properties** tab.
3. Enter a unique product type title in the **Title** field. The title identifies this entry on the View Product Types screen. Also, when creating a new catalog entry, users must pick a product type from the catalog's **New** menu.
4. Enter a description for the product type in the **Description** field.
5. Select a product class from the **Class** drop-down menu. For information about how class types affect how products are displayed, see *Creating a Kit* on the facing page, *Creating a Bundle* on page 1347, *Creating a Complex Product* on page 1348 and *Creating a Subscription* on page 1349. In some cases, you will need to perform additional steps on other screens.
6. Click the **Attributes** tab.
7. Click **Add Attribute**. The Add Attribute dialog box appears.

8. Enter an attribute name in the **Name** field, such as **color**.
9. Choose a data type from the **Type** drop-down menu.
   - Text
   - Date
   - Number
   - Yes or No (boolean)
10. Click **OK**. When a customer views the chair's product page, the customer sees the attribute text below the thumbnails.
11. Click the **Media Defaults** tab.
12. Click **Add thumbnail**. The Add thumbnail dialog box appears.
13. Enter a name for the thumbnail in the Name field.
14. Specify the size if the thumbnail in pixels using the **Width** and **Height** fields.
15. Click **OK**.
16. Click Save. The XML Smart Form editor appears, as described in *Step 2: Creating the Content Page* on page 1353.

Creating a Kit

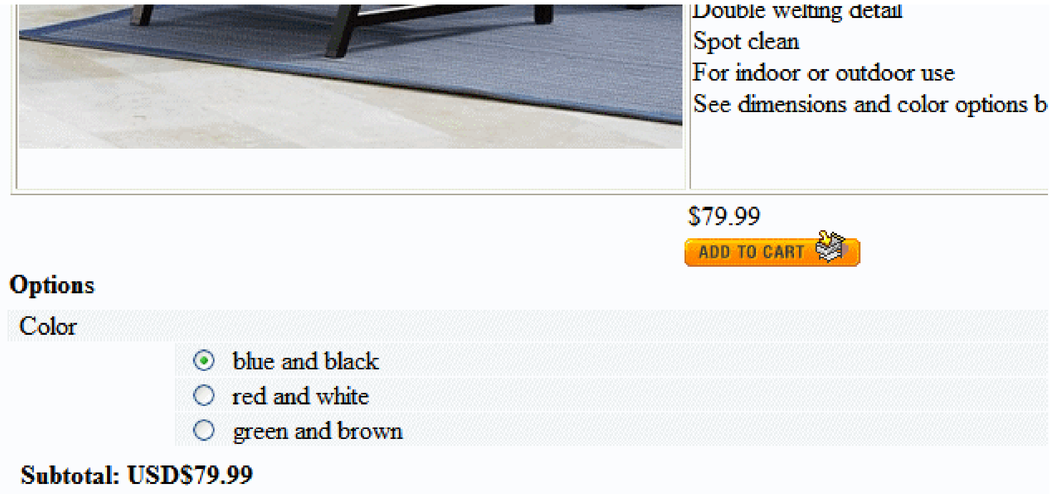
A kit is a type of catalog entry that allows a customer to select from free-text options, which can affect the item's price. The options can also be placed into logical groups.

For example, if a catalog entry is a laptop computer, one group may let you enter options for RAM, another for operating system version, and a third could present hard drive options.

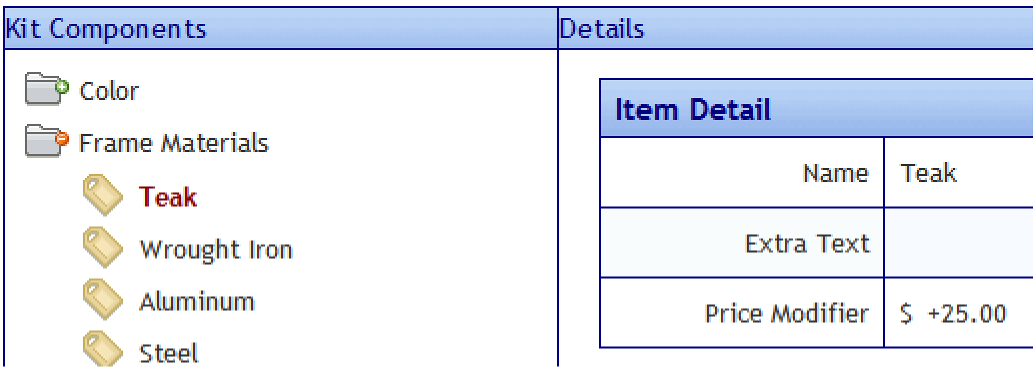


There is no limit to the number of groups you can add, nor the number of options in a group. All groups and options are simple text, created on a kit's **Items** tab as needed, and can accommodate a price modifier. The example below shows how to set up chair color combinations.

In this example, the options do *not* affect the price. Here is how the options appear on a product page.



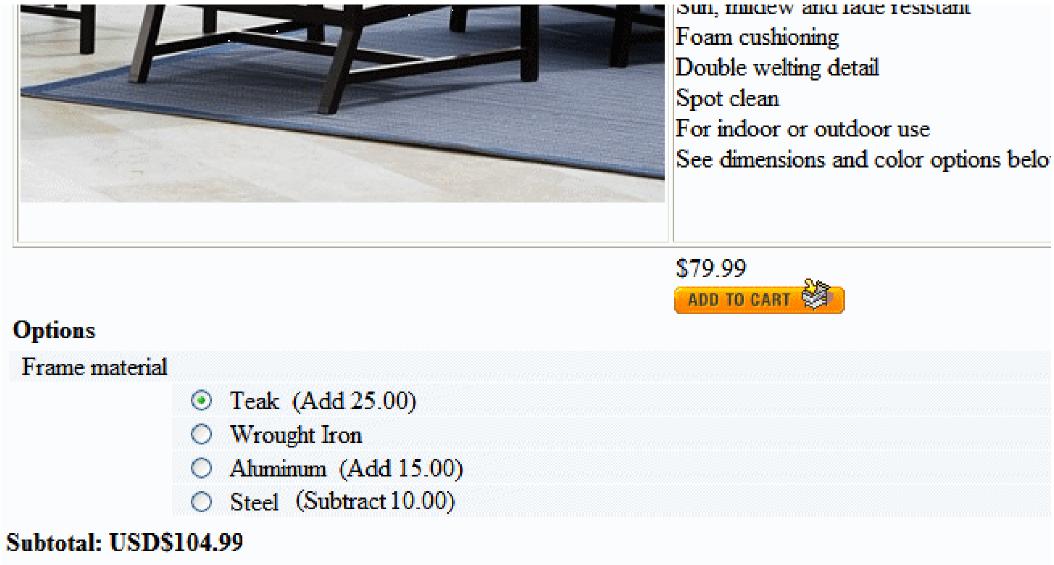
Consider another example in which the price does change. In this case, use the Item screen's **Price Modifier** field to adjust price based on the chair frame. As shown below, if the chair frame is teak, the sale price increases by $25.00.



Other chair materials might adjust the price.

- Wrought Iron—$0.00
- Aluminum— +$15.00
- Steel— -$10.00

Note how the **Price Modifier** can either increase or decrease the sale price. Here are these options on the product page.



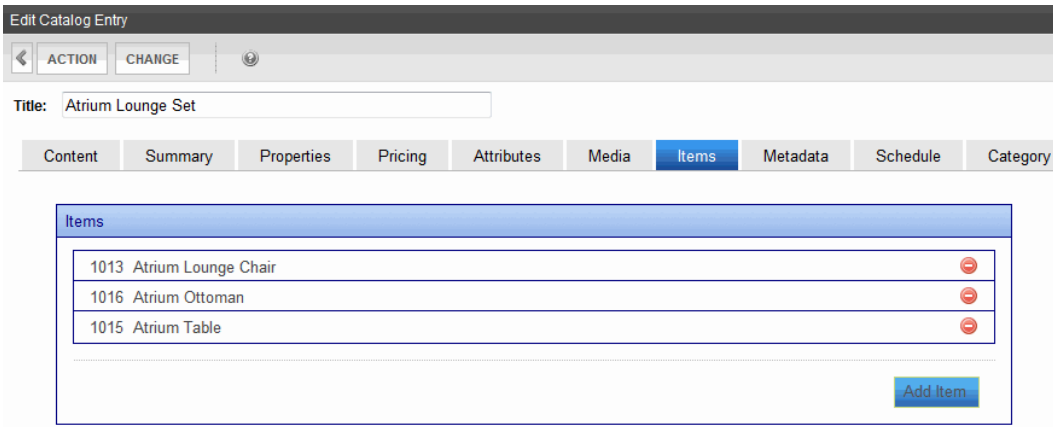
The chair’s base price is $79.99, and the teak frame increases it to $104.99.

Creating a Bundle

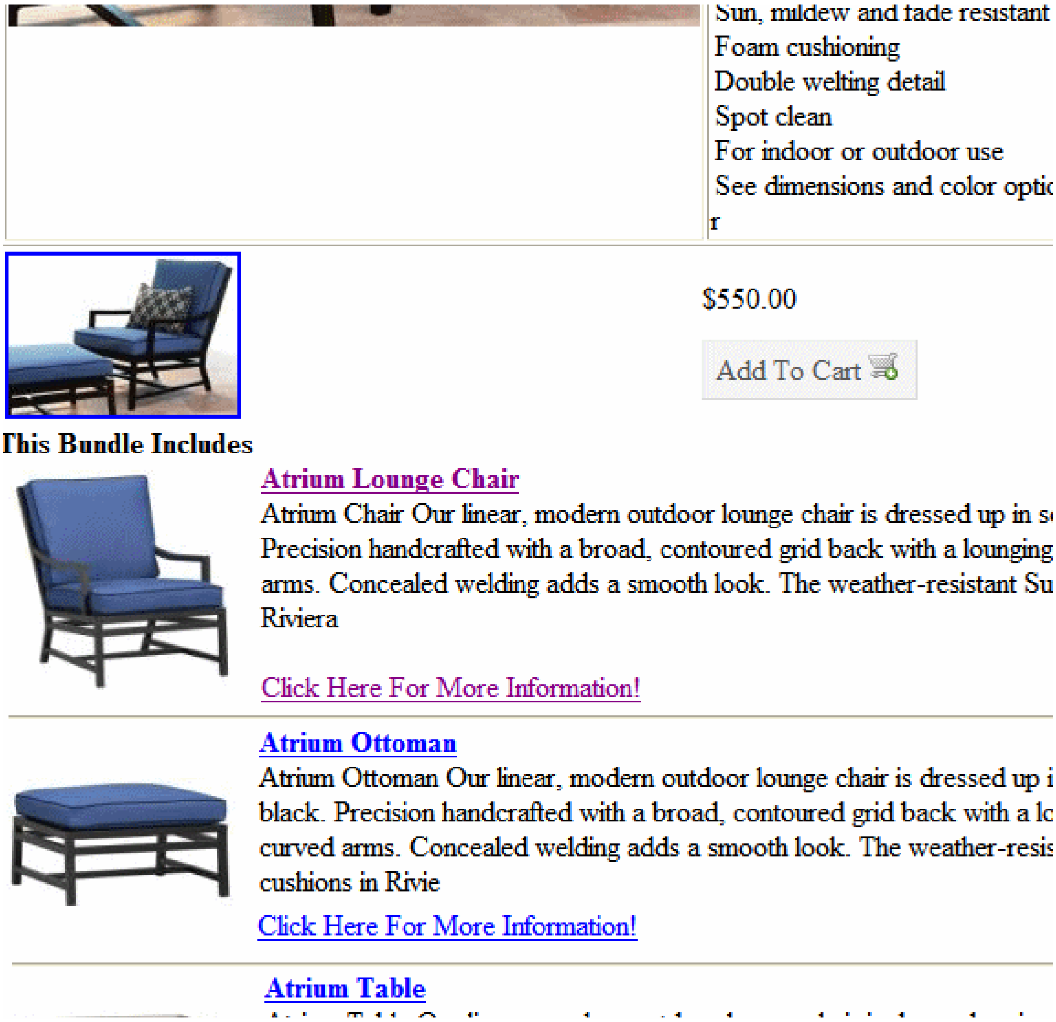
A bundle consists of several simple products. You would use it to combine several existing products into one “umbrella” catalog entry. That entry captures pricing, SKU number, shipping, and inventory information for the bundle. The information for the individual entries that make up the bundle are not affected when one is ordered.

As an example of a bundle using furniture, assume your eCommerce site sells a chair, a table, and an ottoman separately. You also sell them together as a set.

Use a bundle to define the set, add pictures, pricing, and so on. On the bundle’s **Items** tab, you select the individual catalog entries that make up the bundle.



Here is how this bundle looks on a product page.



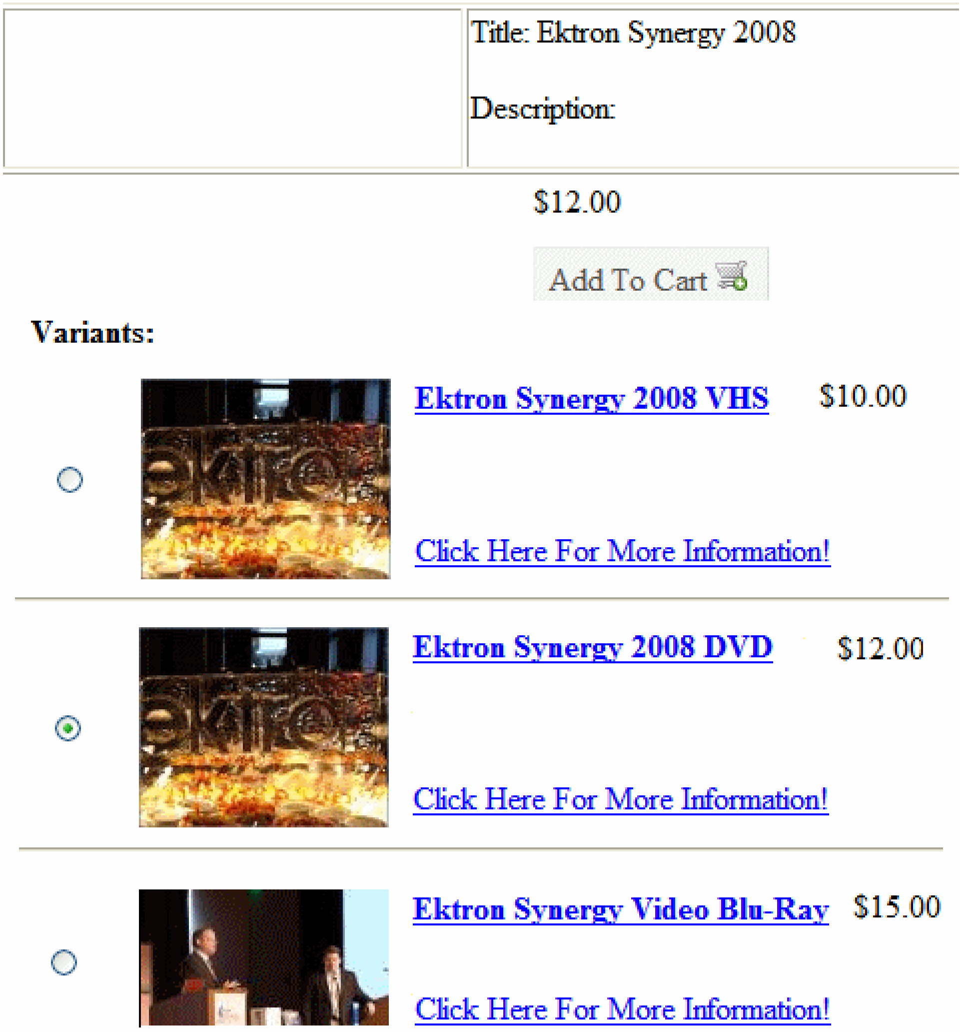
Creating a Complex Product

A Complex Product is similar to a bundle in that one catalog entry serves as an “umbrella” for other entries. However, unlike a bundle, a customer must select one of the catalog entries. So, the price is that of the selected entry, not the umbrella item.

The advantage of a Complex Product is its ability to consolidate several related items under one title, yet lets customers choose the item they want. Because each item under the umbrella is its own catalog entry, it is priced and tracked separately.

For example, a site sells movies in 3 formats: VHS, DVD, and Blu-ray. Each is priced differently. To accommodate this, create catalog entries for the movie in each format, assigning images, SKU number, pricing, dimensions, and so on. Then, create a Complex Product, make its title the title of the movie, and use the **Items** tab to select the catalog entries of the individual formats.

The Product List or Product Search control displays the Complex Product, which is the movie title. When a customer selects that, the customer sees the product page, which lists the format and price of each assigned catalog entry. The customer can only choose one.



Unlike the Kit or Bundle, a complex product does not have its own product class. Instead, you create a catalog entry whose product class is **Product**, then assign other catalog entries to it via the **Items** tab. As soon as you assign one catalog entry via the **Items** tab, the original catalog entry is converted to a Complex Product.

Note that the price of the “umbrella” product appears on the Product List and Product Search server controls. This can be misleading, since the price of individual items within the complex product can vary.

You cannot apply tier pricing to a complex product. See Also: *Tier Pricing* on page 1363

Creating a Subscription

A subscription is a good or service which

- can be billed on a one-time or a recurring basis
- places users who purchase it into a designated membership group, letting you grant them access to private content

Examples include

- content only available to members who purchase a subscription
- a gym membership
- a book club, in which a customer makes the same payment and receives a different book each month
- anti-virus software that expires after 12 months
- a 3-year maintenance contract on a digital television, payable yearly

If you use the recurring billing feature (a series of scheduled payments), the bill can be generated for any number of months or years, but no other time increments. Each payment must be the same for the subscription's term. The term begins when a customer submits the order.

Customers cannot apply a cart-level coupon to a subscription-based catalog entry. See Also: *Creating a Coupon* on page 1373

Creating a Subscription-Based Catalog Entry

Creating a subscription is the similar to creating a regular catalog entry:

1. Create a subscription-based Product Type. On the Product Type screen's **Class** drop-down, select **Subscription**.
2. Assign the Product Type to a catalog folder. See Also: *Creating a Catalog Folder* on page 1354
3. In that folder, create a catalog entry for each subscription.
4. On the **Pricing** tab, enter the cost.

   If using recurring billing, enter the term of the subscription. To learn about **Recurring Billing** fields, see *Entering Recurring Billing Information* below

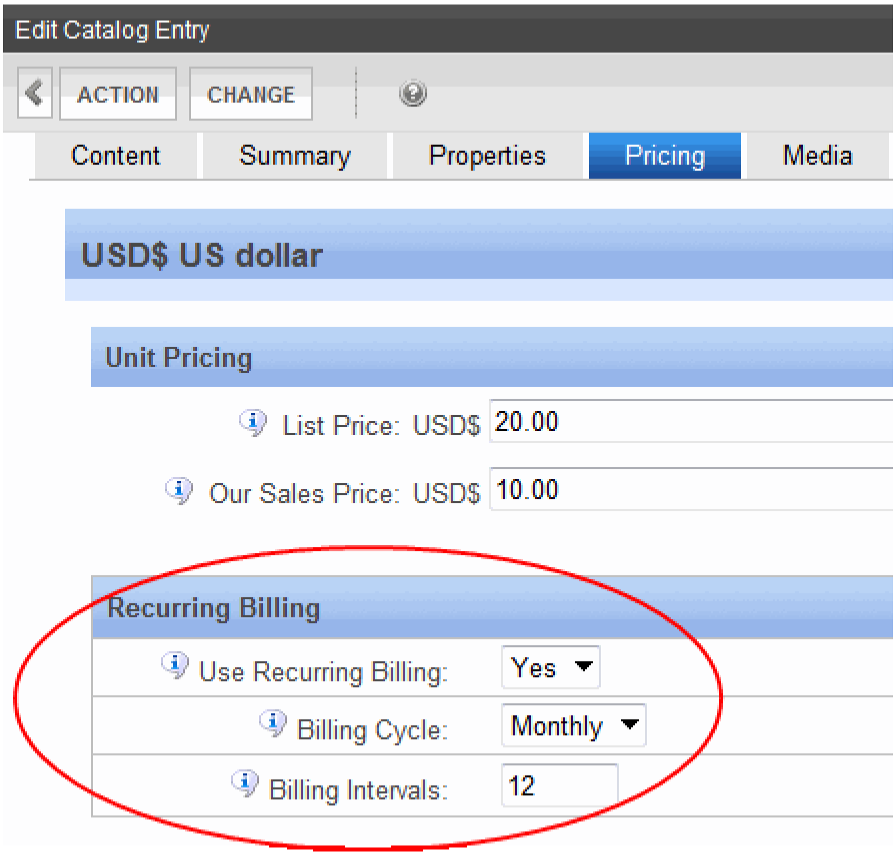
   If this product does not use recurring billing, click **No** at the **Use Recurring Billing** drop-down. To learn about the **Unit Pricing** fields, see *Entering a Catalog Entry's Price Information* on page 1362.
5. On the **Items** tab, assign membership and Ektron user groups. See Also: *Assigning Groups to a Subscription-Based Catalog Entry* on page 1352
6. If a subscription provides access to Ektron content, use its folder Permission Table to grant permission to the membership and Ektron user groups you defined in Step 5.*Subscriptions Involving Ektron Content* on page 1352

Subscription-based products do not support tier pricing. See Also: *Tier Pricing* on page 1363

Entering Recurring Billing Information

IMPORTANT: Due to differences in the way payment gateways work, you should test recurring payments with your gateway before processing live transactions.

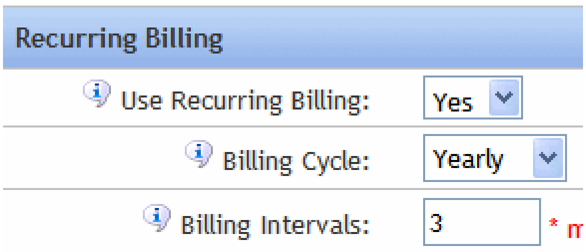
The **Pricing** tab's **Recurring Billing** area of a subscription-based catalog entry lets you determine if a subscription is billed on a one-time or a recurring basis. If recurring, it helps you define the terms.



To set up recurring billing:

1. Select **Yes** from the **Use Recurring Billing** drop-down. The recurring billing term begins when a customer submits an order, and is based on a number of months or years.
2. Select a time interval from the **Billing Cycle** drop-down.
3. Enter a number of **Billing Intervals** for which a customer is charged. For example, if a customer should be charged once a month for 12 months, complete the screen as shown above. If a customer purchases the item on June 1, 2013, the person's credit card will be billed on the first of each month from June 1, 2013 to May 1, 2014.

As another example, if a customer should be charged once a year for 3 years, complete the screen as shown below.



If a customer purchases the item on June 1, 2013, the person's credit card will be charged on the following dates.

- June 1, 2013 (purchase date)
- June 1, 2014

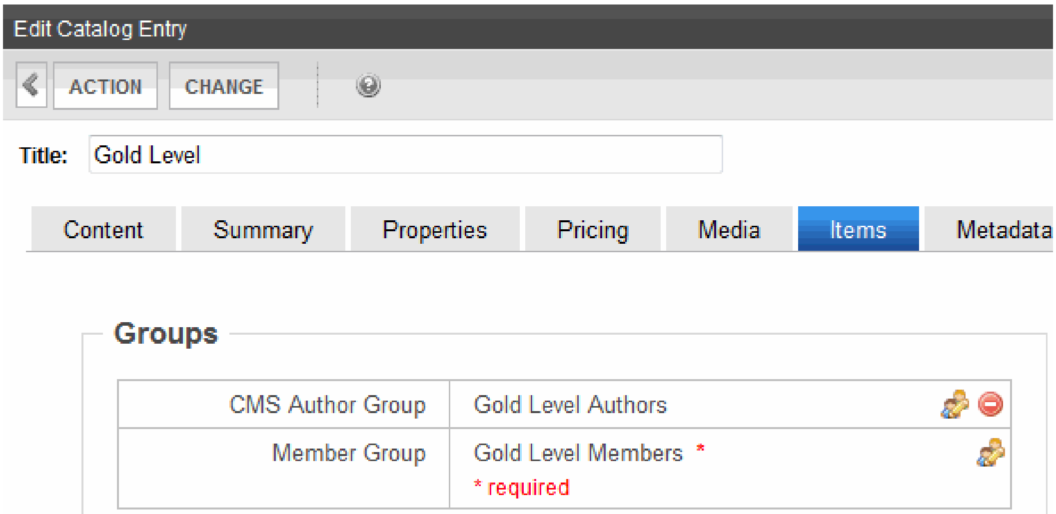
- June 1, 2015

Assigning Groups to a Subscription-Based Catalog Entry

You *must* assign a membership user group to a subscription-based catalog entry. Optionally, you *can* assign an Ektron user group. You assign groups via the subscription's **Items** tab.

See Also: *Membership Groups* on page 1165

So, as part of setting up a subscription, you must either create new membership and (possibly user) groups, or use existing groups.



All users (identified by their email address) who purchase the product are automatically added to one of the groups. Ektron checks a user's email address to determine if the user is an Ektron or a membership user.

- Ektron users are added to the group defined in the **CMS Author Group** field
- Non-Ektron users are added to the membership group defined at the **Member Group** field

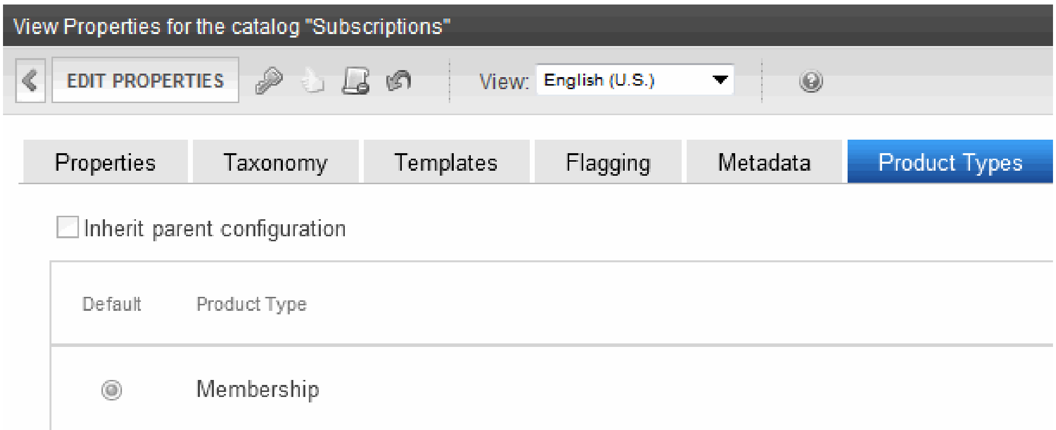
Subscriptions not Involving Ektron Content

If a subscription does not involve access to Ektron content, the membership group provides a list of customers who purchased the subscription. You can use the list to manage the accounts, notify them when the subscription is about to expire, and so on.

Subscriptions Involving Ektron Content

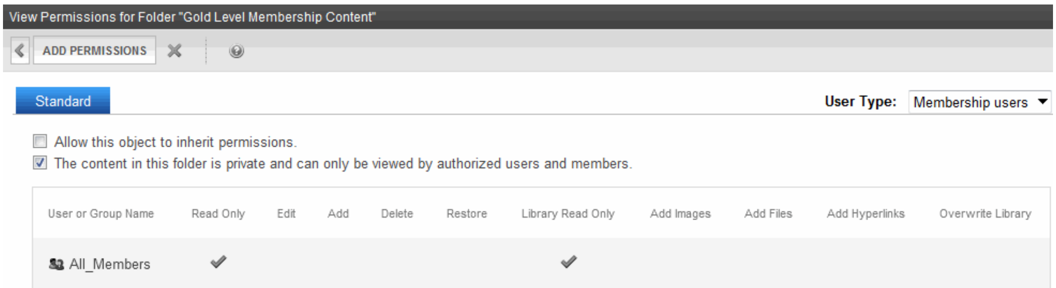
If a subscription involves access to Ektron content:

Create a folder and enable one or more subscription-based product types on its Product Type screen.



Place the subscription products in that folder. Customers shop for and purchase this content on your website as they do all products, via eCommerce server controls.

Then, create a regular content folder in which to create the confidential content. Next, use the content folder's permission table to grant the subscription user groups access to that folder.



See Also: *Managing Folder Permissions* on page 257 and *Assigning Membership Permissions* on page 1166

Step 2: Creating the Content Page

After you complete and save the Add Product Type screen, a new screen lets you enter XML Smart Form information. On this screen, you set up fields to collect information for the *content page* of catalog entries based on this product type. See example below.

The content page appears on the Product server control, describing this catalog entry to customers. The process of creating a product type content page is the same as creating an XML Smart Form, described in *Copying a Smart Form Configuration* on page 427.

Editing a Product Type

1. In the Workarea, **go to Settings > Commerce > Catalog > Product Types**.
2. Click the product type that you want to edit.
3. See *Step 1: Defining Properties, Attributes, and Media Defaults* on page 1344.

NOTE: You cannot edit a Product Type's Class.

Viewing an Attribute's Published Status

Each attribute has a publication status. To view attribute status, go to **Settings > Commerce > Catalog > Product Types**, select a product type and click the **Attributes** tab.

- **Active**—Attribute can be assigned to catalog entries
- **Inactive**—Attribute already assigned to one or more catalog entries, but can no longer be assigned. To make an attribute inactive, click the corresponding **Mark for Delete** ( ).
- **Not Published**—Attribute has been created but Product Type not saved yet
- **Active** (marked for delete with strike through)—Attribute will be deleted when Product Type is saved.

You can delete an attribute only if it is *not* applied to a catalog entry. If you try to delete an attribute applied to a catalog entry, it is marked "Inactive." Inactive attributes can no longer be assigned.

Deleting a Product Type

PREREQUISITE

The product type is not assigned to any catalog entries.

1. In the Workarea, go to **Settings > Commerce > Catalog > Product Types**.
2. Click a product type you want to delete.
3. Click **Delete** ( ). A confirmation message appears.
4. Click **OK**.

Although you cannot delete a product type that is being used, you can prevent users from creating new catalog entries based on it. To do this, go to each applicable folder's Catalog Properties > Product Types screen and remove that product type.

Creating a Catalog Folder

PREREQUISITE

One or more product types.

A catalog folder is a special kind of Ektron folder designed to hold eCommerce entries. Its unique icon ( ) distinguishes it from other folder types. If you are familiar with content folders, much of that information applies to catalog folders. See Also: *Setting Up Your CMS Folder Structure* on page 241

A Catalog folder's properties screen has several tabs/screens. The following screens are the same as regular content folders.

- **Properties**—See *Setting Folder Properties* on page 253
- **Taxonomy**—See *Using Taxonomies* on page 777
- **Templates**—See *Working with Templates* on page 382
- **Flagging**—See *Defining Flags for Content* on page 1239
- **Metadata**—See *Assigning Metadata to a Folder* on page 377
- **Breadcrumb**—See *Using Breadcrumbs* on page 819
- **Aliasing**—See *Creating User-Friendly URLs with Aliasing* on page 835

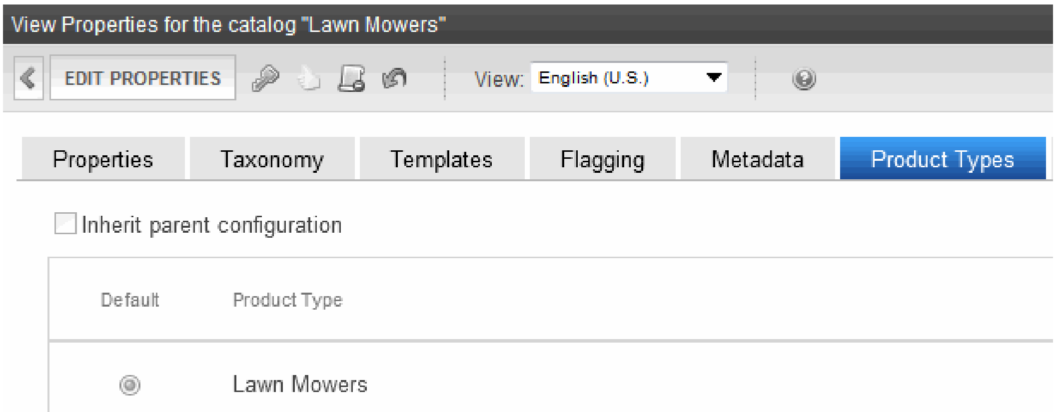
The unique screen is **Product Types**. See Also: *Assigning a Catalog Folder's Product Type* below

Like content folders, the following catalog folder information can be inherited from its parent or uniquely set for each catalog. You can only make changes after creating the catalog.

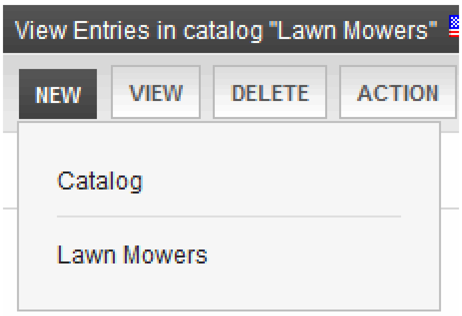
- **Permissions**—See *Managing Folder Permissions* on page 257
- **Approvals**—See *Setting Approval Chains* on page 262
- **Purge History**—See *Purging History* on page 252
- **Restore Web Alert Inheritance**—See *Assigning Web Alert Information to Folders and Content* on page 1581

Assigning a Catalog Folder's Product Type

A catalog folder's **Product Types** screen lets you identify product types upon which catalog entries can be based. For example, you created a lawn mower Product Type, and want only lawn mowers to be entered in a catalog folder. In this case, open a catalog folder's **Product Types** tab, break inheritance if necessary, and select Lawn Mower as the catalog's only product type.



Then, when an Ektron user creates an entry in this catalog, the user must use the Lawn Mower product type.



Deleting a Catalog Folder

PREREQUISITE

No catalog entries in the folder have been placed on an order

1. Navigate to the folder that you want to delete.
2. Choose **Delete > This Catalog**. A confirmation message appears.
3. Click **OK**.

Searching a Catalog Folder

Searching a Catalog folder is the same as searching any other type of Workarea folder. This procedure is described in *Searching the Workarea* on page 966.

Creating a Catalog Entry

PREREQUISITE

One or more catalog folders.

A *Catalog entry* is the eCommerce term that describes a product sold on your website. It is similar to content in the rest of Ektron, so those concepts also apply to catalog entries.

Catalog entries are built from Ektron XML Smart Forms, so use the same content and folder structure as other Smart Forms. See Also: *Working with Smart Forms* on page 423

Catalog entries share the following features with regular content:

- content status
- approvals and permissions
- metadata
- schedule
- can be private
- history and the ability to restore previous versions
- search
- taxonomies to categorize products

Catalog entries also have unique information:

- Tax Class—Determines which taxes apply to item
- Physical dimensions—Used to calculate shipping costs
- Inventory tracking
- Pricing—Can be fixed or variable for any currency
  - *tier pricing*—Pricing adjusts when quantity reaches new plateau. For example, 1-9 items cost $500 each. But if 10 are sold, the price drops to $450 each.
- Images (full sized and thumbnail) to display the product on your website

Because there is so much information to provide about managing catalog entries, this section takes 2 approaches:

- *Creating a Catalog Entry* above describes how to work with catalog entries: create them, delete them, and so on.
  - *Creating/Updating Catalog Entries* on the facing page
  - *Deleting a Catalog Entry* on page 1358
  - *Recommending Related Products to a Customer* on page 1371

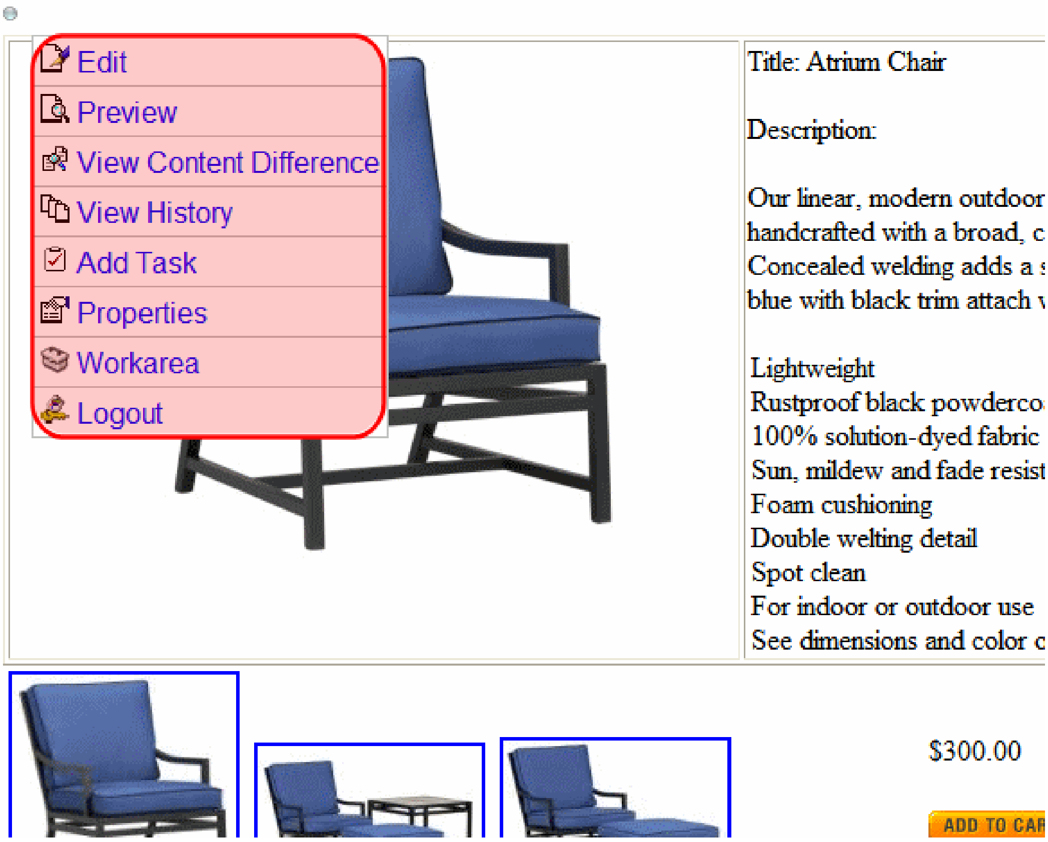
   - View and restore a previous version of a catalog entry—Navigate to **catalog folder > select catalog entry > View Menu > Content History option**. See Also: *Managing Versions of Content* on page 299
   - Edit permissions for a catalog entry—To enable this, break permission inheritance. Then, assign permissions to selected users. See Also: *Setting Permissions for Content* on page 261
   - Edit inherited approval chain—First break permission inheritance, and assign permission to users who need to be in the approval chain. Then, update the catalog entry's approval chain. See Also: *Creating an Approval Chain For Content* on page 266
   - Make a catalog entry private, so that the website search does not find it—See *Making Content Private* on page 294
   - Archive a catalog entry—See *Setting Archive Options* on page 298
   - *Displaying Catalog Entries on your Website* on page 1370
- The following topics describe all accessible options (tables, menus, and so on) from the catalog entry screen
   - *Tabs on the Catalog Entry Screen* on page 1359
   - *Menu Options on the Catalog Entry Screen* on page 1360
   - *Folder View Menu options* on page 1368
   - *Content View Menu Options* on page 1369

Creating/Updating Catalog Entries

Follow these steps to create a new catalog entry or update an existing one.

1. Navigate to a catalog folder in which you want to create or update a catalog entry.
2. Choose **New** then select a product type on which to base the entry.
3. Complete the screens as needed. (For information about the catalog entry screens, see *Tabs on the Catalog Entry Screen* on page 1359) The required fields are:
   - content **Title**
   - **Properties** tab > **SKU Number**
   - any fields on the content screen that your Ektron administrator has designated as required
4. Check in or submit/publish the content.

After signing in to your website, you can also update a catalog entry's information from there using the context menu.



If a new catalog entry is similar to an existing one, you might find it quicker to copy the existing entry then edit the fields that are different. Moving a catalog entry is the same as moving content. See *Moving or Copying Content* on page 290

Deleting a Catalog Entry

Prerequisites

- Catalog entry is not on an order, or checked out.
- You have delete permission for this catalog folder. See Also: *Managing Folder Permissions* on page 257

Best Practice

Avoid deleting catalog entries due to the affect on your website. For example, if you delete an entry from your staging site, then run eSync, that entry is removed from all active carts on your live site. Instead of deleting entries, you should archive them using the **Properties** tab’s **Archived** checkbox.

If you want to prevent customers from purchasing an item, but you cannot delete it because it has been placed on existing orders, you have 2 options.

- Uncheck its **Buyable** checkbox, located on the Properties screen. If you do, the product still appears on your website, but the **Add to Cart** button does not appear next to it.
- archive it, using the **Archived** check box on the Properties screen (circled above). In this case, the product does not appear on your website.

To delete a catalog entry:

1. Navigate to the catalog folder that contains the entry.
2. Click the entry.
3. Choose **Action > Delete**. A warning message appears.
4. Click **OK**. The catalog entry is deleted.

Tabs on the Catalog Entry Screen

- **Content**—The entry's content page. See Also: *Entering a Catalog Entry's Content* on the next page
- **Summary**—The content summary, by default the first 40 characters of the content text. See Also: *Entering a Catalog Entry's Summary* on page 1361
- **Properties**—eCommerce information about the catalog entry:
  - SKU number
  - Number of Units
  - Tax Class
  - Archived
  - Buyable
  - Dimensions
  - Inventory

  See Also: *Entering a Catalog Entry's Properties* on page 1361
- **Pricing**—Lets you define list and sales price
  - For each enabled currency, you can set a fixed price or have it float with exchange rate
  - Allows tier pricing
  - For subscription products, you enter recurring billing interval and term

  See Also: *Entering a Catalog Entry's Price Information* on page 1362
- **Attributes**—Additional information to help describe a catalog entry. See Also: *Entering a Catalog Entry's Attributes* on page 1364
- **Media**—Lets you add images that appear on several eCommerce server controls. See Also: *Entering a Catalog Entry's Media* on page 1366
- **Items**—Catalog entries that you are adding to this "umbrella" item. See Also:
  - If you add catalog entries to a simple product, it becomes a complex product. See Also: *Creating a Complex Product* on page 1348
  - For bundles, add catalog entries that make up a bundle.*Creating a Bundle* on page 1347
  - For kits, enter groups and their options.See Also: *Creating a Kit* on page 1345
  - For subscription products, define membership and Ektron user groups to which users are assigned when they purchase the subscription.*Creating a Subscription* on page 1349
- **Metadata**—Enter meta tags, title tags, and so on. *Working with Metadata* on page 369 When viewing the metadata screen in view mode only, you see the catalog entry's **Product Icon**. The product icon is set on the **Media** tab. See Also: *Using Images in eCommerce* on page 1292

- **Alias**—View and edit the catalog entry's manual primary alias. View all automatic aliases assigned to this catalog entry. This tab only appears if Aliasing is enabled.See Also: *Creating User-Friendly URLs with Aliasing* on page 835
- **Schedule**—Lets you control when a version of a catalog entry becomes visible on the website. Similarly, you can remove a catalog entry on a predetermined date and time. The **Archive and remain on the site** option is not available with catalog entries.*Scheduling Content* on page 296
- **Comment**—View comments on changes made when editing a catalog entry. To view and edit catalog entry comments, open the editor and choose **Change > Comment**. The comment also appears on the View Content and Content History screens. Use it to help distinguish one version from another.
- **Tasks**—View tasks assigned to this catalog entry. To add a task from the View Entry screen, click **Action > Add Task**. See Also: *Assigning and Managing Tasks* on page 1027
- **Category**—Add a taxonomy category to the catalog entry. A list of available taxonomies and whether one is required are defined on the Catalog properties screen. This tab only appears if at least one taxonomy is assigned to the catalog folder.*Using Taxonomies* on page 777

Menu Options on the Catalog Entry Screen

- **Action Menu**
  - **Save**—Saves the catalog entry without leaving the editor. It is a good idea to save your work frequently.
  - **Check** in—Save and check-in the document. This action returns the changed content to the database and exits the editor. It does not submit the content into the approval chain. Rather, it allows you and other users to continue changing it.
  - **Submit/Publish**
    - **Submit** the content into the approval chain. This action also returns the new or updated content to the database and exits the editor.
    - **Publish** the content to the website. Only the last approver in the approval chain sees this button. If no approval chain is assigned to the content's folder, every authorized user sees this button. See Also: *Setting Approval Chains* on page 262. This action also returns the changed content to the database and exits the editor.
  - **Undo checkout**—Exit screen and do not save changes made since you began editing this catalog entry.
- **Change Menu**
  - **Comment**—Enter comments on changes made when editing a catalog entry. The comment also appears on the View Content and Content History screens. Use it to help distinguish one version from another.
  - **Template**—A folder's default template is automatically applied to all content in the folder. However, you can change a content item's template to any of those assigned to the folder.

Entering a Catalog Entry's Content

The **Content** tab displays the content page of this catalog entry's product type. Because the format is customized for your system, this documentation cannot explain how to respond to the fields.

To learn about working with the editor, see *Editing in Ektron* on page 207.

Entering a Catalog Entry's Summary

Creating summary information for a catalog entry is done the same as with any other type of content. See *Writing a Summary for Content* on page 292.

Entering a Catalog Entry's Properties

The Properties screen collects eCommerce-specific information about your catalog entries:

- **SKU**—Enter a unique SKU code for this catalog entry. This is a required field that does not accept a value of zero (0) or a space character.
- **Number of Units**—If this item has a quantity other than one (1) for internal record-keeping purposes only, enter that number.

  For example, a 12 pack of soda. Set **Quantity** is 12 to represent the number of units. But a customer still orders 1 of the item.

  The quantity is not used when this item is ordered, nor does it affect inventory levels. It is used for clerical purposes only.
- **Tax Class**—Select the catalog entry's Tax Class. See Also: *Cataloging Entries that Can Be Taxed* on page 1338
- **Archived**—Check this box if you want to *archive* this catalog entry. When archived, customers can no longer see nor order it. Also, Ektron users cannot view an archived catalog entry in its catalog folder via the View Folders screen. To view it, open its catalog folder then select **View > Archive**.

  To make the entry available again on your website, open its archive folder, edit the entry by unchecking the **Archived** check box, and publish it.

  A catalog entry can also be set to Archived status if it reaches its expiration date and its **Schedule** tab > **Action on End Date** field is set to **Archive and remove from site (expire)**.
- **Buyable**—To let customers add this catalog entry to a shopping cart, check this box. Otherwise, uncheck it.

  If a product is *not* buyable, it can still be seen by customers, but its product page does not display an **Add to Cart** button.
- Dimensions—Used to calculate packaging containers and shipping costs. See Also: Packages
  - **Tangible Item**—

    Check this box if the item is *tangible*, that is, it has dimensions, weight, and will be shipped to a customer. Examples of non-tangible items are services, warranties, and downloadable software. If a catalog entry is tangible, you must enter its height, width, length, and weight.
  - **Height**—Enter the catalog entry's height. The units of measure are specified in the `web.config` file's `ek_measurementsystem` property.

- **Width**—Enter the catalog entry's width.
- **Length**—Enter the catalog entry's length.
- **Weight**—Enter the catalog entry's weight.

- **Inventory**—eCommerce's inventory system is a provider model, allowing you to connect with third-party inventory systems.
  - **Disable Inventory**—Check this box if you do not want to track inventory activity for this catalog entry. As examples, it is a service contract or a subscription to confidential content on your site.
  - **In Stock**—Enter the number of items on hand for this catalog entry. This number is automatically adjusted when an order containing this entry is submitted. For example, there are 100 items in stock. When an order for 10 is submitted, the **In Stock** value changes to 90. If the amount placed on an order exceeds the **In Stock** amount, the customer see this message "The item ... is not available for purchase. Please remove from cart before submitting order."
  - **On Order**—The number of items that have been ordered but not yet delivered appears.
  - **Reorder**—Enter the **In Stock** quantity at which you need to reorder this item. When the **In Stock** quantity reaches this level, an event is triggered which can be used by an external inventory system to generate a new order.

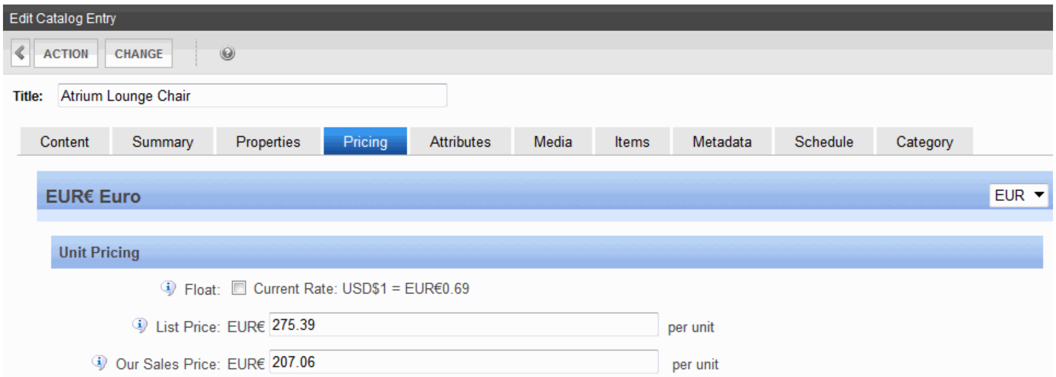
Entering a Catalog Entry's Price Information

Use the Pricing screen to enter price information for catalog entries.

- **Currency selector**—Use this drop-down to select a currency for the prices. See Also: *Alternate Currency Pricing* below. Only enabled currencies appear. See Also: *Enabling Currencies* on page 1308.
- **List Price**—Enter the catalog entry's list, or manufacturer's suggested retail, price. The list price appears on most eCommerce controls but is *not* used in any calculations.
- **Our Sales Price**—Enter the catalog entry's sale price. This price is used to calculate line item totals, coupon discounts, shipping costs, and so on. The sales price appears on most eCommerce controls. .
- **Add Pricing Tier**—See Also: *Tier Pricing* on the facing page
- **Recurring Billing** (appears only for subscription-based products)—See Also: *Creating a Subscription* on page 1349

Alternate Currency Pricing

By default, the Pricing screen converts prices to every enabled currency using the exchange rate. Customers who select a non-default currency see these prices. See Also: *Defining and Updating Exchange Rates* on page 1310



The **Float** checkbox (checked by default) indicates that prices change as the exchange rate changes.

If you do not want to float a catalog entry’s price, but instead fix it for a currency, select the currency, uncheck **Float**, edit the price, and publish. From then on, if a customer selects that currency and catalog entry, the price set on this screen is used. The exchange rate is ignored.

For example, a television costs 700 Euros, regardless of its cost in US dollars or the exchange rate. To incorporate this, do *not* check the **Float** checkbox.

When you first select **EUR** on the **Pricing** screen, the default currency’s prices are converted using the exchange rate. For example, the television’s sale price is $1000 US dollars, and today’s exchange rate is .7811. When you select **Eur** from the **Pricing** screen’s currency selector, the television’s cost is set at 781.10 Euros. You change the price to 700.00 Euros.

From that point on, the Euro price only changes if an authorized user accesses this screen and changes it manually.

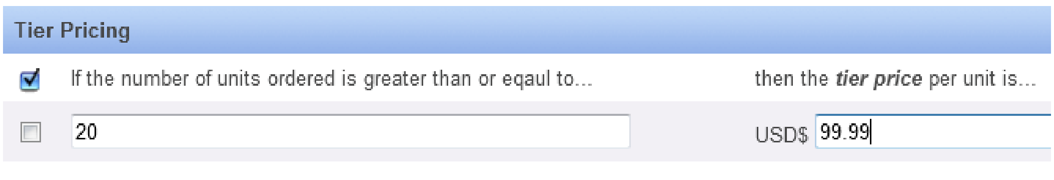
Tier Pricing

eCommerce supports *tier pricing*, that is, a pricing schedule that adjusts according to order quantity. Typically, the price is reduced as more items are ordered. For example, if a visitor orders 1-5, items are $10.00 each; 6-10, $9.00 each; 11 or more, $8.50 each.

Tier pricing is not supported for subscription products, nor for complex products.

To set up tier pricing:

1. In the Workarea, open the catalog folder containing the entry to which you want to apply tier pricing.
2. Edit the catalog entry.
3. Click the **Pricing** tab
4. Click **Add Pricing Tier**. The Tier Pricing screen section appears.



5. In the left column, enter the quantity of items above which the tier price is used.
6. In the right column, enter the price to be used when an order quantity *exceeds* the

number in the left column.

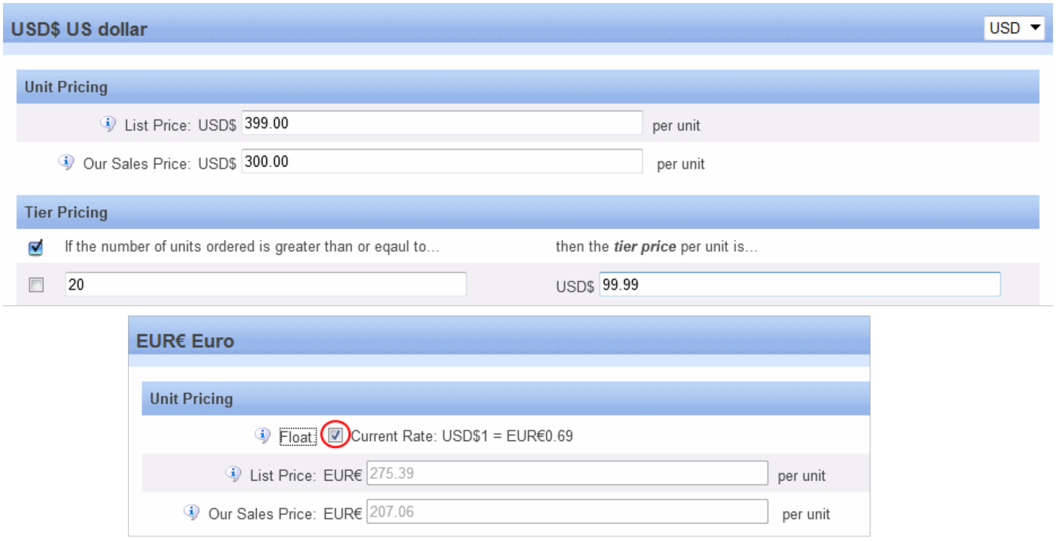
7. Enter as many tiers as necessary.

NOTE: To remove a tier, check the box to its left, then click **Remove Pricing Tier**.

Tier Pricing and Non-Default Currencies: When Floated

If a non-default currency is *floated*, then that currency's pricing tiers mirror the default currency's pricing tier values. The amounts are adjusted by the exchange rate.

These values appear on pricing screen in view-only mode and cannot be changed.



If pricing tiers are set up for the default currency and the user unchecks the **Float** box, the user is notified that the pricing tiers can now be edited. Next, Tier Pricing fields are loaded with the existing values but the user can change values, remove existing tiers, and add new ones.

Tier Pricing and Non-Default Currencies: When Not Floated

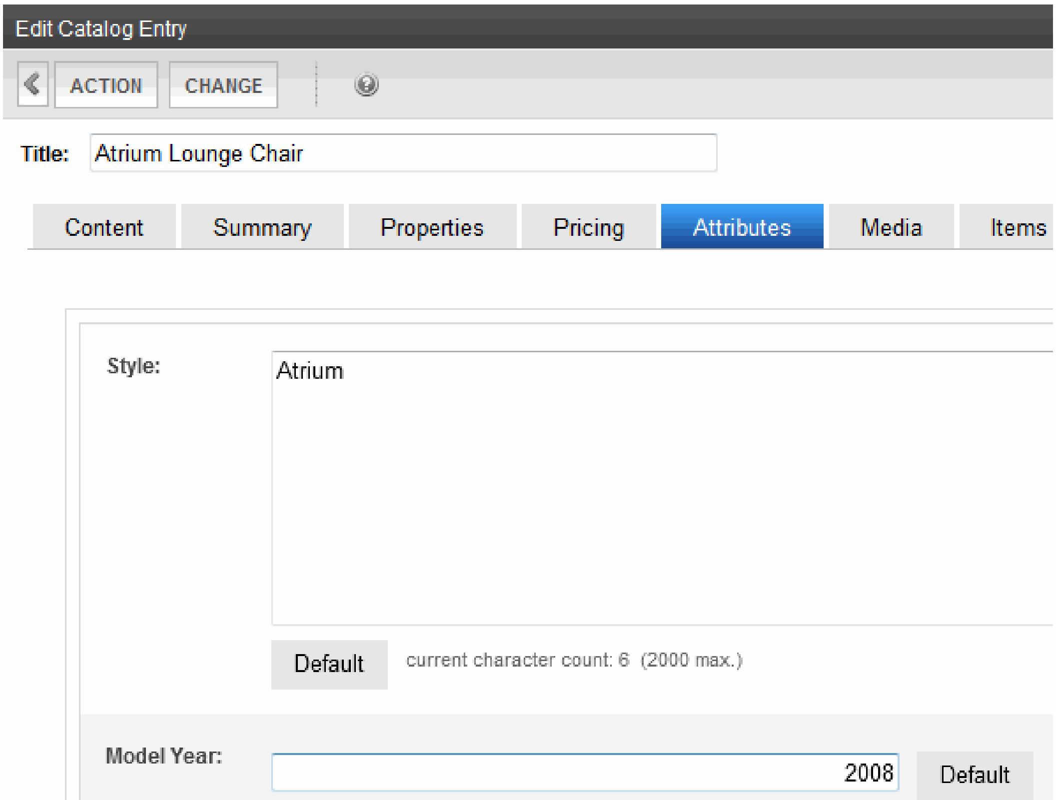
If a non-default currency is *not floated*, its pricing tiers are independent of the default currency's. That is, they do not exist initially regardless of whether they exist for the default currency. If the user clicks **Add Pricing Tier**, **Tier Pricing** fields appear and let the user enter number of units and corresponding tier price per unit.

If pricing tiers are set up for a non-default currency and the user checks the **Float** box, the pricing tiers are changed to mirror those of the default currency. If the default currency has no pricing tiers, then that currency has none. You cannot independently edit a non-default currency's pricing tiers if **Float** is checked.

Entering a Catalog Entry's Attributes

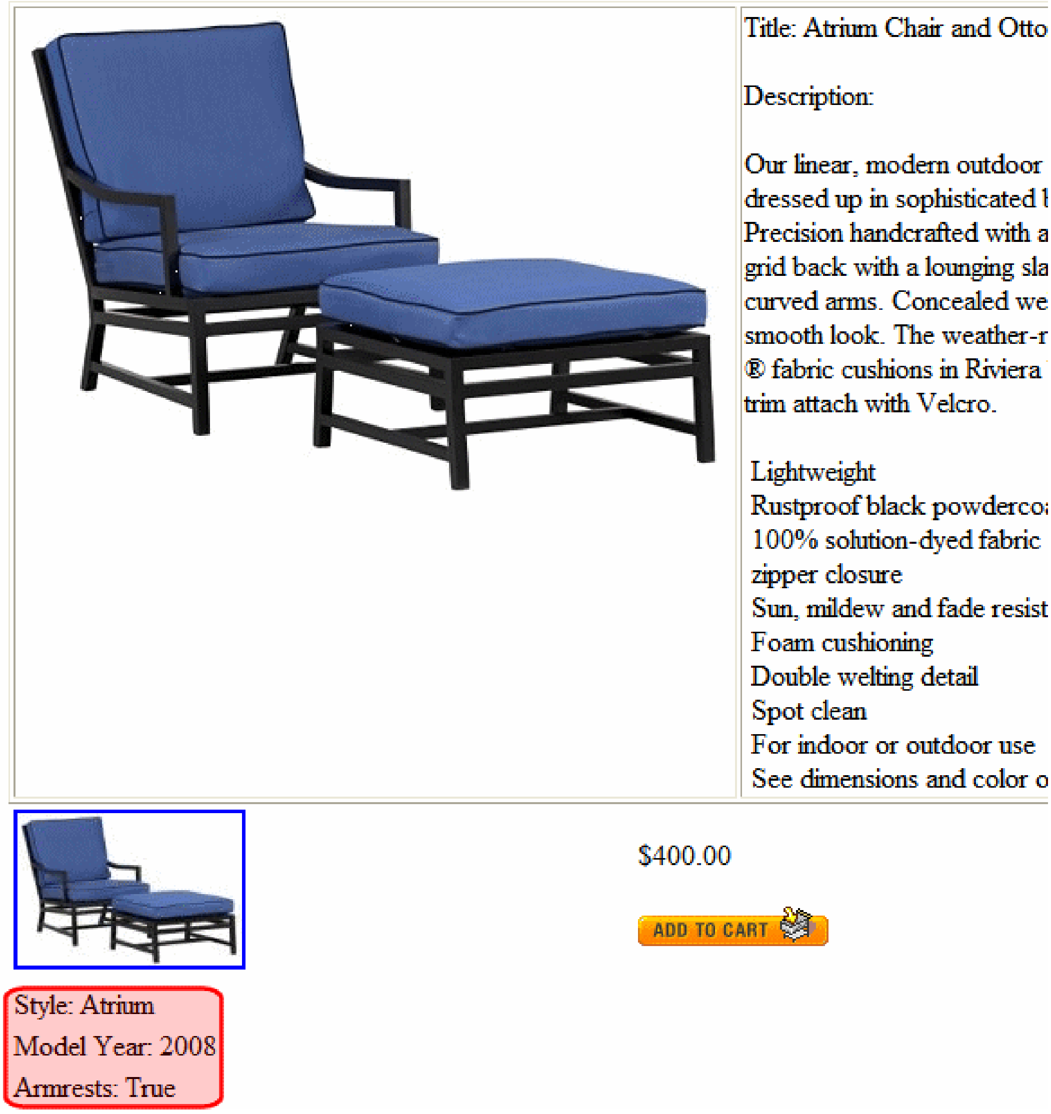
Attributes are additional pieces of information that help describe a catalog entry. Attribute fields, data types, and default values are created as part of a Product Type. When you create a catalog entry, you base it on a product type. The product type's **Attribute** information is imported to the catalog entry. Like metadata that follows Ektron content, if a catalog entry is moved to another folder, its attributes stay with it.

To illustrate the concept, the following attributes are applied to furniture in Ektron's sample site.



In the Workarea, you select a catalog entry then click the **Attributes** tab to enter or modify attribute values. If no attributes are assigned to the product type on which a catalog entry is based, you will not see an **Attributes** tab when working with that catalog entry. You could change model year to **2009**, or style to **Woodland**. You cannot however change fields, field names, or data types.

On your website, a catalog entry's Attribute field names and values appear by default on the Product server control.



Entering a Catalog Entry's Media

Use the **Media** tab to add product images that appear on the following server controls.

- Product (the smallest thumbnail may appear)
- Product List
- Product Search
- Recommendation

See Also: *Using Images in eCommerce* on page 1292

Adding a New Image

1. Click the **Media** tab.
2. Click **Add New Image**. The add New Image dialog box appears.
3. Enter an image **Title** (required).
4. Enter the image's **Alt text** (required).
5. Click **Browse** and navigate to the image you want to add.

6. Click **Upload**. The image is uploaded to the *siteroot*/uploadedimages folder and you are returned to the Media tab. The uploaded image appears on the screen, below any existing images.
7. Determine if you want the image's smallest thumbnail to appear on the Product server control by selecting **Yes** or **No** next to **Gallery Display**. (See example below).
8. If you want to designate the image as the *product icon*, click **Set as Product Icon**.

Image thumbnails and product icons are described in *Using Images in eCommerce* on page 1292.

When an image is uploaded to the **Media** tab, the original image and any thumbnails associated with it are added to the Library. For example, if you add an image named "TestImage" (actual file name: "case.jpg") with a 150px and 50px thumbnails, you see the following entries in your library (*File Name - Path*):

```
TestImage - /~siteroot~/uploadedImages/case.jpg
case[filename]150 - /~siteroot~/uploadedImages/case[filename]150.jpg
case[filename]50 - /~siteroot~/uploadedImages/case[filename]50.jpg
```

If you assign several images to an eCommerce catalog entry, and want to allow searching for that catalog entry by image file name, the search only works with the *first* image assigned to the catalog entry.

Editing an Existing Image

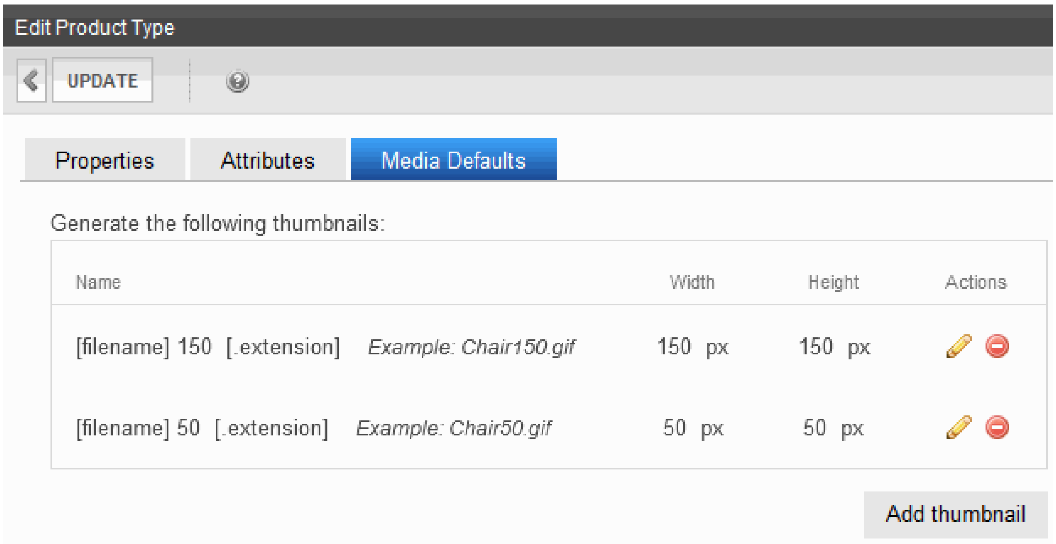
NOTE: You cannot change an existing image. If you need to do this, delete the image you do not want, then add the correct one. You can only edit the **Title** and **Alt Text**.

1. Click the **Media** tab.
2. Move the cursor to the field that you want to edit.
3. Click the pencil icon to the right of the field.>—Image—

4. Update the text as needed.
5. Click **OK** ( ).

Determining Thumbnail Size

When you create a catalog entry, you base it on a Product Type. The selected product type's **Media Defaults** information determines the sizes of thumbnails created for each image assigned to the **Media** tab.



- If the image is *less than* both thumbnail dimensions (height and width), it appears full size.
- If the image is *greater than* the thumbnail's dimensions, the image is reduced proportionately, scaling its dimensions to the thumbnail size.

The Default Image

If you do not assign an image to a catalog entry, but one is assigned to appear on a server control, the following default image is used.

If you want to change the default image, edit the following file:

```
siteroot/WorkArea/images/application/Commerce/productImageBackground.gif
```

Entering a Catalog Entry's Items

Use the **Items** tab to add additional information to the current entry. You can only choose a catalog entry whose language matches the language of the original item. It is used in these situations:

- to select the catalog entries that make a product into a complex product.
- to select the catalog entries that make up a bundle.
- to select the groups and their options that make up kits.
- to select a subscription-based catalog entry's user groups. See Also: *Assigning Groups to a Subscription-Based Catalog Entry* on page 1352

Folder View Menu options

New Menu

- **Catalog**—Create a new catalog folder underneath the current one. See Also: *Creating a Catalog Folder* on page 1354

- ***product types assigned to folder***—Create a new catalog entry based on one of the displayed product types. Your product types may not match the ones shown below. Product types are assigned to a catalog's via the Product Types screen. See Also: *Creating Product Types* on page 1343

View Menu

- **All types, Products, Kits, Bundles, Subscriptions**—Lets you change the display of catalog entries. You can see all entries in folder, or only those of a selected product class.
- **Language**—Limits display of catalog entries to one language. Also determines the language of any new catalog entries you create in this folder.
- **Archive**—Displays archived catalog entries.
- **Catalog Properties**—Lets you view and edit catalog folder information.

Delete Menu

- **This Catalog**—Lets you delete a catalog folder.
- **Entries**—Lets you delete a catalog entry within a folder. You cannot delete a catalog entry that has been placed on any order. The order's status is irrelevant.

Action Menu

- **Move entry**—Move catalog entry. You can only move catalog entries -- you cannot copy them. See Also: *Managing Versions of Content* on page 299
- **Search**—Search for a product. See Also: *Searching the Workarea* on page 966

Content View Menu Options

Action Menu

- **Edit**—Edit the catalog entry.
- **Delete**—Delete a catalog entry.
- **Link Search**—Locates all content that includes a Quicklink to the displayed catalog entry. This feature is useful before deleting a catalog entry, because it informs you of every entry that will include a "dead" link if you delete that entry. You should then edit those catalog entries and remove or change the obsolete Quicklinks.
- **Add Task**—*Assigning and Managing Tasks* on page 1027

View Menu

- **Content History**—Lists every version of the content available in Ektron. After viewing the View Content History window, you can click any version to see its detail. See Also: *Managing Versions of Content* on page 299
- **View Approvals**—Access the catalog folder's approval chain. See Also: *Setting Approval Chains* on page 262
- **View Permissions**—Access the catalog folder's permissions table. See Also: *Managing Folder Permissions* on page 257
- **Cross Sell**—Lets you assign cross sell items to this catalog entry. See Also: *Recommending Related Products to a Customer* on page 1371
- **Up Sell**—Lets you assign up sell items to this catalog entry. See Also: *Recommending Related Products to a Customer* on page 1371

- **View Properties**—Lets you:
    - view the catalog entry's product type
    - view the Flagging Definitions assigned to the catalog entry's folder
    - view and edit the Content Searchable setting See Also: *Ensuring Your Content is Searchable* on page 942

Reports Menu

- **Content Statistics**—*User-Ranking of Content* on page 587
- **Analytics**—Provides a visual display of order information for a selected catalog entry. See Also: *eCommerce Analytics* on page 1403

Editor View Menu Options

Action Menu

- **Save**—Save the content without leaving the editor. It is a good idea to save your work frequently.
- **Check in**—Save and check-in the document. This action returns the changed content to the database and exits the editor. It does not submit the content into the approval chain. Rather, it allows you and other users to continue changing it.
- **Submit** or **Publish**—**Submit** the content into the approval chain. **Publish** the content to the website. These actions also return the new or updated content to the database and exits the editor. Only the last approver in the approval chain sees this button. If no approval chain is assigned to the content's folder, every authorized user sees this button. See Also: *Setting Approval Chains* on page 262
- **Undo Checkout**—Close the editor without saving changes.

Change Menu

- **Comment**—Briefly describe the content, or comment on changes made when editing content. The history comment appears on the View Content and Content History screens.
- **Template**—Lets you specify one or more templates for catalog entries in this folder. These entries use the specified template when appearing on your website. See Also: *Working with Templates* on page 382

Displaying Catalog Entries on your Website

The eCommerce Module provides the following server controls for displaying catalog entries on your website.

- *Product* on page 1815
- *ProductList* on page 1818
- *Product Search Server Controls* on page 1822

Recommending Related Products to a Customer

Ektron eCommerce lets you recommend related products to a customer (site visitor) based on products they are currently viewing.

Cross sell and upsell tactics are designed to increase the amount of cart sales. Use the *Recommendation* on page 1826 server control to add cross sell and upsell offers.

Cross sell offers items related to a catalog entry. So, for example, if someone is purchasing a digital camera, cross sell items might be a carrying bag, digital photo printer, larger memory cards, additional warranty, and so on.

Up Sell refers to similar but more expensive items. So, for example, if someone is viewing a 7 megapixel digital camera, upsell items might be a 10 megapixel camera, or a digital SLR camera.

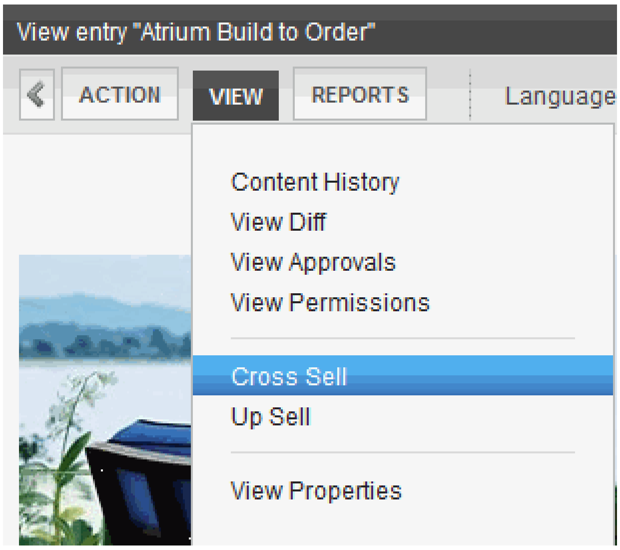
Displaying Cross Sell and Upsell Items on Your Website

Use the *Recommendation* on page 1826 server control to place cross sell or upsell items anywhere on a Web page. A single control can only show *either* cross sell *or* upsell items.

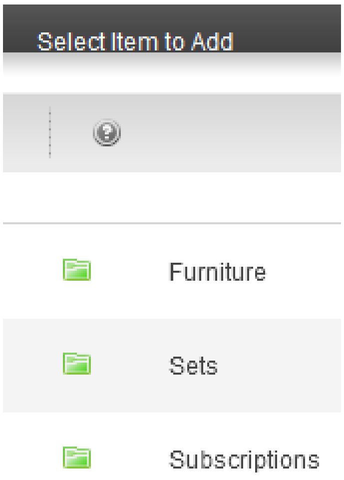
Assigning Cross Sell and Upsell Items to a Catalog Entry

1. Open the catalog folder containing the catalog entry to which you want to assign cross sell items.
2. Click that entry.

3. Click **View > Cross Sell** or **Up Sell**.



4. Click **Add**. A screen displays all catalog folders.



5. Open the folder that contains the cross sell or upsell catalog entry.
6. Click that catalog entry.
7. Click **OK**.
8. Enter additional cross sell entries as needed.
9. Choose **Action > Save**.

Using Coupons

Most eCommerce sites periodically offer coupons to provide discounts to customers, either to attract new business or reward loyalty. Ektron's eCommerce feature lets you generate coupons with the features such as:

- percentage discounts—you can set a maximum coupon value regardless of the amount calculated by percentage.
- limit to catalog entries that you accept
- limit to most or least expensive entry
- limit to 1 use per customer
- limit from being used with other coupons
- limit to a date range when coupon is active
- specify a maximum number of redemptions
- specify a minimum order amount required to activate coupon

This section also contains the following topics.

Creating a Coupon

Create coupons in the Workarea by going to **Settings > Commerce > Catalog > Coupons**. To make it easy to complete the information, the screens are arranged in numbered steps. Subsequent screens are context-sensitive, so that you only see fields that are a logical result of previous decisions.

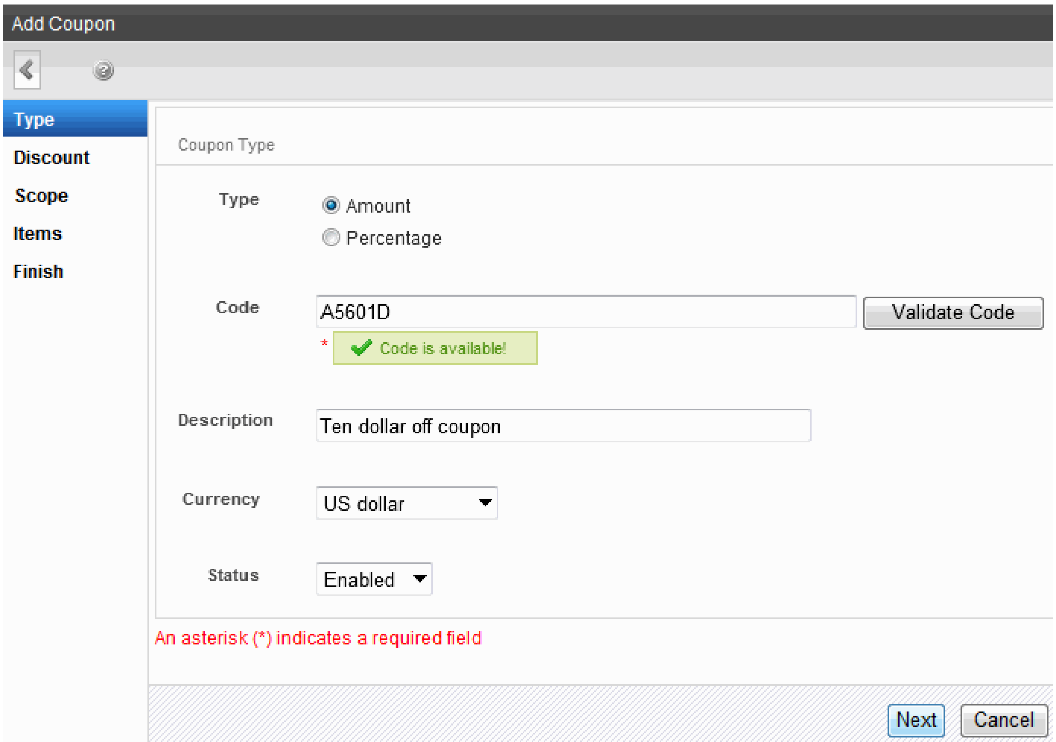
The following list summarizes the information collected on each screen.

1. Type Screen
   - whether discount is based on amount or percentage
   - code (unique identifier)
   - description
   - currency (for amount-based coupons only)
   - enabled or disabled
2. Discount Screen
   - if amount, dollar amount
   - if percentage, percentage and maximum coupon value
3. Scope Screen
   - applies to entire cart, accepted items only, most/least expensive item only
   - limit to one per customer
   - allow combination with other coupons
   - apply to subscription-based products
   - apply amount-based coupons on a "per quantity" basis

- limit maximum number of redemptions
- require minimum cart value
- start and end dates

4. Items Screen—if coupon is restricted to certain items, designate the items

Creating a Coupon Type



1. Select the type of coupon you are creating/editing using the **Type** radio buttons:
   - **Amount**—discount is a dollar amount. If you select this type, choose a currency at the **Currency** field (below). Then, enter the dollar amount on the **Discount** screen.
   - **Percentage**—discount is a percentage. If you select this type, enter the percentage on the **Discount** screen. That screen also lets you enter a maximum amount.
     Also, if the coupon type is **percentage**, the **Currency** field is disabled. Percentage-based coupons are currency neutral.
2. Enter the coupon code in the **Code** field. The code cannot contain
   - spaces
   - angle brackets (<, >)
   - single (‘) or double quotes (“)
   - ampersand (&)
   - slash (/) or back slash (\)
   - plus sign (+)
3. Click **Validate Code**. When you do, Ektron verifies that the code contains the correct characters and is not already in use. Customers (site visitors) enter this code to redeem the coupon on a page that hosts the *Cart* on page 1672 server control. The following page

gives suggestions about eCommerce coupons, including coupon-naming strategies: ecommerce-guide

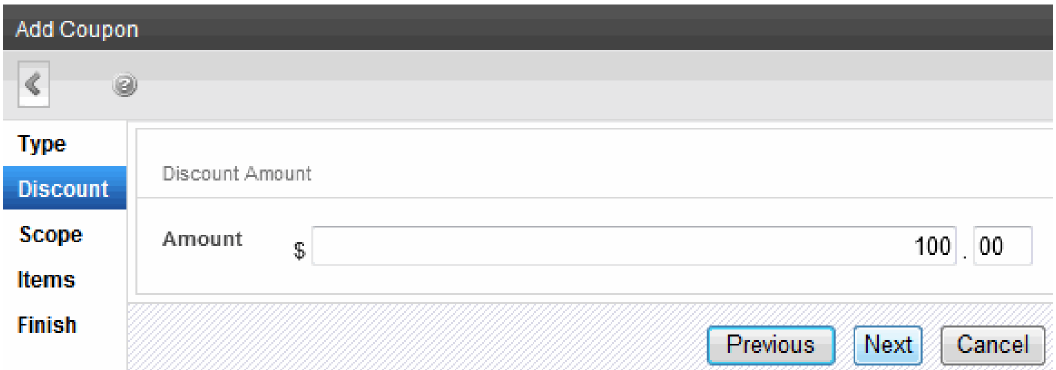
4. Enter a free text description of the coupon in the **Description** field. This helps describe it on the initial Coupons screen in the Workarea.
5. Select the currency to which this coupon applies from the Currency drop-down menu. If the coupon type is percentage, this field is disabled.See Also: *Configuring Currencies* on page 1307

IMPORTANT: The coupon is only valid if a customer selects this currency. So, for example, if you create a coupon for a USD amount, and a customer selects Euros when shopping on your site, the coupon is not accepted. To work around this restriction, create a coupon for every applicable currency.

6. Set the status pf the coupon using the **Status** drop-down. Set to **enabled** to let customers uses this coupon (providing all other conditions are met). Or, set to **disabled** to keep the coupon in the eCommerce feature but prevent it from being used.

Setting a Discount

The discount screen displayed depends on the discount type selected in the first screen: amount or percentage. If an **amount** discount was selected, enter the coupon's discount amount.

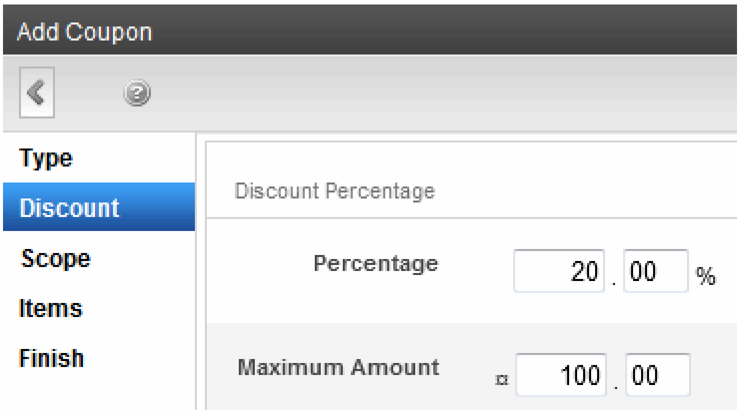


If the coupon amount exceeds the sum of all items to which it is applied, it is reduced to the sum of the items. For example, a coupon amount is $10.00 and applies to the least expensive item. If that item is $3.00, the amount changes to $3.00.

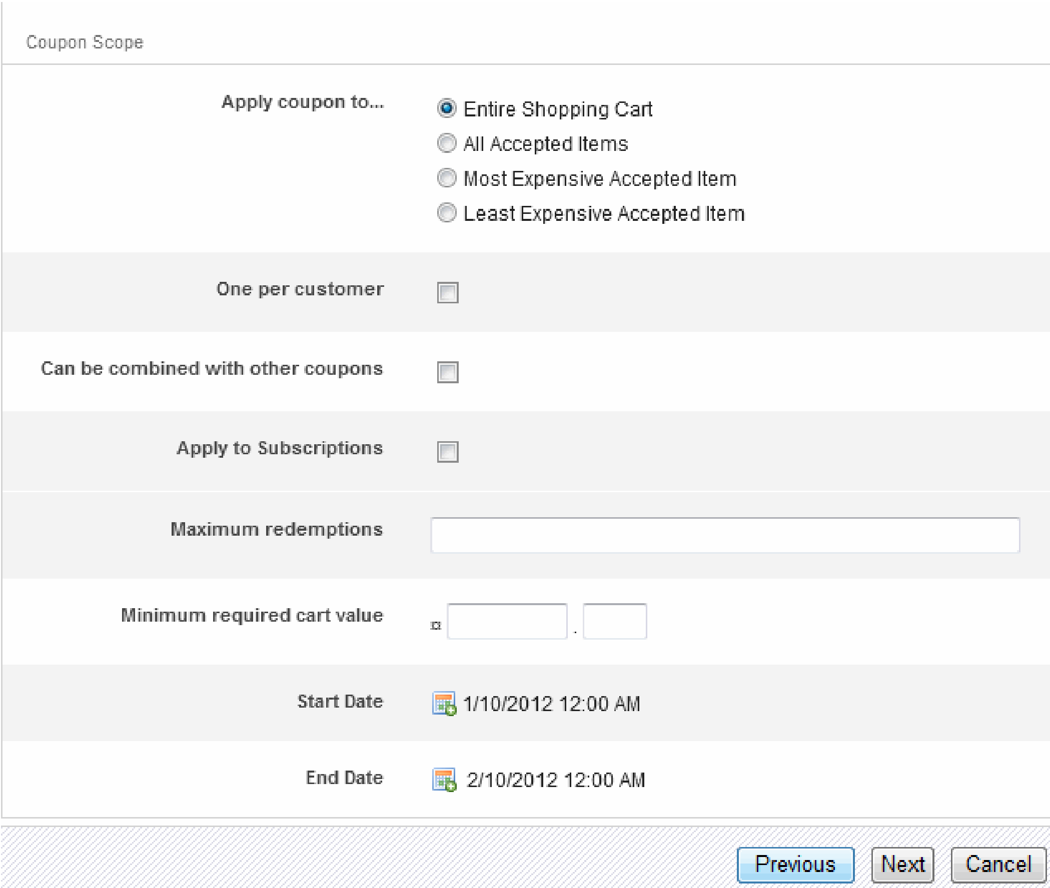
If a percentage discount was selected:

1. Enter the percentage of the discount in the **Percentage** field.
2. Enter the maximum value of this coupon in the Maximum Amount field.

   For example, if you set a discount of 10% and a **Maximum Amount** of $20.00, the discount will never exceed $2.00 (that is, 10% of the **Maximum Amount**) regardless of the amount of the goods ordered. Typically, you would include a Maximum Amount in the email or announcement that describes the coupon.



Setting the Coupon Scope



1. Select an Apply Coupon to setting:
   - **Entire cart—**coupon applies to all items in cart
   - **All accepted items**—coupon applies all *accepted* items in cart.
   - **Most expensive accepted item**—coupon applies to most expensive *accepted* item in the cart.
   - **Least expensive accepted item**— coupon applies to least expensive *accepted* item in the cart.

IMPORTANT: If you select All accepted items, Most expensive accepted item, or Least expensive accepted item, you must identify accepted items on the Items tab. If you do not, the coupon is effectively inactive.

You cannot apply a *cart-level* coupon to a subscription product. However, you can apply an *item-level* coupon to a subscription product. (An an *item-level* coupon is one that applies to all accepted items, or the most or least expensive item.) See Also: *Creating a Subscription* on page 1349

2. Check the **One per customer** box if you want to limit each customer to one use of the coupon. If you do and a customer completes an order with the coupon then tries to use it a second time, the customer is notified that the coupon is not valid.
3. Check the **Can be combined with other coupons** box if this coupon can be combined with other coupons in the same order. If you do not check this box and a customer tries to add this coupon to an order to which a coupon is already applied, the customer is notified that the coupon is not valid.
4. Check the **Apply to Subscriptions** box if customers can use this coupon to purchase subscriptions.

   Customers can use only coupons with subscription items that have a sale price and are set to recurring billing. See Also: *Creating a Subscription* on page 1349

   Customers can apply only an *item-level* coupon to a subscription product. (An an *item-level* coupon is one that applies to all accepted items, or the most or least expensive item.) See Also: *Select an Apply Coupon to setting:Entire cart—coupon applies to all items in cartAll accepted items—coupon applies all accepted items in cart. Most expensive accepted item—coupon applies to most expensive accepted item in the cart.Least expensive accepted item— coupon applies to least expensive accepted item in the cart.If you select All accepted items, Most expensive accepted item, or Least expensive accepted item, you must identify accepted items on the Items tab. If you do not, the coupon is effectively inactive.You cannot apply a cart-level coupon to a subscription product. However, you can apply an item-level coupon to a subscription product. (An an item-level coupon is one that applies to all accepted items, or the most or least expensive item.) See Also: Creating a Subscription on page 1349* on the previous page
5. Check the **Apply to Quantities** box if you want the coupon amount to discount each accepted item in a cart. For example, if a coupon amount is $1.00, and a customer purchases 5 of one item, the discount is $5.00.

   If you do not check this box, the discount would be $1.00, regardless of the quantity of an item purchased. This field is only available for an amount based coupon.
6. If desired, enter a maximum number of times this coupon can be used in the **Maximum Redemptions** field. It does not matter which customers use the coupon. If you set a maximum, and the coupon is applied that number of times, the next time someone tries to use the coupon, the customer is informed it is not valid.
7. If desired, enter the minimum order amount required to activate this coupon in the **Minimum Required Cart** Value field. The order amount does not include tax or shipping charges. For example, enter **$50.00**. If a shopping cart total is $40.00, and a customer adds this coupon to an order, the customer is informed the coupon is not valid.
8. Enter the date range within which this coupon is valid using the **Start Date** and **End Date** selectors..

For example, you enter a **Start Date** of January 1, 2013 and an **End Date** of December 31, 2013. If a customer inserts this coupon on February 9, 2014, the customer is informed the coupon is not valid.

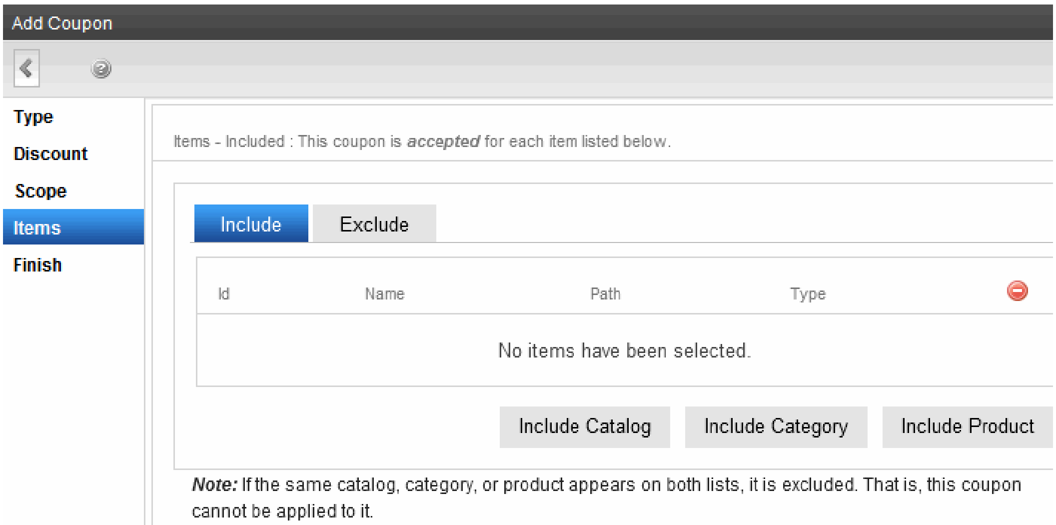
Defining the Coupon Items

PREREQUISITE

The Coupon Scope screen's **Apply Coupon to** field must be set to one of the following:

- All accepted Items
- Most Expensive accepted Item
- Least Expensive accepted Item

Use this screen to identify items to which this coupon applies. If Entire Shopping Cart was selected, the following message appears: This coupon is accepted for all items.



IMPORTANT: Item-level coupon types apply *only* to items selected on this screen. If a customer orders a catalog entry that's not defined on this screen, an item-level coupon does not apply to the item.

For example, you create a coupon worth 10% off any digital camera. The coupon is only applicable if a digital camera is in the shopping cart. Typically, the email or announcement that describes the coupon includes item restrictions. The discount is applied to each accepted item in the cart. For example, a coupon provides a 10% savings on items 1, 3, and 5 but not 2 and 4 because 2 and 4 are not on the accepted items list.

Selecting a Coupon's Accepted Items

There are 3 ways to select items for the Include or Exclude list:

- **Individual items**—Click **Include Product** and navigate through the Ektron folder system to that content. You can only select items in a category folder (which are blue to distinguish them from regular folders).
- **All items in a catalog folder**—Click **Include Catalog** and navigate through the Ektron folder system to that folder. You can only select items in a category folder (which are blue to distinguish them from regular folders).

NOTE: If you choose a parent catalog, its child catalogs are not selected. Only products in the parent catalog are eligible for the coupon.
If you want to select a parent catalog and its child catalogs, first select the child catalogs. Then, navigate to the parent catalog and select it.

- **All items in a taxonomy or category**—Click **Include Category** and navigate through the Ektron taxonomies to the desired taxonomy or category. All content applied to the category will be eligible for the coupon.

Include vs. Exclude

You can both include and exclude using any of the criteria listed above. If any product appears on both lists, it is *excluded* from coupon eligibility.

So for example, one of your folders contains 500 digital cameras that your site offers. You want the coupon to apply all but a few cameras.

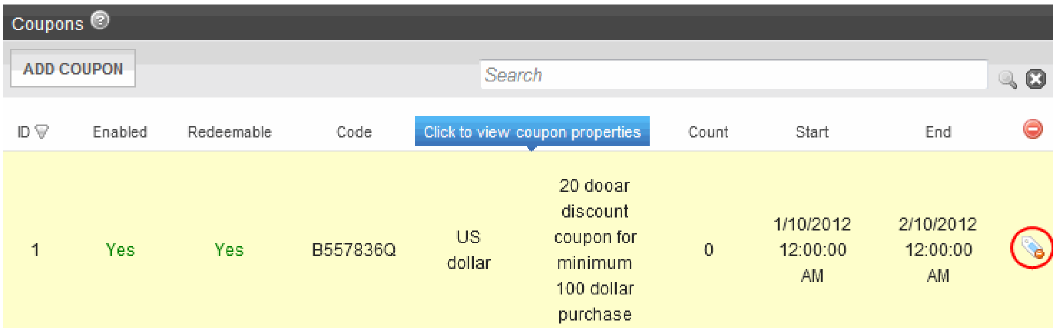
On the **Include** tab, select the cameras folder. Then, use the **Exclude** tab to select the few cameras to which the coupon does not apply. In this way, you can easily select the majority of items but exclude a few.

Deleting a Coupon

If a coupon is applied to an order, you cannot delete it but you can disable it.

To delete a coupon that is not applied to an order:

1. Go to Ektron **Workarea > Settings > Commerce > Coupons**.
2. Locate the coupon that you want to delete.
3. Click **delete** on the far right of the coupon information.



4. A strikethrough line appears over all coupon text, and **Restore** ( ) replaces **Delete**. If you change your mind and do not want to delete the coupon, click **Restore**.
5. Click **Save**.

If the coupon cannot be deleted, it remains on the main Coupons screen and **No** appears in the **Enabled** field. This coupon can no longer be used.

Disabling a Coupon

When the coupon’s status is Disabled, customers can no longer apply it to an order. Coupons can be disabled automatically (according to a schedule) or manually.

Using an Expiration Date to Disable a Coupon

When you create a coupon, a default end date is set for 10 years from the end of the current year. At that time or at any time the coupon is active, you can change its end date.

When the coupon's end date is reached, its status changes to Disabled.

Manually Disabling a Coupon

1. Go to Ektron **Workarea > Settings > Commerce > Coupons**.
2. Locate and click on the coupon that you want to delete. The Coupon Propties screen appears and the Type tab is selected.
3. Choose **Disabled** from the Status drop-down.

Managing Customer Orders

The fulfillment aspect of eCommerce involves:

- tracking submitted orders, including
  - order status
  - charge capture
  - shipping
  - cumulative sales information on customers
- customer information, such as
  - orders submitted
  - addresses
  - current shopping carts

PREREQUISITES

To process orders, the Distributed Transaction Coordinator (DTC) Windows service must be running. It is started by default when you install Ektron.

This section also contains the following topics.

Order Workflow

Ektron uses Microsoft's Windows Workflow Foundation to create and implement order process workflows to handle the ordering process. The workflow can be as simple or complex as your business requires.

For example, you have a simple workflow that sends one email to the customer when an order is received, and another to your shipping department. Or, you could have a more complex workflow that:

- sends an email to the customer when the order is received
- checks to see whether the item is a tangible product or a virtual product. Then, continues down the workflow path that's appropriate for the item.
- handles shipping notifications and updates the account throughout the shipping process
- handles the order if it is canceled
- handles the order if it is determined to be fraudulent
- marks the order as complete when activities are finished

For more information about workflows, see *Customizing Workflows* on page 1435.

Creating the Order Process

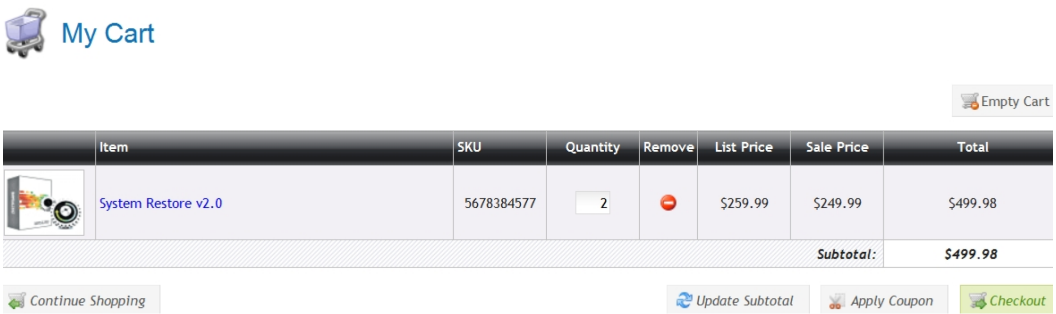
This section summarizes the shopper experience using Ektron's eCommerce feature. See *Cart* on page 1672 and *Checkout* on page 1673 for information about the Cart and Checkout server controls used to implement the order process.

1. As a shopper, you can add items (physical goods, subscriptions, or soft goods) to your cart by clicking **Add to Cart**.

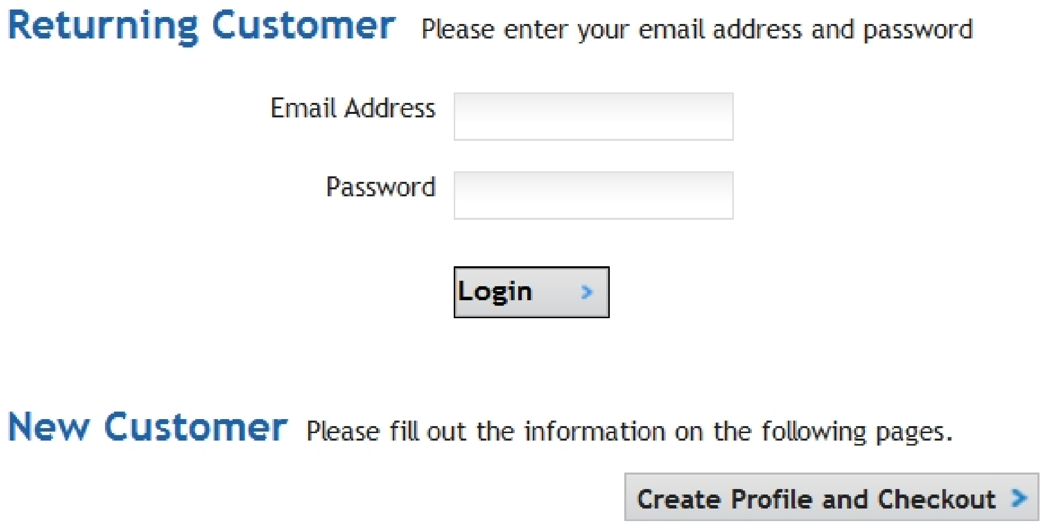
2. When you are ready to pay, click **Checkout** to begin the checkout process.

   NOTE: Shoppers have the option of checking out using PayPal's checkout system. Order information is exported, and you can use your PayPal account to fund the purchase. See Also: *Configuring Payment Options* on page 1311.

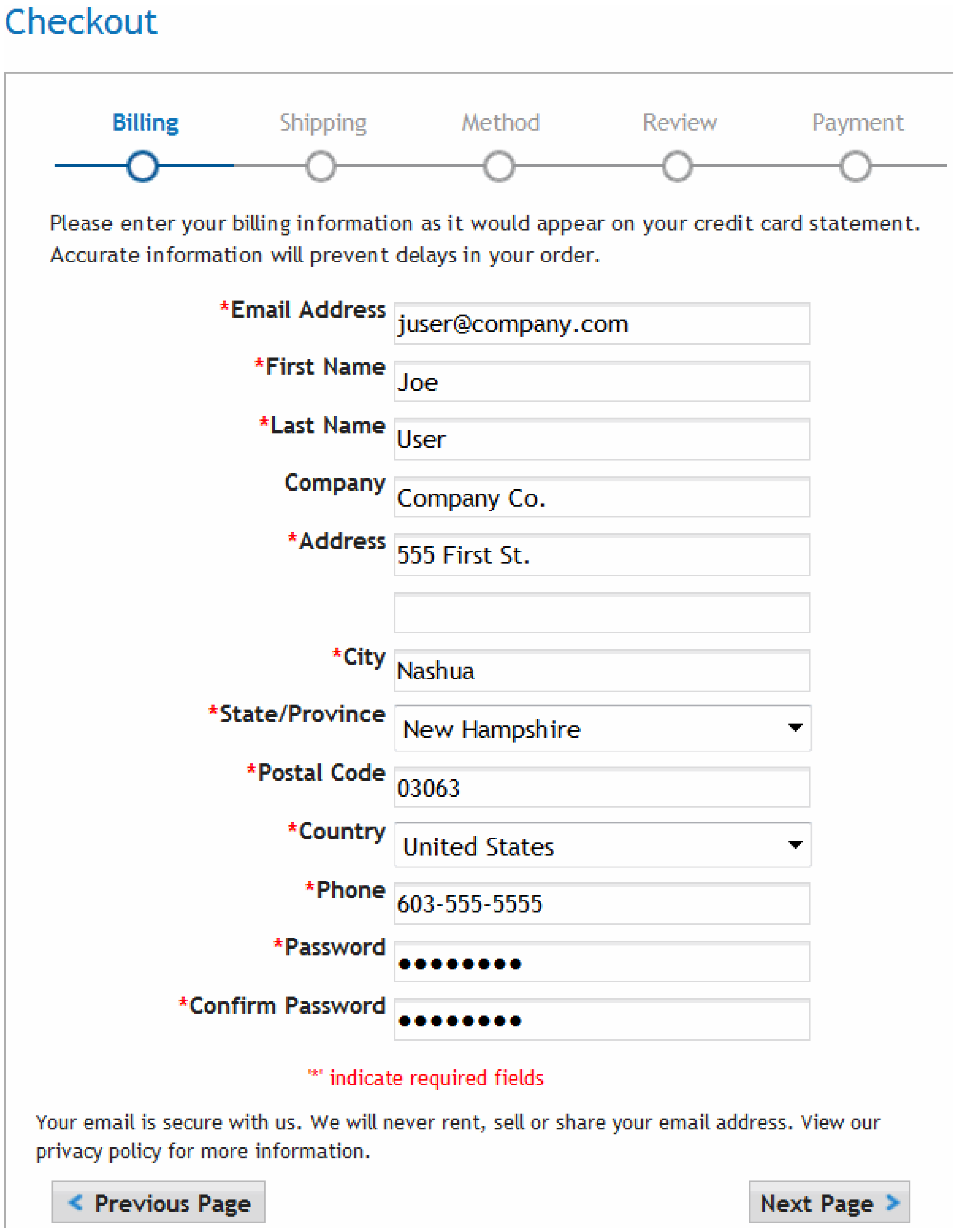
   

3. When you return, you can log into your account and continue the checkout process. Your

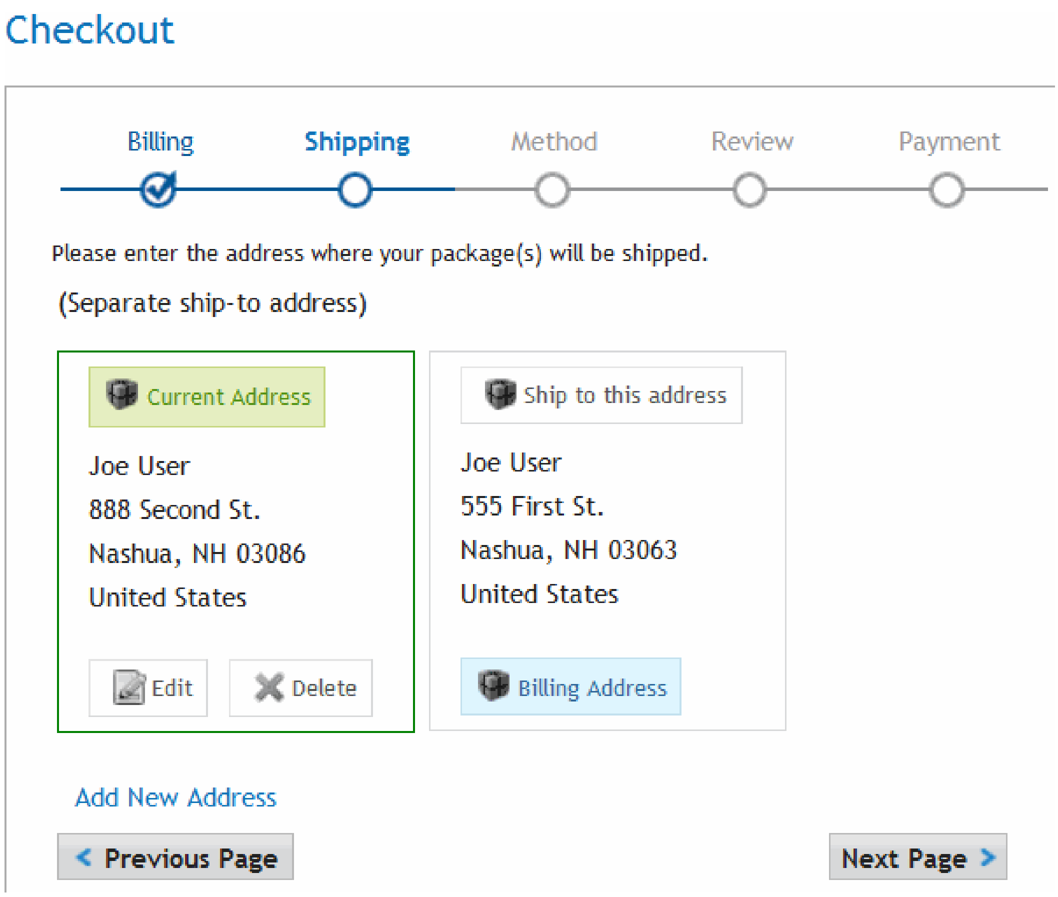
shipping and billing information appears.



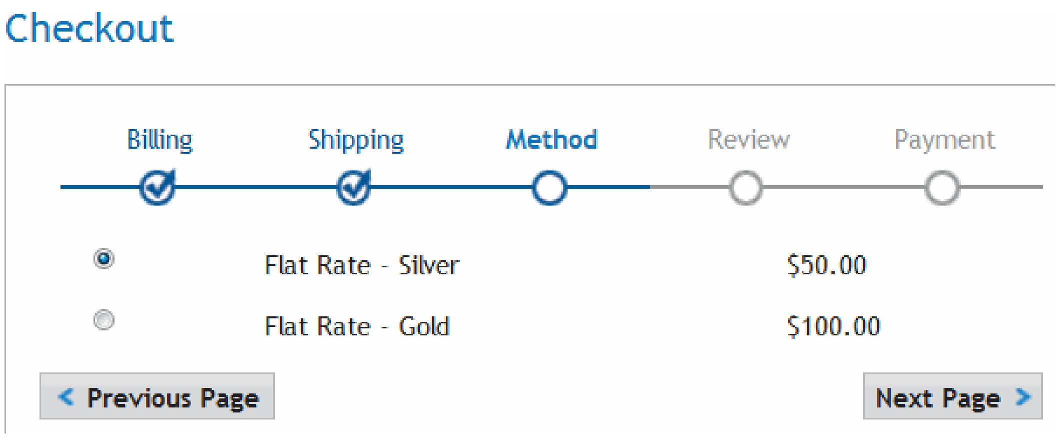
4. Click **Create Profile and Checkout** and complete the Billing Page.



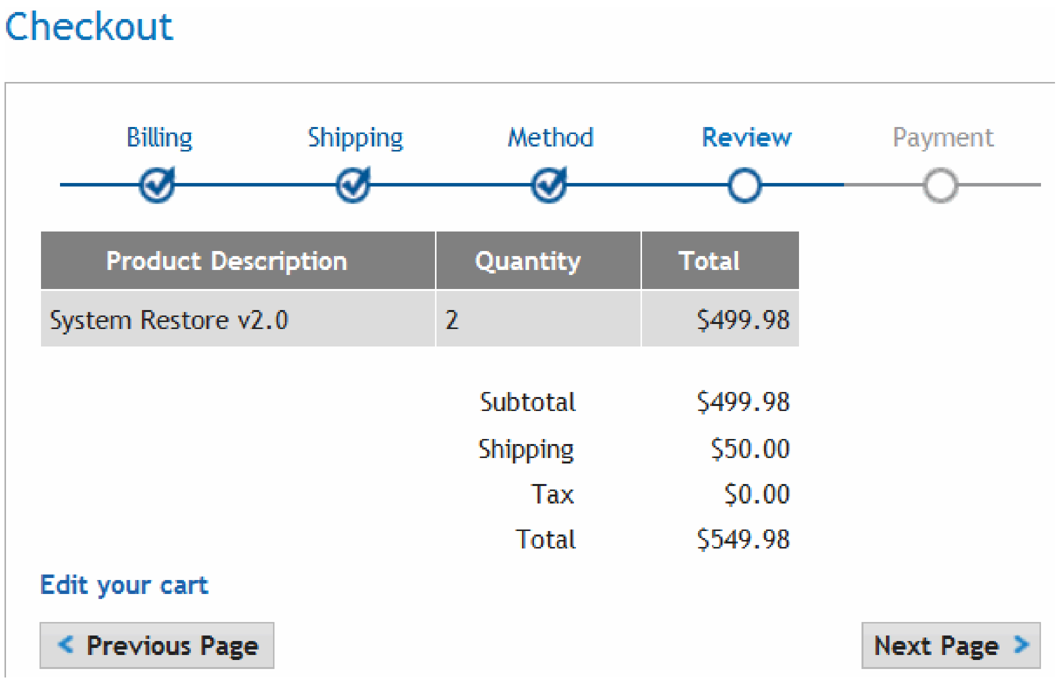
5. Click **Next Page** to create an account. After confirming the information, you can enter a different shipping address.



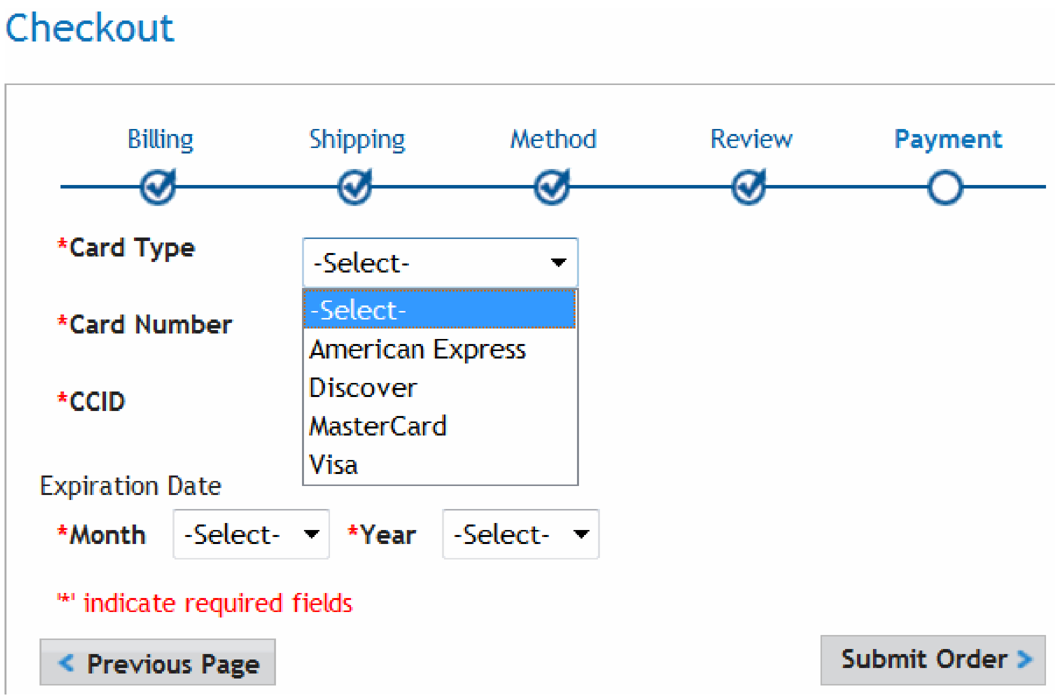
6. When you click **Next Page**, you can select the delivery method. If the cart contains a subscription or soft goods (such as downloadable software), this page is typically bypassed.



7. On the Review Page, you can modify the order by clicking **Edit your cart**. Otherwise, move forward to the Payment options page.



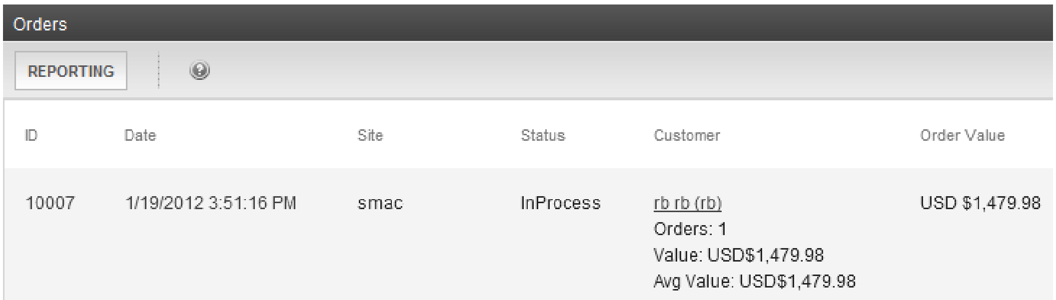
8. Specify payment information and submit the order.



An order invoice page displays to confirm the order. If the order was for a subscription or downloadable software, additional information appears.

Processing Orders

The orders screen provides information about all orders in your eCommerce system. To access it, go to **Workarea > Settings > Commerce > Fulfillment > Orders**.



Initially, orders are sorted by submission date and time, with the most recent at the top.

Selecting Orders by Criteria

You can select orders by any of the following criteria.

- entry date range
- customer
- catalog entry

To use any filter, choose **Reporting** (see below) then the appropriate filter option:

- Most Recent—This is the the default select and sort order: all orders with the most recent on top.
- By Date(s)—If you choose to view orders **By Date(s)** and want to view orders for today, enter tomorrow as the ending date.
- By Customer
- By Product
- By ID

Order Statuses

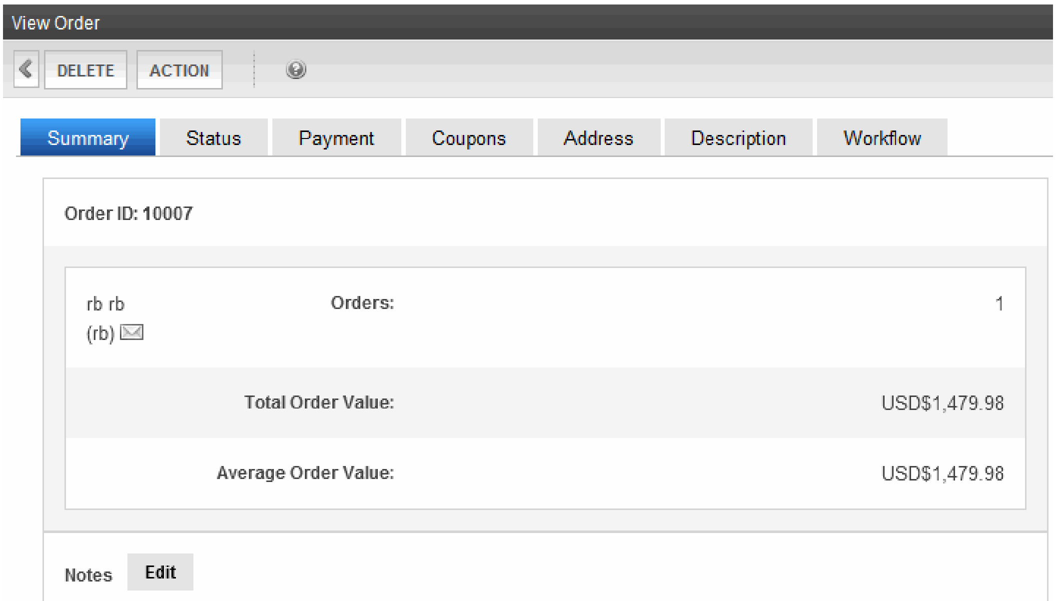
NOTE: The following table assumes you use the default workflow installed with eCommerce. If you customize the workflow, the following table may be inaccurate. See Also: *Customizing Workflows* on page 1435

Status	Description	How to Set
Received	Order has been submitted.	Customer submits order
Fraud	Your organization has determined that the order is fraudulent.	**View Order Screen > Action Menu > Mark as Fraud**

Status	Description	How to Set
Shipped	Order has been shipped. This status can be the workflow's end point. You do not need to use the Completed status.	**View Order Screen > Action Menu > Ship Order** or **View Order Screen > Action Menu > Enter/Edit Tracking Number > CheckMark as Shipped** checkbox and save
Completed	All order activities are finalized. No events can occur to a Completed order.	**View Order Screen > Action Menu > Process Order**
Cancelled	Order has been canceled.	**View Order Screen > Action Menu > Cancel Order**
InProcess	Automatically assigned when order is submitted.	Order placed but not yet captured

Viewing Orders

To view the details of any order, click it. When you do, the View Order screen appears.



If the **Workflow** tab does not display a flowchart, verify that the server's Distributed Transaction Coordinator (DTC) Windows service is running. It is started by default when you install Ektron, but if it stops for some reason, the Workflow does not appear on this screen.

Capturing Orders

It is important to distinguish between authorization and capture in relation to orders:

- *Authorization* occurs while a customer is using the Checkout server controls. It submits a customer's payment information to a payment gateway, bank, or PayPal, and returns either an approval with an authorization number (transaction ID) or a decline along with an explanation.
- *Capture* is the process of submitting encrypted order information (including the transaction ID) to a payment gateway account, bank, or PayPal. At this time, the account is charged for the order amount.

Take into account the following:

- In many states, you must ship an item before you can charge a customer's credit card for it.
- Items that are not tangible are automatically captured if paid by PayPal or a credit card.

After an order has been captured, you receive confirmation from the paying agency that the money has been deposited to your account and is available. At this time, you use the **Mark as Settled** option to inform the eCommerce feature that payment has been received. This changes the order status to Complete. Confirmation occurs:

- PayPal or credit card—when the goods are shipped.
- Check—When the check clears.

See Also: *Configuring Payment Options* on page 1311

Capturing an Order

1. From the Workarea, choose **Settings > Commerce > Fulfillment > Orders**.
2. Click the order that you want to capture.
3. Click the **Payment** tab.
4. Click the payment to display. The View Payment screen appears, showing information about the transaction captured when the customer (site visitor) submitted payment information.
5. Choose **Action > Capture**. You are asked to confirm the action.
6. Click **OK**.

Canceling an Order

Click **Action > Cancel Order** to stop all processing on the order. If you do, the order's status changes to Canceled.

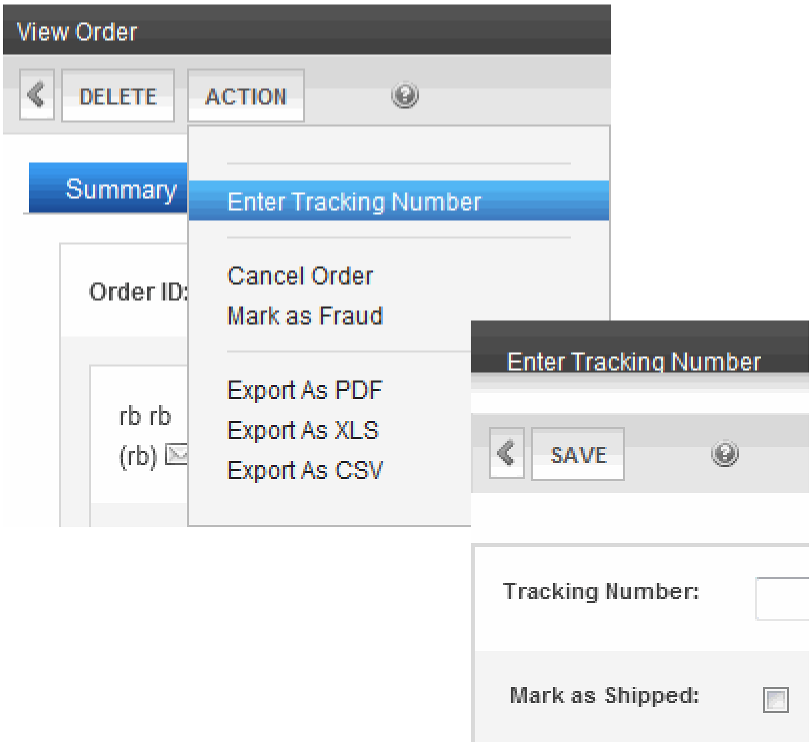
Deleting an Order

To delete any order, select it from the Orders screen then click **Delete** ( ).

After deleting an order, you cannot recover its information.

Entering a Tracking Number

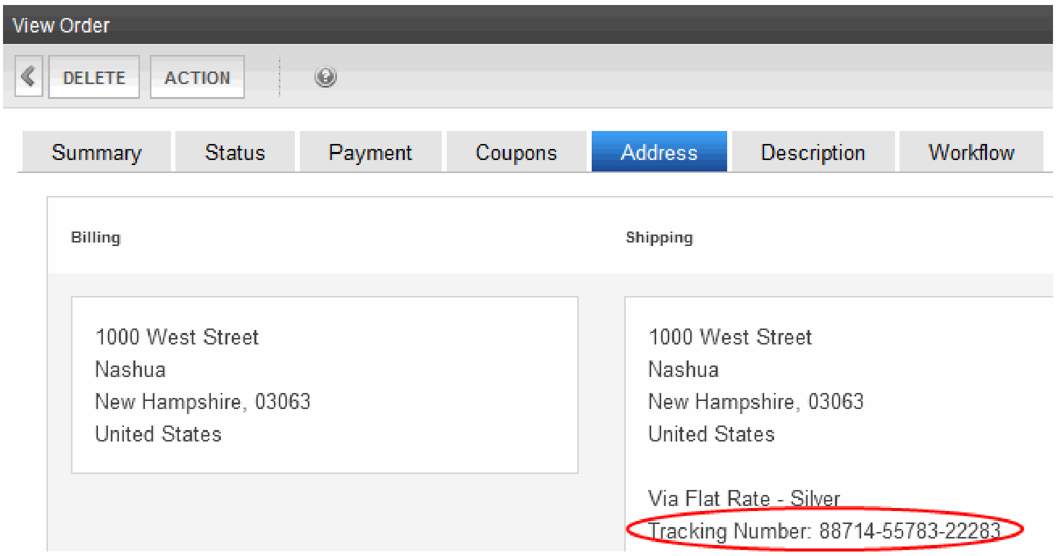
When an order is shipped, the shipping provider typically provides a tracking number to help locate the shipment within the delivery chain. Use the **Enter Tracking Number** option to enter this part of the order information.



After entering the tracking number, you can indicate whether the order has shipped.

Viewing the Tracking Number

You can display an order’s tracking number on the View Order screen by clicking the Address tab and looking under the Shipping Address.



Marking the Order as Shipped

When you enter an order's tracking number, the screen lets you mark it as shipped. See Also: *Entering a Tracking Number* on the previous page

If you did not mark the item as **shipped** at that time, a **Ship Order** option appears on the Action menu. To denote that such an order has shipped:

NOTE: If that order has not yet been captured, it will be captured as part of the shipping of the order.

1. From the Workarea, choose **Settings > Commerce > Fulfillment > Orders**.
2. Click the order that is being shipped.
3. Choose **Action > Ship Order**.

Marking the Order as Fraudulent

Use this option if your organization determines that the order is fraudulent. These orders cannot be processed any further.

Entering Order Notes

After selecting an order, you are allowed to submit a note about it. You can use the note to record information about the item, the buyer, shipping irregularities, and so on.

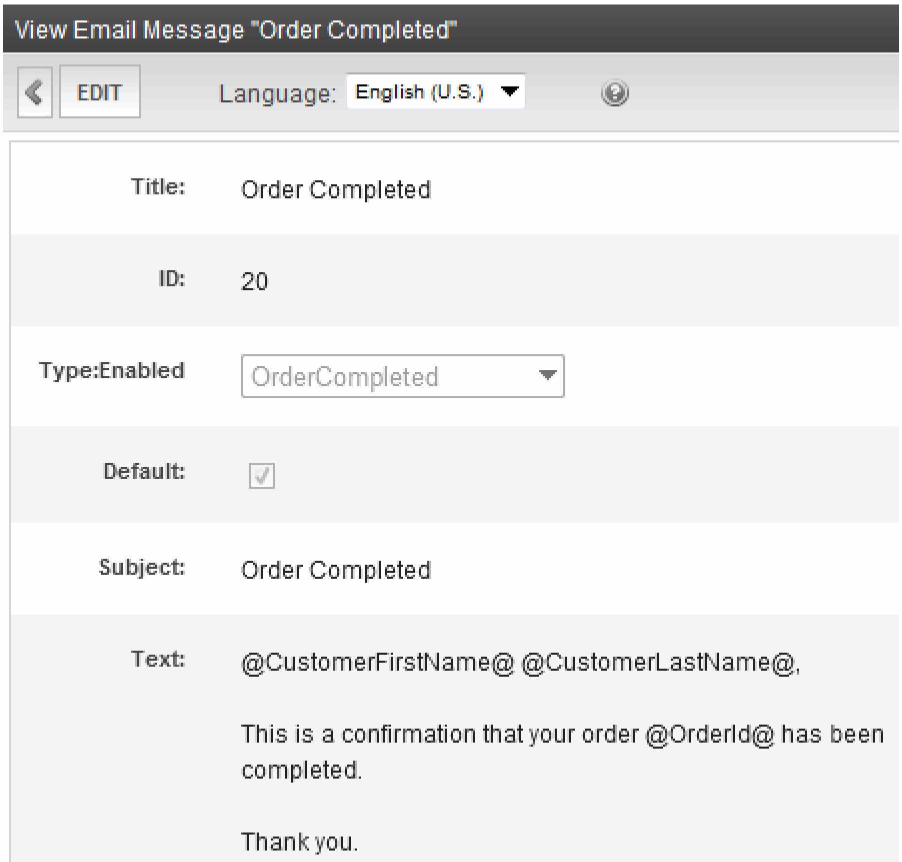
Only one note can be saved per order. If you edit and save a note, the previous note text is permanently removed.

Sending eCommerce Messages

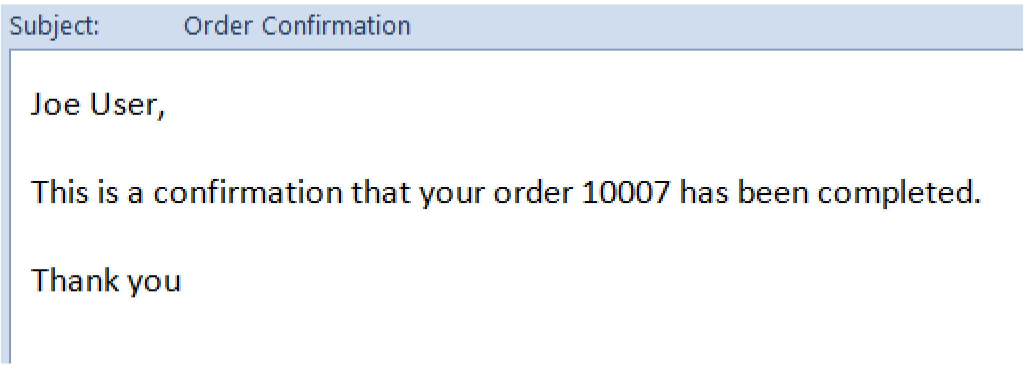
Ektron's eCommerce feature provides a messaging feature that can notify a purchaser or the Ektron administrator when the following events occur. Each message has a unique type that corresponds to an event and, in one case, a recipient.

- OrderReceived message type sends email to the purchaser when an order is submitted.
- OrderReceivedToAdmin message type sends a message to the Ektron administrator when an order is submitted.
- OrderCancelled message type sends email to the purchaser when am order is cancelled.
- OrderShipped message type sends email to the purchaser when an order is shipped.
- OrderComplete message type sends email to the purchaser when an order is completed.

You can create any number of messages for each event, assigning one as the default. Only the default message is sent when the corresponding event occurs. Here is a sample message as set up within Ektron.



Here is a portion of the same message as delivered to a recipient's inbox.



How Messages are Created and Generated

Ektron provides sample text for each type of message. To view and edit a message, go to the **Workarea > Settings > Commerce > Configuration > Messages**.

The Message Type determines the event that causes a message to be sent. For example, the *Orderreceived* message is sent to a purchaser when the order is submitted.

If content notification emails are being generated, the site visitor provided an email address, and a message is defined for the event, emails are sent when eCommerce events occur. No additional set up is required.

NOTE: eCommerce messages are distributed in the same way as content notification emails. For information on setting this up, see *Installing Ektron* on page 9.

Creating or Editing an eCommerce Message

1. From the Workarea, choose **Settings > Commerce > Configuration > Messages**.
2. If a message of the type you want to create already exists, select it. Otherwise, click **Add Email Message**.
3. Assign a Title, Subject (for the email subject line), Message Type, and message text.
4. When the message is complete, click **Save**.

Message Variables

An eCommerce message can include the following variables, which pull order information into the message:

- **@CustomerFirstName@**—Customer's first name
- **@CustomerLastName@**—Customer's last name
- **@OrderCouponTotal@**—The order's coupon discounts
- **@OrderId@**—The order's ID number
- **@OrderItemQuantity@**—The quantity of any item on the order
- **@OrderItemSalePrice@**—The sale price of any item on the order
- @**OrderItemStart@** and **@OrderItemEnd@**— Use the start and end markers to show information for ordered items.

  The markers show no information by themselves. Instead, they repeat the variables between them for every item on the order.So, for example, assume an order has 10 items, and your message looks like this:

  ```
  @OrderItemStart@
  @OrderItemTitle@
  @OrderItemQuantity@
  @OrderItemSalePrice@
  @OrderItemTotal@
  @OrderItemEnd@
  ```

  The message prints the title, quantity, sale price, and total for each item on the order.
- **@OrderItemTitle@**—The title of any item on the order
- **@OrderItemTotal@**—The total cost of one item. For example, if `orderItemSalePrice` = $10 and `orderItemQuantity` = 2, `orderItemTotal` = $20.
- **@OrderShippingTotal@**—The order's shipping cost
- **@OrderSubTotal@**—The order's subtotal, that is the amount of ordered items prior to shipping costs, taxes, and coupon discounts
- **@OrderTaxTotal@**—The order's tax amount
- **@OrderTotal@**—The order's final cost (which includes taxes, shipping, and coupon discounts)
- **@TrackingUrl@**—The link to a Web page that tracks your package. It is usually a combination of the shipper's URL and the tracking number.

Setting up a Recipient for the

OrderReceivedToAdmin Message

The OrderReceivedToAdmin message type requires additional setup. Specifically, you must update the following values in the `web.config` file.

- **adminEmail**—email address of eCommerce administrator to receive order confirmation message
- **ek_ecom_SendOrderReceivedEmailToAdmin**—Set to **true** to enable this functionality. Set to **false** to disable it.

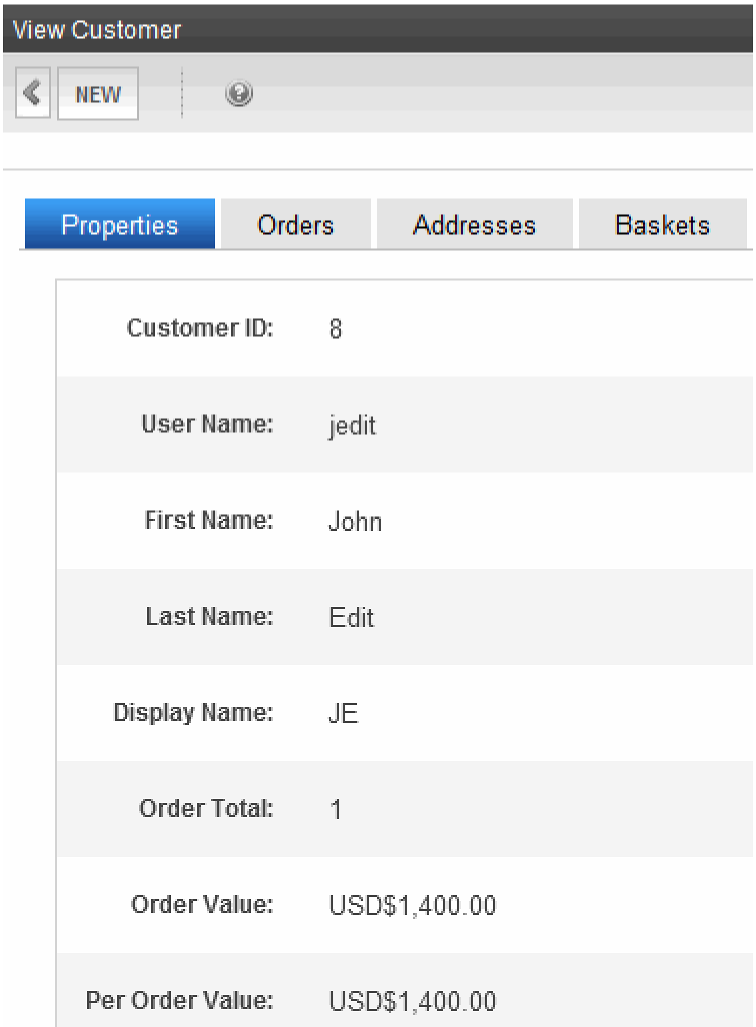
Viewing Customer Information

Customers create an account the first time they complete the checkout procedure. The Customers screen provides information about all customers who order from your website. The first screen presents the

- customer ID number
- user name
- number of orders
- amount of all orders
- average order amount

You can click any customer’s ID number or name to see more details about the person's order history. The View Customer screen (shown below) provides information about the customer’s

- summary information (name, number of orders, total of all orders, average order amount)
- orders (see *Processing Orders* on page 1386)
- addresses (you can edit any address or enter a new one)
- Whenever a user creates a new order and enters a new or selects an existing billing/shipping address, that becomes the new default
- shopping carts (see *Creating the Order Process* on page 1381)


View Customer
NEW
Properties
Orders
Addresses
Baskets
Customer ID: 8
User Name: jedit
First Name: John
Last Name: Edit
Display Name: JE
Order Total: 1
Order Value: USD$1,400.00
Per Order Value: USD$1,400.00

Generating eCommerce Reports, Widgets, and Logs

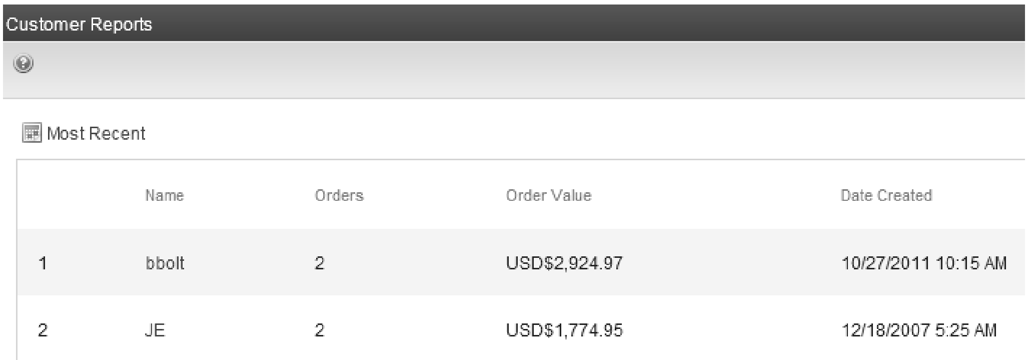
eCommerce provides several ways to measure and monitor your commerce activity:

- View a set of standard reports by choosing **Settings > Commerce > Reports**. These are also found in the **Reports > Commerce** section.
- View a log of your eCommerce activity in **Workarea > Settings >Commerce > Audit**.
- View a visual display of order information for a selected catalog entry by viewing the entry and choosing **Reports > Analytics**.

The eCommerce reports are also available as widgets for the Smart Desktop. See also *Personalizing the Smart Desktop* on page 278.

Customer Report

The Customer Report shows 5 customers ranked according to account date, total sales, or orders.


Customer Reports

Most Recent

	Name	Orders	Order Value	Date Created
1	bbolt	2	USD$2,924.97	10/27/2011 10:15 AM
2	JE	2	USD$1,774.95	12/18/2007 5:25 AM

The report contains the following fields:

- **Name**—Customer first and last name
- **Orders**—Total number of orders by this customer
- **Order Value**—Total amount of sales to this customer
- **Date Created**—The date this person first became a customer

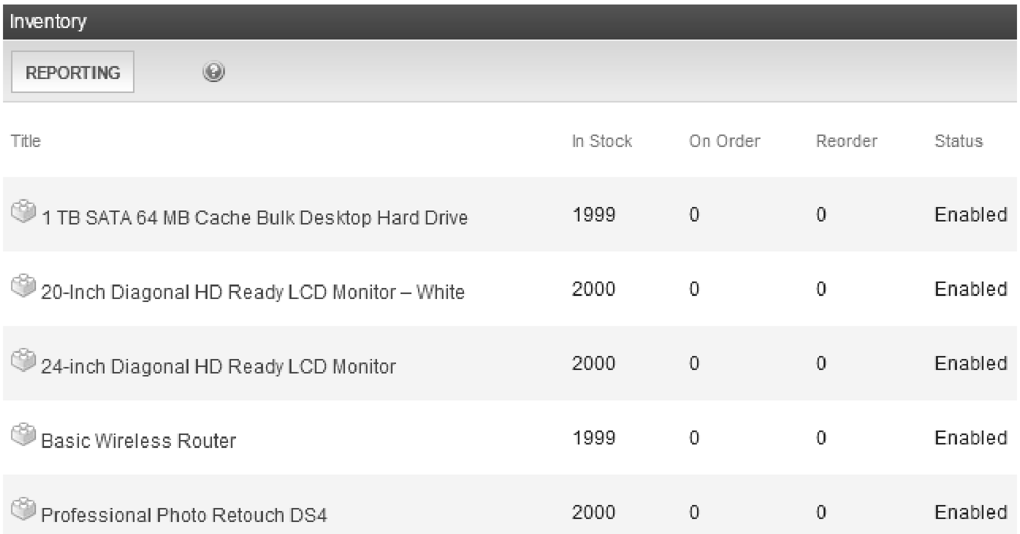
To change the report type, follow these steps.

1. Click **Most Recent**.
2. Select the type of report to view:
   - **Most Recent**—the newest customers joining the site
   - **Most Valuable**—customers ranked by order value
   - **Most Active**—customers ranked by number of orders

Inventory Report

The Inventory Report displays the following information for each catalog entry.

- amount in stock
- amount on order (number of items were been ordered but not delivered)
- amount on reorder (quantity at which you need to reorder this item). When the In Stock quantity reaches this level, an event is triggered which an external inventory system can use to generate a new order.
- inventory status of item (enabled or disabled)


Inventory

REPORTING

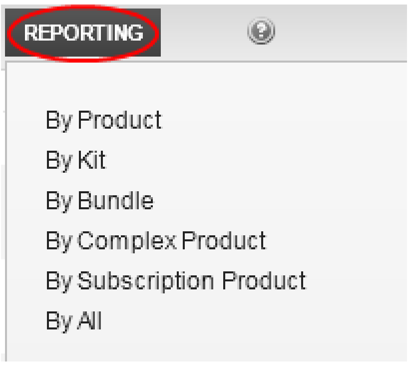
Title	In Stock	On Order	Reorder	Status
1 TB SATA 64 MB Cache Bulk Desktop Hard Drive	1999	0	0	Enabled
20-Inch Diagonal HD Ready LCD Monitor – White	2000	0	0	Enabled
24-inch Diagonal HD Ready LCD Monitor	2000	0	0	Enabled
Basic Wireless Router	1999	0	0	Enabled
Professional Photo Retouch DS4	2000	0	0	Enabled

The screen also lets you edit any amount and the inventory status. Any changes made on the screen update the inventory fields on the catalog entry's **Properties** tab.

See Also: *Entering a Catalog Entry’s Properties* on page 1361

Sorting the Inventory Report

You can restrict the display to catalog entries in a selected Product Class. To do this, click the **Reporting** button. For example, you can display complex products only.



See Also: *Product Classes* on page 1343

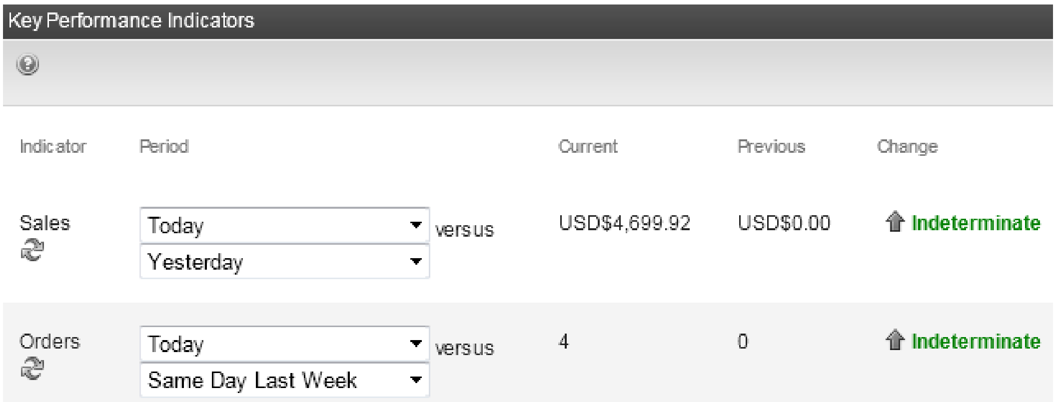
Editing Inventory Information

You can edit any catalog entry's inventory information. To do so, select it from the Inventory Reports screen then click **Edit**.

NOTE: When editing the **In Stock** field, select a plus (**+**) or minus (**-**) sign from the drop-down menu then enter the adjustment amount. The screen automatically recalculates the in-stock amount for you.

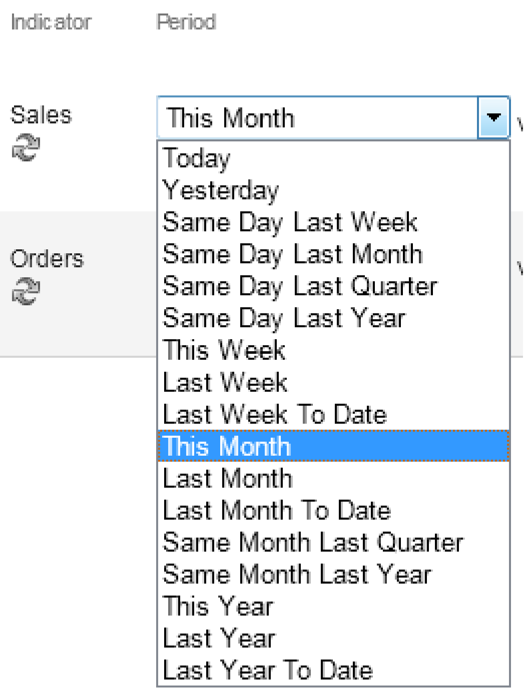
Key Performance Indicators Report

The Key Performance Indicators report compares sales and orders for 2 time periods.



To change the periods to compare:

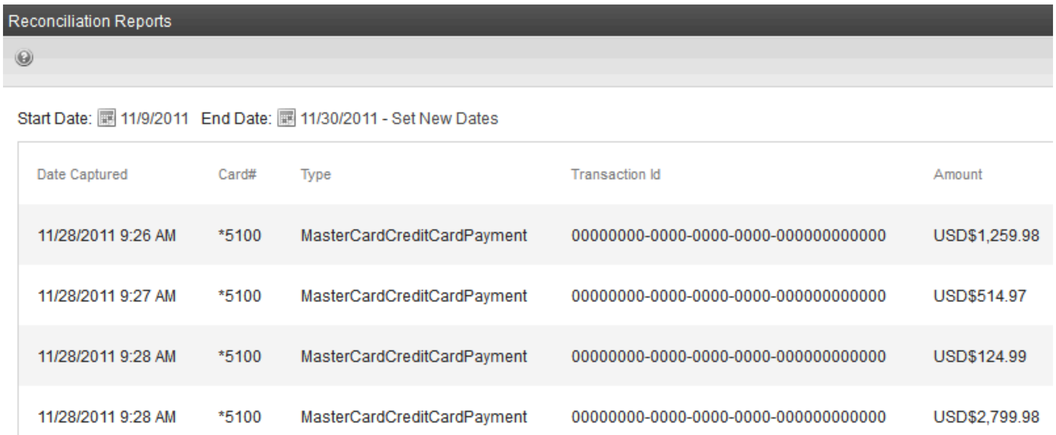
1. In the **Period** column, click **This Month**. Choices are shown below.



2. Click the first period for which you want to compare performance.
3. Repeat steps 1 and 2 for the second period with which you want to compare performance.
4. Click **Refresh** ( ).

Reconciliation Reports

The Reconciliation report lists payments for a specific time period. Your accounting department may used it reconcile bank statements with the order system.


Reconciliation Reports

Start Date: 11/9/2011 End Date: 11/30/2011 - Set New Dates

Date Captured	Card#	Type	Transaction Id	Amount
11/28/2011 9:26 AM	*5100	MasterCardCreditCardPayment	00000000-0000-0000-0000-000000000000	USD$1,259.98
11/28/2011 9:27 AM	*5100	MasterCardCreditCardPayment	00000000-0000-0000-0000-000000000000	USD$514.97
11/28/2011 9:28 AM	*5100	MasterCardCreditCardPayment	00000000-0000-0000-0000-000000000000	USD$124.99
11/28/2011 9:28 AM	*5100	MasterCardCreditCardPayment	00000000-0000-0000-0000-000000000000	USD$2,799.98

The report includes the following fields:

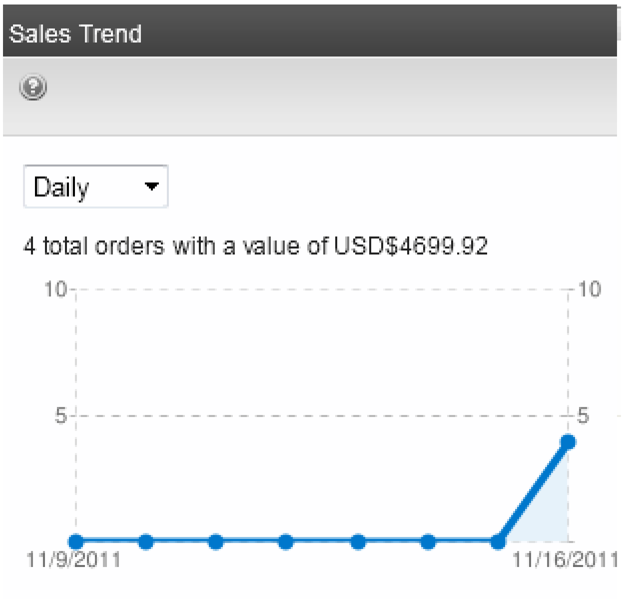
- **Date Captured**—Date the payment was captured. See Also: *Capturing Orders* on page 1388.
- **CardID**—The last 4 digits of the credit or debit card used for payment.
- **Type**—Type of payment used. See Also: *Configuring Payment Options* on page 1311.
- **TransactionId**—The unique number returned from the Payment Provider for this payment. See Also: *Capturing Orders* on page 1388.
- **Amount**—Total amount of the payment for this transaction.
- **Voided**—Total amount voided in the transaction.

To run a report, follow these steps.

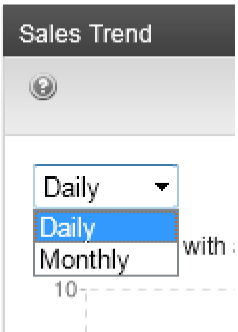
1. Click **Calendar** ( ) next to **Start Date** to open the calendar.
2. Click a date to set the start date.
3. Click **Calendar** ( ) next to **End Date** to open the calendar.
4. Click a date to set the end date.
5. Click **Set New Dates** to refresh the report.

Sales Trends Report

The Sales Trends reports graphs the number of orders for the past 8 periods. You can choose monthly or daily orders. The top of the graph display the total number of orders and sales.

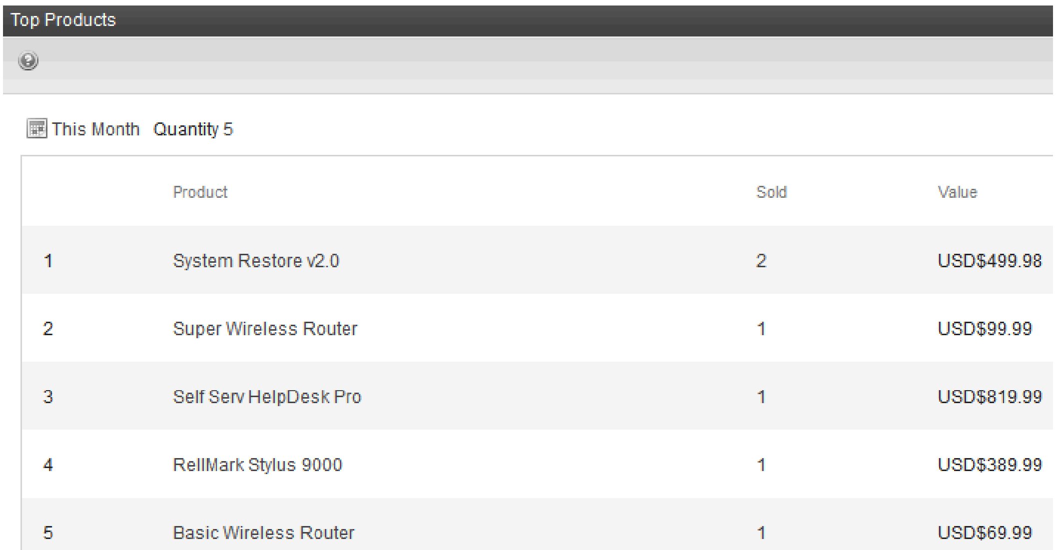


To change the graph's duration, click a time period from the drop-down.



Top Products Report

The Top Products reports shows the most popular products on your site.

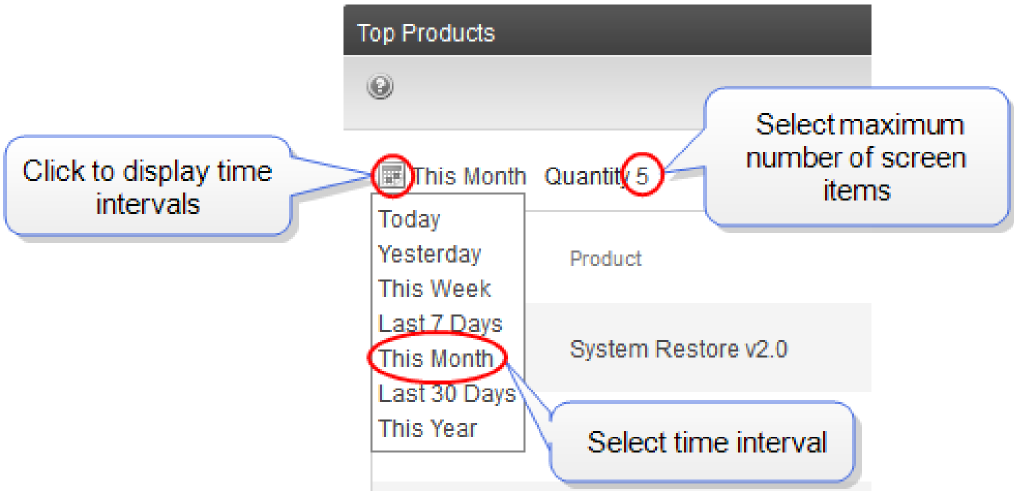

Top Products

This Month Quantity 5

	Product	Sold	Value
1	System Restore v2.0	2	USD$499.98
2	Super Wireless Router	1	USD$99.99
3	Self Serv HelpDesk Pro	1	USD$819.99
4	RellMark Stylus 9000	1	USD$389.99
5	Basic Wireless Router	1	USD$69.99

To create the report:

1. Click the link text next to the calendar icon.
2. Select the time period of sales from the drop-down.



3. To change the maximum number of products to show, click the value next to **Quantity**, enter a value, and click **Update.**

eCommerce Audit Log

As an administrator, you should regularly review the eCommerce Audit Log. This is vital to keeping your site secure and, if data is compromised, the log helps you determine the source.

While it is important that Ektron captures this information, it is even more important that you review, analyze and use it. For example, while reviewing the Audit Log, you might find that one eCommerce administrator has an unusually large number of login failures. This could indicate that someone is trying to break into your system.

You can view a log of your eCommerce activity in the **Workarea > Settings >Commerce > Audit**.

To enable eCommerce logging, open the website’s `web.config` file and change the following key to **True**:

```
<addkey="ek_ecom_ComplianceMode" value="false"/>
```

When compliance mode is turned on, Ektron logs and displays the following events.

- Actions affecting administrators (Administrator Group member, Commerce Admin Role, Builtin Account).
  - An administrator logs in or out
  - An administrator's login attempt fails
  - An administrator password is changed
- Actions affecting an Ektron user’s rights to eCommerce.
  - Adding a user to the Commerce Admin Role
  - Removing a user from the Commerce Admin Role
  - Adding a user to the Admin group
  - Removing a user from the Admin group

- Actions affecting order information.
  - Updates to an order's address
  - The transaction ID and response from the payment gateway
  - Any action conducted with the payment gateway. For example, when capturing a previously authorized transaction.
  - Workflow activities. For example, sending an email.
  - Whenever the default gateway or payment options are changed in the Workarea.

eCommerce Analytics

The eCommerce Analytics screen provides a visual display of order information for a selected catalog entry. Display a catalog entry and choose **Reports > Analytics**.

- Top left section graphs the quantity of this catalog entry ordered over the past 7 days
- Top right charts the number of orders that used a coupon versus the number that did not
- Below that pie chart is another that shows the number of returning customers versus the number of new ones
- The lower part of the screen shows the following order information
  - order number
  - date/time when order was entered
  - site from which order was entered
  - order status
  - customer information: new or returning, name, number of orders entered, value of all orders entered, average order monetary value
  - order monetary value
  - if a coupon was used

Using the eCommerce Server Controls

Ektron provides a complete set of eCommerce server controls that let you set up an online marketplace where customers (site visitors) can purchase merchandise, services or content. Customers interact with these server controls on your site.

- *Cart* on page 1672—view products in a shopping cart, create new carts, and apply discounts.
- *Checkout* on page 1673—check out.
- *CurrencySelect* on page 1716—select a currency.
- *MyAccount* on page 1804—view and change their account information.
- *OrderList* on page 1806—view a list of processed orders.
- *Product* on page 1815—view a product's details and add it to their shopping cart.
- *ProductList* on page 1818—search for products or view a list of products.
- *Recommendation* on page 1826—get recommendations on other products.

Most eCommerce server controls let customers move from one control to another via template properties that let you define the location of another server control. For example, if you define the path to the Cart server control in the Product server control’s TemplateCart property, customers are directed to the Cart control when they click the Product control's Add to Cart button.

Ektron’s server controls let you insert standard methods and properties within the Visual Studio environment. This means that you can see the effect of your changes in real time; you don’t have to modify a page and then compile to see results.

You can insert server controls using drag and drop or programmatically. You can also use databinding to retrieve and display data from Ektron.

Ektron provides a complete set of eCommerce server controls that let you set up an online marketplace where customers can purchase merchandise, services or content.

The following list shows typical actions a customer might perform when visiting your eCommerce site and how you can facilitate these actions.

- Viewing account information—Create a link in the master page that leads to the template containing the MyAccount server control. This link should be available from any page.
- Viewing previous and current orders—Create a link in the master page that leads to the template containing the OrderList server control. This link should be available from any page.
- Changing the currency type—Add the CurrencySelect server control to a master page. This server control should be available from any page.
- Searching for products—Either create a link to the template containing the ProductSearch server control. Or, on the master page, add a textbox that passes the text to a hidden ProductSearch server control and post the results to a separate template. This link or textbox should be available from any page.

- Viewing a list of products—Create a template that contains the ProductList server control. This template might be the first page customers see when they view the eCommerce portion of your site. Whenever you want to display a list of products based on a catalog, taxonomy or a list content IDs. For example, you could create a list of products in a panel on the right side of your website.
- Viewing a product's details—Create a template that contains the Product server control. Use this whenever a customer needs to view details of a product. Set any of the following server control's TemplateProduct property to the path of this control. This makes a product's title being displayed by one of these controls a clickable link that takes the customer to this control.
    - ProductSearch
    - ProductList
    - OrderList
    - Cart
    - Recommendation
- Viewing additional products associated with another product—Add the Recommendation server control to a template that contains a Product server control and set the Recommendation control's DynamicProductParameter property to the QueryString parameter that's used to pass a products ID. When ever you want to present a customer with cross-sell and upsell opportunities associated with a given product.
- Adding a product to their shopping cart—Set the TemplateCart property in the following server controls to the path of the Cart server control. Setting this property is one of the requirements for the Add to Cart button or link to appear in these controls.
    - ProductSearch
    - ProductList
    - Product
    - Recommendation

NOTE: In addition to setting the above property, a product must be in-stock, not archived and buyable. Otherwise, the Add to Cart button or link does not show for a product.

- Use this when you want to let customers add products to their shopping cart.
- Viewing products in their shopping cart—When a customer adds a product to their cart, they are sent to the Cart server control. You should also create a link in the master page that leads to a template containing this control. The link should be available from any page.
- Checking out and paying for their selected product—Add the Checkout server control to a template and add that template's path to the Cart server control's TemplateCheckout property. When you do, the Checkout button in the Cart server control becomes active. You must set this up for customers to checkout.

Customizing eCommerce Server Controls with Event Hooks

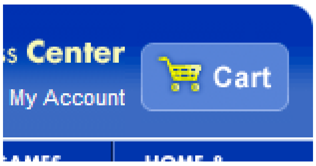
The eCommerce server controls contain event hooks so you can customize or manipulate them. To use these event hooks, create a handler for each needed event in the code-behind of the ASPX page that contains an eCommerce server control. Then, in that page's `OnInit` method, hook each event.

- **PhaseChange**—Used only in the Checkout server control and called when the current phase is about to change. Supervise phase changes and allow or prevent changing as needed. It also lets you jump to a specified phase. For example, you could jump to a passed phase, prevent the phase from changing from the current one under certain conditions, or jump to a phase that is not necessarily the next one in line.
- **PreProcessXml**—Called immediately before the control's XML is transformed. Inspect or manipulate the server control's XML before being processed. This is the only time the XmlDoc property should be used to access the controls XML.
- **PostProcessXml**—Called immediately after the control's XML is transformed. Work with processed transformed XML output inside the Text property before sending it to the browser. This allows simple string manipulation of the server control's markup.
- **FilterAjaxCallback**—Called when an Ajax-Callback event occurs. Inspect or modify callback parameters. For example, you could use this event to receive custom values entered in a page.
- **PostLogin**—Used only in the Checkout server control and called immediately after a (possibly new) user logs in with this control. Calls custom code immediately after a returning user logs in with an email and password. Or, immediately after a new customer fills out the billing info screen. For example, you could add code that lets new customers sign up for Web Alerts after they add their information to the billing screen.

Using the Cart Server Control

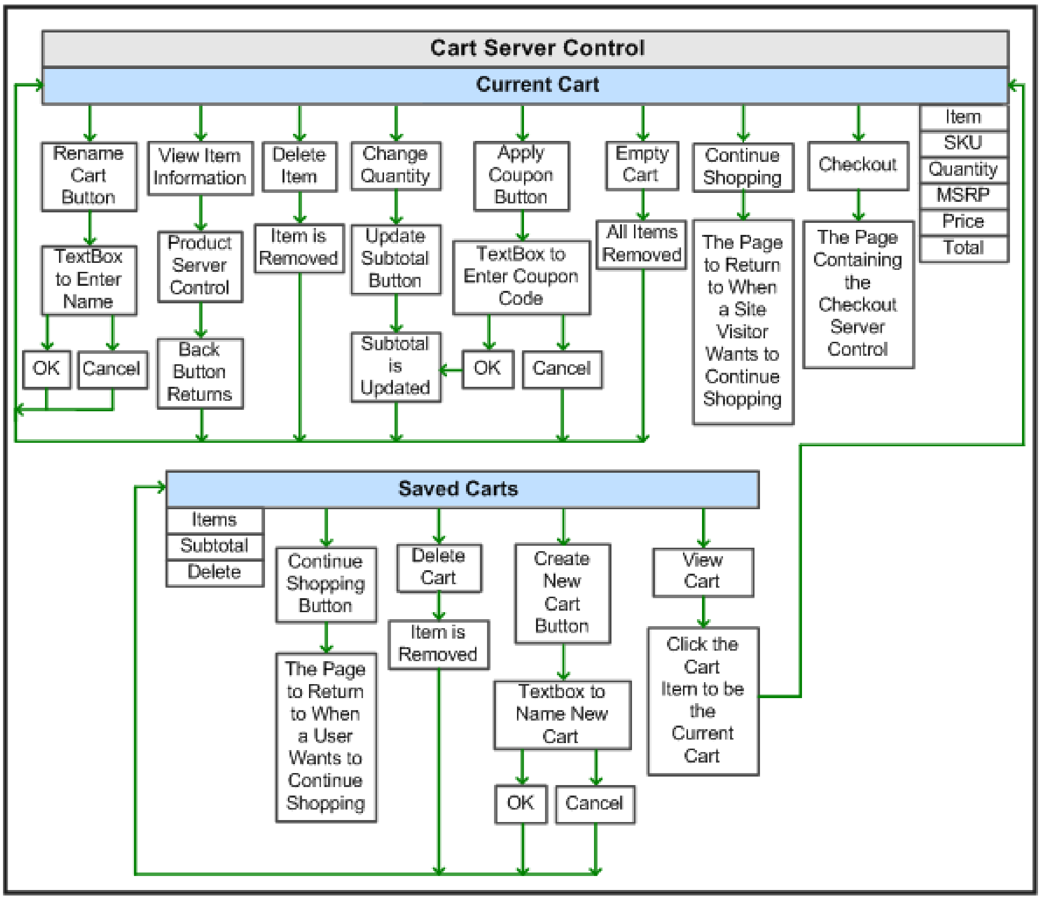
A customer typically reaches the Cart server control from a product description or list page. A product description page contains a *Creating Product Types and Catalogs* on page 1343. Product list pages contain server controls that create a list of products, such as ProductList, ProductSearch or Recommendation controls. These controls contain a button or link that allows a customer to add the product to the cart. For reference information, see *Cart* on page 1672.

You could also create a link to the cart from a master page or menu that lets customers view their cart. This link lets a customer navigate directly to the cart when they arrive at your site.



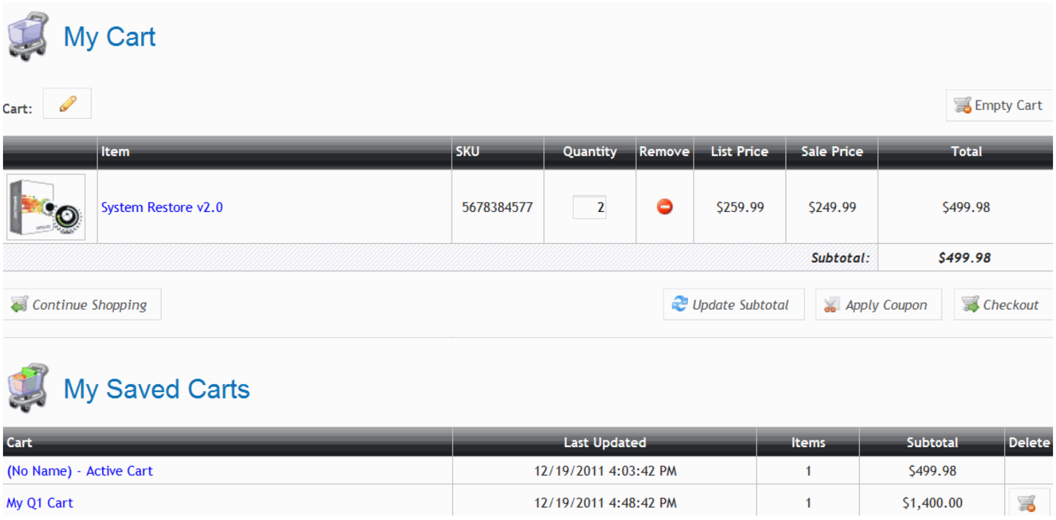
Flow of the Cart Server Control

A customer typically arrives at this control by clicking **Add to Cart** in the Product, ProductList, ProductSearch or Recommendation server controls. Below is an image depicting the flow of the Cart server control.



Cart Server Control Areas

The Cart server control consists of 2 major areas. The top part (**My Cart**) represents the cart with which the customer is currently working. The bottom (**My Saved Carts**) represents a visitor’s saved carts. Saved cart information appears only when a customer is logged in. See Also: *Creating a New Cart* on page 1409.



The **My Cart** area displays the Item, SKU, Quantity, List Price, Sale Price, Subtotal and Total. From this cart, a customer can remove items, update the quantity and subtotal information, apply coupons and check out. The customer can also choose to continue shopping or empty the cart.

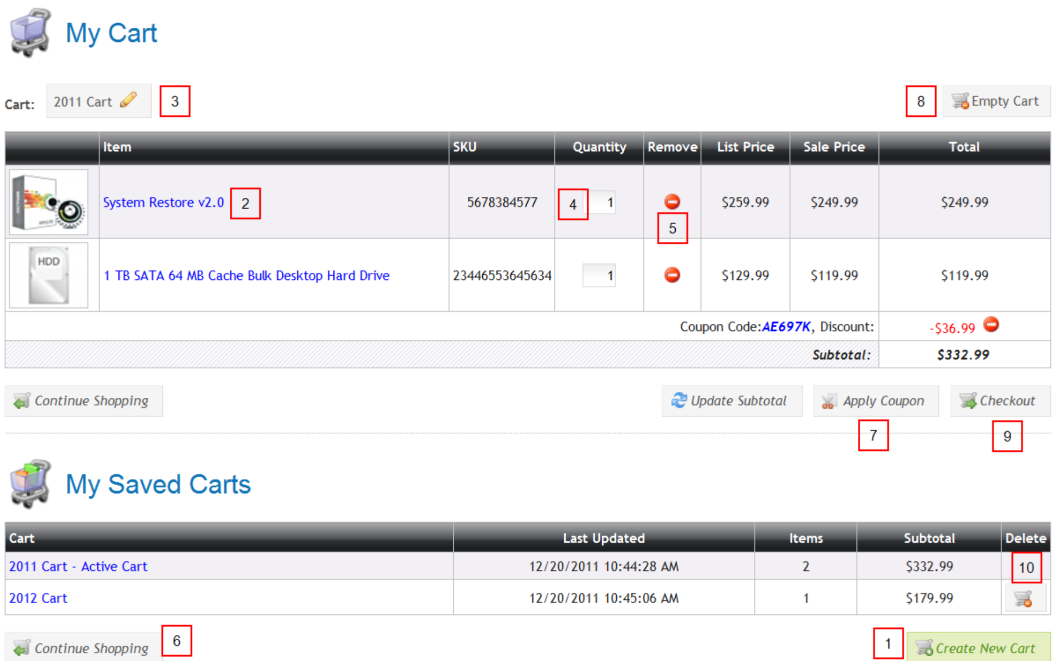
The **My Saved Cart** area contains a list of carts the customer has saved and are awaiting checkout. This allows the customer to select products and save them for future purchase. This area contains:

- the name of each cart
- the last time it was updated
- how many items in each cart
- the subtotal of each cart
- options to
  - delete a saved cart
  - create a new cart
  - continue shopping

Clicking a saved cart makes it the current cart, and displays its products in the **Your Cart** area. A customer can then proceed to check out.

Working with a Cart

This section explains how a logged-in customer would use the Cart server control. The following figure helps you locate key features of the Cart.



1. Create New Cart button.
2. Item name link.
3. Cart name edit button.
4. Item quantity field.
5. Delete item button.
6. Continue Shopping button.
7. Apply coupon button.
8. Empty cart button.
9. Checkout button.
10. Delete cart button.

Adding an Item to a Cart

Items are added to a cart when a customer clicks **Add to Cart** in the following server controls.

- Product
- ProductList
- ProductSearch
- Recommendation

When **Add to Cart** is clicked, the item is appended to the current cart's list of items. If the customer does not have a cart, one is created.

Creating a New Cart

A customer automatically creates a new cart the first time a product is added to it. If needed, a customer can create multiple carts while using the Cart server control. This allows for the grouping of products being purchased. For example:

- customers create carts based on concepts, such as, Son’s Birthday or Item Type.
- customers use separate payment types. For example, a customer places some products on one credit card and the rest on another. By having 2 carts, a customer can proceed with 2 separate checkouts.
- customer needs to prioritize purchases. For example, a customer wants to purchase certain products, but cannot afford them right now. The customer can add these products to a separate cart, then continue to purchase affordable products now. This helps customers remember purchases they want to make, driving additional sales for your site.

To create a new cart:

1. Click **Create New Cart** in the **Saved Cart** area. (See Callout 1.) The button is replaced with a text box.
2. Enter the name of the new cart in the text box.
3. Click **OK**.

When the customer clicks **OK**, the cart is added to the list of Saved Carts and becomes the active cart. A customer can then click **Continue Shopping** to select products to add to the new cart.

Displaying an Item’s Information

In the Cart server control, a product’s title is a link. When clicked, it takes you to the product’s detail page. (See Callout 2.) To navigate back to the cart, click your browser's Back button.

By default, the server control uses the product’s QuickLink information to provide a path to the product. You can override this functionality by adding a new path to the TemplateProduct property.

Assigning or Changing the Name of the Cart

Assigning a name to a cart makes it easier for customers to identify a cart in their saved cart list. A customer can assign or change the name of a cart by clicking **Edit** ( ) next to the cart’s name. (See Callout 3.)

When clicked, the button and name are replaced with a text box that allows the customer to enter a new name for the cart.

Changing an Item’s Quantity

To change a product’s quantity, enter the new amount in the **Quantity** column’s textbox, located in the same row as the product you want to change. (See Callout 4.) Next, click **Update Subtotal**. This recalculates the price of the product and updates the subtotal. The image below shows the Atrium Table quantity change to 3.

Removing an Item from the Cart

A customer can remove a product from the cart by clicking **Remove From Cart** ( ) in the **Quantity** column. (See Callout 5.) When the customer clicks the button, the product is removed from the cart, and the subtotal is updated.

Continuing to Shop

A customer can continue to shop by clicking **Continue Shopping**. (See Callout 6.) This redirects the visitor to a template defined in the cart server control's `TemplateShopping` property. For example, you might send the customer to a page containing a ProductList or ProductSearch server control. See Also: *Using the ProductList Server Control* on page 1430 and *Using the eCommerce Server Controls* on page 1404.

As a developer, you need to add the path to this page to the `TemplateShopping` property. If the page is in the same folder as the page that contains the Cart server control, just enter the page's name.

Applying Coupons

If coupons are defined in the Workarea and the `EnableCoupons` property is set to True, a customer can enter coupons to discount the purchase. How coupons affect the purchase is defined in the **Workarea > Settings > Commerce > Catalog > Coupons**. See Also: *Using Coupons* on page 1373

To apply a coupon, a customer clicks **Apply Coupon**. (See Callout 7.)

The button area changes to text box where the customer can enter the **Coupon Code**. The customer then enters a code and clicks **OK**. Next, the discount appears above the **Subtotal**, and the customer can continue to shop, check out, view other carts, or delete the coupon by clicking **Remove Coupon**.

Emptying the Current Cart

To remove all products from the current cart, a customer clicks **Empty Cart**. (See Callout 8.) When clicked, a dialog box appears and the customer can click **OK** or **Cancel**.

Checking Out

When a customer is satisfied that the cart contains all products they want, the quantity of each product is correct and all coupons have been applied, the customer can click **Checkout**. (See Callout 9.) At that point, the customer is redirected to the page that hosts the Checkout server control. The path to the page is defined in the `TemplateCheckout` property. If the page containing the Checkout server control is in the same folder as the Cart server control, just enter the page name.

If a cart includes an item that is out of stock, the **Checkout** button is disabled (hidden).

Deleting a Saved Cart

A customer can delete a saved cart by clicking **Delete Cart**. (See Callout 10.)

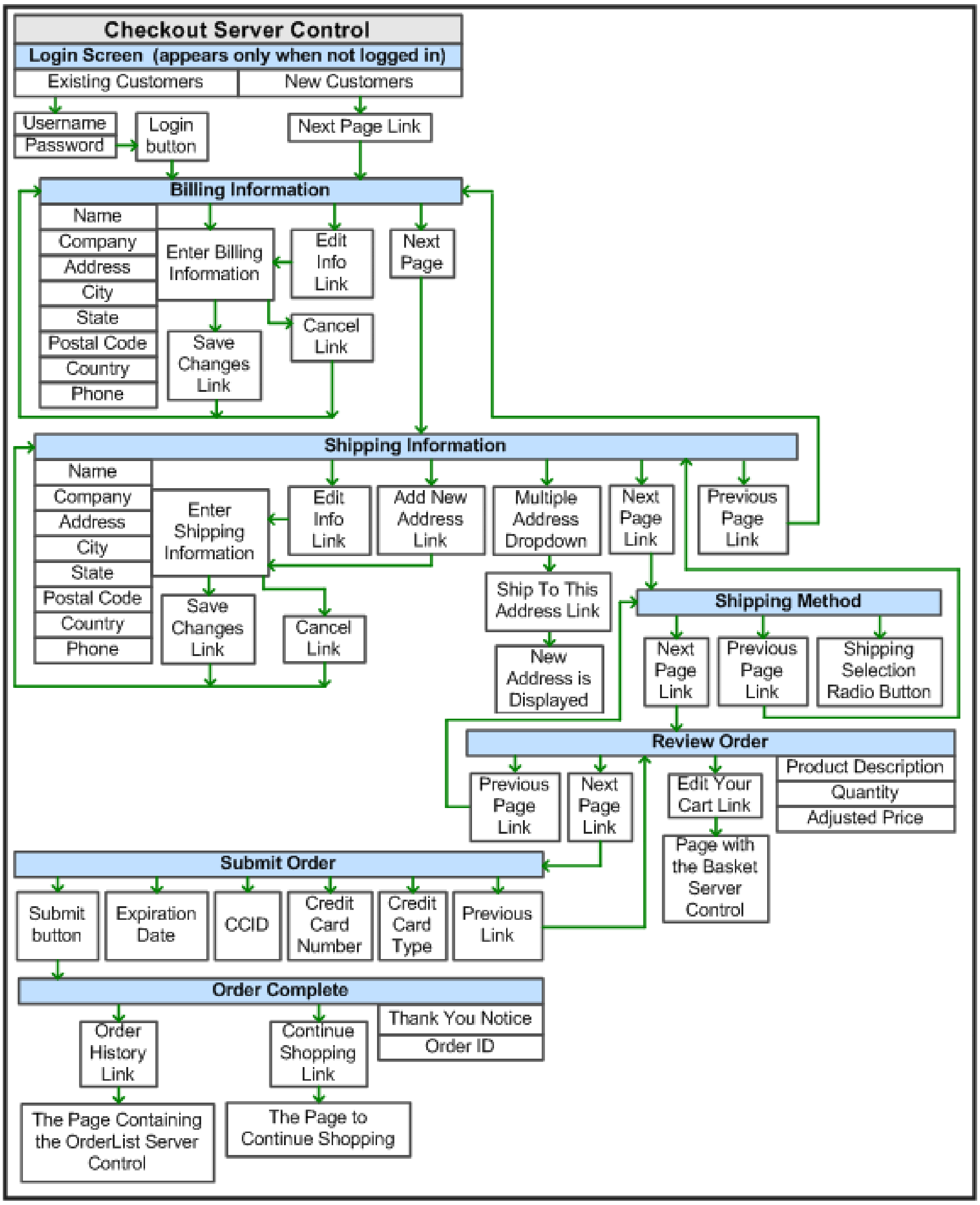
Using the Checkout Server Control

Customers typically arrive at this server control by clicking **Checkout** on the Cart server control. They also might reach this server control from a Checkout link you create on your site. For reference information, see *Checkout* on page 1673.

IMPORTANT: When using the Checkout server control, your website should have an SSL certificate installed. Set its `IsSSLRequired` property to **True**. This protects your customers' payment information during transmission. Do not use a self-signed SSL certificate—obtain one from a trusted certificate authority.

The control provides a navigational aid that indicates the customer's step in the checkout process. At any point, the customer can move forward to the next step or back to a previous one. When appropriate, some steps do not appear. For example, if merchandise is not tangible, the shipping screen does not appear.

The following chart represents the options and processes of the Checkout Server Control.



Logging In or Setting Up an Account

The login portion of the Checkout server control accommodates these types of customers.

- **Existing customers**

  If an existing customer is not logged in when the customer reaches this server control, it prompts the customer to log in. Optionally, this screen could have a link that lets an existing user to recover a password. To enable this link, add a template path to the control's `TemplateRecoverPassword` property.

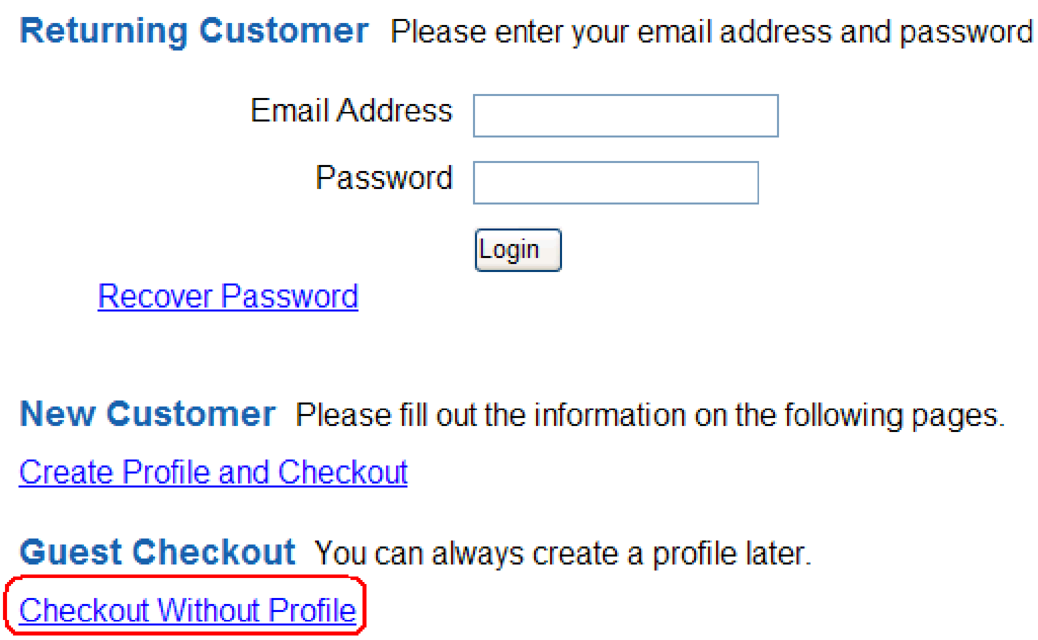
  After a customer who previously purchased from this site logs in, billing and shipping information is retrieved and appear by default. The visitor can review and edit this information. However, Ektron does not store credit card numbers, so that information must be entered each time.

- **First-Time Customer**—customers who have not logged in before but who wish to create an account

  If a customer has not purchased from your site before and wants to set up an account, the customer clicks **Create Profile and Checkout**. On the new screen, the customer enters billing information including a password. After completing that screen, a membership user account is created, and the customer is logged in. The new user can then proceed through the checkout. The next time this visitor logs in, the customer is treated as an existing customer.

- **Guest Account Registration—**customers who wish to make one-time only purchase and not set up an account.

  The Checkout server control provides a guest checkout feature (circled below) for customers who do not want to set up an account on your site. To enable this feature, set the `AllowGuestcheckout` property of the Checkout server control to `true`.



If a user clicks **Checkout Without Profile**, the customer proceeds to a version of the billing screen that does not ask for a password. The rest of the checkout is the same.

Although the customer can proceed through the checkout like other customers, if the customer wants to checkout in the future, the customer must re-enter billing and shipping information. Customers who use the guest checkout feature can view their orders using the Order List server control if its `GuestOrderView` property is set to `true`.
See Also: *Managing Customer Orders* on page 1381

Checkout Screens

The Checkout server control has several sections, each representing a portion of the checkout process.

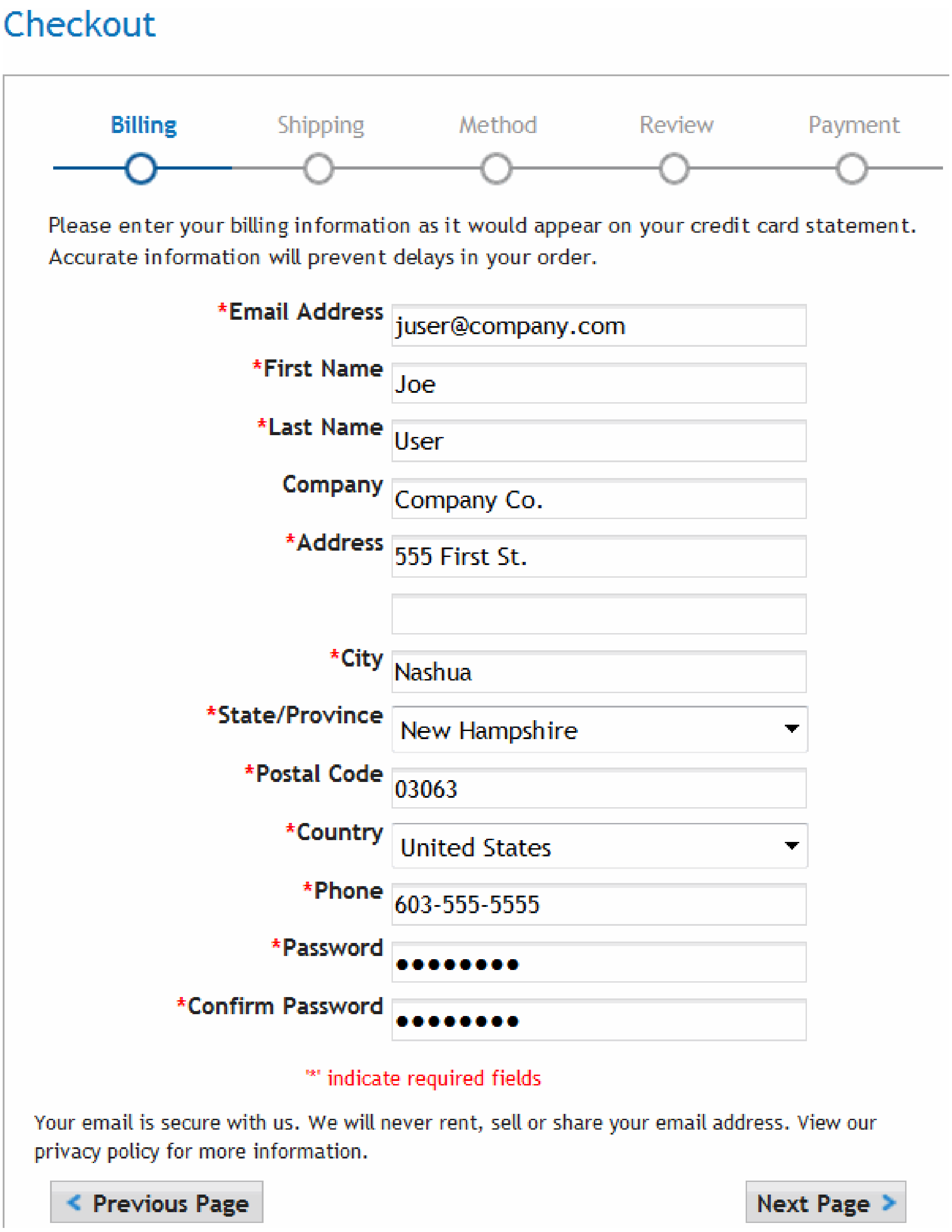
Billing Information

Prompts customers to enter or update billing information, including:

- Name
- Company (Optional)
- Street Address, City, State, Postal Code, Country

> **NOTE:** If a customer chooses a country other than the United States, no field validation is applied to the postal code by default. To apply country-specific postal code validation, see *Applying Field Validation for non-U.S. Postal Codes* on the facing page.

- Phone
- email address (appears when a visitor is creating a new account or doing a guest checkout)
- Password (appears when a visitor is creating a new account or doing a guest checkout)



Applying Field Validation for non-U.S. Postal Codes

1. Search the XSLTs for `EktronCheckout_PostalField`. The standard US Postal RegEx is applied to all input fields of this class.
2. Remove that class.

   WARNING! Be careful to remove only this class name; otherwise, the CSS styling may not be applied properly and the layout will be altered.

3. Add an attribute to each postal-code input field in the XSLTs with the following name: `data-ektron-validation-regex`. Then, add the desired RegEx as the value of this attribute. The RegEx expression will validate the user's input.

For the RegEx expression, you should be able to find one for the target country via a Web search. Alternatively, you can start here: http://www.regular-expressions.info/.

Canadian Postal Code Solution

The following example shows how to apply field validation for Canada.

Attribute for U.S. postal code regex:

```
<xsl:attribute name="data-ektron-validation-regex">/^\d{5}(-\d{4})?$/
</xsl:attribute>
```

Attribute for Canadian postal code regex:

```
<xsl:attribute name="data-ektron-validation-regex">/^([ABCEGHJKLMNPRSTVXY]
  \d[ABCEGHJKLMNPRSTVWXYZ])\ {0,1}(\d[ABCEGHJKLMNPRSTVWXYZ]\d)$/
</xsl:attribute>
```

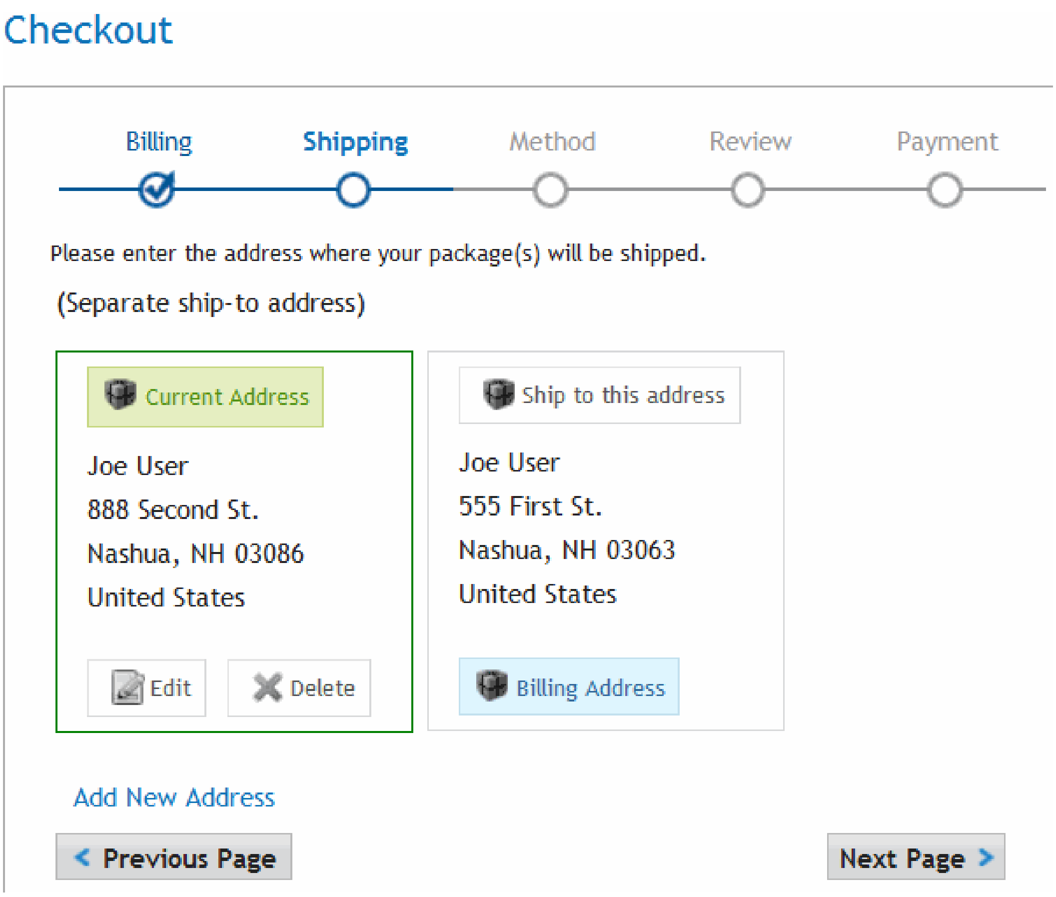
The following sample shows the entire postal code input block taken from billing info XSLT. Three checkout-related files that need these changes (`Checkout_BillingInfo.xsl`, `Checkout_BillingInfoEntry.xsl` and `Checkout_ShippingInfo.xsl`) are updated in the sample below for Canadian only postal codes.

```
<input class="EktronCheckout_PostalCode EktronCheckout_Row_RightContents" >
  <xsl:attribute name="name">EktronCheckout_BillingInfo_PostalCode_
    <xsl:value-of select="$ControlId"/></xsl:attribute>
  <xsl:attribute name="id">EktronCheckout_BillingInfo_PostalCode_
    <xsl:value-of select="$ControlId"/></xsl:attribute>
  <xsl:attribute name="value"><xsl:value-of select="/root/billingInfo/postalCode"/>
    </xsl:attribute>
  <xsl:attribute name="data-ektron-validation-regex">/^([ABCEGHJKLMNPRSTVXY]
    \d[ABCEGHJKLMNPRSTVWXYZ])\ {0,1}(\d[ABCEGHJKLMNPRSTVWXYZ]\d)$/</xsl:attribute>
</input>
```

Shipping Information

Add or edit shipping information. By default, it uses the billing address as the shipping address. From this screen, customers can:

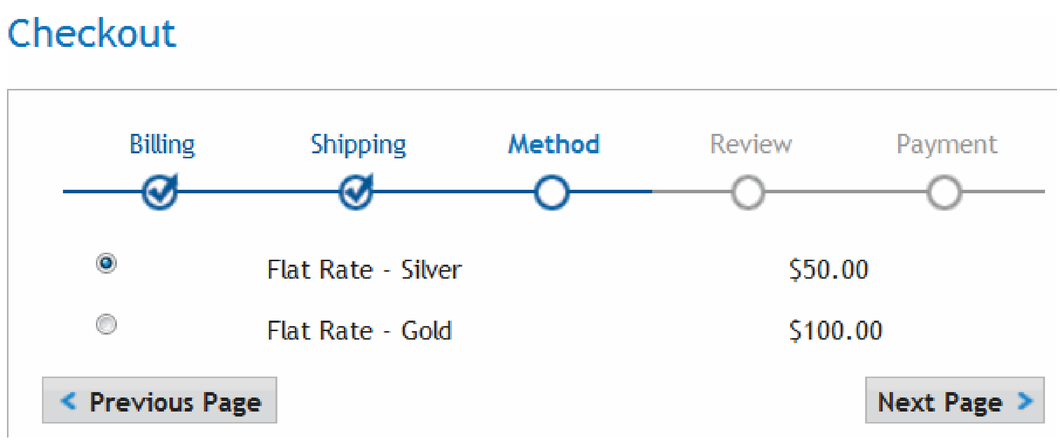
- add new addresses
- edit or delete existing addresses
- if more than one address is entered, pick address for current order
- proceed to the next step or back to the previous page



When a logged-in customer adds a new address, it is stored with the account information in Ektron.

Shipping Method

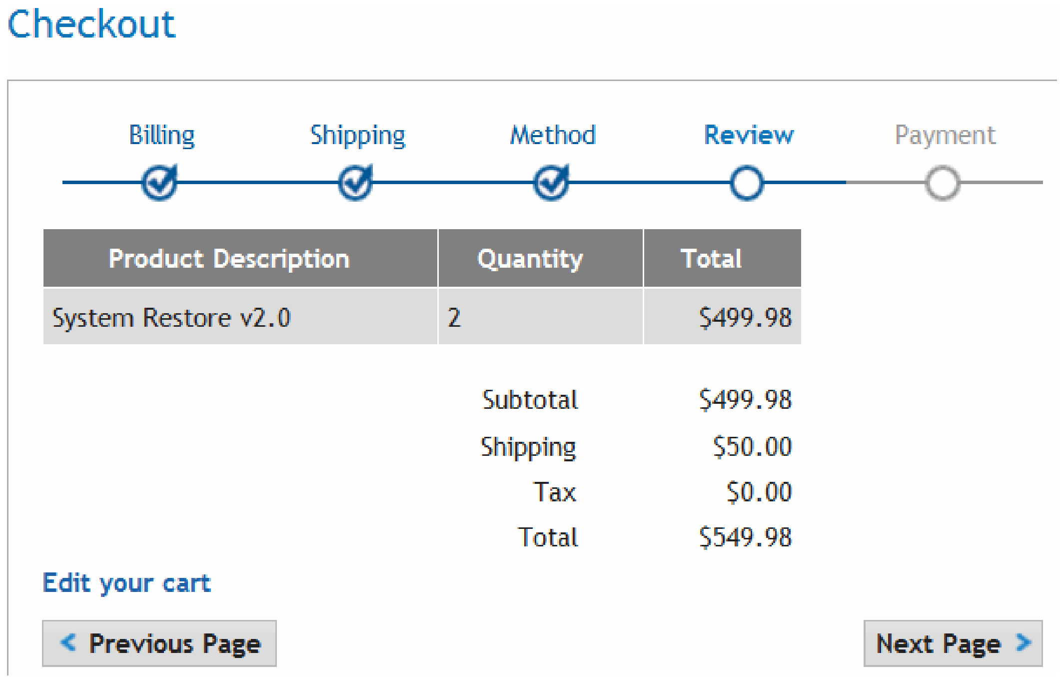
Select the type of shipping for products. Shipping methods that appear are defined in the **Workarea > Settings > Commerce > Shipping > Methods**. See Also: *Configuring Shipping Methods* on page 1331.



Review Order

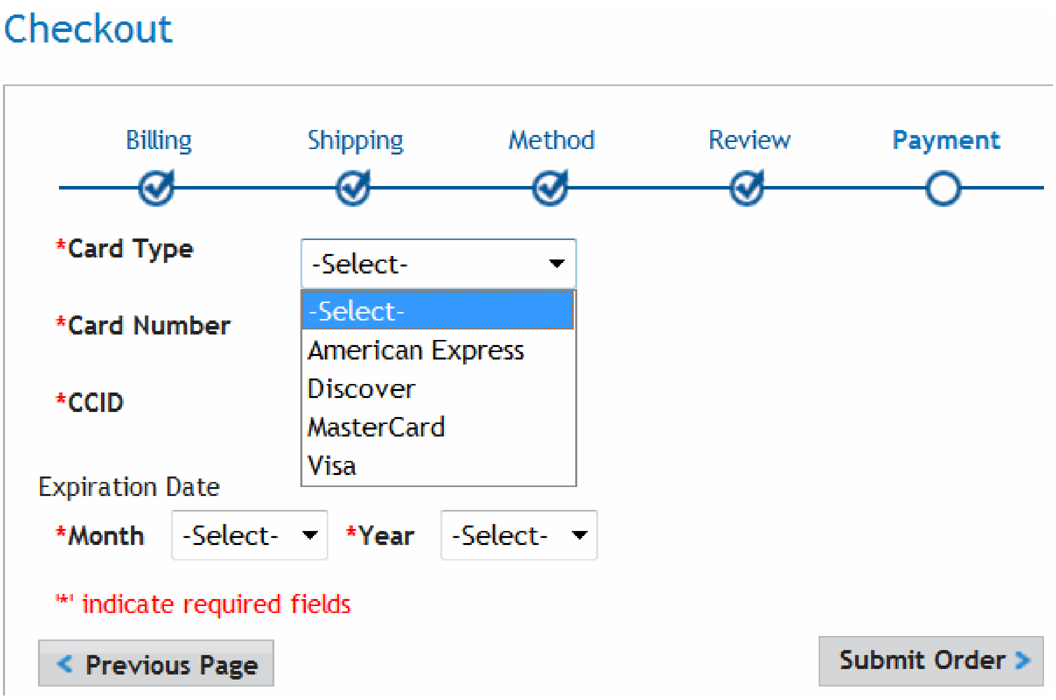
Displays information about products being purchased: their price, shipping charges, discounts, and taxes. At this point, if customers want to modify their cart, they click **Edit**

your cart. For example, a customer wants to apply a coupon to the cart. For this link to work properly, add the path to the template that contains the Cart server control to the Checkout server control's `TemplateCart` property.



Submit Order

On the Submit Order page, a customer enters payment information. The customer can pay by check, credit card, or PayPal, depending on what has been set up in the eCommerce Payment Options screen. When a customer enters the information, the customer clicks **Submit**. At that point, the charge is submitted to the payment gateway, and the order is posted in Ektron. See Also: *Processing Orders* on page 1386



Order Complete

The Order Complete page displays a Thank You note, the order ID, and links to continue shopping or view an order's history.

The **Continue Shopping** link appears when you add the path of a template that allows a customer to find products to the `TemplateShopping` property. For example, you send them to a template containing a `ProductSearch` or `ProductList` server control.

The **Order History** link appears when you add the path of a template containing the OrderList server control to the `TemplateOrderHistory` property.

Adding a Custom Field to the Checkout Control

This example demonstrates how to add a custom field to the Checkout control's Billing Info entry screen.

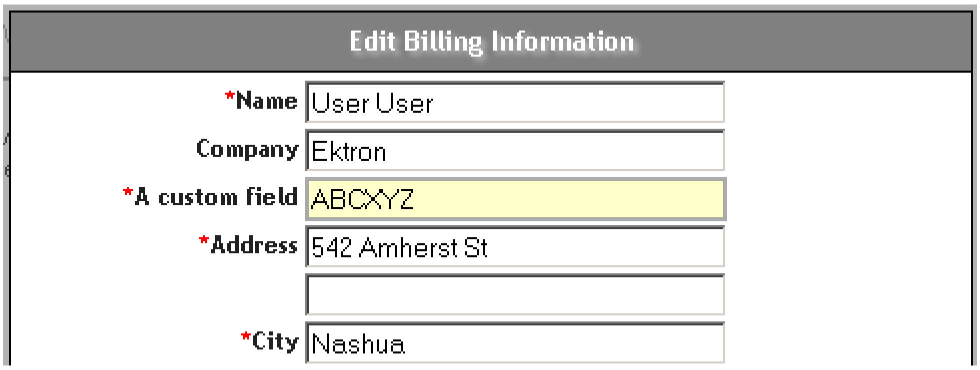
Step1: Add a Field to the XSL

In the workarea/XSLT/Commerce/Checkout/ folder, look for the Checkout_BillingInfo.xsl file. In the file, locate `EktronCheckout_BillingInfo_Company_`. Under the bulleted list item for company, add the following:

```
<li class="EktronCheckout_Required EktronCheckout_SerializableContainer">
      <label class="EktronCheckout_Row_LeftContents">
         <xsl:attribute name="for">
   EktronCheckout_BillingInfo_CustomField_<xsl:value-of select="$ControlId"/>
          </xsl:attribute>
        <span class="EktronCheckout_RequiredSymbol">*</span>
        A custom field
      </label>
      <input class="EktronCheckout_Company EktronCheckout_Row_RightContents">
         <xsl:attribute name="name">
   EktronCheckout_BillingInfo_CustomField_<xsl:value-of select="$ControlId"/>
         </xsl:attribute>
         <xsl:attribute name="id">
   EktronCheckout_BillingInfo_CustomField_<xsl:value-of select="$ControlId"/>
          </xsl:attribute>
         <xsl:attribute name="value">ABCXYZ</xsl:attribute>
      </input>
 </<li>
```

Important notes:

- EktronCheckout_Required—Denotes that the field is required and will impose validation. `EktronCheckout_NotRequired` is also acceptable.
- EktronCheckout_SerializableContainer—Tells the checkout control to process and include the field in this <li> tag with the callback.
- EktronCheckout_BillingInfo_CustomField_ —The name of the field, where `EktronCheckout_BillingInfo` is replaced with `param__` internally. The last portion, `CustomField`, is how the field will be referenced (see below).



Step2: Get the Value of the Field

In the codebehind of the page with the Checkout control, you need the following imports:

```
using Ektron.Cms.Controls;
using Ektron.Cms.Controls.ECommerce;
using Ektron.Cms.Controls.ECommerce.Checkout;
```

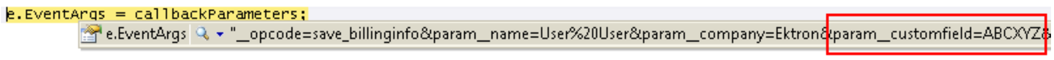
Next, place the following into the Page_Init method:

```
cmsCheckout.FilterAjaxCallback += this.HandleFilterAjaxCallback;
```

Then implement the HandleFilterAjaxCallback method:

```
protected void HandleFilterAjaxCallback(object sender,
FilterAjaxCallbackEventArgs e)
{
     string callbackParameters = e.EventArgs;
     System.Collections.Specialized.NameValueCollection data =
Ektron.Cms.Common.EkFunctions.ConvertToNameValueCollection(callbackParameters,
 true);
      string customFieldValue = data["param__customfield"];
}
```

Upon completing the Billing Info screen, the data is returned as part of the EventArgs, with the prefix `param__` (note the double underscore).



It can then be obtained directly by converting the string to a `NameValueCollection` (or other construct). Developers are free to call their own methods from here.

Using the MyAccount Server Control

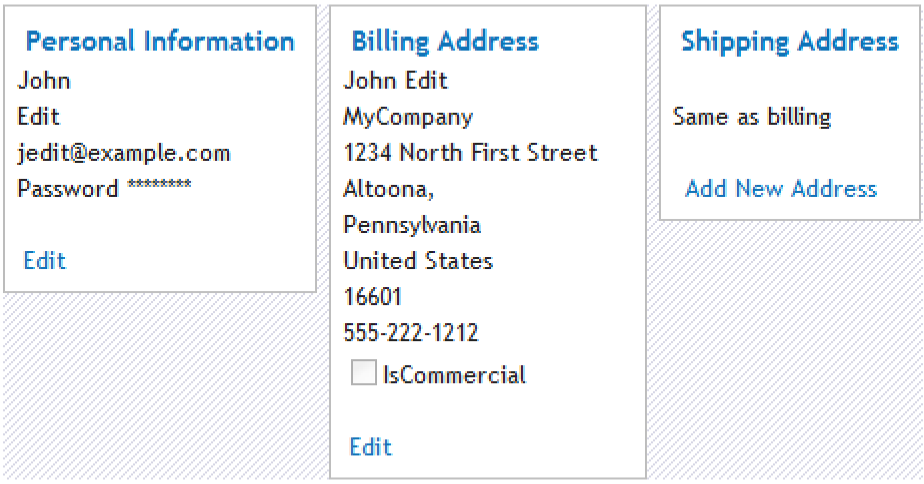
If the customer is not logged in and arrives at this control, one of the following happens:

- the visitor receives a message about not being logged in. This happens when the server control's `RedirectUrl` property is empty and the `web.config` file's `<add key="ek_ RedirectToLoginURL" value=""` /> value is blank.
- the visitor is redirected to a login page and once logged in, is sent back to the template containing the MyAccount server control. This happens when either the server control's `RedirectUrl` property contains the path of a template that contains a Login server control or when the `web.config` file's `<add key="ek_RedirectToLoginURL" value ="" /> value` is set to the path of a template that contains a Login server control. If the

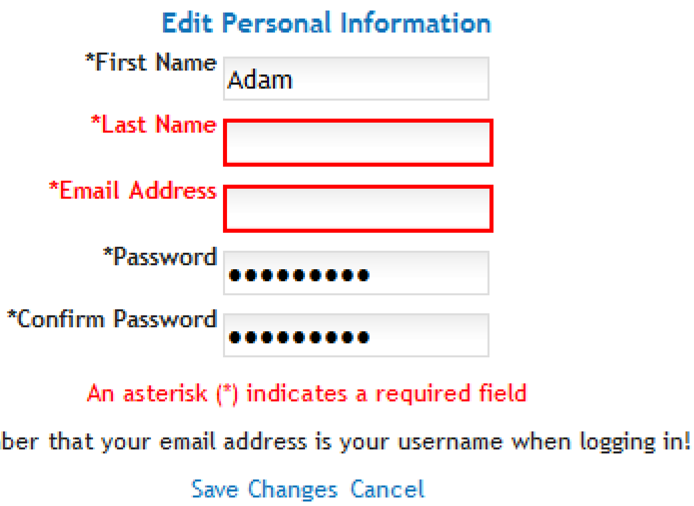
control's `RedirectUrl` property and the `web.config` file contain different locations, the `RedirectUrl` property in the control overrides the `web.config` file.

For information about the MyAccount server control properties, see *MyAccount* on page 1804.

Typically, the information displayed in this control is collected the first time a customer goes through the checkout process. A customer's information might appear in the Personal Information area before they have been through the checkout process if they are a current Ektron user or registered membership user.

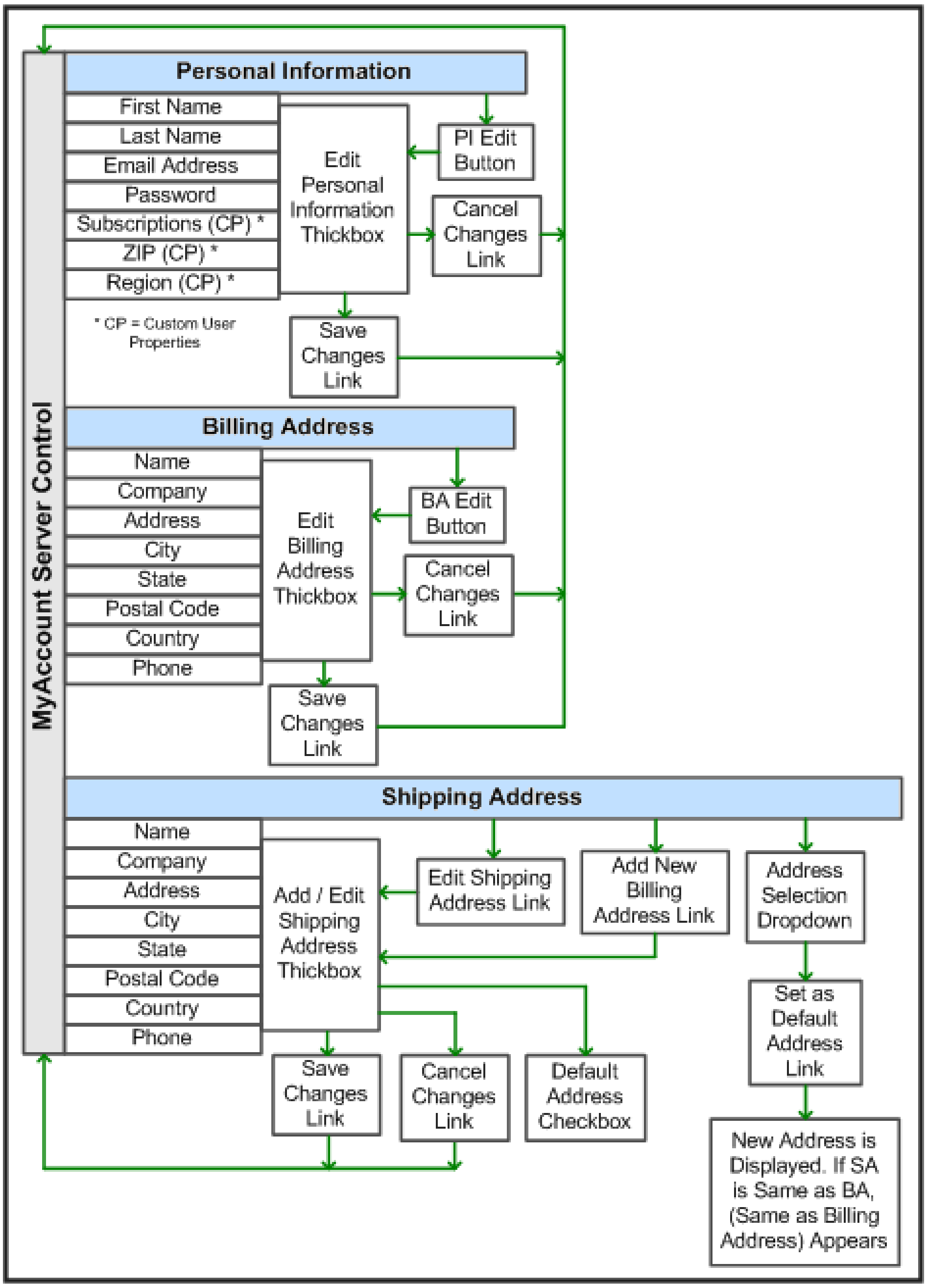


If a logged-in customer arrives at this server control and is missing required information, it must be entered before continuing. For example, a customer needs to provide a Last Name or E-mail Address.



As a developer, you need to create a link to this control in a site location that appears only after log in. For example, you might place the link on a menu or on a master page that appears after a customer logs in.

A customer typically arrives at this control by clicking a link placed on a main page, master page, or menu. The following figure shows the flow of the MyAccount server control.



Editing Personal Information

The Personal Information area lets customers view and edit some information contained in their profile. By default, a customer can edit their First Name, Last Name, email Address, and Password. By adding a list of Custom User Property IDs to the `CustomPropertyID` property, you can let customers view and edit custom properties in their profile. See Also: *Creating Custom User Properties* on page 1108.

A customer can change the information in the Personal Information area by clicking **Edit** in the lower left corner of this area. The resulting page lets the person change any information in this area. When done, the customer clicks **Save Changes** to save the changes and return to the My Account page.

Editing a Billing Address

The Billing Address area lets customers view and edit their billing address information. A customer can edit their Name, Company, Address, City, State, Postal Code, Country, and Phone number. This information is used for billing purposes when the customer makes a purchase. Credit card companies typically want part or all of this information to match a customer's credit card account information when making a purchase.

To edit a customer's billing address, click **Edit** in the lower left corner of the Billing Address area.The resulting page let the person change any information in this area. When done, a customer clicks **Save Changes** to save the changes and return to the My Account page.

Editing a Shipping Address

The Shipping Address area lets customers view, edit, delete or add a new address to their shipping address information. The fields in this area are the same as those in the Billing Address area with 2 exceptions: a **Same as Billing** check box, and a **Default Address** check box. The **Same as Billing Address** check box lets customers place a check mark in the box and use their billing address information as their shipping address. The **Default Address** check box lets customers specify the current shipping address as the default they want to use when making future purchases.

To edit a customer's shipping address, click **Edit** in the lower left corner of the Shipping Address area. The resulting page let the person change any information in this area. Note that a customer must uncheck **Same as Billing** to be able to edit the shipping address. Otherwise, it is locked to the billing address. When done, a customers clicks **Save Changes** to save the changes and return to the My Account page.

Adding a New Shipping Address

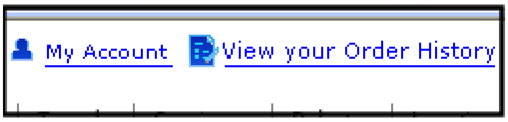
To add a new shipping address, the customer clicks **Add New Address** located in the bottom center of the Shipping Address area.The resulting page lets the person enter new shipping address information. Note that the **Same as Billing** checkbox is not available when adding a new address. When done, a customer clicks **Save Changes** to save the changes and return to the My Account page.

Deleting a Shipping Address

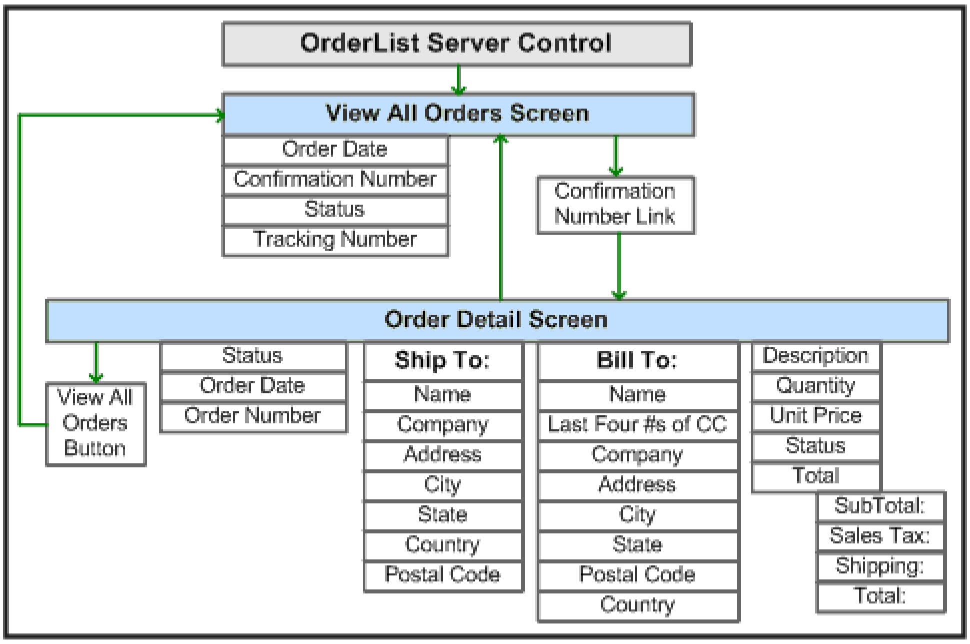
To delete a shipping address, the customer clicks **Delete Address** at the bottom of the Shipping Address area. The visitor is asked to confirm. If the customer does and there are no other shipping addresses, the billing address is used as the shipping address. If the shipping address is the same as the billing address, you cannot delete it.

Using the OrderList Server Control

Customers also can reach this control through a link at the end of the Checkout process. The link appears when the Checkout server control's `TemplateOrderHistory` property contains the path to the template containing the OrderList server control. For information about the OrderList server control properties, see *OrderList* on page 1806.

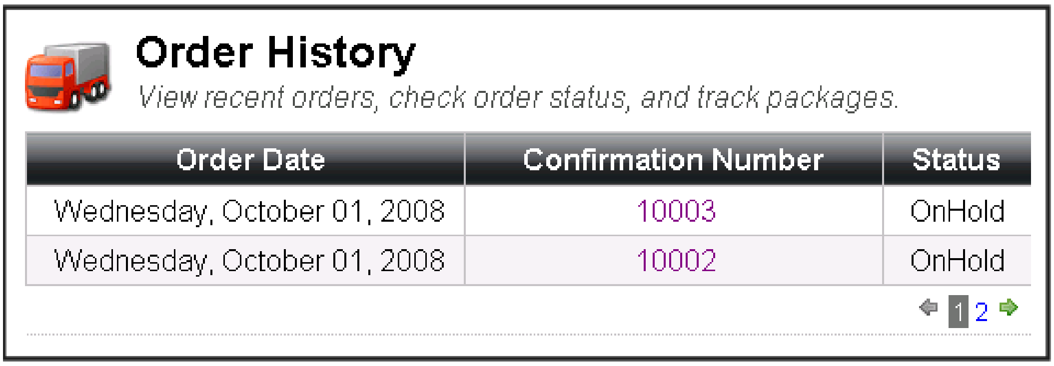


The following image depicts the flow of the OrderList Server Control.



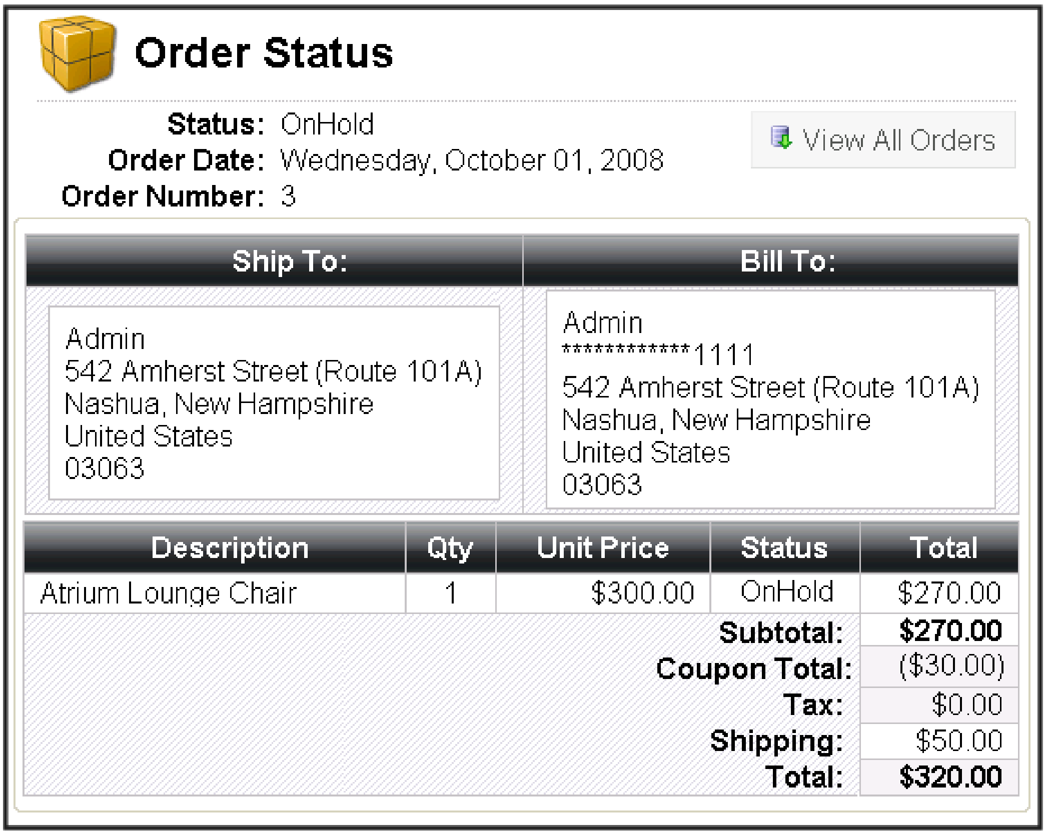
Viewing a Customer Orders List

When customers arrive at this server control, they see the View All Orders portion of the server control.



This part of the server control displays a list of submitted orders. Customers can view each order's date, confirmation number, and status. When the number of orders exceeds the number defined in the `MaxResults` property, the list is paged and a user can navigate among pages with the links provided.

A customer can click the confirmation number to view the Order Details screen.



To navigate back to the list of all orders, customers click **View All Orders**.

Viewing Order Details

- **Status**—The status of the order. See Also: *Order Statuses* on page 1387
- **Order Date**—The date the order was submitted. This is the date an order went through the checkout process.
- **Order Number**—The order's ID number.
- **Ship To:**—Information needed to ship the order to customer.
  - Person to whom the product is being shipped
  - Company Name (optional)
  - Street Address
  - City and State or Region
  - Country
  - Zip Code
  - Tracking Number—this field appears if a tracking number has been entered in the View Order screen in the Workarea.
- **Bill To:**—Displays information about who is being billed for the order.
  - Person paying for the order
  - Credit Card information—For security purposes, only the last 4 digits appear.
  - Company Name (optional)
  - Street Address

    - City and State or Region
    - Country
    - Zip Code
- **Description**—A list of products in the order. When the path to the product server control is entered in the `TemplateProduct` property, the product's title becomes a hyperlink.
- **Quantity**—The total number of each product.
- **Sale Price**—The per unit price of each product.
- **Total**—The total amount paid for each product ordered. This is the Unit Price multiplied by the Quantity.
- **Subtotal**—The sum of all the order's line products before additional charges or discounts, such as tax, shipping and coupons.
- **Coupon Total**—The total amount discounted, based on all applied coupons.
- **Tax**—The tax amount applied to this order. See Also: *Calculating an Order's Tax Amount* on page 1335
- **Shipping**—The amount charged to ship the order to the recipient. See Also: *Configuring eCommerce Shipping Screens* on page 1329
- **Total**—The sum of all charges, including all line items, tax, shipping and handling.

Using the Product Server Control

This control handles each class of product Ektron provides such as Products, Kits, Bundles or Subscriptions without having to make any adjustments to the control. For information about the Product server control properties, see *Product* on page 1815.

Customers typically reach this server control when they click a product from either the ProductSearch or ProductList server control. When customers clicks a product, title or image in either of these controls, they are forwarded to the Product server control.

In addition, customers can reach this control from the Cart server control. In that control, customers click a product's title and are taken to the Product server control.

When a customer has viewed the product and decided to purchase it, they click **Add to Cart** in the control.

Displaying a Product

A *product* is an item that has no kit, bundle or subscription information associated with it.

When displaying a simple product, the Product server control displays the following information:

- **Title** (optional)—The **Title** field in the product's Smart Form. A content editor enters this information when creating a product in the Workarea. This area does not use the title of the product in Ektron's Workarea.
- **Description** (optional)—The Description field in the product's Smart form. A content editor enters this information when creating a product in the Workarea.
- **Image Gallery**—The Media tab when creating or editing a product. The Gallery Display property for each image on the Media tab must be set to Yes. In the Image Gallery, images are displayed at their smallest size. When a customer clicks an image, the full size version appears. See Also: *Using the eCommerce Server Controls* on page 1404
- **Price**—The Pricing tab when creating or editing a product. This is the price defined in the **Our Sales Price** area. This is not the list price. See Also: *Using the eCommerce Server Controls* on page 1404
- **Add to Cart**—This button appears in the server control when:
  - a path to the Cart server control is defined in the `Templatecart` property
  - the product is buyable. When a product is not buyable, information about the product appears, but customers cannot add it to their cart. This property is set in the Workarea when creating or editing a product.
  - the `ShowAddToCart` property is set to True

  When customers click this button, the product is added to their cart and they are sent to a template containing the Cart server control.

  You can hide this button by setting the `ShowAddToCart` property to false. This lets you show details of a product, but not offer it for sale. For example, you have a product that is no longer for sale, but you want to allow people who purchased the product to view its details.

Also, by using code-behind to dynamically set the property, you could create code that looks at your inventory system and hides the button depending on whether a product is in stock.

Using the Add to Cart Button with Aliasing

When a product has an alias path associated with it:

- Make sure the `TemplateCart` property's path is relative to the site root. For example:

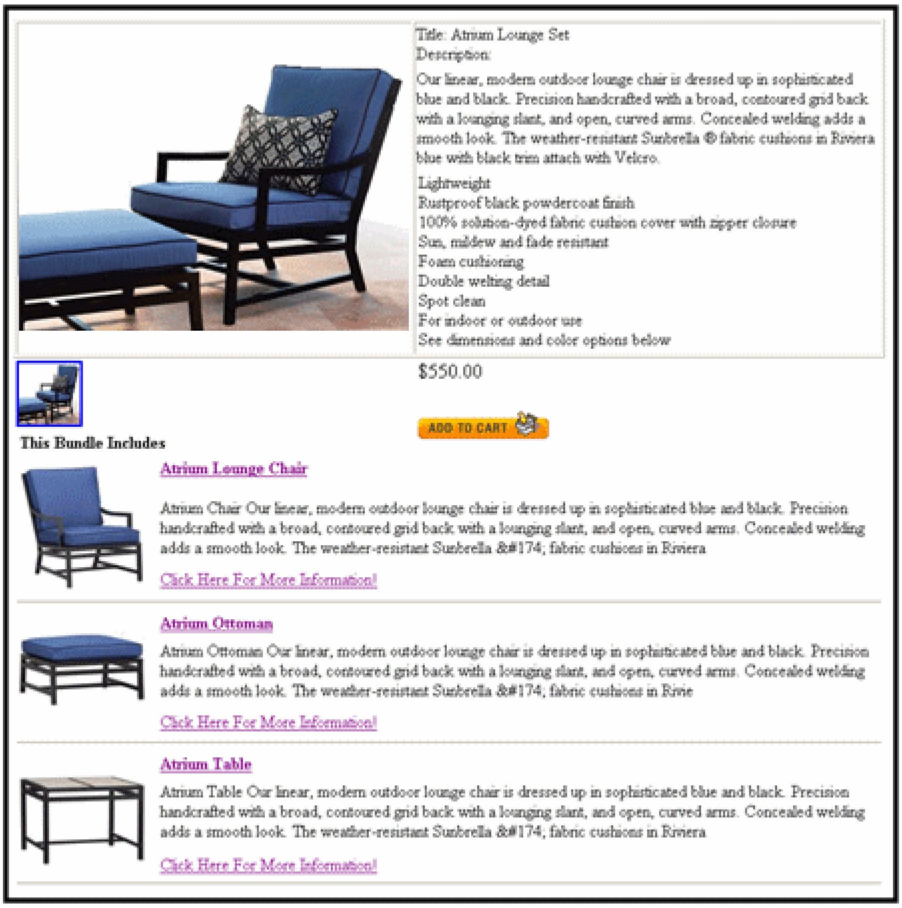
```
TemplateCart="Developer/Commerce/CartDemo.aspx"
```

- Add the following to the code-behind page. This example is in C#:

```
protected void Page_Init(object sender, EventArgs e)
{ Utilities.RegisterBaseUrl(this.Page); }
```

Displaying a Bundled Product

A bundled product is made up of multiple products that have been grouped together for sale as one product.



See Also: *Using the eCommerce Server Controls* on page 1404

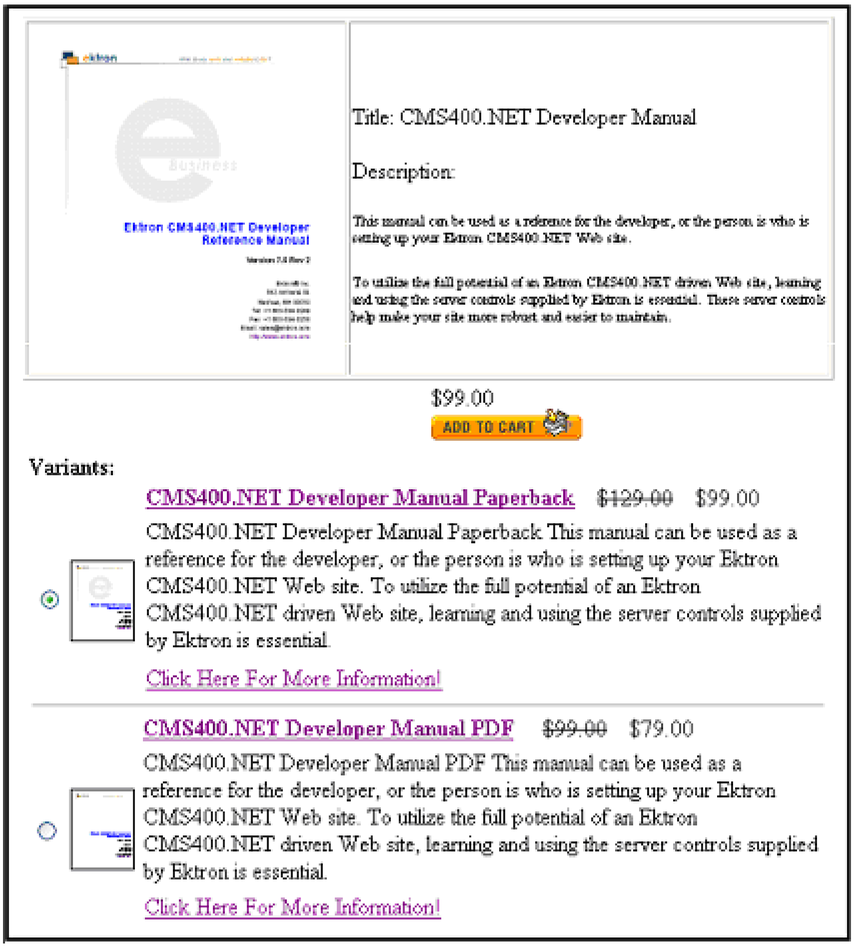
When displaying a bundled product, the Product server control displays all information displayed in a Product as well as information about the individual components of the bundle.

The **This Bundle Includes** area includes products listed on the **Items** tab for a Product Bundle in the Workarea. A content editor adds existing products to this tab when creating the bundle.

Any products on the tab are displayed with the image, title and description for each product. A link to additional information about each product is also displayed.

Displaying a Complex Product

A Complex Product lets the customer choose between variations of a product. For example, if your site sells books, variant selections might be Paperback or Electronic.



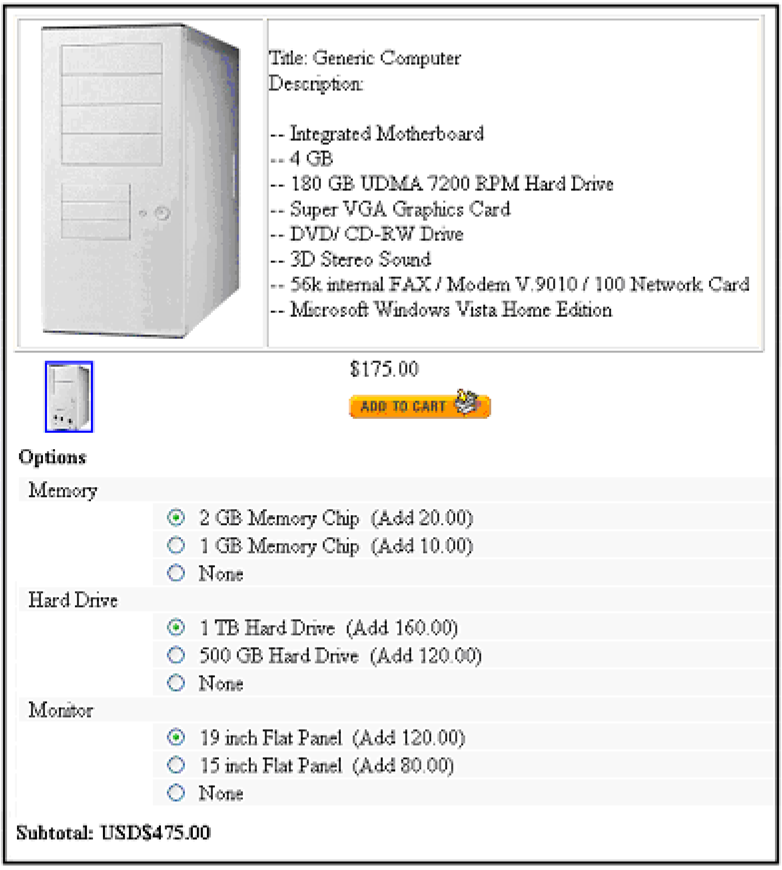
See Also: *Using the eCommerce Server Controls* on page 1404

When displaying a Complex Product, the Product server control displays all of the information displayed in a Product in addition to information on product variants. The **Variants** area includes products listed on the **Items** tab. A content editor adds products to this tab when creating content.

Products on the **Items** tab are displayed with a radio button, image, title and description. A link to additional information about each product is also displayed. The radio buttons are used to select which product will be added to the cart.

Displaying a Kit

A kit lets the customer select product options, which can affect the product's price. There is no limit to the types of options you can add, nor to the number of items in an option. For example, a customer purchasing a computer can add RAM, a hard drive, and a larger monitor.



See Also: *Using the eCommerce Server Controls* on page 1404

When displaying a kit, the Product server control displays all information displayed in a product in addition to options and subtotal information.

The **Options** area displays product options based on the Item tab for a kit in the Workarea. Options are divided into groups. A radio button, name and price appears for each item. The radio button lets you select one item from each group.

The **Subtotal** area shows the updated cost of the product with all options.

Using the ProductList Server Control

The ProductList server control displays a list of products on a Web page. For information about the Product server control properties, see *Product* on page 1815.

NOTE: Private catalog entries appear in display of the Product List server control only if the user is logged in and has at least Read-Only permissions for its catalog folder. See Also: *Making Content Private* on page 294

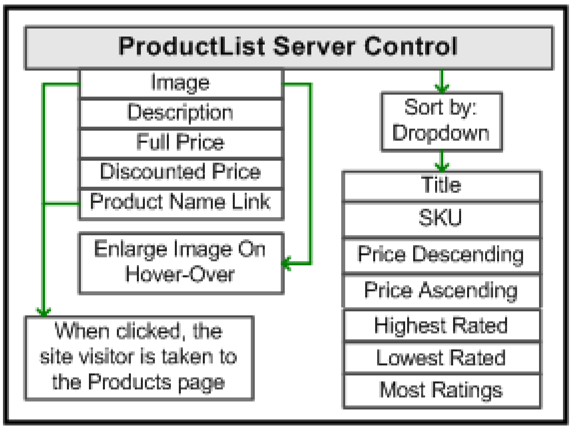
You decide which products appear by selecting a `SourceType` and populating either the `SourceId` or the `IdList` property, depending on the source type. You can choose from these source types.

If you want to display	Set the SourceType property to	In the `SourceId` property, enter	In the `IdList` property, enter
All products for a selected catalog	Catalog	The ID of the catalog	
All products across multiple catalogs	CatalogList		A comma separated list of catalog IDs
All products for a selected taxonomy	Taxonomy	The ID of the Taxonomy	
All products across multiple taxonomies	TaxonomyList		A comma separated list of taxonomy IDs
All products for a selected collection	Collection	The ID of the Collection	

If you want to display	Set the SourceType property to	In the `SourceId` property, enter	In the `IdList` property, enter
Display a list of products	IdList		A comma separated list of product IDs

There are several ways customers might arrive at the ProductList server control, such as

- when a list of products appears on the side of a page
- through a link in a master page
- when they click **Continue Shopping** on the Cart or Checkout server control.



Sorting the Product List

The ProductList server control lets a customer sort by:

- Title
- SKU
- Price High to Low
- Price Low to High
- Highest Rated
- Lowest Rated and Most Ratings

You can set the default sort order by setting the `SortMode` property.

For the Highest Rated, Lowest Rated and Most Ratings sorting options to work as intended, ContentReview server control should be associated with each product. (See Also: *User-Ranking of Content* on page 587) This lets customers rate your products.

For example, place a ContentReview control on the Master page of the template that display products, and set its `DynamicParameter` property to `ID`. Then, when customers view the product, they can rate and comment on it.

Using the Recommendation Server Control

PREREQUISITE

Cross sell or upsell products have been assigned to a catalog entry.

Typically, this control appears on a page along with a Product server control. By using this control in conjunction with the Product control, a customer can view the details of a product and also receive suggestions on additional purchases. A customer can click the title to view the suggested product to view its details. For information about the Recommendation server control properties, see *Recommendation* on page 1826.

For example, if your site is selling a hat, mitten and scarf set, you might use this server control to cross-sell winter jackets. You could also use the control to up-sell a more expensive hat, mitten and scarf set, or a set that includes additional items.

See Also: *Recommending Related Products to a Customer* on page 1371

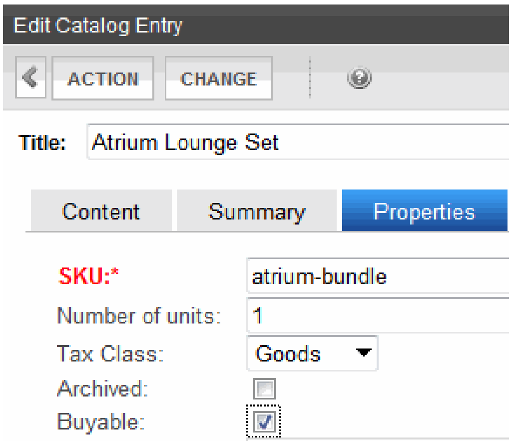
The `RecommendationType` property determines whether the Recommendation server control is used for up-selling or cross-selling.

Enabling the Add to Cart Button

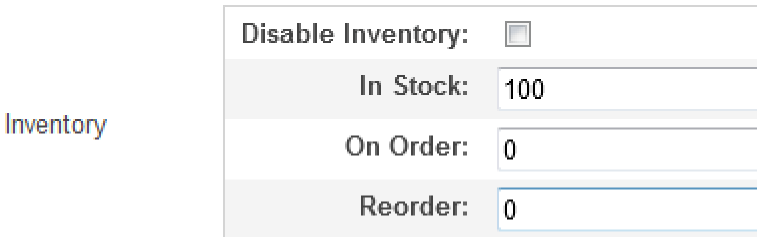
Customers can add a product to their cart directly from the Recommendation server control by clicking **Add to cart** next to a product. This link appears below the price and allows them to skip the product's information page and add the product directly to their cart.

By default, this button appears when the following conditions are met:

- The product is buyable. That is, there is a check mark in the **Buyable** property for a product in the Workarea. See Also: *Creating a Catalog Entry* on page 1356



- The product has an **In Stock** quantity of at least one.



- The `TemplateCart` property has a cart's template location defined.

In addition, if a product has an alias path associated with it, you need to:

- Make sure the `TemplateCart` property's path is relative to the site root. For example:

```
TemplateCart="Developer/Commerce/CartDemo.aspx"
```

- Add the following to the code-behind page. This example is in C#:

```
protected void Page_Init(object sender, EventArgs e)
{ Utilities.RegisterBaseUrl(this.Page); }
```

Customizing eCommerce

Ektron's eCommerce Module lets you set up an eCommerce website, which delivers a full set of functionality for building an online marketplace.

As a developer, you can use Ektron's standard functionality and out-of-the-box server controls to quickly create an eCommerce website. See *Using the eCommerce Server Controls* on page 1404 for more information about the eCommerce server controls.

Ektron also lets you partially or fully customize your website. For example, you can customize your site's order process workflow.

This section also contains the following topics.

Customizing Workflows

IMPORTANT: If you customize the workflow then upgrade to a new version of Ektron, you need to point to the new references then compile the workflow.

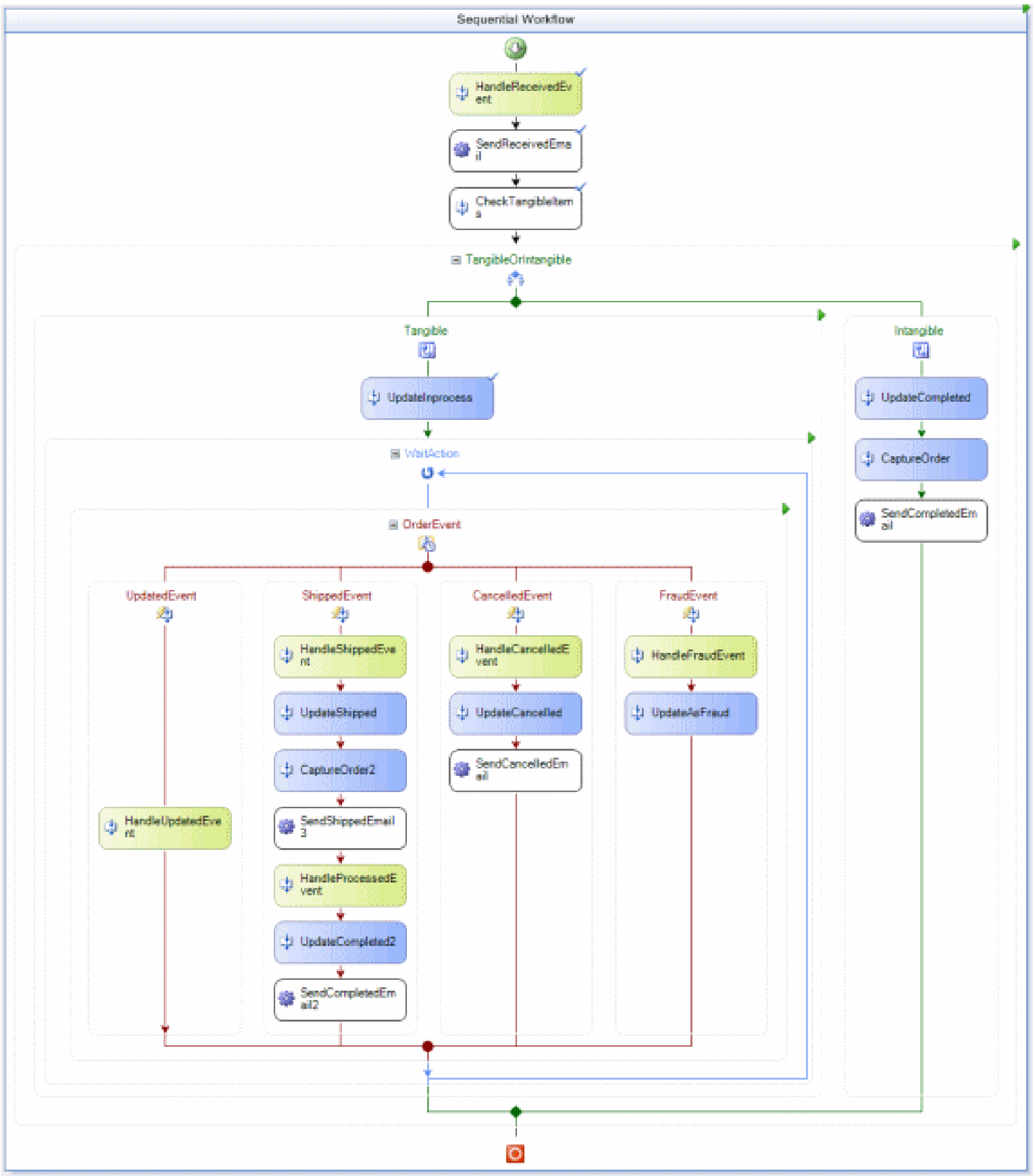
Ektron uses Microsoft's Windows Workflow Foundation to create and implement order process workflows in Ektron. Within Ektron eCommerce functionality, you use a workflow to handle the ordering process after your site has received an order. The workflow can be as simple or complex as your business requires.

For example, you could have a simple workflow that sends an email to the customer when their order is received, and sends another to the person shipping product for you. Or, you could have a more complex workflow that:

- sends an email to the customer when the order is received
- checks to see whether the item is a tangible product or a virtual product. Then, continues down the workflow path that's appropriate for the item.
- handles shipping notifications and updates the account throughout the shipping process
- handles the order if it is canceled

- handles the order if it is determined to be fraudulent
- marks the order as complete once all activities are finished

Ektron’s default sample workflow is shown below.



Windows Workflow Foundation (Released with Microsoft’s .NET 3.0) is a development tool that lets you create activities-based workflow that can persist over a given length of time or be paused and restarted depending on events. For more information on WF, visit Windows Workflow Foundation.

Workflows are comprised of activities; each activity represents a portion of your Business Process. When activities have finished within a workflow, it terminates. There are 2 types of activities:

- **Activities**—executed inside the workflow once the activity is reached. For example, an email might be sent to a customer once their order is received by using the AdvancedEmailActivity placed after the OrderReceivedEventActivity. This email is automatically sent with no human interaction needed, and the workflow would continue.

- **Event Activities**—pauses the workflow until the event occurs. When the event takes place, the associated activity is executed. Think of events as road blocks in the workflow that are not opened unless a matching action happens. When the event happens, the workflow follows the path associated with that event.

  For example, an OrderFraudEventActivity in a workflow would keep the workflow from going through the Fraud Event portion of the workflow unless the order is marked as fraud.

  - *AdvancedEmailActivity* on page 1442—Send an email based on the order ID and a specified message type.
  - *BasicEmailActivity* on page 1444—Send a generic email message when this activity is reached in the workflow.
  - *CaptureOrderActivity* on page 1445—Customize the handling of an order when it is captured.
  - *CheckStockActivity* on page 1445—Verify whether the item is an in-stock item or not.
  - *OrderCancelledEventActivity* on page 1446—Customize the handling of an order when it is canceled.
  - *OrderCapturedEventActivity* on page 1446—Customize the handling of an oder when it is captured.
  - *OrderFraudEventActivity* on page 1447—Customize the handling of an order when it's marked as fraud.
  - *OrderProcessedEventActivity* on page 1447—Customize the handling of an order when it's being processed.
  - *OrderReceivedEventActivity* on page 1448—Customize the handling of an order when it's marked as received.
  - *OrderShippedEventActivity* on page 1448—Customize the handling of an order when it's marked as shipped.
  - *OrderUpdatedEventActivity* on page 1448—Customize the handling of an order when it's updated.
  - *UpdateOrderActivity* on page 1449—Update the order when this activity is reached.

Ektron supports Sequential Workflows and State Machine Workflows. Sequential Workflows are structured; a step-based process where one activity leads to the next. State Machine Workflows typically move from one activity to another when their state changes.

You can have multiple workflow projects associated with your eCommerce site and change workflow projects at any time. However, only 1 workflow project can run at a time. When an order process starts with a specified workflow, it continues through that Workflow.

Installing Ektron's Sample Workflow Template

PREREQUISITE

Ektron SDK is installed See Also: *Using Ektron's Developer SDK* on page 1633

Ektron provides a C# workflow template sample for a sequential workflow. You can modify this sample or use it to create new workflows. It is based on the Ektron default workflow.

To install Ektron's sample workflow template, copy and paste the Ektron Ordering Sequential `Flow.zip` file using the **From** & **To** information below.

From:

```
C:\Program Files\Ektron\CMS400SDK\Commerce\Workflow\Templates\VS2010
```

To:

```
C:\Documents and Settings\~user name~\My Documents\
  Visual Studio 2010\Templates\ProjectTemplates\Visual C#\Workflow
```

NOTE: Make sure you replace ***~user name~*** in the path with the user name under which Visual Studio project templates are saved.

In Windows 7, the path looks like this:

```
C:\Users\~user name~\Documents\Visual Studio 2010\
  Templates\ProjectTemplates\Visual C#\Workflow
```

Extract the .zip file in the **To** location. Then, you can work with a sample workflow. See Also: *Working with the Sample Workflow* below

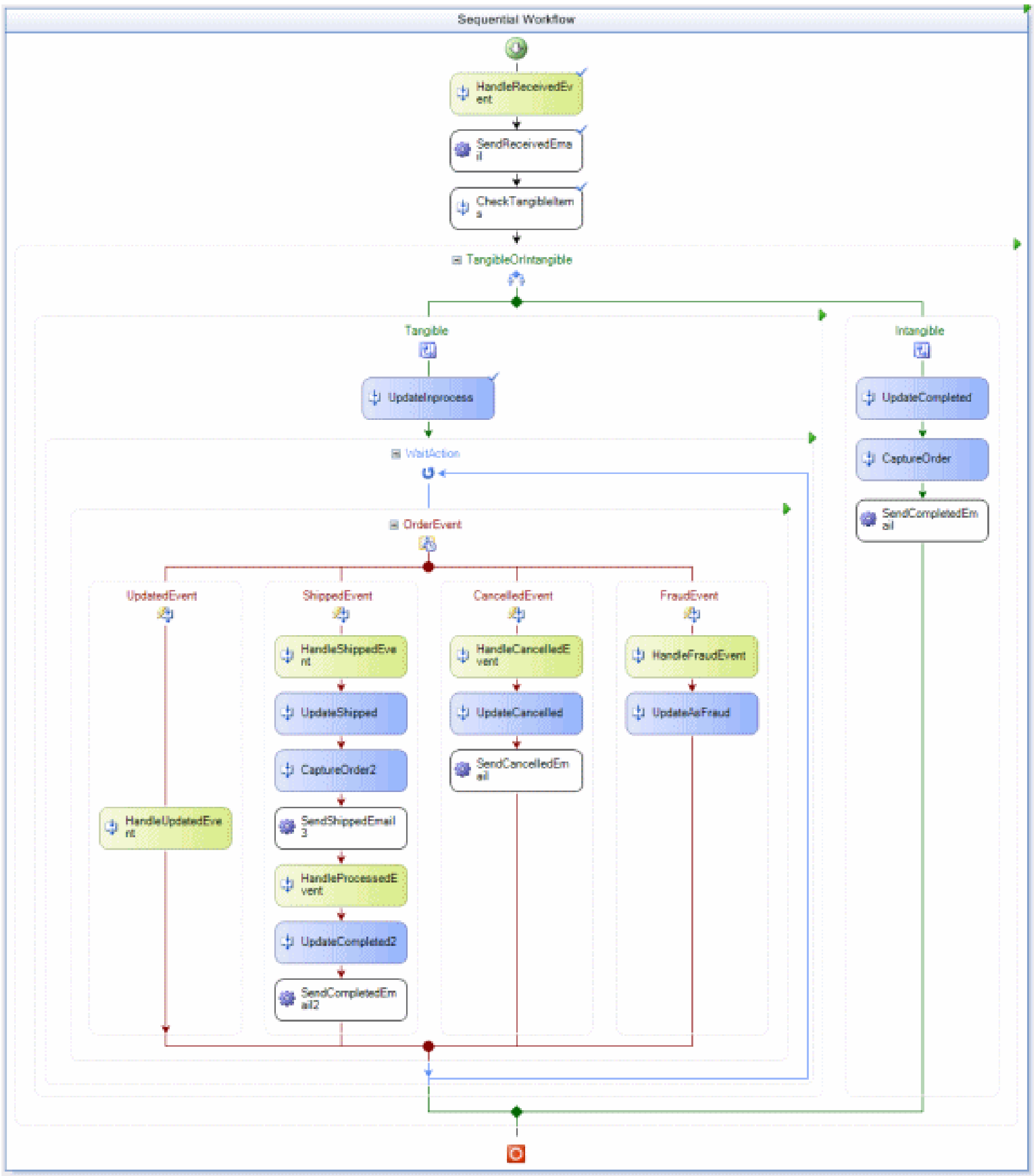
Working with the Sample Workflow

PREREQUISITE

You installed Ektron’s sample workflow template. See *Installing Ektron’s Sample Workflow Template* on the previous page.

1. Open Visual Studio.
2. Choose **File > New > Project**.
3. If you are using C#, expand the Visual C# project type. Otherwise, expand the Visual Basic project type.
4. Click **Workflow**.
5. From the My Templates area, select **Ektron Ordering Sequential Flow**.
6. Select a new Name. If necessary, change the Location, Solution and Solution Name.
7. Click **OK**.
8. If a prior version of the software developer's kit (SDK) is installed, the assemblies in the sample may be older than those in your site. To avoid an issue:
    a. From your project's `bin` folder, remove `Ektron.Cms.Common.dll` and `Ektron.Workflow.dll`.
    b. Copy those files from the `bin` folder of your Ektron site to the `bin` folder of the newly-created workflow project.
    c. Re-establish the References to these dlls from the project's `bin` folder.

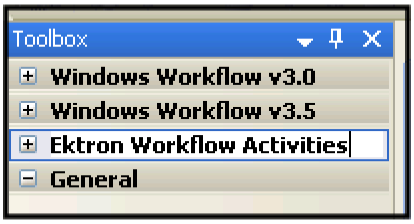
9. Open the **Workflow.cs** file in the Solution Explorer.

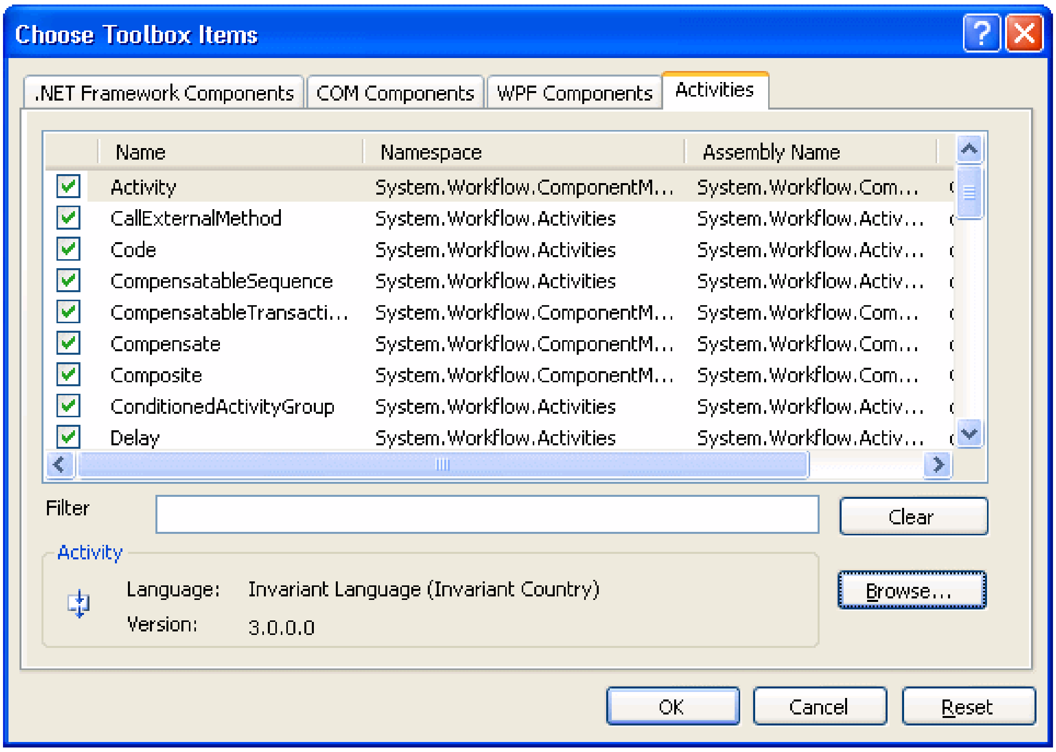


10. Make any necessary changes to the workflow. For information on Microsoft's Workflow Activities, see Build Custom Activities To Extend The Reach Of Your Workflows.
11. Debug as needed.
12. Build the workflow. This creates a DLL of the workflow and places it in the project's bin/debug folder.
13. Navigate to the DLL's folder. For example, `C:\Documents and Settings\~`*`user name`*`~\My Documents\Visual Studio 2010\Projects\MyWorkFlow\MyWorkFlow\bin\Debug`.
14. Move or copy the new workflow DLL file to your website's bin folder.

Adding Workflow Activities to Your Toolbox

1. Open or create a Workflow in Visual Studio. See *Installing Ektron's Sample Workflow Template* on page 1437

2. Display the Toolbox (**View > Toolbox**).
3. Right-click the mouse within the Toolbox and choose **Add Tab**.
4. Type **Ektron Workflow Activities** then press **Enter**.
5. 

6. Click the **Ektron Workflow Activities** tab.
7. Right-click the mouse in the empty area and choose **Choose Items**. The Choose Toolbox Items dialog appears.


8. In Visual Studio 2010, select the **.NET Framework Components** tab.
9. Browse to *webroot**siteroot*\bin\Ektron.Workflow.dll file. This file provides access to Ektron's workflow activities.

NOTE: Alternatively, you could use the following location: `C:\Program Files\Ektron\CMS400vxx\bin`. The file is identical in both places. Using the bin folder in your site provides better speed. However, if you use the bin folder in Program Files, you do not have to worry about deleting the .dll file if you change or delete your site.

10. Click **OK**.

For easier viewing, right-click the workflow activities and select **Sort Items Alphabetically**.

NOTE: Ektron's workflow activities appear only when the workflow is opened in design mode.

Removing Workflow Activities

1. Display the Visual Studio toolbox (**View > Toolbox**).
2. Right-click the mouse within the Toolbox.
3. Click **Choose Items**.
4. Click the **Activities** or **.NET Framework Components** tab.
5. Click **Namespace** or **Assembly Name** to sort Workflow Activities.
6. Uncheck all boxes that begin with `Ektron.Workflow.Activities`.
7. Click **OK**.
8. Right-click the **Ektron Workflow Activities** tab.
9. Click **Delete Tab**.

Updating Workflow Activities

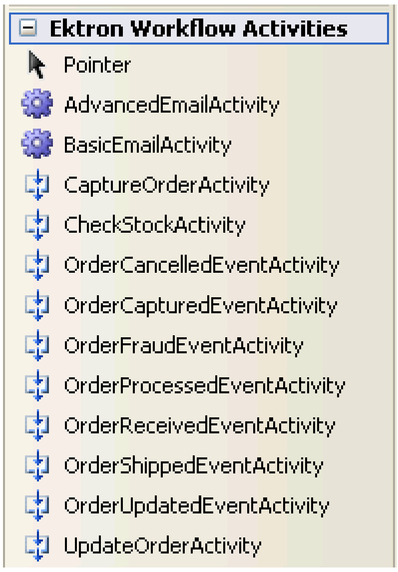
To update workflow activities, remove the existing ones in Visual Studio, then add new ones.

- For information on removing workflow activities, see *Removing Workflow Activities* on the previous page.
- For information on adding workflow activities, see *Adding Workflow Activities to Your Toolbox* on page 1439.

Inserting Workflow Activities Using Drag and Drop

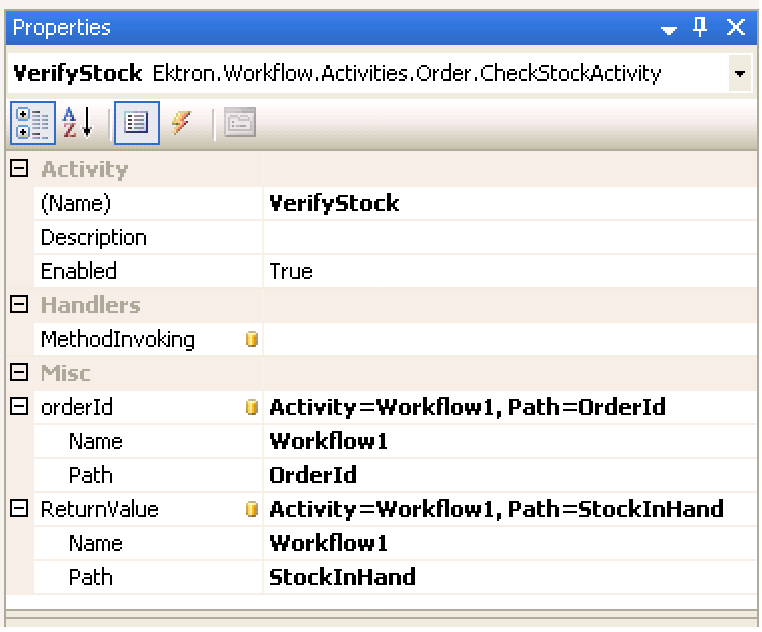
Because Visual Studio is a visual environment, lines that connect events and activities change as you add or remove them. To add an activity to a workflow:

1. Display the Visual Studio toolbox (**View > Toolbox**).
2. Click the **Ektron Workflow Activities** tab. Ektron's Workflow Activities appear.



3. Drag an activity and drop it into the desired location in the Workflow.

4. As desired, modify the activity’s properties using Visual Studio's **Properties** area.



AdvancedEmailActivity

Send an email notification, based on an order ID in Ektron, after an event takes place in the workflow. For example, after an order is shipped, you might choose to send an email that notifies customers when their orders are shipped. Or, you might send an email to a customer when their order is received.

With this activity you can choose to send a predefined email message. These messages are defined in the Workarea under **Settings > Commerce > Configuration > Messages**. See Also: *Configuring eCommerce* on page 1305.

Two event handler properties in this activity let you add custom code to `SendingEmail` and `SentEmail` events. The SendingEmail event fires immediately before the email is sent. The SentEmail event fires immediately after the email sent.

Key properties of this activity are:

- `EmailArgs`—Set this property to `OrderId` to associate the activity with orders in Ektron.
- `MessageTypes`—Set this property to the type of email message this activity sends.

Associate email activity with orders in Ektron. You can either supply information such as, To:, From:, Body:, and so on. or use information associated with the order. It also lets you specify the type of message type that’s sent. (The `BasicEmailActivity`, on the other hand, is a generic email activity where you specify To:, From:, Body:, and other email information.)

Activities

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.

Email Message

- **Bcc** (String)—A blind carbon copy of the email is sent to the address entered in this property. If you select `OrderId` for the `EmailArgs` property, the `Bcc` property is dynamically populated with the order's information.

- **Body** (String)—Enter the main content of the email. If you select a parameter from the `MessageType` property, the `Body` property uses the corresponding content for that message type.
- **CC** (String)—A carbon copy of the email is sent to the email address entered in this property. If you select `OrderId` for the `EmailArgs` property, the `CC` property is dynamically populated with the order's information.
- **From** (String)—The address from which the email is sent. If you select `OrderId` for the `EmailArgs` property, the `CC` property is dynamically populated with the order's information.
- **HtmlBody** (Boolean)—Select whether to send the email in HTML or plain text. True (default), use HTML; False, use plain text.
- **ReplyTo** (String)—Specify the address to which the recipient of the email replies.
- **Subject** (String)—Enter subject information for the email. If you select a parameter from the `MessageType` property, the `Subject` property uses the subject information for that message type.
- **To** (String)—The email is sent to the address in this property. If you select `OrderId` for the `EmailArgs` property, the `To` property is dynamically populated with the order's email information.

Email Server

- **Port** (Integer)—Set this value to the port your system uses access to retrieve email. In most cases, the port is set to 25. If that is not the case, see your System Administrator. The default is **25**. If blank, this property uses the `ek_SMTPPort` value in the site's `web.config` file.
- **SmtpHost** (String)—The address of the server hosting the email system. If blank, this property uses the `ek_SMTPServer` in the site's `web.config` file.

Handlers

- **SendingEmail** (String)—Event handler to add custom code to the sending email event. This event fires right before the email is sent.
- **SentEmail** (String)—Event handler to add custom code to the sent email event. This event fires right after the email is sent.

Misc

- **EmailArgs**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select `OrderId` from the list.
- **MessageType**—Select the type of message that is sent for this activity. If you select None, the message is sent with the text in the `Body` property.
  - **None** (default)—uses the text in the `Body` property.
  - **OrderReceived**—Sends the Order Received email defined in the **Workarea** > **Settings** > **eCommerce** > **Configuration** > **Messages** screen when an order is received.
  - **OrderCancelled**—Sends the Order Cancelled email defined in the **Workarea** > **Settings** > **eCommerce** > **Configuration** > **Messages** screen when an order is received.

 - **OrderShipped**—Sends the Order Confirmation email defined in the **Workarea** > **Settings** > **eCommerce** > **Configuration** > **Messages** screen when an order is received.

For information on defining the messages, see *Configuring eCommerce* on page 1305.

BasicEmailActivity

Send an email after an event takes place in the workflow. These emails are usually generic and contain the same information for To:, From:, Subject, Body, and so on.

There are 2 event handler properties in this activity that let you add custom code to the `SendingEmail` and `SentEmail` events. The SendingEmail event fires right before the email is sent. The SentEmail event fires right after the email sent. For example, you want to notify a supervisor when orders are received, but you don't want the notification to contain any order specific information.

Key properties of this activity are:

- `To`—enter the address to receive the email.
- `From`—enter the address from which the email is being sent.
- `Subject`—enter a brief summary for the email.
- `Body`—enter the main subject text of the email.

BasicEmailActivity sends a generic email. In the activity, you specify To:, From:, Body:, and other email information. (The `AdvancedEmailActivity`, on the other hand, lets you send an email associated with orders in Ektron.) You can either supply information such as, To:, From:, Body:, and so on, or use information associated with the order. It also lets you specify the type of message type that's sent.

Activities

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.

Email Message

- **Bcc** (String)—A blind carbon copy of the email is sent to the address entered in this property.
- **Body** (String)—Enter the main content of the email.
- **CC** (String)—A carbon copy of the email is sent to the email address entered in this property.
- **From** (String)—The address from which the email is sent.
- **HtmlBody** (Boolean)—Select whether to send the email in HTML (**True**) or plain text (**False**).
- **ReplyTo** (String)—Specify the address to which the recipient of the email replies.
- **Subject** (String)—Enter a brief summary for the email.
- **To** (String)—The email is sent to the address in this property.

Email Server

- **Port** (Integer)—Set this value to the port your system access to retrieve email. In most cases, the port is set to 25. If that is not the case, see your System Administrator. The default is **25**. If blank, this property uses the `ek_SMTPPort` value in the site's `web.config` file.

- **SmtpHost** (String)—The address of the server hosting the email system. If blank, this property uses the `ek_SMTPServer` in the site's `web.config` file.

Handlers

- **SendingEmail** (String)—Event handler to add custom code to the sending email event.
- **SentEmail** (String)—Event handler to add custom code to the sent email event.

CaptureOrderActivity

Initiate the capture of an order in Ektron. When the Workflow reaches this activity, the process of submitting encrypted order information (including the transaction ID) to a payment gateway account happens. At this time, the account is changed for the order amount.

Use this activity when you want the capture to take place automatically in the Workflow. This activity is the same as an Ektron user going to the Workarea and marking an order as Captured. For information on how a Capture works in the Workarea, see *Capturing Orders* on page 1388.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.

Handlers

- **MethodInvoking**—Select a method to call before the order is captured.

Misc

- Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

CheckStockActivity

Verify the quantity of items ordered is available for shipping. When the workflow reaches this activity, the quantity of each product in the order is checked. If the required quantity exists for each item, the activity returns True. Otherwise, the activity returns False.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.

Handlers

- **MethodInvoking**—Select a method to call before the stock level is checked.

Misc

- **orderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

- **ReturnValue** (Boolean)
  - **True**—the quantity of each product ordered is in stock.
  - **False** (default)—there is not enough product in stock to fulfill the order.

OrderCancelledEventActivity

Block the workflow from going down a cancel path until the order actually has been canceled.

This activity does not cancel the order. It waits for a user, API code or `UpdateOrderActivity` to mark the order canceled in Ektron before it continues down the order cancel path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow. For information on how to cancel an order in the Workarea, see *Canceling an Order* on page 1389.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order is canceled.

Misc

- Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

OrderCapturedEventActivity

Block the workflow from continuing down a path until the order actually has been captured.

This activity does not capture the order. It waits for a user or API code to mark the order as captured in Ektron before it continues down the path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow. For information on how an order is captured in the Workarea, see *Capturing Orders* on page 1388.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order has been captured.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

OrderFraudEventActivity

Block the workflow from going down a path that handles fraudulent orders until the order actually has been marked as fraud.

This activity does not mark the order as fraudulent. It waits for a user, API code or the `UpdateOrderActivity` to mark the order as fraud in Ektron before it continues down the path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow. For information on how to mark an order as fraud in the Workarea, see *Marking the Order as Fraudulent* on page 1391.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order has been marked as fraud.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

OrderProcessedEventActivity

Block the workflow from going down an order process path until the order actually has been processed. This is a generic event activity that lets you specify custom code to somehow process the order.

This activity does not start the process. It waits for a user, API code or the `UpdateOrderActivity` to kick off the Process Order action in Ektron before it continues down the path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow. For information on how to cancel an order in the Workarea, see *Canceling an Order* on page 1389.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—True (default), enable the activity; False, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order has been processed.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

OrderReceivedEventActivity

Usually the first item in an order workflow, this activity does not mark the order as received, but instead waits for Ektron to register a new order. When the order is received, this activity allows the workflow to start. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—**True** (default), enable the activity; **False**, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order has been received.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId** from the list.

OrderShippedEventActivity

Block the workflow from going down a shipped order path until the order actually has been shipped.

This activity does not mark the order as shipped. It waits for a user, API code or `UpdateOrderActivity` to mark the order as shipped in Ektron before it continues down the path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow. For information on how to mark an order as shipped in the Workarea, see *Marking the Order as Shipped* on page 1390.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—**True** (default), enable the activity; **False**, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order is shipped.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId**. from the list.

OrderUpdatedEventActivity

Block the workflow from going down an updating order path until the order actually has been updated.

This activity does not update the order as shipped. It waits for a user, API code or `UpdateOrderActivity` to update an order inEktron before it continues down the path. Think of it as gate that's waiting for a certain event to happen before it can continue. When the event happens, the path is opened in the workflow.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—**True** (default), enable the activity; **False**, disable.
- **Roles**—

Handlers

- **Invoked** (String)—Specify code that executes when the order has been updated.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId**. from the list.

UpdateOrderActivity

Automate updating of an order's status. This activity is the same as an Ektron user going to the Workarea and performing any of the above actions on an order. For information on how to manually complete these tasks in the Workarea, see *Processing Orders* on page 1386.

Activity

- **Name** (String)—Enter a name for the Activity.
- **Description** (String)—Enter a description for the Activity.
- **Enabled** (Boolean)—**True** (default), enable the activity; **False**, disable.

Handlers

- **MethodInvoking**—Select a method to call before the stock level is checked.

Misc

- **OrderId**—Select `OrderId` to dynamically associate this activity with orders in Ektron. Click **Browse** (...) and select **OrderId**. from the list.
- **orderStatus**
  - **Received** (default)—marks an order as received
  - **InProcess**—marks the order as in process
  - **Shipped**—marks the order as shipped
  - **Completed**—marks the order as completed
  - **Canceled**—marks the order as canceled
  - **OnHold**—puts the order on hold
  - **Fraud**—marks the order as fraud

Customizing the Payment Gateway Provider

A Payment Gateway Provider is a pluggable component that is integrated into Ektron's eCommerce module. A Payment provider handles eCommerce customer payments by utilizing third party payment gateways. Ektron's eCommerce module accepts payments such as credit cards. Then, it passes that information to a third party service. The third party service processes the payment, and returns a transaction ID that's stored with the customer's order.

NOTE: Your company needs to set up an account with a third party payment service before utilizing the payment provider. This includes payment providers such as Authorize.NET and PayFlow, which are included with Ektron's eCommerce Module.

Ektron comes with several payment providers, including Authorize.NET and PayFlow. You can customize these providers or create your own using the extendable Payment Gateway Provider architecture.

Each type of payment gateway provider accepts configuration parameters. For example, Authorize.NET requires a username and password while PayFlow requires a username, password, vendor, and partner.

In addition, some payment gateways may support recurring payments, while others may not. Recurring payments provide the ability to create a payment that recurs at a given interval for a specified period of time. For example, you could create a payment for $9.99 that occurs on the first of every month for the next 12 months. This is something to consider if your site relies on a subscription service. Contact your provider to find out if they support recurring payments.

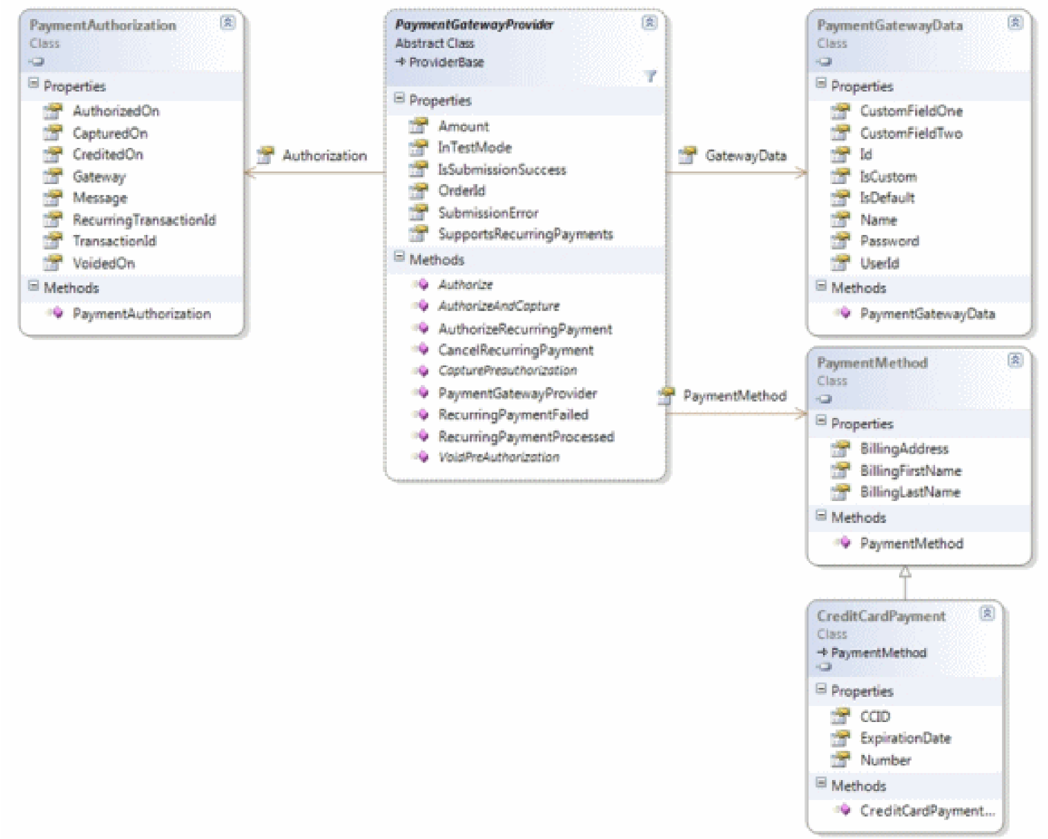
The following scenario shows the flow of payment information for a customer purchasing a product from your site through you receiving the money in your account.

1. A customer purchases a product from your site and submits payment information.
2. Ektron passes the information to your payment gateway.
3. Your payment gateway provider passes the information to your bank's processor.
4. The bank's processor submits the information to a credit card interchange for processing, clearing and settlement.
5. The interchange notifies the customer's credit card company of the transactions details.
6. The credit card company accepts or declines the transaction based on the customers account information.
7. If the transaction is approved, the funds are transferred to the interchange.
8. The credit card interchange sends information about whether the transaction is approved to your bank's processor.
9. This information is passed to your payment gateway provider.
10. The provider notifies your site of the information. The results of the transaction are displayed on the page the customer is viewing.
11. The credit card interchange sends funds to your merchant account.

This section explains how to extend Ektron's Payment Gateway Provider Architecture to build your own customized Payment Gateway Provider.

See Also: *Configuring Payment Options* on page 1311

The following figure shows the Object Model for Ektron's Payment Gateway Provider.



The PaymentGatewayProvider is the abstract base class you must extend to implement your own payment gateway. Details and descriptions of the PaymentGatewayProvider API can be found in the Ektron API Reference Manual's **Providers API** > **PaymentGatewayProvider** section.

Creating a Custom Payment Gateway Provider

In addition to the out-of-the-box payment gateways providers shipped with Ektron, you can create your own custom payment providers that connect with any payment gateway you choose. Below are the basic code steps you need to complete when creating a custom gateway provider. Additional code examples used by Ektron to create the PayFlow and Authorize.NET providers are located in: `C:\Program Files\Ektron\CMS400SDK\Commerce\Providers\Commerce.Providers\PaymentGateways`

The complete C# code sample used in this example is available at the end of this section. See *CustomGatewayProvider Code Example* on page 1455

1. Create a class library project in Visual Studio.
2. Add references to these DLLs:
   - `Ektron.Cms.Commerce`
   - `Ektron.Cms.Common`
   - `Ektron.Cms.ObjectFactory`
   - `Ektron.Cms.Instrumentation`
   - `System.Configuration`

- Add these using statements to the code-behind:

```
using System;
using System.Collection;
using System.Collection.Specialized;
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Commerce;
```

3. Change the namespace to:

```
namespace Ektron.Cms.Extensibility.Commerce.Samples
```

4. Rename your class and inherit as below:

```
public class CustomPaymentProvider:
  Ektron.Cms.Commerce.PaymentGatewayProvider.PaymentGatewayProvider
```

5. Add the following constructor.

```
#region constructor, member variables
public CustomPaymentProvider() { }
#endregion
```

6. Add the methods required by the PaymentGatewayProvider base class. The **Initialize** method reads configuration information, the others are related to the payments and will be completed later in the example.

```
public override void
  Initialize(string name,
  System.Collections.Specialized.NameValueCollection config)
{ if (config == null)
  { throw new ArgumentNullException("config");
// Assign the provider a default name if it doesn't have one
  if (String.IsNullOrEmpty(name)) name = "CustomPaymentProvider";
  if (string.IsNullOrEmpty(config["description"]))
    { config.Remove("description");
      config.Add("description", "CustomPaymentProvider");
    }
// Call the base class's Initialize method
    base.Initialize(name, config);
// Throw an exception if unrecognized attributes remain
  if (config.Count > 0)
    { foreach (string key in config.AllKeys)
      { EkException.WriteToEventLog("Unrecognized Payment Gateway
        Provider attribute: " + key,
        System.Diagnostics.EventLogEntryType.Warning);
      }
    }
  }
}
public override string Authorize()
{
}
public override string AuthorizeAndCapture()
{
}
public override string CapturePreauthorization(string transactionId)
{
}
public override string VoidPreAuthorization(string transactionId)
```

```
{
}
```

7. Implement the **Authorize** method that you added in the previous step. This method is called to authorize a given amount of money when an order is submitted.

```
public override string Authorize()
{ if (PaymentMethod.GetType() != typeof(CreditCardPayment))
  throw new Ektron.Cms.Commerce.Exceptions
    .AuthorizationException("Invalid Payment Type");
  CreditCardPayment creditCard = (CreditCardPayment)this.PaymentMethod;
  if (creditCard.ExpirationDate.IsExpired())
    throw new Ektron.Cms.Commerce.Exceptions.Payment.CreditCard
      .CardExpiredException("Card Is Expired");
  IsSubmissionSuccess = true;
  Authorization.AuthorizedOn = DateTime.Now;
  Authorization.TransactionId = new Guid().ToString();
  return Authorization.TransactionId;
}
```

In this example, the card number and card holder name are not checked. In a real world scenario, there would be additional validation (for example, via checksum) and the authorization may be obtained via a Web service or HTTP post.

NOTE: If the authorization fails, you can choose to either throw an exception or manually set the failure. For example:
`SubmissionError = "Not enough Funds";IsSubmissionSuccess = false;`

8. Implement the **AuthorizeAndCapture**, **CapturePreauthorization** and **VoidPreAuthorization** methods you added earlier.
9. **AuthorizeAndCapture** requires that **Authorization.CapturedOn** be set, as the capture occurs at the same time as the Authorization.
10. For **CapturePreauthorization** and **VoidPreAuthorization,** set the appropriate dates for these actions, so they are recorded in the system properly.

```
public override string AuthorizeAndCapture()
{ IsSubmissionSuccess = true;
  Authorization.AuthorizedOn = DateTime.Now;
  Authorization.CapturedOn = DateTime.Now;
  Authorization.TransactionId = new Guid().ToString();
  return Authorization.TransactionId;
}
public override string CapturePreauthorization(string transactionId)
{ IsSubmissionSuccess = true;
  Authorization.CapturedOn = DateTime.Now;
  return Authorization.TransactionId;
}
public override string VoidPreAuthorization(string transactionId)
{ IsSubmissionSuccess = true;
  Authorization.VoidedOn = DateTime.Now;
  return Authorization.TransactionId;
}
```

11. Save and build the project.
12. Copy your project’s DLL file to your Ektron website’s **bin** directory.
13. Register the provider in your site’s `web.config` file. The `web.config` file provides the facility to manage payment gateway providers within Ektron.

14. To do this, locate the **EktronPaymentGateway** section and change the **defaultProvider** parameter to the name of your custom provider. Note that changing this from “Automatic” to the name of your provider overrides the settings in **Workarea > Settings > Commerce > Configuration > Payment Gateways**. Ektronnow will use the new provider.
15. If you start your search from the top of the file, it is the second instance.

```
<EktronPaymentGateway defaultProvider="CustomPaymentProvider">
```

16. Add your custom payment provider between the EktronPaymentGateway’s `<providers>` tags. Note that the name defined here must match the `defaultProvider` from the previous step.

```
<providers>
  <add name="CustomPaymentProvider"
    type="Ektron.Cms.Extensibility.Commerce.Samples.CustomPaymentProvider,
    CustomPaymentProvider" />
</providers>
```

17. Save the `web.config` file.
18. Next, add the payment gateway to the Workarea.
    a. Go to **Workarea > Commerce > Configuration > Payment Options**.
    b. Select **New > Payment Gateway**.
    c. In the Name drop-down, select **customerPaymentProvider**.
    d. Check both **Cards** and **Checks** checkboxes.
    e. Save these changes. Your custom payment provider is now the default provider. Whenever a payment provider needs to be contacted, the information routes through the new custom provider.

Displaying Your Custom Provider an Option in the Workarea

In the example above, you changed the `web.config` file’s EktronPaymentGateway defaultProvider parameter to the name of your custom payment provider. This overrides the payment provider settings in the Workarea. To manage all payment providers from the **Workarea > Settings > Commerce > Configuration > Payment Gateways** screen:

1. In the `web.config` file, locate the **EktronPaymentGateway** section and make sure the **defaultProvider** parameter is set to `Automatic`.

```
<EktronPaymentGateway defaultProvider="Automatic">
```

2. Save the `web.config` file.
3. Navigate to the **Workarea > Settings > Commerce >Configuration > Payment Gateways** screen.
4. Choose **New > Payment Gateway**.
5. From the **Name** drop-down list, select the name of the your new custom gateway.
6. Check the **Default** box if you want this to be the default payment gateway. The default payment gateway is the gateway all payment information is routed through.
7. Enter the **User ID** for this payment gateway. This ID will identify your account with this gateway provider.
8. Enter the password for your account with this gateway provider.

9. If this gateway provider expects additional parameters when contacting it, click the **Expand Custom Values** link and enter those values into the Custom 1 and Custom 2 fields.
10. Click **Save**. The custom gateway provider has been added and can now be managed from the Workarea.

CustomGatewayProvider Code Example

WARNING! Copying, pasting, and using the following code without modification to create a DLL will not result in a working custom payment provider. This code is provided as an outline of what is needed to create an actual custom payment provider.

C#

```
using System;
using System.Collections;
using System.Collections.Specialized;
using System.Configuration.Provider;
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Commerce;
namespace Ektron.Cms.Extensibility.Commerce.Samples
  {
  public class CustomPaymentProvider :
    Ektron.Cms.Commerce.PaymentGatewayProvider
    {
    public CustomPaymentProvider() { }
      public override void Initialize(string name,
      System.Collections.Specialized.NameValueCollection config)
      {
      if (config == null throw new ArgumentNullException(;
      // Assign the provider a default name if it doesn't have one
      if (String.IsNullOrEmpty(name))
      name = CustomPaymentProvider"
      if string.IsNullOrEmpty(config(["description"]))
        {
        config.Remove("description");
        config.Add("description", "CustomPaymentProvider";
        }
        // Call the base class's Initialize method
        base.Initialize(name, config);
        // Throw an exception if unrecognized
          attributes remain
        if (config.Count > 0)
        {
        foreach (string key in config.AllKeys)
          {
          EkException.WriteToEventLog("Unrecognized
            Payment Gateway Provider attribute:
            " + key,
            System.Diagnostics.EventLogEntryType.Warning);
          }
        }
      }
```

```
    public override string Authorize()
    {
    if (PaymentMethod.GetType() != typeof(CreditCardPayment))
      throw new Ektron.Cms.Commerce.Exceptions.
        AuthorizationException("Invalid Payment Type");
      CreditCardPayment creditCard = (CreditCardPayment)
        this.PaymentMethod;
      if (creditCard.ExpirationDate.IsExpired())
      throw new Ektron.Cms.Commerce.Exceptions.Payment.CreditCard.
        CardExpiredException( "Card Is Expired";
      IsSubmissionSuccess = true;
      Authorization.AuthorizedOn = DateTime.Now;
      Authorization.TransactionId = new Guid().ToString();
      return Authorization.TransactionId;
    }
    public override string AuthorizeAndCapture()
      {
      IsSubmissionSuccess = true;
      Authorization.AuthorizedOn = DateTime.Now;
      Authorization.CapturedOn = DateTime.Now;
      Authorization.TransactionId = new Guid().ToString();
      return Authorization.TransactionId;
      }
    public override
      string CapturePreauthorization(string transactionId)
      {
      IsSubmissionSuccess = true;
      Authorization.CapturedOn = DateTime.Now;
      return Authorization.TransactionId;
      }
    public override string VoidPreAuthorization(string transactionId)
      {
      IsSubmissionSuccess = true;
      Authorization.VoidedOn = DateTime.Now;
      return Authorization.TransactionId;
      }
    }
  }
```

Customizing the Shipment Provider

A Shipment Provider is a pluggable component integrated into Ektron's eCommerce module. The Shipping provider handles eCommerce real-time shipping rate retrieval by utilizing third party shipping services such as FedEx or UPS, or you can create your own fixed rate logic. Ektron's eCommerce shipping module calculates the package(s) needed for an order and then passes the following information to the company providing the shipping services via a Shipping Provider.

- **package information**—for example, how many, height, width, depth and weight of each package.
- **warehouse address—**the address from which the items will be shipped. A warehouse's information can be set in the **Workarea > Settings > Commerce > Shipping > Warehouses** screen.

- **destination address**—the shipping address a customer entered when making the purchase.
- **desired shipping options**—for example, if you have Next Day, 2-Day Ground and 3-Day Ground as shipping options, you can pass the option chosen by the customer.

Ektron comes with several shipping providers, including FedEx and UPS. You can customize these providers or create your own using the extendable Shipping Provider architecture.

Your company will need to set up or have an existing account with a third party shipping service before utilizing the shipping provider. This includes shipping providers such as, FedEx or UPS, which are included with Ektron's eCommerce Module.

Each type of shipping provider accepts configuration parameters. For example, FedEx requires a username, password, account number, and meter number while UPS requires a Username, password, and account number. These configuration parameters along with the provider definitions are stored in the `SiteRoot/shipment.config` file. Below is a provider definition example for FedEx.

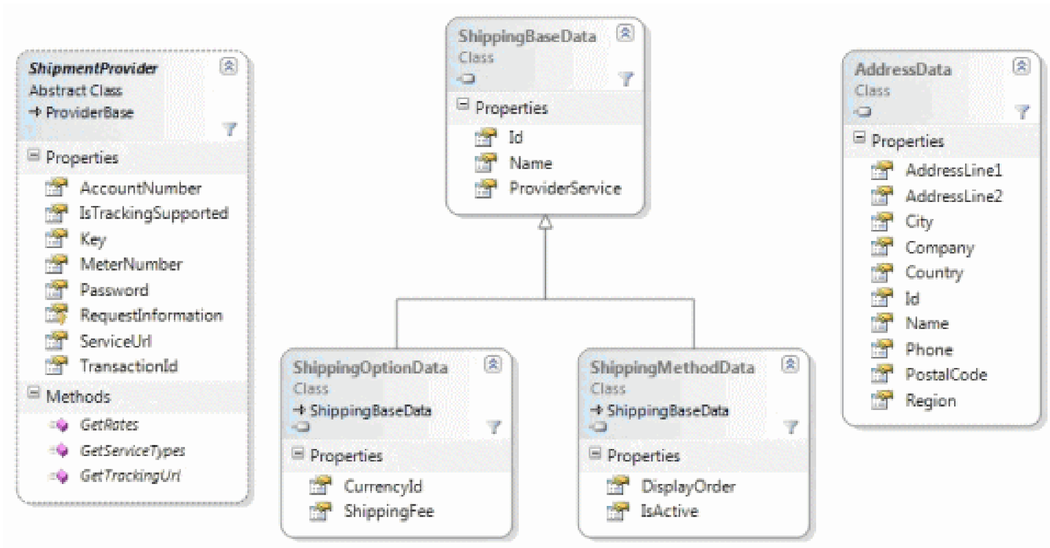
```
<add name="FedExShipmentProvider"
  type="Ektron.Cms.Commerce.Providers.Shipment.FedExShipmentProvider,
  Ektron.Cms.Commerce.Providers"
  serviceUrl="https://gatewaybeta.fedex.com/web-services"
  key="" password=""
  accountNumber=""
  meterNumber=""
  transactionId="Ektron FedEx v3"
```

The following steps show the flow of shipping calculations for a customer purchasing a product from your site.

1. A customer adds 2 books to the cart and clicks checkout.
2. The shipping calculator looks for the smallest possible package that will fit the items.
3. The shipping calculator calls the registered shipping provider for each package in the order.
4. The shipping calculator combines all the rates received if more than one package is being shipped and returns the shipping method rates to the checkout control.
5. The customer selects the desired shipping method and it is saved with the cart.

NOTE: Many Ektron settings affect your shipping calculations. A default warehouse must be defined with a valid shipping address. Shipping methods you would like to offer customers must be defined. For example, the FedEx provider supports over 10 possible shipping methods, but you may only be concerned with Priority, 2 Day, and Ground. This must be defined in Ektron. You can also define the shipping packages your business uses. The Shipping calculator will try and fit the order items into any packages defined in Ektron. If no packages are defined, the item's dimensions are passed to the provider instead.

The following figure shows the Object Model for Ektron’s Shipment Provider.



The ShipmentProvider is the abstract base class you must extend to implement your own Shipping Provider. Details and descriptions of the ShipmentProvider API can be found in the Ektron API Reference Manual's **Providers API > Shipment > Provider > ShipmentProvider**.

Creating a Custom Shipment Provider

In addition to the out-of-the-box shipment providers that come with Ektron, you can create a custom provider that connects with any shipping company you choose. Below are the basic code steps you need to complete when creating a custom shipment provider. Additional code examples used by Ektron to create FedEx, Flat Rate and UPS shipment providers are located in:

```
C:\Program Files\Ektron\CMS400SDK\Commerce\Providers\Commerce.Providers\Shipping
```

The complete C# code sample used in this example is available at the end of this section. See *CustomShipmentProvider Code Example* on page 1461.

1. Create a class library project in Visual Studio.
2. Add references to these DLLs:
```
Ektron.Cms.Commerce
Ektron.Cms.Common
Ektron.Cms.ObjectFactory
Ektron.Cms.Instrumentation
System.Configuration
```
3. Add these using statements to the code-behind:
```
using System.Configuration.
using Ektron.Cms.Commerce.Shipment.Provider;
using Ektron.Cms.Commerce using Ektron.Cms.Instrumentation
```
4. Change the namespace to:
```
namespace Ektron.Cms.Extensibility.Commerce.Samples
{
```
5. Rename your class and inherit as below:
```
public class CustomShipmentProvider : ShipmentPovider
{
```

6. Add the following constructor private variables and properties. The items added to the `shippingOptionList` are the shipping methods exposed as a service type in the management screen inside the Workarea.

```
#region constructor, member variables
public CustomShipmentProvider()
{ IsTrackingSupported = false;
  _shippingOptionList = new List<string>();
  _shippingOptionList.Add("CustomOption_1");
  _shippingOptionList.Add("CustomOption_2");
}
private List<string> _shippingOptionList;
#endregion
```

7. Add the following methods required by the ShipmentProvider base class.
   - **Initialize**—reads configuration information
   - **GetServiceTypes**—returns a List <string> of the shipping options available
   - **GetTrackingUrl**—exposes tracking support
   - **GetRates**—returns a list of shipping rates for the items being shipped. The contents of this method will be added in the next step.

```
#region ShipmentProvider Implementation
public override void
  Initialize(string name,
  System.Collections.Specialized.NameValueCollection config)
{ if (config == null)
  { throw new ArgumentNullException("config");
// Assign the provider a default name if it doesn't have one
  if (string.IsNullOrEmpty(name)) name = "CustomShipmentProvider";
  if (string.IsNullOrEmpty(config["description"]))
    { config.Remove("description"); config.Add("description",
      "CustomShipmentProvider Provider"); }
// Call the base class's Initialize method
    base.Initialize(name, config);
// Throw an exception if unrecognized attributes remain
  if (config.Count == 0) throw new
    ProviderException("Shipment provider attribute missing.");
  else {
//read all config attributes.
    ServiceUrl = config["serviceUrl"];
    Key = config["key"];
    Password = config["password"];
    AccountNumber = config["accountNumber"];
    MeterNumber = config["meterNumber"];
    TransactionId = config["transactionId"];
        }
      }
public override List<string> GetServiceTypes()
  { return _shippingOptionList;
  }
public override string GetTrackingUrl(string trackingId)
  { return "";
  }
public override List
  <ShippingOptionData>GetRates(IEnumerable
  <ShippingMethodData>
```

```
  expectedOptions, AddressData origin, AddressData destination,
  Weight weight, Dimensions dimensions)
  {
 }
#endregion
```

8. Implement the GetRates method. Add this code to public override for GetRates which was added during the previous step. (This example uses flat rates for your shipping methods. In a real world scenario, the shipping methods and their corresponding rates can be obtained via FedEx, UPS, a third party application or a Web service.) When complete, the code should look like this.

```
public override List <ShippingOptionData>
  GetRates(IEnumerable<ShippingMethodData>
    expectedOptions, AddressData origin, AddressData destination,
    Weight weight, Dimensions dimensions)
{ List <ShippingOptionData> availableOptions =
    new List <ShippingOptionData>();
  try
    { foreach (ShippingMethodData expectedOption in expectedOptions)
      { Log.WriteInfo("Custom Shipping Provider.ExpectedOption:" +
        expectedOption.Name);
        switch (expectedOption.ProviderService.ToLower())
        { case "customoption_1": ShippingOptionData customOption1 =
          new ShippingOptionData();
          customOption1.Id = expectedOption.Id;
          customOption1.Name = expectedOption.Name;
          customOption1.ShippingFee = 25.00M;
          customOption1.ProviderService = "CustomOption_1";
          availableOptions.Add(customOption1);
          break;
          case "customoption_2":
            ShippingOptionData customOption2 = new ShippingOptionData();
            customOption2.Id = expectedOption.Id;
            customOption2.Name = expectedOption.Name;
            customOption2.ShippingFee = 50.00M;
            customOption2.ProviderService = "CustomOption_2";
            availableOptions.Add(customOption2);
            break;
        }
      }
    }
  catch (Exception e)
    { Log.WriteError("Custom Shipping Provider: Error retrieving shipping
      rates." + e.Message); throw;
    }
  return availableOptions;
}
```

9. You can use the GetRates method to restrict countries to which you ship. For example, if you want to prevent shipping to all countries except Canada, add these lines of code to the GetRates method.

```
if (destination.Country.Id != 124)
  throw new Ektron.Cms.Commerce.Exceptions.Shipping.InvalidAddressException
  ("We ship only to Canada.");
```

10. Save and build the project.

11. Copy your project’s DLL file to your Ektron website’s **bin** directory.
12. Register the provider in your site’s **shipment.config** file. This file provides the facility to manage shipping providers within Ektron. Locate the **shipmentProvider** section and change the **defaultProvider** parameter to the name of your custom provider.

```
<shipmentProvider defaultProvider="CustomShipmentProvider">
```

13. Add your custom shipping provider between the shipmentProvider’s `<providers>` tags. Note that the name defined here needs to match the name defined as the defaultProvider in the previous step.

```
<providers>
  <add name="CustomShipmentProvider"
    type="Ektron.Cms.Extensibility.Commerce.Samples.CustomShipmentProvider,
      CustomShipmentProvider" serviceUrl="" key="" password=""
      accountNumber="" meterNumber=""
      transactionId="CustomShipmentProvider based transaction" />
</providers>
```

14. Save the `web.config` file.
15. Your custom shipping provider is now the default provider. Whenever you need to obtain shipping rate information, the information routes through the new custom provider.
16. Add the shipping methods that are available for your provider in the **Workarea > Settings > Commerce -> Shipping > Methods** screen.
    a. Select **New > Shipping Method**.
    b. Enter a name. This is what a customer sees during the checkout process. An example is “Ground” or “Next Day”. For this example, use “Custom1”.
    c. Check the **Active** checkbox.
    d. Click **View Options** and select **CustomOption_1** from the list.
    e. Click **Save**).
    f. Repeat this process for the **CustomOption2** shipping method type.

The options are now available in the checkout process, and are shown on the shipping method selection screen.

CustomShipmentProvider Code Example

WARNING! Copying, pasting, and using the following code without modification to create a DLL does not result in a working “real time” shipping provider. This example uses fixed rates and should be modified to meet your needs.

The following code example is used in *Creating a Custom Shipment Provider* on page 1458.

```
using System.Configuration.Provider;
using Ektron.Cms.Commerce.Shipment.Provider;
using Ektron.Cms.Commerce;
using Ektron.Cms.Instrumentation;
namespace Ektron.Cms.Extensibility.Commerce.Samples
{
  public class CustomShipmentProvider : ShipmentProvider
  {
    #region constructor, member variables
```

```
public CustomShipmentProvider()
  {
    IsTrackingSupported = false;
    _shippingOptionList = new List<string>();
    _shippingOptionList.Add("CustomOption_1");
    _shippingOptionList.Add("CustomOption_2");
  }
private List<string> _shippingOptionList;
#endregion
#region ShipmentProvider Implementation
public override void Initialize(string name,
  System.Collections.Specialized.NameValueCollection config)
{
  if (config == null)
    throw new ArgumentNullException("config");
    // Assign the provider a default name if it doesn't have one
  if (string.IsNullOrEmpty(name))
    name = "CustomShipmentProvider";
  if (string.IsNullOrEmpty(config["description"]))
  {
    config.Remove("description");
    config.Add("description", "CustomShipmentProvider Provider");
  }
// Call the base class's Initialize method
base.Initialize(name, config);
// Throw an exception if unrecognized attributes remain
if (config.Count == 0)
  throw new ProviderException("Shipment provider attribute missing.");
else
  {
    //read all config attributes.
    ServiceUrl = config["serviceUrl"];
    Key = config["key"];
    Password = config["password"];
    AccountNumber = config["accountNumber"];
    MeterNumber = config["meterNumber"];
    TransactionId = config["transactionId"];
  }
}
public override List<string> GetServiceTypes()
{
  return _shippingOptionList;
}
public override string GetTrackingUrl(string trackingId)
{
  return "";
}
public override List<ShippingOptionData>
  GetRates(IEnumerable<ShippingMethodData>
    expectedOptions, AddressData origin, AddressData destination,
    Weight weight, Dimensions dimensions)
{
  List<ShippingOptionData> availableOptions = new List<ShippingOptionData>();
  try
  {
    foreach (ShippingMethodData expectedOption in expectedOptions)
```

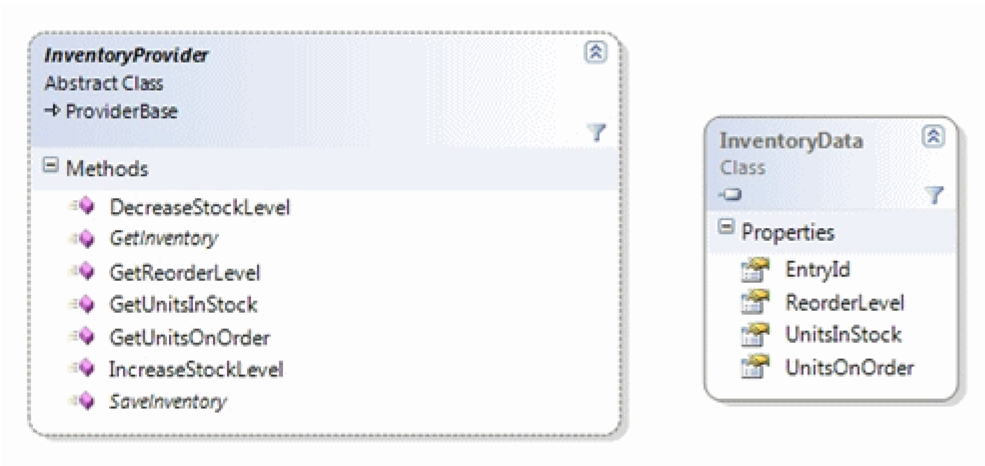
```
        {
        Log.WriteInfo("Custom Shipping Provider.ExpectedOption:"
          + expectedOption.Name);
        switch (expectedOption.ProviderService.ToLower())
        {
          case "customoption_1":
            ShippingOptionData customOption1 = new ShippingOptionData();
            customOption1.Id = expectedOption.Id;
            customOption1.Name = expectedOption.Name;
            customOption1.ShippingFee = 25.00M;
            customOption1.ProviderService = "CustomOption_1";
            availableOptions.Add(customOption1);
            break;
          case "customoption_2":
            ShippingOptionData customOption2 = new ShippingOptionData();
            customOption2.Id = expectedOption.Id;
            customOption2.Name = expectedOption.Name;
            customOption2.ShippingFee = 50.00M;
            customOption2.ProviderService = "CustomOption_2";
            availableOptions.Add(customOption2);
            break;
        }
        }
      }
      catch (Exception e)
      {
        Log.WriteError("Custom Shipping Provider:
          Error retrieving shipping rates." + e.Message);
        throw;
      }
      return availableOptions;
    }
    #endregion
  }
}
```

Customizing the Inventory Provider

An Inventory Provider is a pluggable component that’s integrated into Ektron's eCommerce module. An Inventory Provider handles the retrieving and updating of inventory information for products within Ektron. Out of the Box, Ektron comes with a default Ektron Inventory Provider that tracks inventory within its database.

If your business has an Accounting or Enterprise Resource Management solution that manages inventory, you can create a custom Inventory Provider that retrieves and updates inventory information directly from that system. Inventory data can be stored in any number of locations, including databases, ERP or CRM systems, or even XML files.

The following figure shows the Object Model for Ektron’s Inventory Provider.



The InventoryProvider is the abstract base class you must extend to implement your own Inventory Provider. Details and descriptions of the InventoryProvider API can be found in the Ektron API Reference Manual's **Providers API > Inventory > Provider > InventoryProvider**.

Creating a Custom Inventory Provider

In addition to the out-of-the-box inventory provider that comes with Ektron, you can create your own custom provider that connects with an existing inventory system. Below are the basic code steps you need to complete when creating a custom inventory provider. A code example for the inventory provider used by Ektron is located in:

```
C:\Program Files\Ektron\CMS400SDK\Commerce\Providers\Commerce.Providers\Inventory
```

The complete C# code sample used in this example is available at the end of this section. See *CustomInventoryProvider Code Example* on the facing page.

1. Create a class library project in Visual Studio.
2. Add references to these DLLs:
   - Ektron.Cms.Commerce
   - Ektron.Cms.Common
   - Ektron.Cms.ObjectFactory
   - System.Configuration
3. Add these using statements to the code-behind.
   ```
   using Ektron.Cms.Commerce.Inventory.Provider;
   using Ektron.Cms.Commerce.Data;
   using Ektron.Cms.Commerce; using Ektron.Cms.Common;
   using Ektron.Cms.Extensibility;
   using Ektron.Cms.Extensibility.Commerce;
   ```
4. Change the namespace to:
   ```
   Ektron.Cms.Extensibility.Commerce.Samples {
   ```
5. Rename your class and inherit as below:
   ```
   CustomInventoryProvider InventoryPovider
   ```
6. Add the following constructor, private variables and properties.
   ```
   Public CustomInventoryProvider() { } private CmsInventory _inventory;
   protected CmsInventory Inventory
   ```

```
  { get
    { if (_inventory == null)
      { _inventory = CmsInventory(RequestInformation);
      } return_inventory;
    }
  }
```

7. Override the following methods. These methods area called when the inventory system is queried.
   - **GetInventory**—returns an InventoryData data class for a given product id.
   - **SaveInventory**—persists updates to the stock levels inside the inventory system.

     In this example, we trigger Ektron extensibility events, such as `OnBeforeInventorySave()` and `OnAfterInventorySave()`. In a real world scenario, your existing inventory system may have its own inventory events that are used.

```
public override InventoryData GetInventory (long entryId)
  { return Inventory.GetInventory(entryId); }
public override void SaveInventory(InventoryData inventory)
  { OnBeforeInventorySave(inventory);
    Inventory.SaveInventory(inventory);
    OnAfterInventorySave(inventory);
    if (inventory.UnitsInStock < inventory.ReorderLevel)
      { OnInventoryReorderLevelReached(inventory); }
  }
```

8. Save and build the project.
9. Copy your project’s DLL file to your Ektron website’s **bin** directory.
10. Register the provider in your site’s `web.config` file. The `web.config` file provides the facility to manage inventory providers within Ektron. Locate the **InventoryProvider** section and change the **defaultProvider** parameter to the name of your custom provider. If you start your search from the top of the file, it will be the second instance.

```
<inventoryProvider defaultProvider="CustomInventoryProvider">
```

11. Add your custom payment provider between the EktronPaymentGateway’s `<providers>` tags. Note that the name defined here needs to match the name defined as the defaultProvider in the previous step.

```
<providers>
  <add name="CustomInventoryProvider"
    type="Ektron.Cms.Extensibility.Commerce.Samples.CustomInventoryProvider,
    CustomInventoryProvider"/>
</providers>
```

12. Save the `web.config` file.

Your custom inventory provider is now the default provider. Whenever the inventory is queried, the call routes through the new custom provider.

CustomInventoryProvider Code Example

WARNING! Copying, pasting, and using the following code without modification to create a DLL does not result in a working “real time” shipping provider. This example uses fixed rates and should be modified to meet your needs.

C# The following code example is used in *Creating a Custom Inventory Provider* on page 1464.

```
using Ektron.Cms.Commerce.Inventory.Provider;
using Ektron.Cms.Commerce.Data;
using Ektron.Cms.Commerce;
using Ektron.Cms.Common;
using Ektron.Cms.Extensibility;
using Ektron.Cms.Extensibility.Commerce;
namespace Ektron.Cms.Extensibility.Commerce.Samples
  {
    public class CustomInventoryProvider : InventoryProvider
    {
      public CustomInventoryProvider() { }private CmsInventory _inventory;
      protected CmsInventory Inventory
      {
        get
        {
          if (_inventory == null)
          {
            _inventory = new CmsInventory(RequestInformation);
          }
        return _inventory;
        }
      }
      public override InventoryData GetInventory(long entryId)
      {
        return Inventory.GetInventory(entryId);
      }
      public override void SaveInventory(InventoryData inventory)
      {
        OnBeforeInventorySave(inventory);
        Inventory.SaveInventory(inventory);
        OnAfterInventorySave(inventory);
        if (inventory.UnitsInStock < inventory.ReorderLevel)
        {
          OnInventoryReorderLevelReached(inventory);
        }
      }
    }
  }
```

Customizing Shipping Calculations

The shipping system provides an easy and extensible way to override the shipping calculations inside Ektron. This example sets up a custom shipping calculator to get shipping rates with a different source location for a class of products. It has 2 major parts.

- *Creating the Calculator Code* below
- *Registering the Event with the System* on page 1471

Creating the Calculator Code

1. Create a class library project in Visual Studio named `Commerce.CustomShippingCalculator`. You need to import the necessary Ektron namespaces. To do this, add references to:
   - `Ektron.Cms.Api`
   - `Ektron.Cms.Commerce`
   - `Ektron.Cms.Common`
   - `Ektron.Cms.Instrumentation`
   - `Ektron.Cms.ObjectFactory`
   - `Microsoft.Practices.EnterpriseLibrary.Validation`
   - `System.Configuration`
2. Add the following using statements.
```
using System.Collections.Generic;
using Microsoft.Practices.EnterpriseLibrary.Validation;
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Commerce;
using Ektron.Cms.Commerce.Shipment.Provider;
using Ektron.Cms.Extensibility;
using Ektron.Cms.Extensibility.Commerce;
using Ektron.Cms.Instrumentation;
using Ektron.Cms.Commerce.Exceptions;
using Ektron.Cms.Commerce.Exceptions.Shipping;
```
3. Change the namespace to `Ektron.Cms.Extensibility.Commerce.Samples`. Then, rename your class to `CustomShippingCalculator` and inherit from the `ShippingCalculatorStrategy` class. See sample code below.
```
namespace Ektron.Cms.Extensibility.Commerce.Samples
  { public class CustomShippingCalculator : ShippingCalculatorStrategy
  {
```
4. Add a few helper variables, properties, and functions. The function `GetFlatPackageList` "flattens" the items in the basket, returning 1 for each item quantity. So, if we have 4 widgets, we'll have 4 packages, each with one widget.
5. The following logic fits the goods into packages, adding a function to get another warehouse location. (It is hard-coded in this example.)
```
namespace Ektron.Cms.Extensibility.Commerce.Samples
{ public class CustomShippingCalculator : ShippingCalculatorStrategy
  { private EkRequestInformation _requestInfo;
    private IShippingMethod _shippingService;
    protected EkRequestInformation RequestInformation
    { get
      { if (_requestInfo == null)
        { _requestInfo =
          ObjectFactory.GetRequestInfoProvider().GetRequestInformation();
        }
        return _requestInfo;
      }
    }
  }
  protected IShippingMethod ShippingService
  { get
    { if (_shippingService == null)
```

```
      { _shippingService = ObjectFactory.GetShippingMethod();
      }
      return _shippingService;
    }
  }
  protected List<ShippingMethodData> GetActiveShippingMethodList()
  { Criteria<ShippingMethodProperty>
    criteria = new Criteria<ShippingMethodProperty>
      (ShippingMethodProperty.DisplayOrder,
      EkEnumeration.OrderByDirection.Ascending);
    criteria.AddFilter(ShippingMethodProperty.IsActive,
      CriteriaFilterOperator.EqualTo, true);
    return ShippingService.GetList(criteria);
  }
  protected List<ShippingPackageData>
    GetFlatPackageList(List<AdjustedBasketItem> basketItems)
  { List<ShippingPackageData> flatList = new List<ShippingPackageData>();
    foreach (AdjustedBasketItem item in basketItems)
    { if (item.IsTangible)
      { for (int x = 1; x <= item.Quantity; x++)
        { ShippingPackageData package =
          new ShippingPackageData(item.Dimensions, item.Weight);
          package.Items.Add(item);
          flatList.Add(package);
        }
      }
    }
    return flatList;
  }
  private AddressData GetWarehouseAddressData()
  { AddressData address = new AddressData();
    address.Name = "Ektron";
    address.AddressLine1 = "542 Amherst St.";
    address.City = "Nashua";
    address.Country = new CountryData();
    address.Country.Id = 840;
// USA
    address.Region = new RegionData();
    address.Region.Id = 31;
// NH
    address.PostalCode = "03063";
    return address;
  }
}
```

6. Override the `OnBeforeCalculate` method, which is called when shipping is calculated for the basket.

```
public override void OnBeforeCalculate(BasketCalculatorData basketData,
  ShippingMethodData shippingMethod, CancellableEventArgs eventArgs) { }
```

7. In this method, add code to ship items with a tax class id of 4 from another warehouse, versus the default one specified (`package.Items[0].TaxClassId == 4`).

```
public override void OnBeforeCalculate(BasketCalculatorData basketData,
  ShippingMethodData shippingMethod, CancellableEventArgs eventArgs))
  { bool hasTangibles = basketData.Basket.HasTangibleItems;
    List<ShippingMethodData>
```

```
      availableShippingMethods = GetActiveShippingMethodList();
    List<ShippingPackageData>
      shippingPackages = GetOrderPackages(basketData.AdjustedItems);
//convert list of items into flat list - all 1 quantity.
  List<ShippingPackageData>
    shippingPackages = FlattenItemsIntoPackages(basketData.AdjustedItems);
    if (shippingPackages.Count == 0)
      { Log.WriteInfo("No packages to calculate shipping for.");
        return;
      }
      Dictionary<string, int> rateCount = new Dictionary<string, int>();
//Get Rate for each package
  foreach (ShippingPackageData package in shippingPackages)
    { List<ShippingOptionData> shippingRateList;
      Log.WriteVerbose(string.Format("Shipping package:
      {0} x {1} x {2} {3}, {4} {5}", package.Dimensions.Height,
      package.Dimensions.Length, package.Dimensions.Width,
      package.Dimensions.Units.ToString(), package.TotalItemWeight.Amount,
      package.TotalItemWeight.Units.ToString()));
//Get rate for each available option and populate the
// BasketCalculatorData.ShippingRates list.
  if (package.Items[0].TaxClassId == 4) shippingRateList =
    ShipmentProviderManager.Provider.GetRates(availableShippingMethods,
    GetWarehouseAddressData(), basketData.ShipTo, package.TotalItemWeight,
    package.Dimensions);
  else shippingRateList = ShipmentProviderManager.Provider.GetRates
    (availableShippingMethods, basketData.ShipFrom, basketData.ShipTo,
    package.TotalItemWeight, package.Dimensions);
    if (shippingRateList.Count == 0)
      { EkException.ThrowException(new NoRatesAvailableException
        ("No shipping rates are available for the supplied item."));
      }
//add rates to basket.ShippingRates
  foreach (ShippingOptionData rate in shippingRateList)
    {
//if there are multiple packages, we need to total up rates for each
//shipping method.
//NOTE: we can only return rates that are applicable to ALL packages.
//For example, package 1 has rates for ground, priority, freight
// package 2 has rates for ground, priority
//only return rates for ground and priority since freight will only be
//a partial quote.
//check if this shipping method has already been added.
      ShippingOptionData existingMethodRate =
        basketData.ShippingRates.Find(delegate(ShippingOptionData match)
        { return match.ProviderService == rate.ProviderService; });
      if (existingMethodRate == null)
        { basketData.ShippingRates.Add(rate); }
      else
        { existingMethodRate.ShippingFee += rate.ShippingFee; }
//need to keep count of how many times this shipping method rate is added
//to make sure we have a method rate for each package.
      if(rateCount.ContainsKey(rate.ProviderService))
        { rateCount[rate.ProviderService]++; }
      else
```

```
        { rateCount.Add(rate.ProviderService, 1); }
    }
  }
//default exchange rate
  ExchangeRateData exchangeRate = new ExchangeRateData(0, 0, 1m, null);
  if (basketData.ShippingRates.Count > 0
    && basketData.ShippingRates[0].CurrencyId
    != RequestInformation.CommerceSettings.CurrencyId)
    { IExchangeRate rateService = ObjectFactory.GetExchangeRate();
      exchangeRate = rateService.GetCurrentExchangeRate();
      if (exchangeRate == null)
        { Log.WriteError(string.Format("No exchange rate found for
          current currency {0}. Shipping rates could not be converted
          to current currency.",
          RequestInformation.CommerceSettings.CurrencyId));
          EkException.ThrowException(new CmsException(string.Format
           ("No exchange rate found for current currency {0}. Shipping
           rates could not be converted to current currency.",
           RequestInformation.CommerceSettings.CurrencyId)));
        }
    }
//go through all shipping methods and remove any that don't have rates
//for packages.
  for(int x = 0; x < basketData.ShippingRates.Count; x++)
    { bool removed = false;
    if(rateCount[basketData.ShippingRates[x].ProviderService]
      < shippingPackages.Count)
      { basketData.ShippingRates.RemoveAt(x); x--;
//need to decrement loop counter so we don't skip any as we loop through
        removed = true;
       }
       if (!removed)
         { if (basketData.ShippingRates[x].CurrencyId
           != RequestInformation.CommerceSettings.CurrencyId)
           {
//if shipping rate currency is not current currency, convert it
             basketData.ShippingRates[x].ShippingFee
     = exchangeRate.ConvertPrice(basketData.ShippingRates[x].ShippingFee);
           }
//is this the selected shippingmethod for basket? If so, set shipping cost
//on basket
  if (shippingMethod != null
    && shippingMethod.ProviderService
    == basketData.ShippingRates[x].ProviderService)
    { basketData.TotalShippingCost
      += basketData.ShippingRates[x].ShippingFee;
    }
  }
}
if (basketData.ShippingRates.Count == 0 && hasTangibles)
  { basketData.ValidationResults.AddResult(new ValidationResult
    ("No shipping rates are available for the supplied item.", this,
      "", "", null)); } eventArgs.IsCancelled = true;
  }
```

8. When shipping is calculated for the basket, the above function runs first. Setting the `IsCancelled` property to true on `eventArgs` instructs Ektron to stop further execution of the shipping calculations. This, in effect, overrides the shipping functionality.
9. Build the project, and copy the assembly into the Ektron site's bin directory.

Registering the Event with the System

After you create the event assembly and place it inside the bin directory, you need to register the event. Use the `objectfactory.config` file to register custom events within Ektron. To do that:

1. Open the *siteroot*/`objectfactory.config` file.
2. Find the `objectStrategies` section of the file.
3. Within that section, locate or add this key: `name="ShippingCalculator"`.
4. Add a reference to the class created earlier in the `<strategies>` key, as shown below.

```
<objectStrategies>
  <add name=ShippingCalculator">
<strategies>
  <add name="CustomShippingCalculator"
  type="Ektron.Cms.Extensibility.Commerce.Samples.CustomShippingCalculator,
  Commerce.CustomShippingCalculator"/>
</strategies>
</add>
</objectStrategies>
```

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31

Synchronizing Servers Using eSync

Ektron's eSync keeps websites up-to-date efficiently. From single sites, global multi-sites, and server farms, eSync provides scalable, geo-synchronization capabilities that let you easily update exactly what you want, when you want to update it. The following video introduces eSync: eSync—Website Synchronization With Ektron.

Ektron's eSync lets users update content anywhere safely by employing certificate-based authentication to secure your website, whether it is on a production server or a development environment. Also, your updates can take place on the safe side of your firewall before being moved to the live site. Within complex IT infrastructures, eSync can synchronize content, assets, HTML pages and other website components, whether they are managed by Ektron or not.

eSync efficiently makes updates and eliminates site downtime by moving only the changes you want to move; single pieces of content to entire sites. With its intelligent synchronization technology, eSync securely moves selected content bidirectionally: Web 2.0 sites have a wealth of user-generated content and membership information which can be synchronized back to the development side of the firewall. To track changes to Ektron data between syncs, eSync sets up a `c:\sync` folder structure that mirrors your site's Windows folder structure. This structure is created on each server when sync relationships are first established. No Ektron files reside in the `\sync` folders. Instead, each folder has four `.sync` files that monitor changes to Ektron files in the corresponding folder.

eSync manages content dependencies. Ektron content can reference other files, such as images. eSync automatically handles the synchronizing of such *content dependencies*, so you do not need to worry about these extra files. *Adjusting Relationship Settings* on page 1533 explains how to control content dependency sync.

You can synchronize at any time with single or multiple servers; strategic times that assure optimal performance, while facilitating site updates; low-traffic times to coordinate global multi-site setups. You also can schedule time-sensitive events.

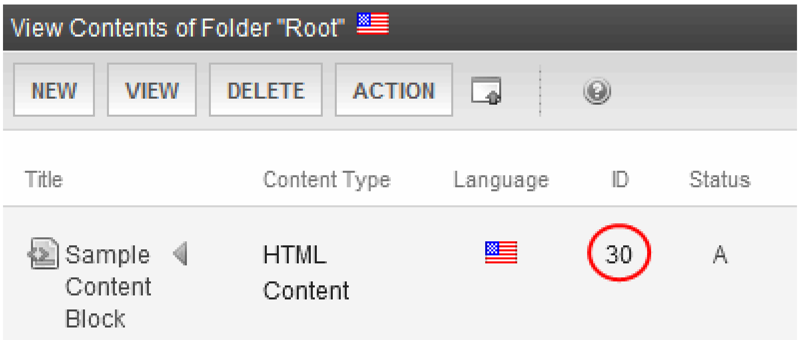
If conflicting versions of content exist, eSync's configurable conflict resolution engine ensures that you will not lose your most recent content. The version that isn't posted is saved in a history log (along with other previous versions), letting you track changes or restore if the need arises.

If you have multiple development servers, eSync can create a copy of the live site to work with. As your developers changes the site, their updates can by synchronized to the staging and production servers. eSync also can support advanced infrastructures, including load balancing and failover server configurations.

Every server in a sync relationship is assigned a unique number. The originating server is 1, the first server with which it establishes a relationship is 2, and so on. The server number is stored in the `c:\sync\serverinfoXX.xml` file.

```
<SyncServerInfoList>
  <SyncServerInfo IsSyncRunning="false" Migrated="false" MaxId="2" ServerNumber="1" ...
```

All Ektron data is assigned a unique ID number to distinguish it from similar objects. Examples are content (see illustration), folders, menus, users, and so on.



When you create a sync relationship, Ektron applies a new ID numbering range to each server to ensure that, from then on, objects created on either server have a unique ID. This prevents collisions when synchronizing between servers. For example, since membership users created on a production server have a different ID number range from those created on the staging server, eSync does not overwrite them.

To view a server's ID number range, open its `C:\sync\serverinfoXX.xml` file, and check the `MaxId` value as shown in the following example.

```
<SyncServerInfoList>
  <SyncServerInfo IsSyncRunning="true" MaxId="2" ServerNumber="1"....
```

Multiply that number by 1 trillion to get the largest ID number which that server can assign. For example, if `MaxId` = 3, ID numbers range from 2,000,000,000,001 to 3,000,000,000,000.

Setting Up eSync

This section explains several scenarios for installing and setting up eSync.

- *Scenario 1: Synchronizing 2 Sites on the Same Server* on page 1480
- *Scenario 2: Synchronizing a Local Server with a Remote Server* on page 1483
- *Scenario 3: Setting up a Development > Staging > Production Environment* on page 1493

Prerequisites for Using eSync

To use eSync, you must have the following:

- Ektron software and files
    - Ektron Version 8.5 or higher

      IMPORTANT: The version of Ektron on every server in the sync relationship must match. You cannot upgrade nor downgrade Ektron using eSync.

    - An Ektron base installation file (for example, `cms400Base8x.exe`). Use to install a second site with which to sync your current site.
    - Ektron licenses that support Enterprise or Professional with eSync on every server being synched
    - Matching security certificates on every server being synched See Also: *Managing eSync Security Certificates* on page 1521

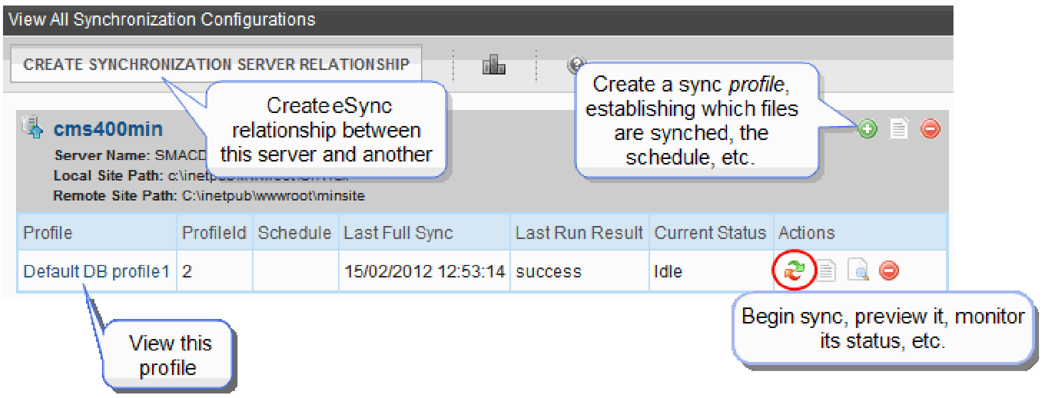
- Microsoft Software
  - See Ektron System Requirements
  - Microsoft Sync Framework 2.1

    NOTE: It is not a problem if your templates were created using the 2.0 Framework.

  - Database servers may use different SQL server versions. (For example, your development server uses SQL 2008 Express, and your production server uses SQL Server 2008 R2.)
- User Permissions
  - You are a member of the Ektron Administrators group or assigned the Synchronization Admin role. See Also: *Defining Roles* on page 1120
  - The user performing the sync is assigned the following SQL database roles
    - db_owner (needed for initial sync only; after that is complete, you may remove this role)
    - db_datawriter
    - db_executor (created by Ektron installer when setting up database)
    - db_ddladmin
    - db_datareader
- Server
  - GMT time on each server's clock must be within 5 minutes of each other.

Characteristics of eSync

You administer eSync through the **Workarea > Settings > Configuration > Synchronization> Profiles** screen. The screen lets you establish a sync *relationship* between 2 websites, then specify any number of sync *profiles* for each relationship.



A profile lets you specify data to sync, a direction, and a schedule. You can sync immediately by clicking **Sync** ( ).

You create profiles to sync these kinds of data.

- database objects (content, menus, users, and so on).
- Workarea folder files
- remaining site files

File types or individual files can be included or excluded from a sync profile. Alternatively, you can sync content or folders. See Also: *Synchronizing Content and Folders* on page 1537

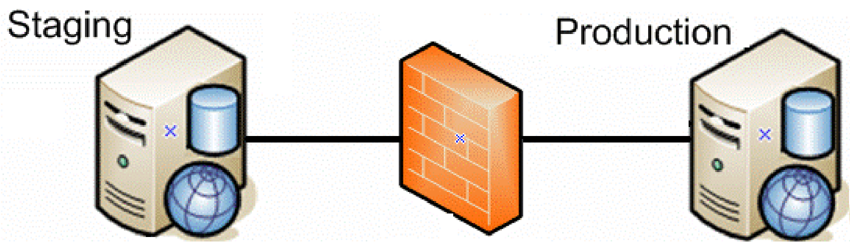
Sync Relationships

You can synchronize any server to or from any other server with one important exception: *you cannot initiate a sync from a server outside the firewall*. You can only initiate a sync from a server inside the firewall because an outside server does not know the address of servers inside the firewall. However, your staging server can push to and pull from a production server.

IMPORTANT: All eSync transmissions use port 8732. This is not configurable.

Relationship 1: One Staging Server, One Production Server

The most basic eSync relationship involves a staging and a production server. Each server has a database and one site.

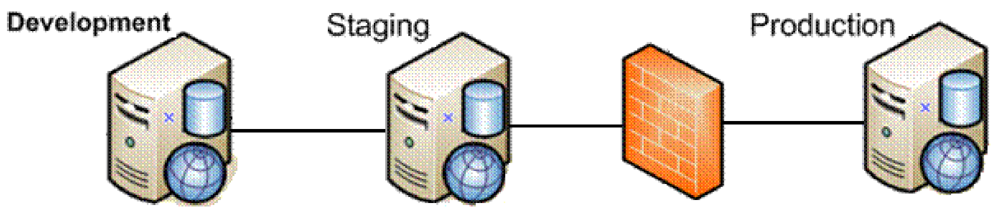


eSync can automatically create a production server from your staging server. See Also: *Initializing a New Site* on page 1480

For installation instructions for this relationship, see *Scenario 2: Synchronizing a Local Server with a Remote Server* on page 1483.

Relationship 2: One Development, One Staging, One Production Server

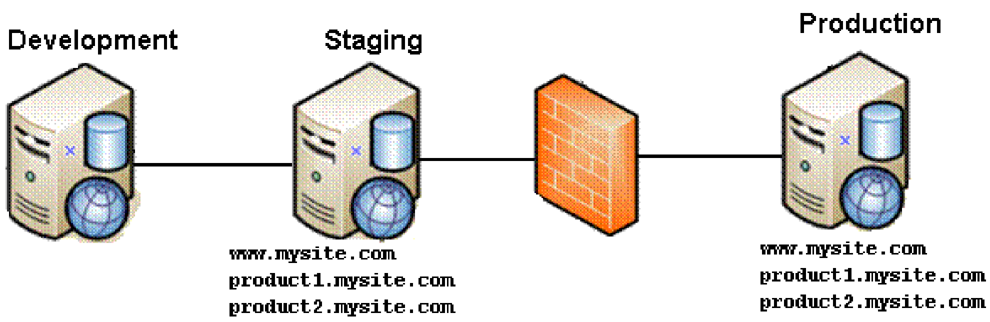
This relationship includes a development server. Developers can use it to create new features and modify existing ones. When they are done, they can sync changes to the staging server, where they can be verified before being moved to production.



For installation instructions for this relationship, see *Scenario 3: Setting up a Development > Staging > Production Environment* on page 1493.

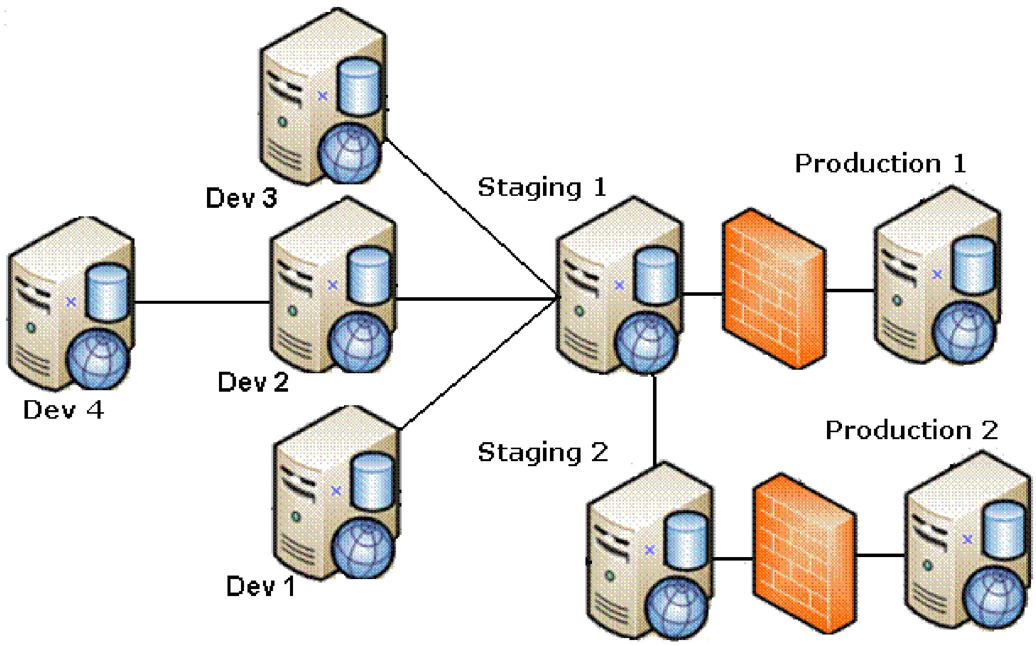
Relationship 2a: Multi-site Staging and Production Servers

The following relationship illustrates synchronizing several sites on a staging server with those sites on production.



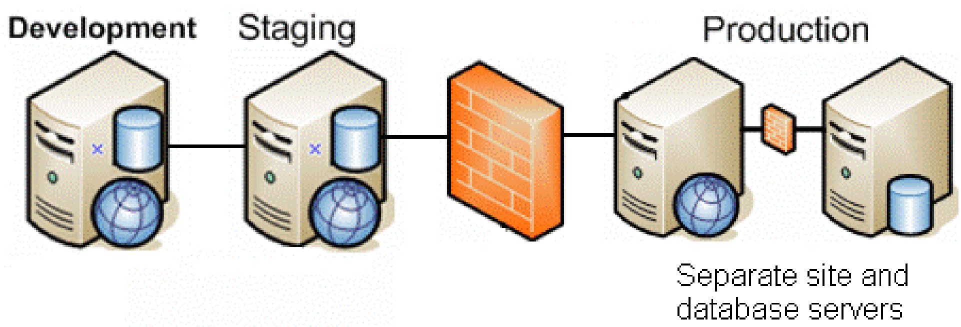
Relationship 3: Several Dev. Servers, One Staging, One Production Server

As shown in the illustration, any number of development servers can sync to each other and your staging and production servers.



Relationship 4: One Dev., One Staging, One Production Site, One Production DB Server

In this relationship, the production site has 2 servers: one for site files, and another for the database.

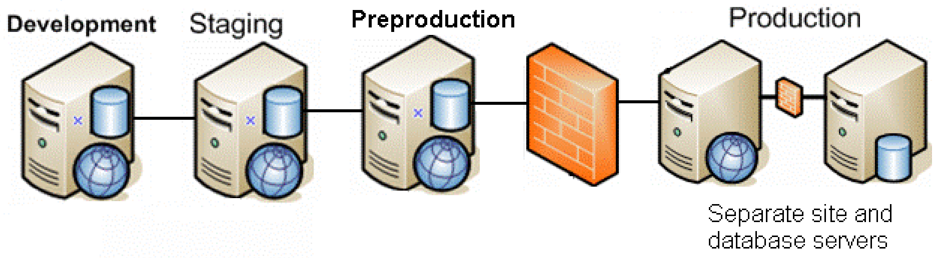


To synchronize these servers, set up several eSync profiles. One syncs the database, assets, and templates to the production database server. Another profile syncs the staging server's Workarea files with the production site server.

NOTE: When using separate site and database servers, assets are stored on the site server.

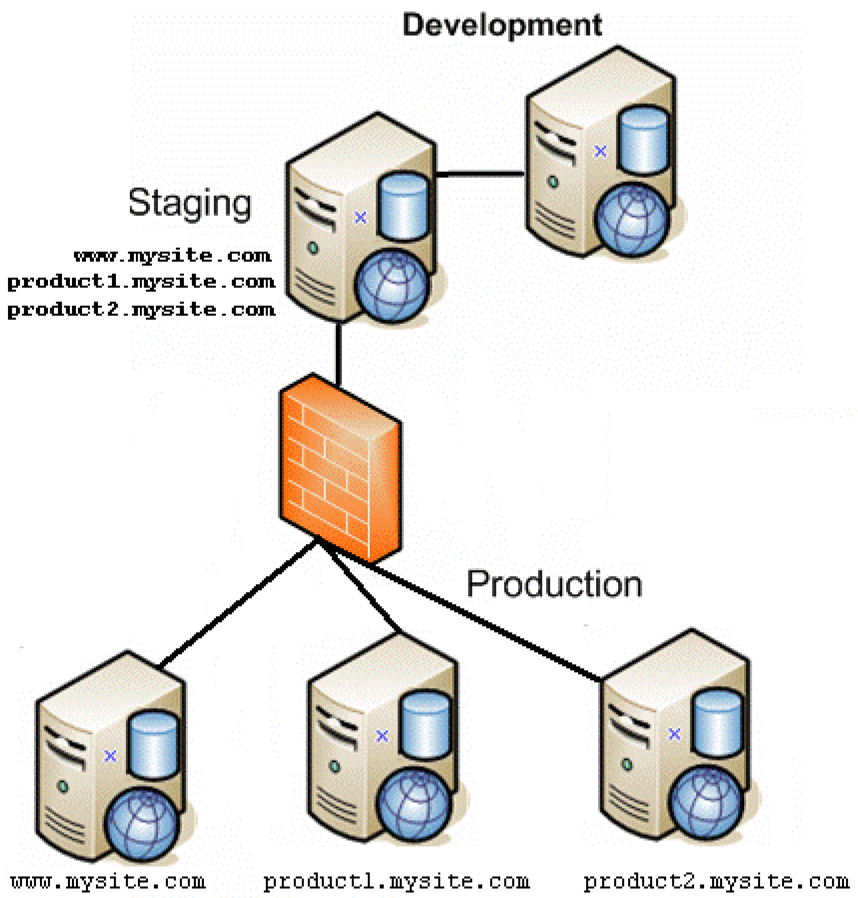
Relationship 5: Relationship 4 Plus Pre-Production Server

This relationship adds a server between staging and production. The preproduction server can be used for review and testing of changes before they are moved to production.



Relationship 6: Multi-site: Each Site and DB on own Production Server

In this relationship, each production server has its own database plus the site files. As an alternative, you could have a separate server for each production database, with all sites on one production server.



NOTE: The above relationship also supports separate site and database servers.

To synchronize this type of relationship, set up several eSync profiles, one for each site.

- 3 database and template profiles
- 3 Workarea profiles

Initializing a New Site

Typically, before you begin using eSync, one server hosts an Ektron website, and you want to bring other servers into the relationship. After the servers are synchronized, one is the *staging server*, the one on which content is created or updated, then published. Another server, *production*, hosts your live website.

IMPORTANT: The names of the site and all folders *must* match on both servers. This is because paths to images, XSLT files, and so on, refer to a site and its folders. If the names do not match, the links break.

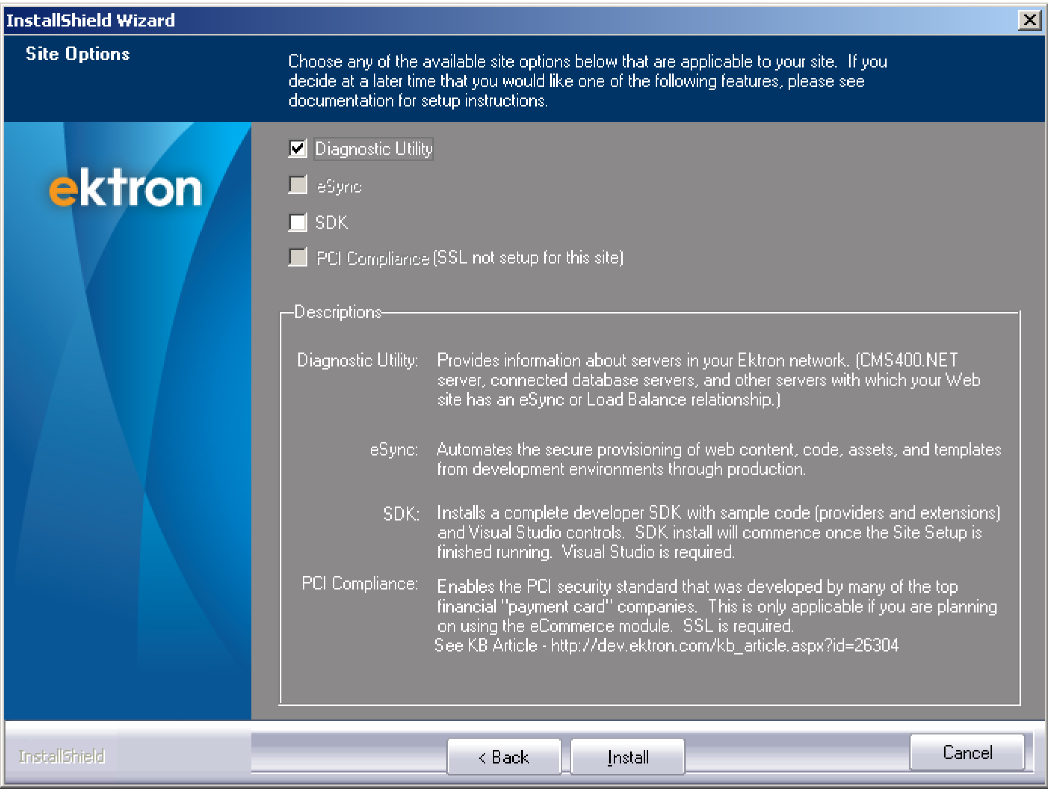
First, use eSync to initialize new servers from the existing one. Afterwards, use eSync to periodically sync updated content, folders, users, menus, and so on.

Scenario 1: Synchronizing 2 Sites on the Same Server

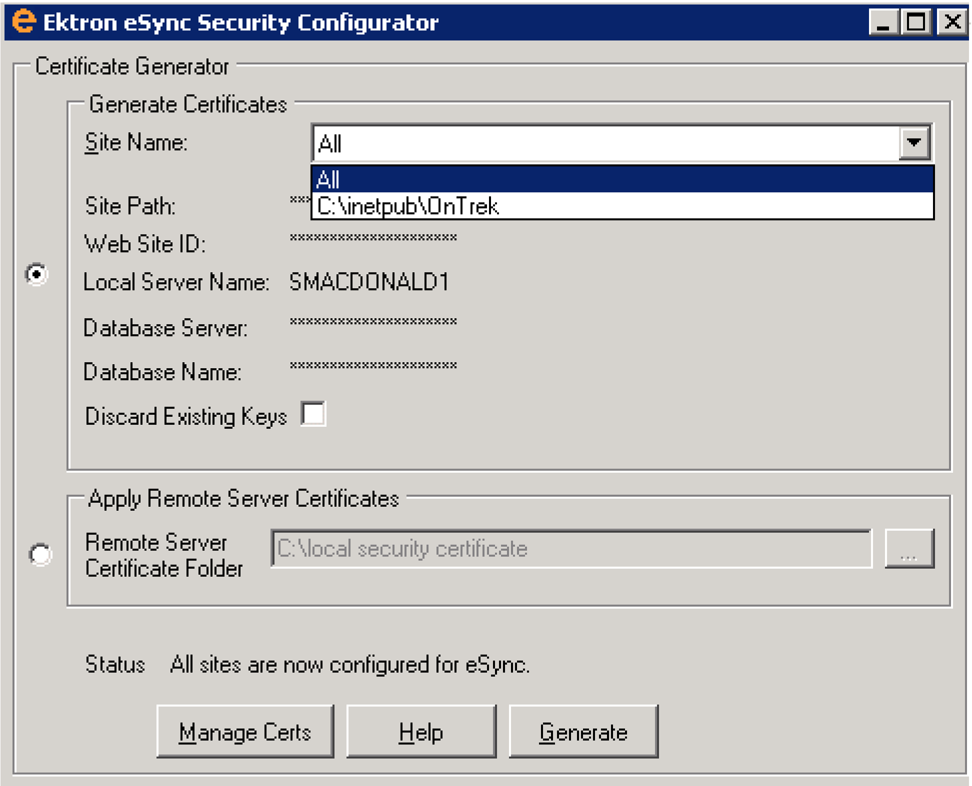
It is unlikely that you will use this relationship in “real-life” situations, but it provides the simplest way to begin testing and learning eSync.

IMPORTANT: Only use this scenario in a test environment. For a live environment, use either *Scenario 2: Synchronizing a Local Server with a Remote Server* on page 1483 or *Scenario 3: Setting up a Development > Staging > Production Environment* on page 1493.

1. Log into your Ektron server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Begin to install the first site. See Also: *Installing Ektron* on page 9.
3. During installation, the following dialog appears. Check **eSync**.



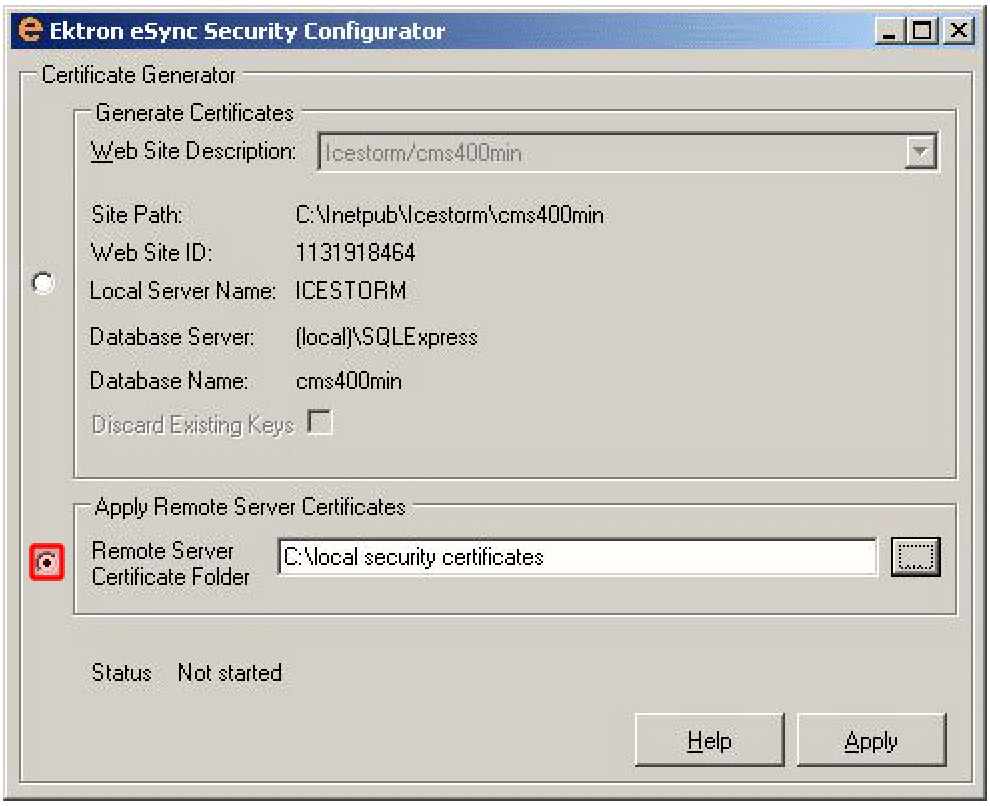
4. Near the end of the installation, the following dialog appears.



   a. At the **Site Name** drop-down, select the site you just installed.
   b. Check the radio button next to **Generate Certificates**.
   c. Click **Generate**.
5. Install a second site on the same server, again using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.

   IMPORTANT: Install both sites to a physical folder relative to the root folder. Do not install one site to a physical folder relative to the root folder and the other site to a virtual directory.

6. Repeat Steps 2 and 3 above for the second site.
7. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The security configurator screen appears.



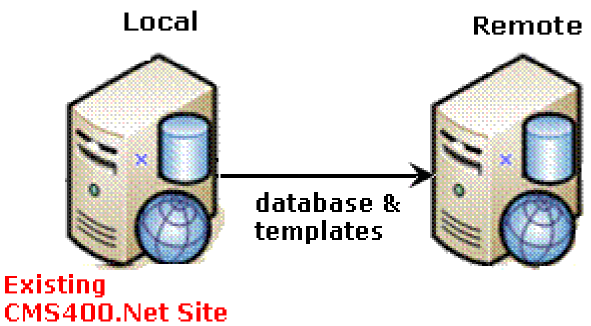
8. In the **Web Site Description** drop-down, select the first site.
9. Click **Apply Remote Server Certificates**.
10. Click **Browse** next to that field.
11. Browse to `C:\Program Files (x86)\Ektron\CMS400vxx\Utilities\SOFTWARE\SecurityConfigurator`.
12. Click **Apply**.

NOTE: Ektron Windows Services stop and restart at this point.

13. Repeat Step 7 through 11 for the second site.

Now that both sites' security certificates are configured, continue from *Part 3: Connect Local and Remote Servers* on page 1487.

Scenario 2: Synchronizing a Local Server with a Remote Server



To sync a local to a remote server, install a minimal Ektron site to a new, remote server. Next, use eSync to upload your Ektron site from the local to the remote server. After the you complete the initial and template syncs explained in this chapter, the 2 sites are mirror images of each other.

Follow these steps to configure 2 servers to sync with each other.

PREREQUISITE

See *Prerequisites for Using eSync* on page 1475

Here’s a preview of the steps you will follow.

- *Part 1: Set up a Min Site on the Remote Server* below
- *Part 2: Generate and Copy Security Certificates* below
- *Part 3: Connect Local and Remote Servers* on page 1487
- *Part 4: Upload the Local Server’s Database and Resources to the Remote Server* on page 1488
- *Minimizing the Time of the Initial Sync* on page 1490
- *Part 5: Upload Local Server’s Templates to Remote Server* on page 1491

Part 1: Set up a Min Site on the Remote Server

1. Upgrade the local server to the latest version of Ektron if necessary.
2. On the remote server, install a minimum Ektron site whose version matches the local server by running the Ektron base installation file (`CMS400Base8x.exe`). For more information, see System Requirements.

   IMPORTANT: Install both sites to a physical folder relative to the root folder. Do not install one site to a physical folder relative to the root folder and the other site to a virtual directory.

3. If the local site is pre-compiled, you must also pre-compile the remote site.

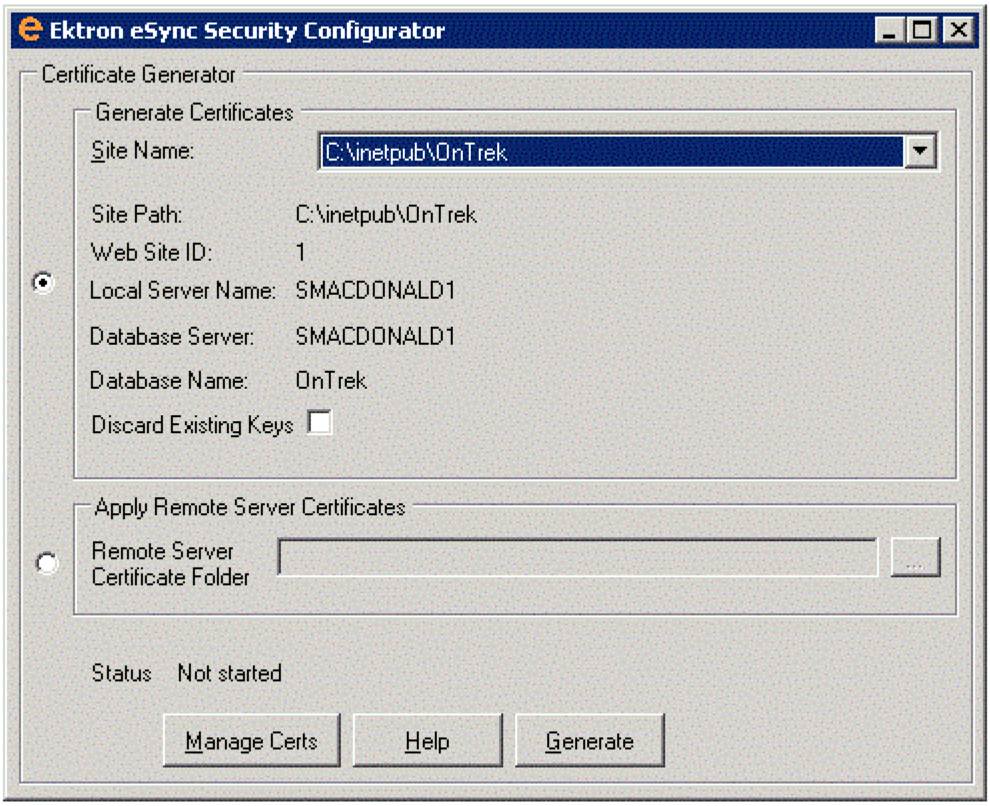
Part 2: Generate and Copy Security Certificates

Security certificates authorize file synchronization between servers. In this part, you generate security certificates on the local server, then copy them to the remote.

IMPORTANT: Near the end of the installation procedure, you are prompted to generate security certificates. If you completed that screen, skip steps 2 through 6.

1. Sign on to the local server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**.

The following screen appears.



3. At the **Web Site Description** field, select the website on the local server.
4. Click **Generate**.
5. Click **Yes**. The certificates are created on the local server.

NOTE: Ektron Windows Services stop and restart at this point.

6. Close the dialog.
7. Open 2 Windows Explorer windows side-by-side: one showing the local server's file system, and the other showing the remote server's file system.
8. In the remote server window, create a folder underneath the root folder. Name the folder **local security certificate**.

WARNING! Do not create the new folder under the Web root, C:\inetpub\wwwroot.

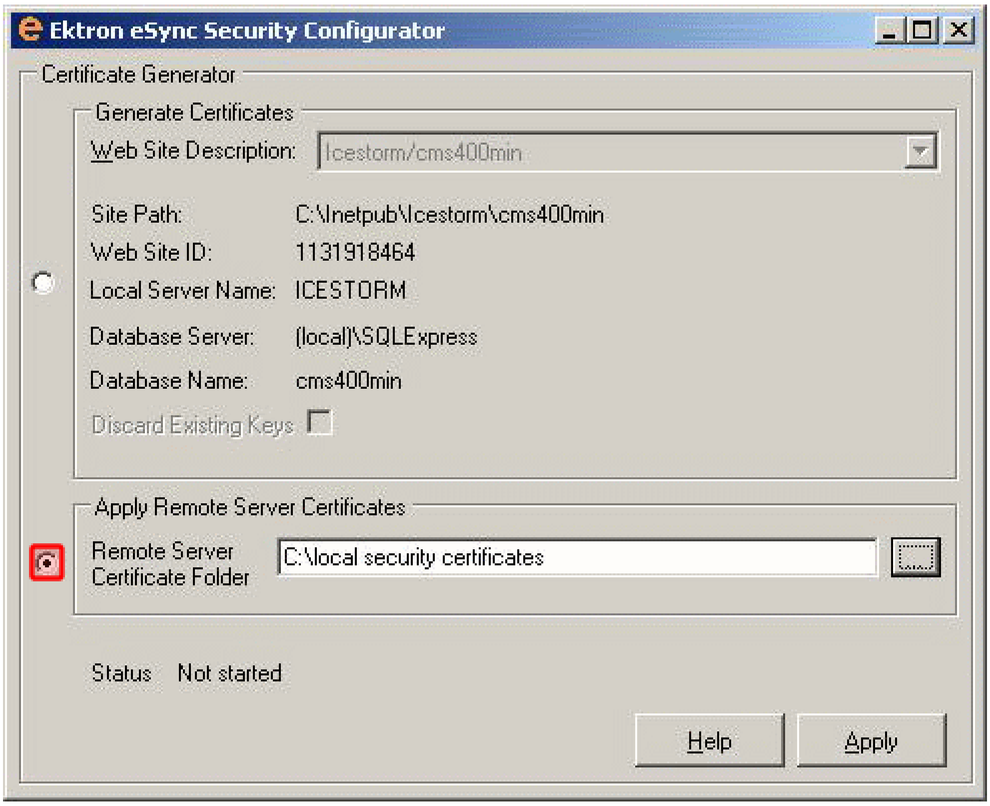
9. In the local server window, open the following folder:
   32-bit:
   `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`
   64-bit:
   `C:\ProgramFiles (x86)\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`
10. From that folder, copy these files.
    - *servername*_SyncClient.pfx
    - *servername*_SyncClient.pvk
    - *servername*_SyncClient.cer
    - *servername*_SyncServer.pfx

- *servername*_SyncServer.pvk
- *servername*_SyncServer.cer

11. Paste the files into the remote folder you created in Step 8. Make sure there are no other security files in the folder.
12. Close both windows you opened in Step 7.

NOTE: After copying security certificates to the remote folder, they need to be registered and moved to the correct folders. The Security Configurator screen does this.

13. Sign on to the remote server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
14. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The security configurator screen appears.



15. Click **Apply Remote Server Certificates**.
16. Click **Browse** next to that field.
17. Browse to the **local security certificate** folder where you pasted the security certificates in Step 11.
18. Click **Apply**.

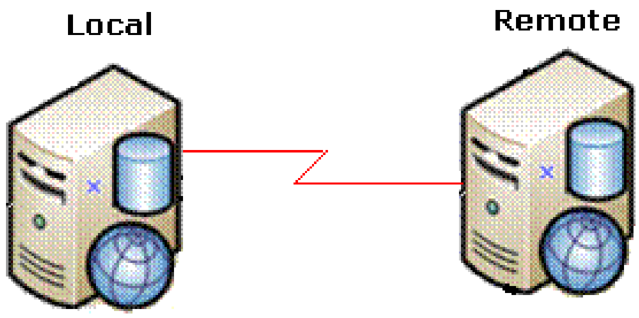
NOTE: Ektron Windows Services stop and restart at this point.

19. Click **Yes** to continue.
20. The security configurator copies the certificates you pasted in Step 11 to the correct folder, and configures them for the remote server.
21. Click **OK** when you see **All sites are now configured for eSync**.

22. Next, generate security certificates on the remote server, then copy them to the local.

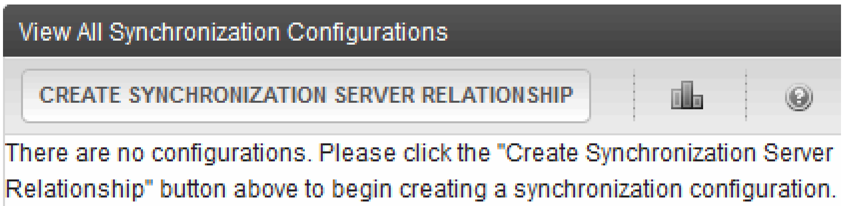
To accomplish this, repeat the steps in *Part 2: Generate and Copy Security Certificates* on page 1484, but this time, treat the remote server as the local server and vice versa.

Part 3: Connect Local and Remote Servers

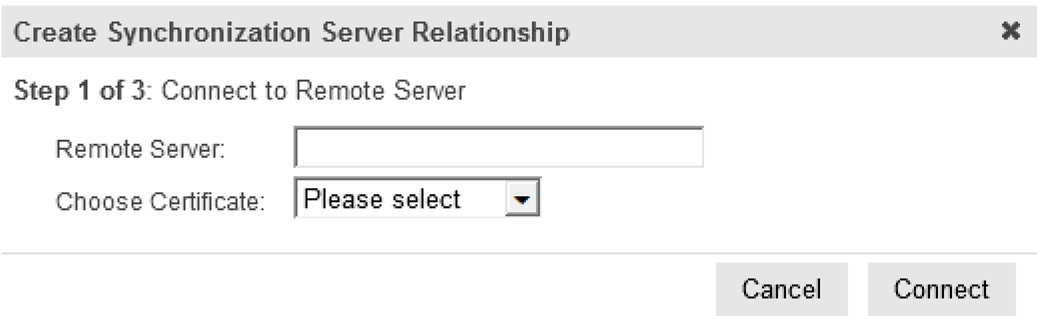


WARNING! Back up your database before beginning this procedure.

1. On the local server, sign on to the Workarea **> Settings > Configuration > Synchronization > Profiles**. The View All Synchronization Configurations screen appears.

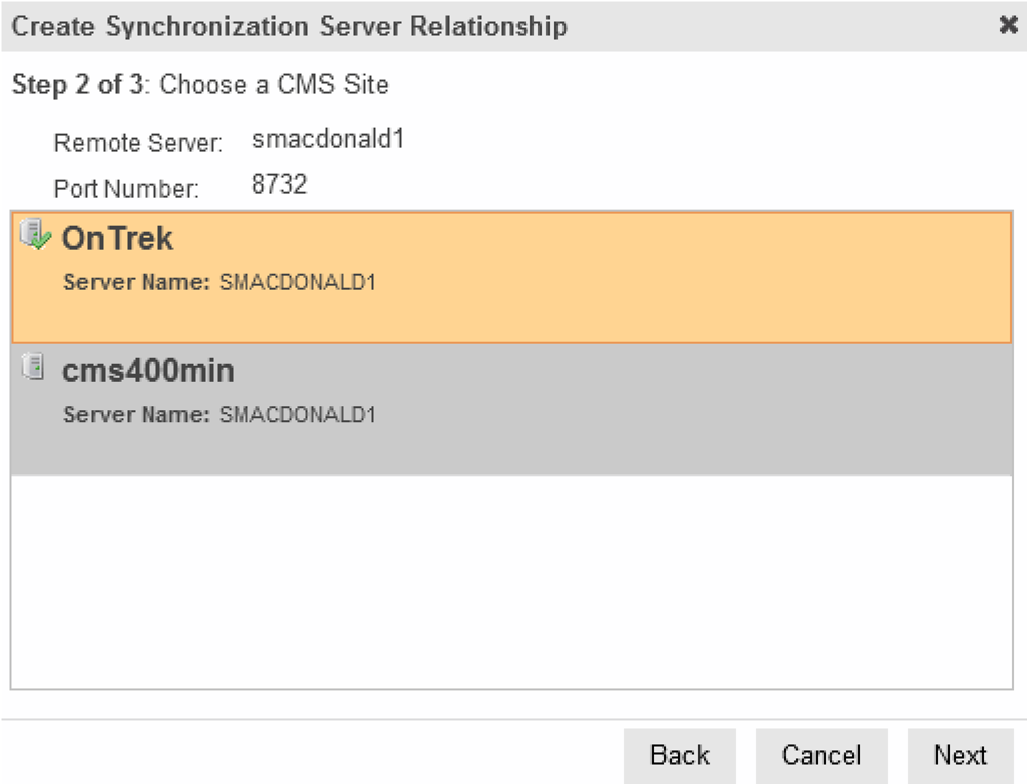


2. Click **Create Synchronization Server Relationship**. This screen appears.



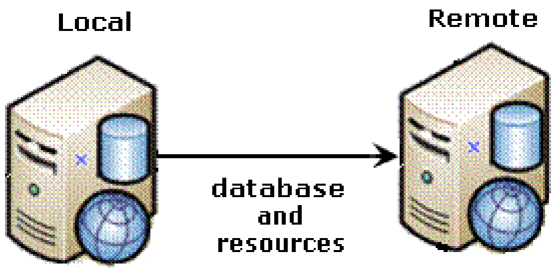
3. At the **Remote Server** field, enter the remote server name. The remote server appears in the **Choose Certificate** field.

4. Click **Connect**. A screen shows the remote server's databases.



5. Click the database with which you want to sync then **Next**. A screen appears, showing both servers.
6. Click **Switch Synchronization Direction**. The screen indicates that the database will be uploaded from your local server to the remote server.
7. Click **Create**. This action connects the local and remote servers.

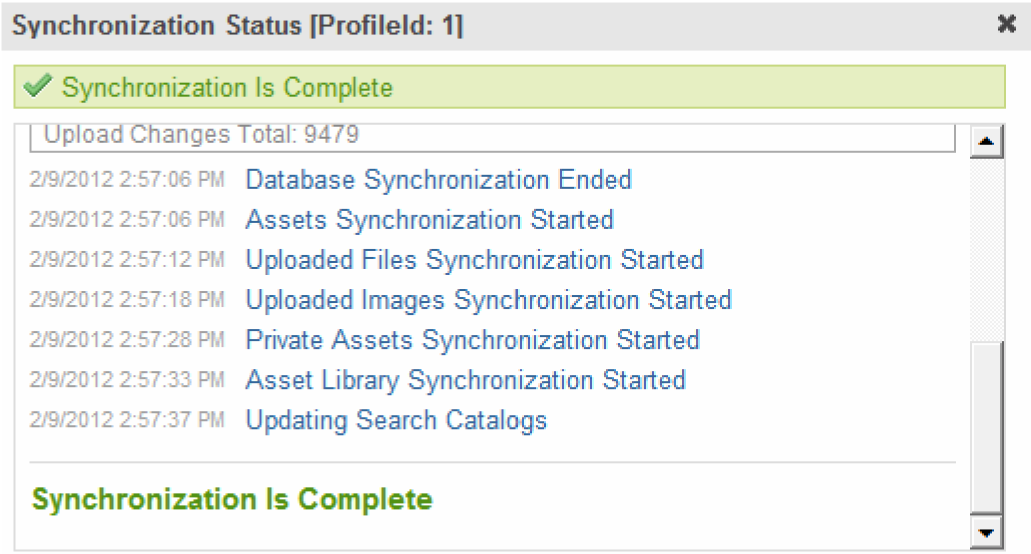
Part 4: Upload the Local Server's Database and Resources to the Remote Server



NOTE: If your Ektron has a very large database or number of assets, and you want to reduce the time required to complete the initial sync, see *Minimizing the Time of the Initial Sync* on page 1490.

1. From the View All Synchronization Configurations screen, click **Start Initial Sync** ( ).

2. The initial sync uploads the local server's database and resources to the remote server. A screen tracks the progress.



3. When the sync is finished, **Synchronization is Complete** appears.

   The initial sync creates a *default database profile*. The profile remembers sync information, such as source and destination databases, sync direction, and items to synchronize. You can reuse this profile to sync database/resource files in the future.

Minimizing the Time of the Initial Sync

Use the following procedures if you have a large database or number of assets and want to minimize the time to complete an initial sync. In both cases, you use a tool other than eSync for the initial copy. From then on, use eSync to sync your servers.

Copying the Initial Database

To quickly copy a database between servers:

1. On your Ektron server, open the folder `C:\Program Files (x86)\Ektron\EktronWindowsService40`.
2. Open Ektron.ASM.Services40.exe.config.
3. Set the `<add key="skipDataSyncChanges">` element to **true**.
4. Restart the Ektron Windows Service.
5. Back up the database of the local server.

6. Restore that backup to the remote server.
7. Run an initial sync.
8. Restart the Ektron Windows Service.
9. Update your license key.
   For example, if the original database is backed up from staging and restored on production, the license key in the database may be for the `Staging.abc.com` domain. But, on the production server, you need a production domain key, such as `abc.com`. See Also: *License Keys* on page 10
10. Change the `<add key="skipDataSyncChanges">` element to **false**.

Copying Initial Assets

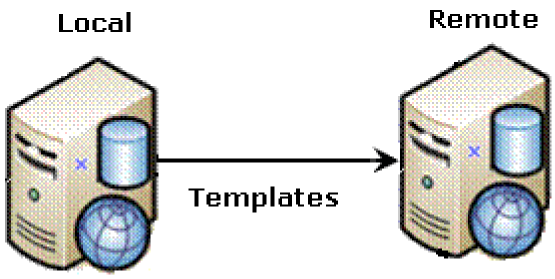
Assets consist of files in these folders:

- *siteroot*/assets
- *siteroot*/privateassets
- *siteroot*/uploadedfiles
- *siteroot*/uploadedimages
- C:/assetlibrary

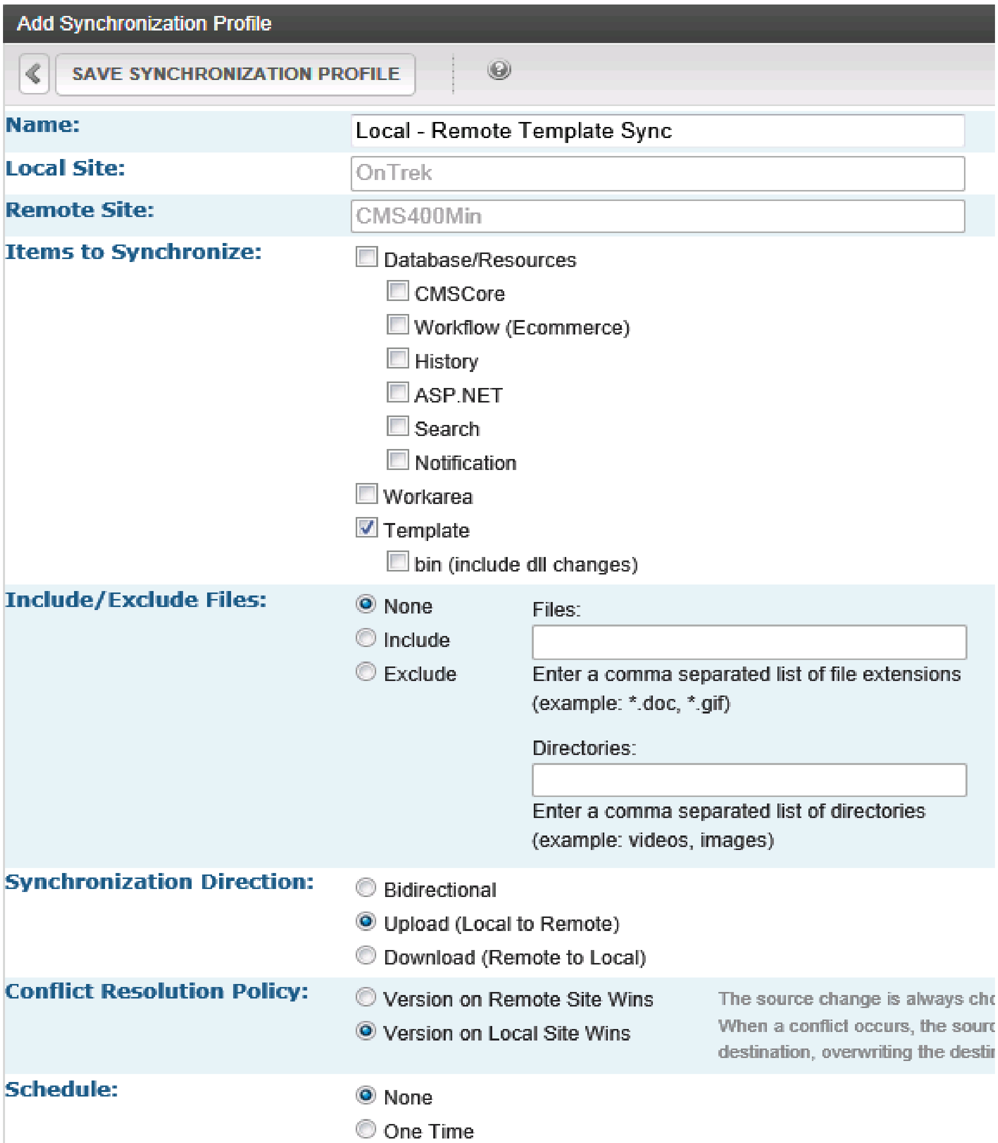
If your Ektron has a large number of assets, you may want to reduce the initial sync time. To copy asset files between servers quickly:

1. On your Ektron server, open `C:\Program Files (x86)\Ektron\EktronWindowsService40\Ektron.ASM.Services40.exe.config`.
2. Set the `<add key="skipFileSyncChanges">` element to **true**.
3. Restart the Ektron Windows Service.
4. Using Windows Explorer, copy the folders listed above from the local to the corresponding folders on the remote server.
5. Run an initial sync.
6. Change the `<add key="skipFileSyncChanges">` element back to **false**.
7. Restart the Ektron Windows Service.

Part 5: Upload Local Server’s Templates to Remote Server

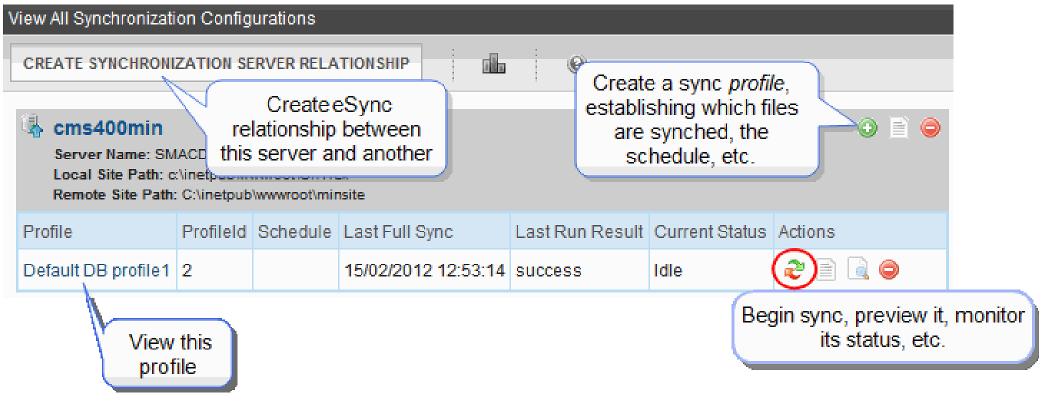


1. From the View All Synchronization Configurations screen, click **Add Sync Profile** ( ). The Add Synchronization Profile screen appears.



2. At the **Synchronization name** field, give this profile a name, such as Local - Remote Template Sync.
3. At the **Items to Synchronize** field, select **Template**.
4. Check **bin** to include dlls and assembly changes.
5. For **Synchronization Direction**, choose **Upload**.
6. For **Schedule**, choose **None**.
7. Save the profile.

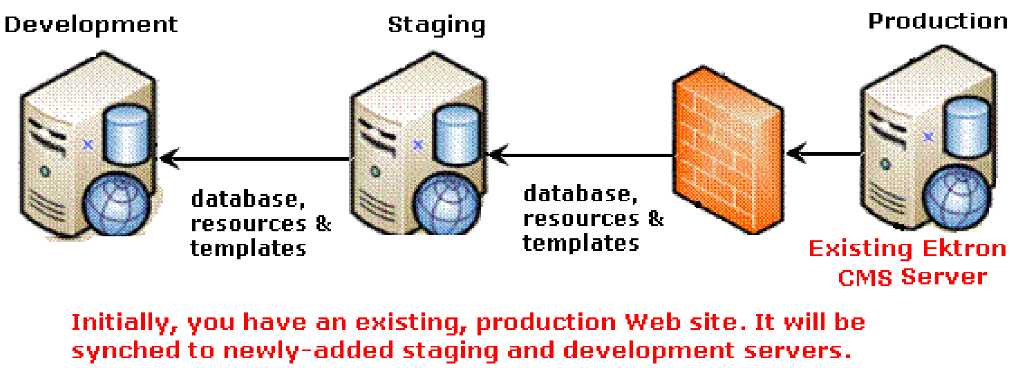
8. Click **Sync** ( ) to the right of the template profile.



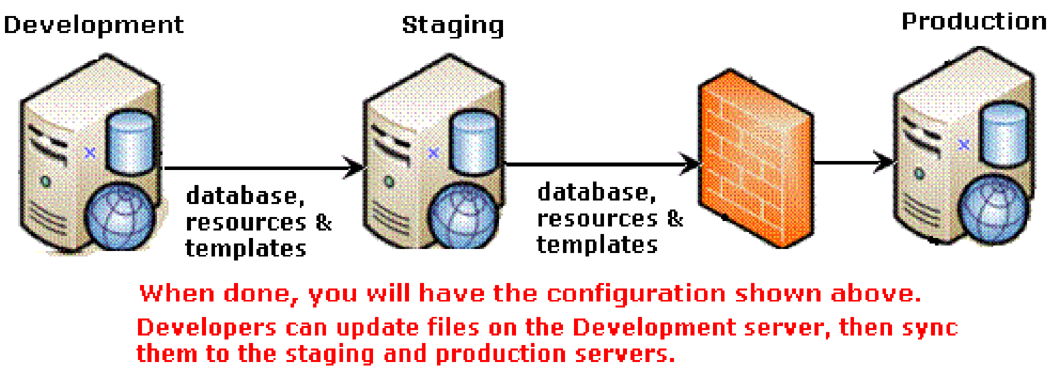
9. A screen tracks the sync's progress. When it is complete, **Synchronization is Complete** appears. You can use the template profile to sync templates in the future.

Scenario 3: Setting up a Development > Staging > Production Environment

Before



>After



In this scenario, Ektron initially resides on one server. Consider that your production server and use it to initialize the staging and development servers.

NOTE: In this scenario, you cannot sync between the development and production servers. The sync can only be run between Development and Staging or Staging and Production.

Here's a preview of the steps you will follow.

- *Part 1: Set up Min Site on the Staging and Development Servers* below
- *Part 2: Generate and Copy Security Certificates* below
- *Part 3: Connect Staging and Production Servers* on page 1501
- *Part 4: Download Production Server Database to Staging Server* on page 1502
- *Part 5: Download the Production Server's Templates to Staging* on page 1504
- *Part 6: Connect Development and Staging Servers* on page 1506
- *Part 7: Download Staging Server Database to Development Server* on page 1508
- *Part 8: Download Staging Server Templates to Development* on page 1509

PREREQUISITE

See *Prerequisites for Using eSync* on page 1475

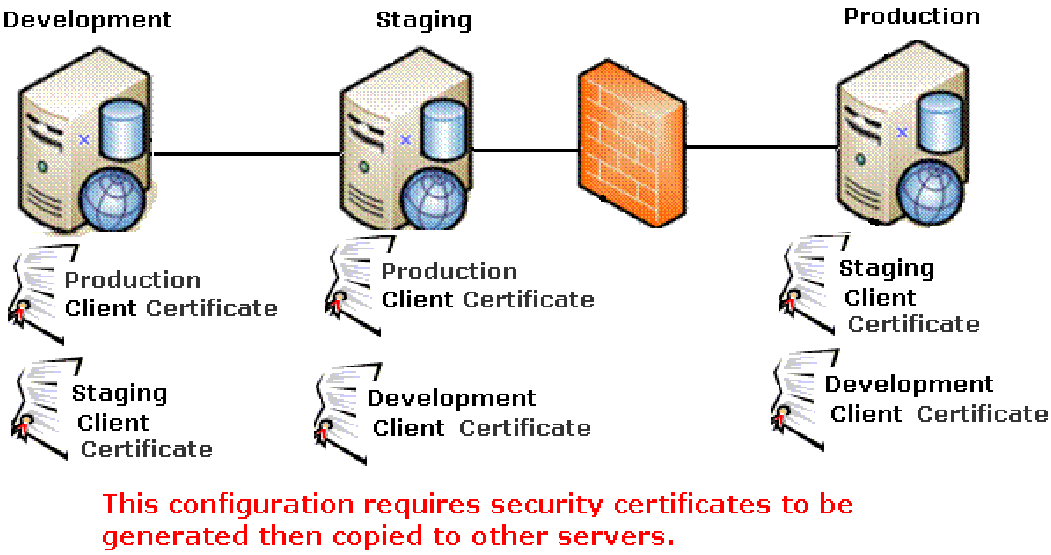
Part 1: Set up Min Site on the Staging and Development Servers

1. Upgrade your server to the current version of Ektron if necessary.
2. Install a minimum site on the staging and development servers by running the Ektron base installation file (CMS400Base8x.exe). See System Requirements.

IMPORTANT: Install both sites to a physical folder relative to the root folder. Do not install one site to a physical folder relative to root and the other sites to virtual directories.

Part 2: Generate and Copy Security Certificates

Security certificates authorize synchronization between servers. In an eSync relationship, every server needs a security certificate from every other server, as shown below.



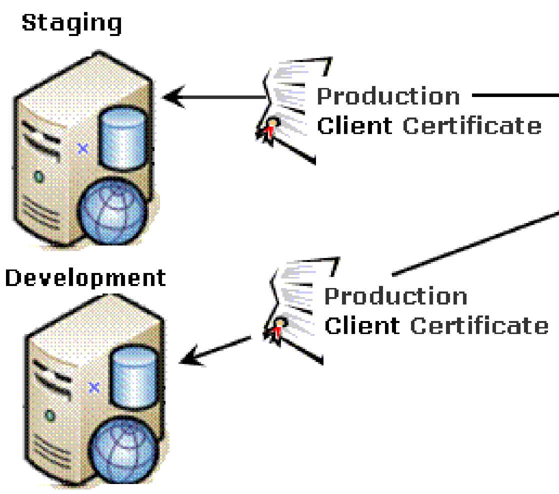
To generate and copy these certificates:

- *2a. Generate Certificates on Production and Copy to Staging and Development* on the facing page

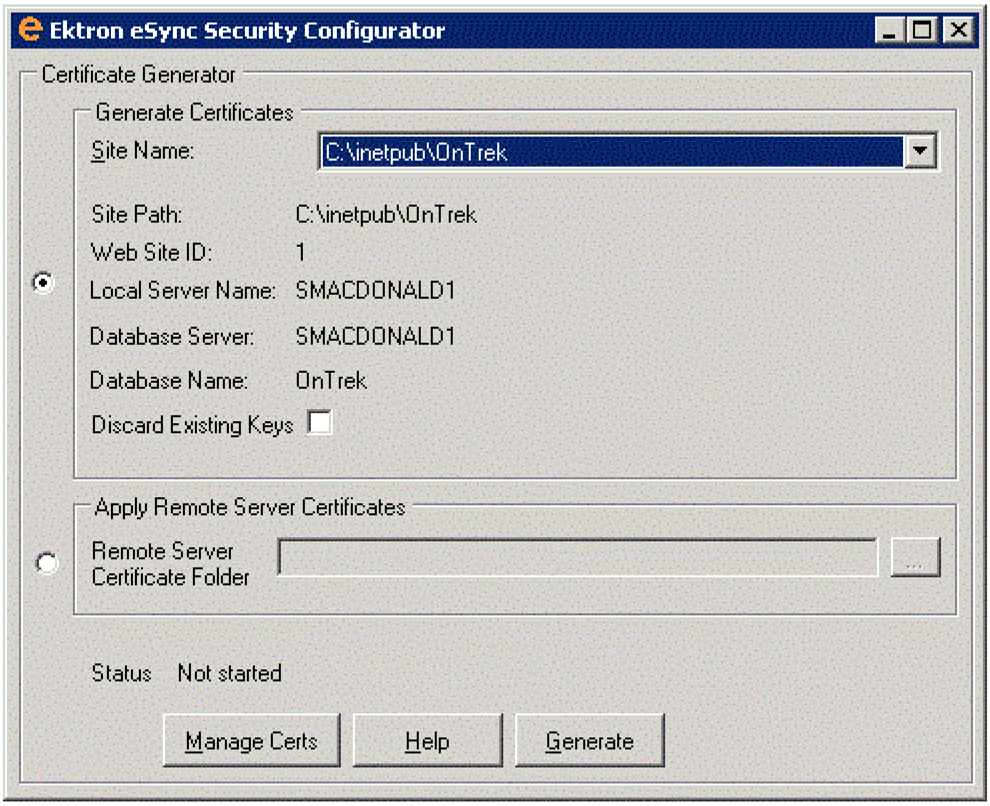
- *2b. Generate Certificates on Staging and Copy to Development and Production* on page 1497
- *2c. Generate Certificates on Development and Copy to Staging and Production* on page 1499

2a. Generate Certificates on Production and Copy to Staging and Development

IMPORTANT: Near the end of the installation procedure, you are prompted to generate security certificates. If you completed that screen, skip steps 2 through 4.



1. Sign on to the production server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The following screen appears.



3. In the **Web Site Description** field, select the production server website.
4. Click **Generate**. The certificates are created on the production server.
5. Open 2 Windows Explorer windows: one showing the production server's file system, and the other showing the staging server's file system.
6. In the staging server window, create a folder underneath the root folder. Name the folder **Prod security certificates**.

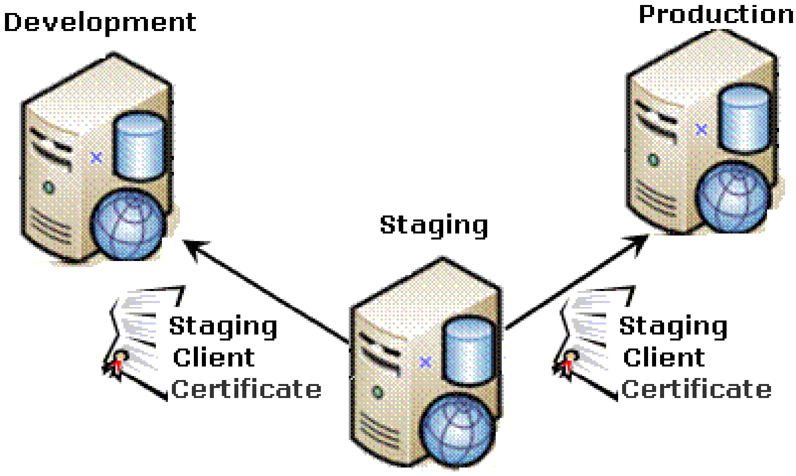
WARNING! Do not create the new folder under the Web root, C:\inetpub\wwwroot.

7. In the production server window, open the following folder: `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`.
8. From that folder, copy these files.
   - *servername*_SyncClient.pfx
   - *servername*_SyncClient.pvk
   - *servername*_SyncClient.cer
   - *servername*_SyncServer.pfx
   - *servername*_SyncServer.pvk
   - *servername*_SyncServer.cer
9. Paste the files into the folder you created in Step 6. Make sure there are no other security files in the folder.
10. Close both windows.

    After copying security certificate files to the staging folder, they need to be registered and moved to the correct folders. The Security Configurator screen does this.

11. Sign on to the staging server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
12. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The security configurator screen appears.
13. Click **Apply Remote Server Certificates**.
14. Click the browse button next to that field.
15. Browse to the folder to which you pasted the security certificates in Step 9.
16. Click **Apply**. The security configurator copies the certificates you pasted in Step 9 to the correct folder, and configures them for the staging server.
17. Follow the same procedure to move production certificates to the development server. To do this, begin at Step 6 and follow all steps. Wherever the instructions mention a staging server, substitute the development server.

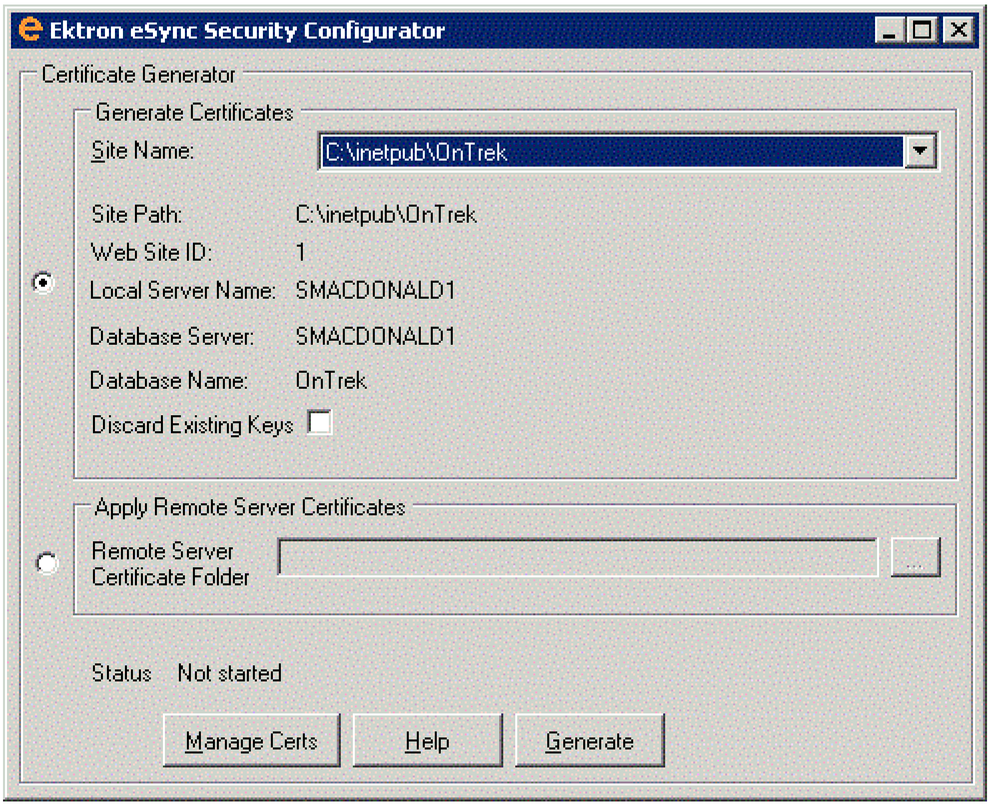
2b. Generate Certificates on Staging and Copy to Development and Production



1. Sign on to the staging server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.

IMPORTANT: Near the end of the installation procedure, you are prompted to generate security certificates. If you completed that screen, skip steps 2 through 4.

2. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The following screen appears.



3. At the **Web Site Description** field, select the staging server website.
4. Click **Generate**. The certificates are created on the staging server.
5. Open 2 Windows Explorer windows: one showing the staging server's file system, and the other showing the production server's file system.
6. In the production server window, create a folder underneath the root folder. Name the folder **staging security certificates**.

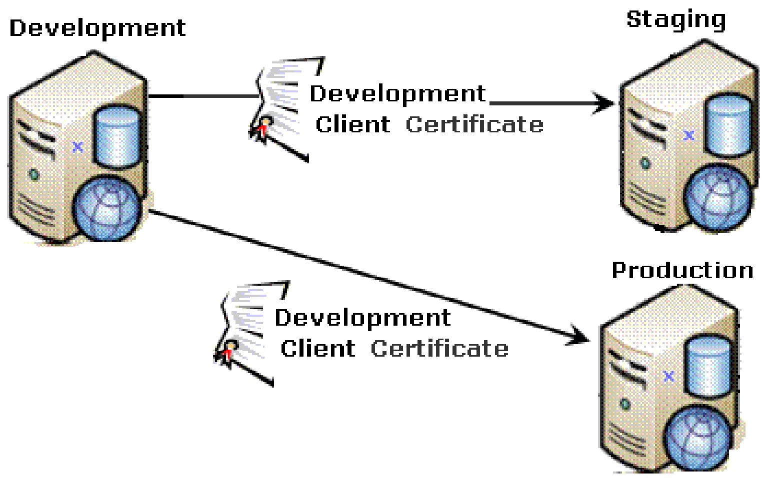
WARNING! Do not create the new folder under `C:\inetpub\wwwroot`.

7. In the staging server window, open the following folder: `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`.
8. Copy these files.
   - *servername*_SyncClient.pfx
   - *servername*_SyncClient.pvk
   - *servername*_SyncClient.cer
   - *servername*_SyncServer.pfx
   - *servername*_SyncServer.pvk
   - *servername*_SyncServer.cer
9. Paste the files into the folder you created in Step 6. Make sure there are no other security files in the folder.
10. Close both windows opened in Step 5.

NOTE: After copying the security certificate files to the production folder, they need to be registered and moved to the correct folders. The Security Configurator screen does this.

11. Sign on to the production server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
12. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The security configurator screen appears.
13. Click **Apply Remote Server Certificates**.
14. Click the browse button next to that field.
15. Browse to the folder to which you pasted the security certificates in Step 9.
16. Click **Apply**. The security configurator copies the certificates you pasted in Step 9 to the correct folder, and configures them for the production server.
17. Follow the same procedure to move staging certificates to the development server. To do this, begin at Step 6 and follow all steps. Where the instructions mention a production server, substitute the development server.

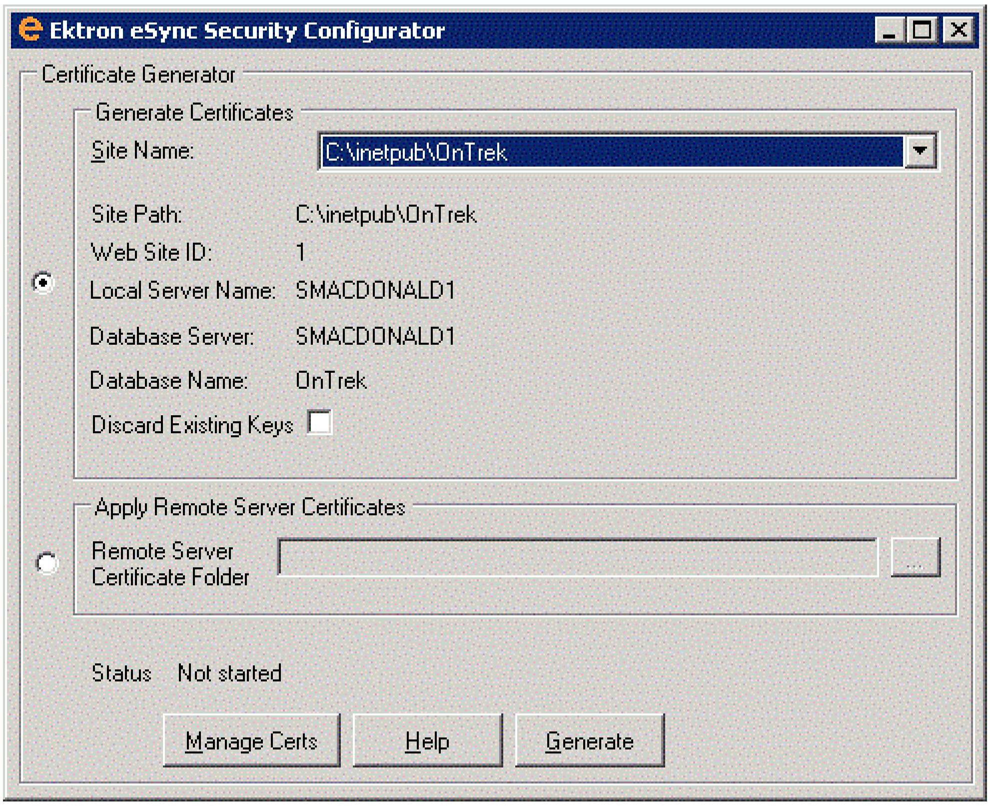
2c. Generate Certificates on Development and Copy to Staging and Production



1. Sign on to the development server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.

 IMPORTANT: Near the end of the installation procedure, you are prompted to generate security certificates. If you completed that screen, skip steps 2 through 4.

2. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The following screen appears.



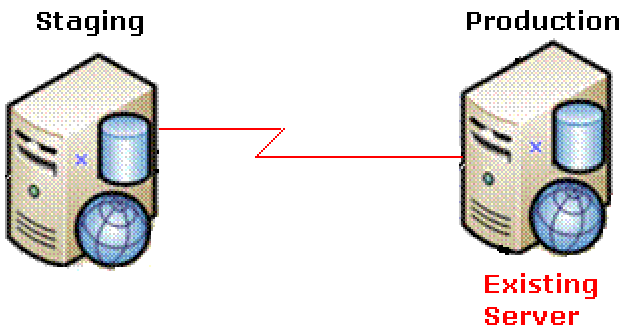
3. At the **Web Site Description** field, select the website on the development server.
4. Click **Generate**. The certificates are created on the development server.
5. Open 2 Windows Explorer windows: one showing the development server's file system, and the other showing the staging server's file system.
6. In the staging server window, create a folder underneath the root folder. Name the folder **Dev security certificates**.

WARNING! Do not create the new folder under `C:\inetpub\wwwroot`.

7. In the development server window, open the following folder: `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`.
8. Copy these files.
   - *servername*_SyncClient.pfx
   - *servername*_SyncClient.pvk
   - *servername*_SyncClient.cer
   - *servername*_SyncServer.pfx
   - *servername*_SyncServer.pvk
   - *servername*_SyncServer.cer
9. Paste the files into the staging server folder you created in Step 6. Make sure there are no other security files in the folder.
10. Close both windows you opened in Step 5.
11. After copying the security certificate files to the staging folder, they need to be registered and moved to the correct folders. The Security Configurator screen does this.
12. Sign on to the staging server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.

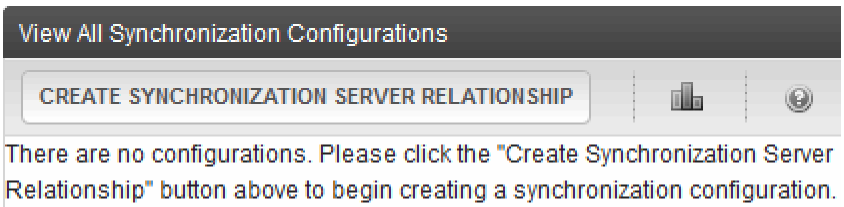
13. Click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**. Right click and choose **Run As Administrator**. The following screen appears.
14. Click **Apply Remote Server Certificates**.
15. Click the browse button next to that field.
16. Browse to the folder you created in Step 6.
17. Click **Apply**.
18. The security configurator copies the certificates you pasted in Step 9 to the correct folder, and configures them for the staging server.
19. Follow the same procedure to move development certificates to the production server. To do this, begin at Step 6 and follow all steps. Wherever the instructions mention a staging server, substitute the production server.

Part 3: Connect Staging and Production Servers

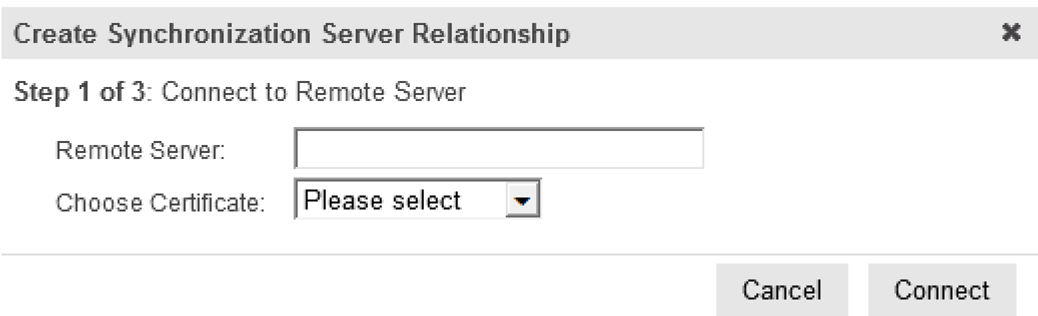


WARNING! Back up your database before beginning this procedure!

1. On the staging server, sign on to Ektron.
2. In the Workarea, go to **Settings > Configuration > Synchronization> Profiles**. The View All Synchronization Configurations screen appears.

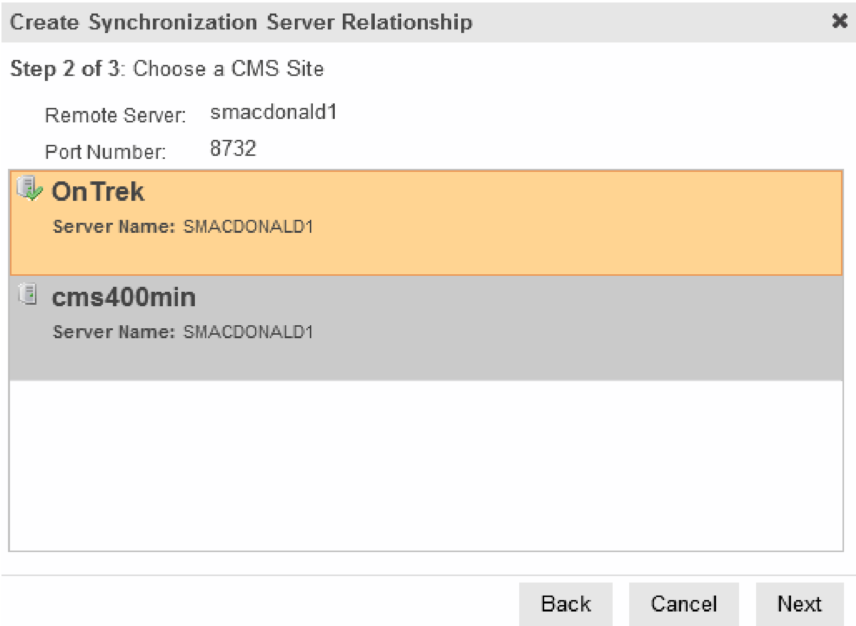


3. Click **Create Synchronization Server Relationship**. That screen appears.

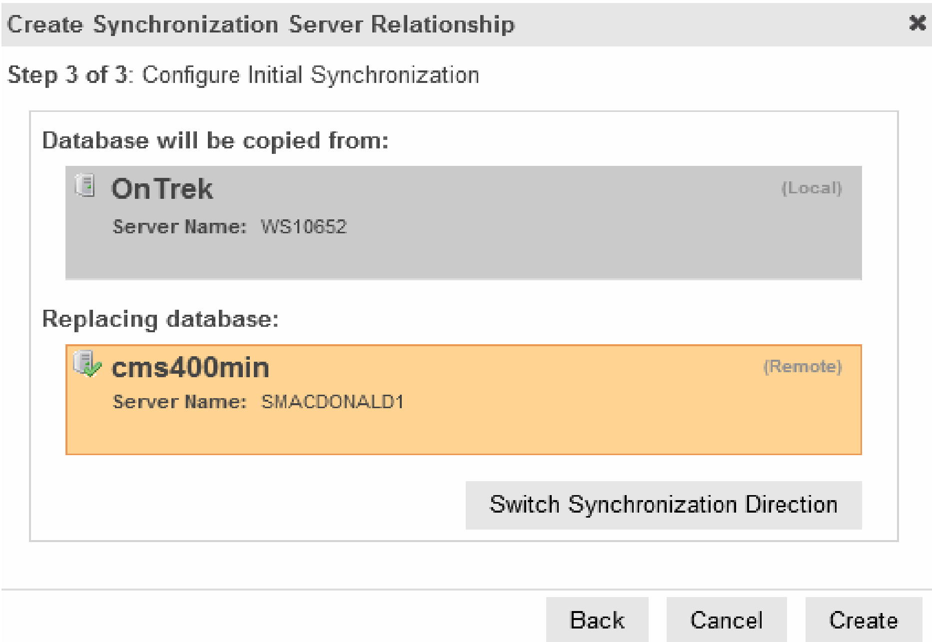


4. In the **Remote Server** field, enter the production server.

5. In the **Choose Certificate** field, the name of the production server appears.
6. Click **Connect**. This action connects the staging with the production server. A new screen appears showing the production server's database.

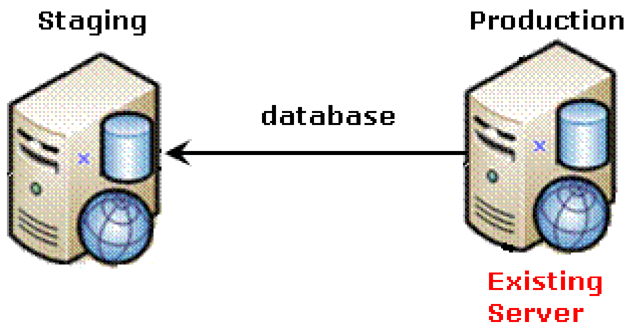


7. Click **Next**. A new screen appears, showing both servers.



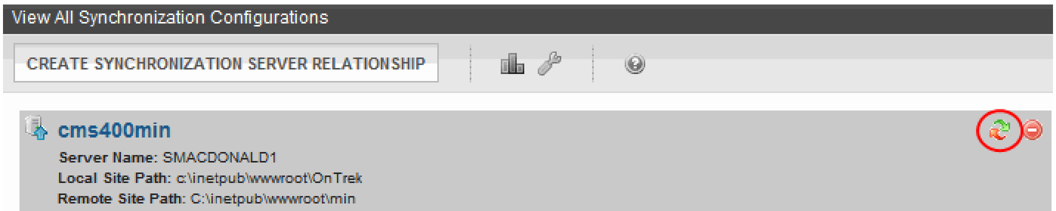
8. Click **Create**. This action connects the staging and production servers.

Part 4: Download Production Server Database to Staging Server

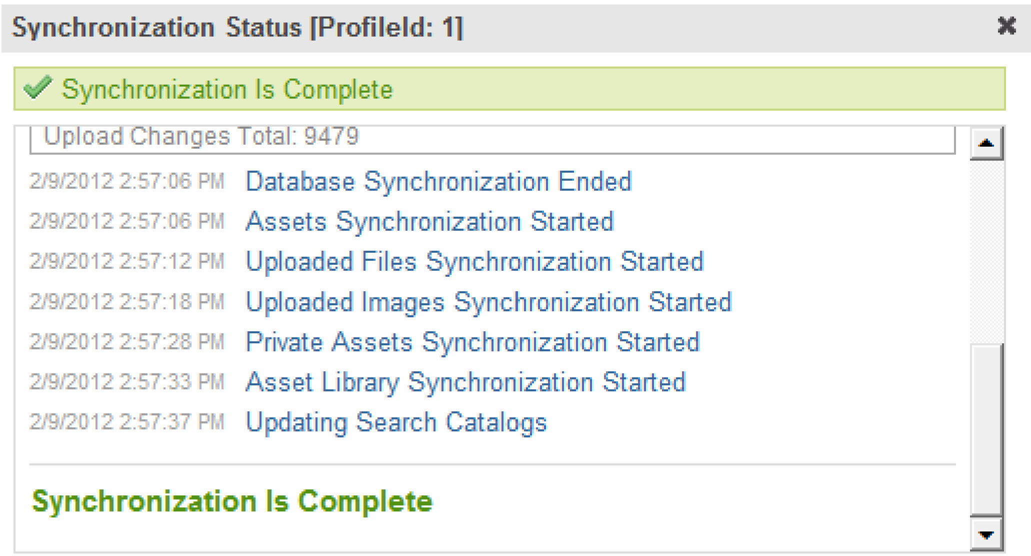


NOTE: If your Ektron has a very large database or number of assets, and you want to reduce the initial sync time, see *Minimizing the Time of the Initial Sync* on page 1490

1. From the View All Synchronization Configurations screen, click **Start Initial Sync** ( ).



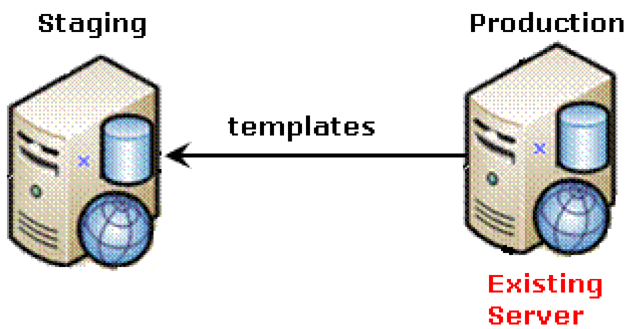
2. The initial sync downloads the production server's database and resources to the staging server. A screen tracks progress.



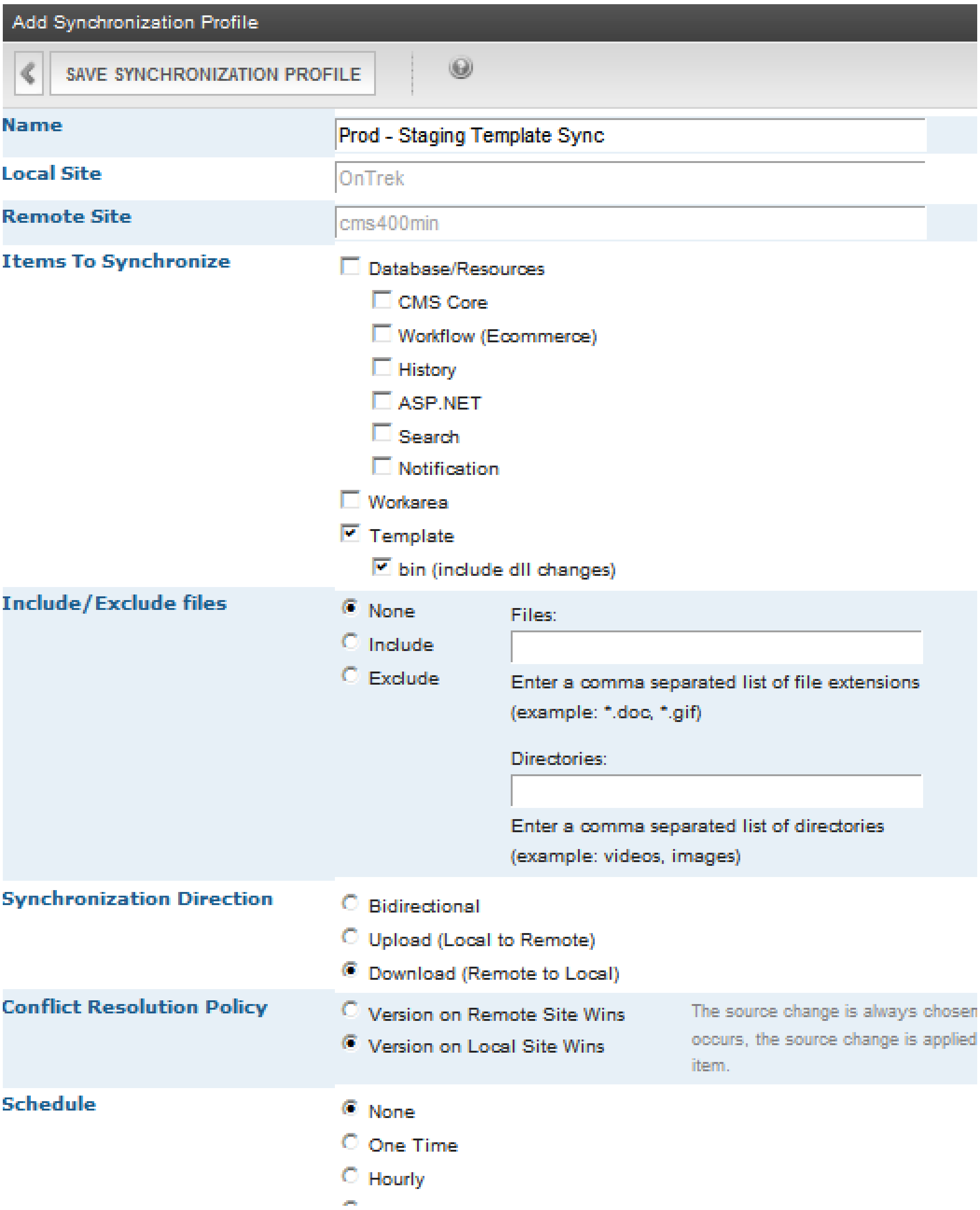
3. **Synchronization is Complete** appears.

   The initial sync creates a *default database profile*. The profile remembers information about the sync, such as the source and destination databases, sync direction, and which database and resource files are synched. You can use the profile to run database/resource syncs in the future.

Part 5: Download the Production Server's Templates to Staging

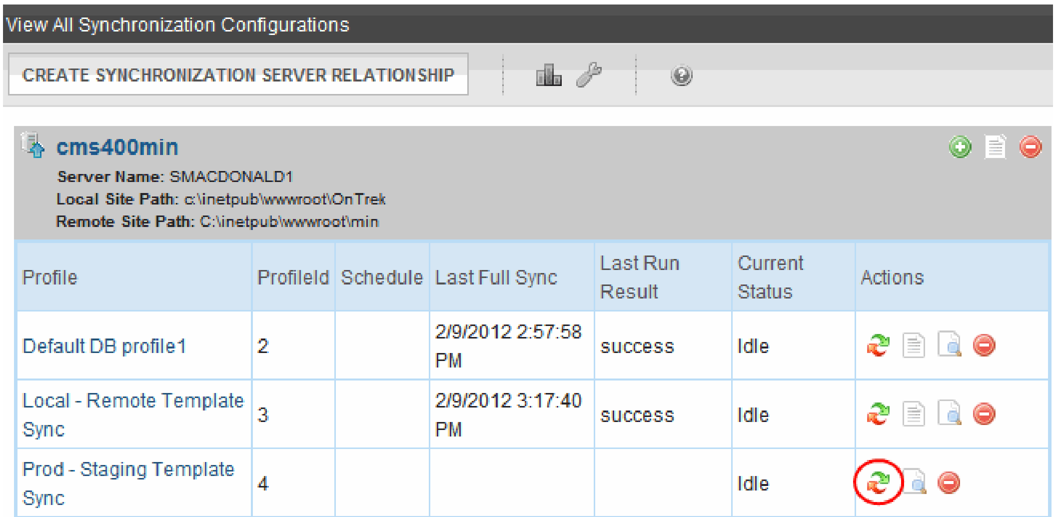


1. From the View All Synchronization Configurations screen, click **Add Sync Profile** ( ). The Add Synchronization Profile screen appears.
2. At the **Synchronization name** field, give this profile a name, such as Prod - Staging Template Sync.
3. At the **Items to Synchronize** field, select **Template**.
4. Check **bin** to include dlls and assembly changes.
5. For **Direction**, choose **Download**.
6. For **Schedule**, choose **None**.



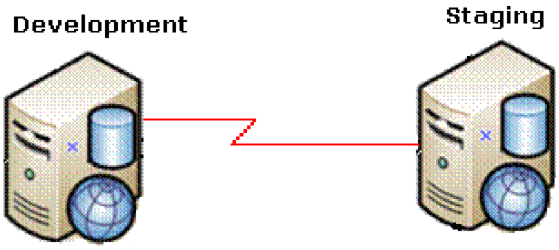
7. Save the profile.

8. Click **Sync** ( ) to the right of the profile. A screen tracks the sync's progress.

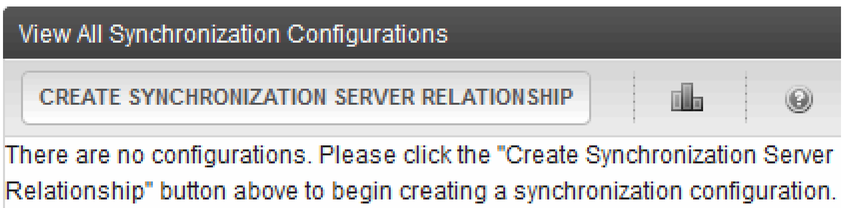


9. When the sync is complete, **Synchronization is Complete** appears. You can reuse the template sync profile in the future.

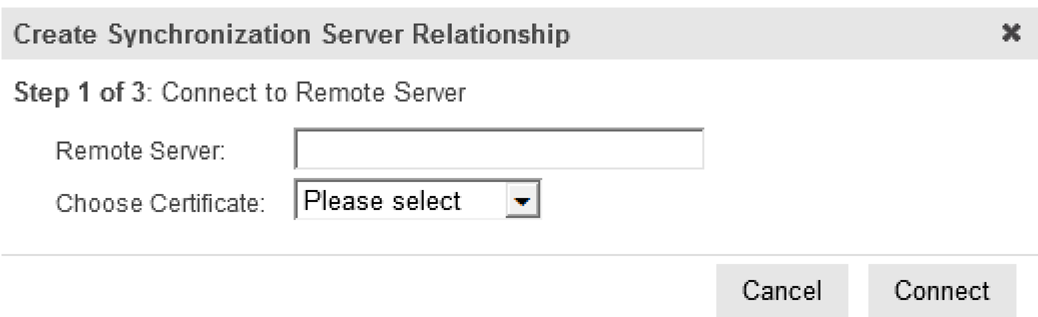
Part 6: Connect Development and Staging Servers



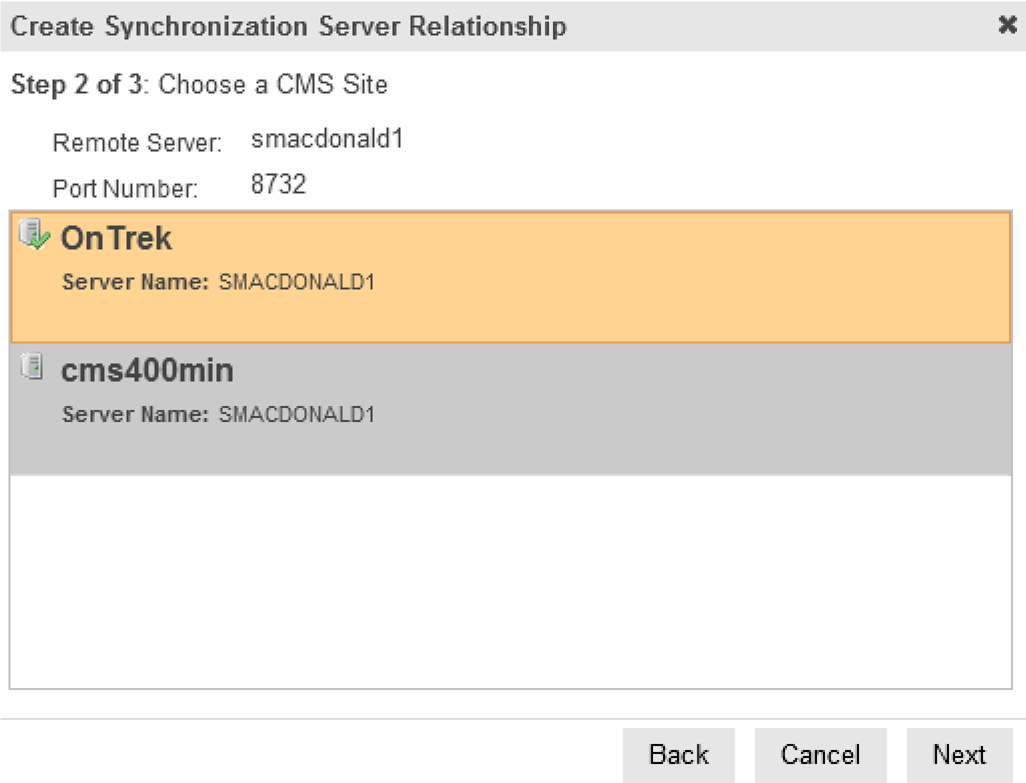
1. Sign on to Ektron development server.
2. In the Workarea, go to **Settings > Configuration > Synchronization> Profiles**. The View All Synchronization Configurations screen appears.



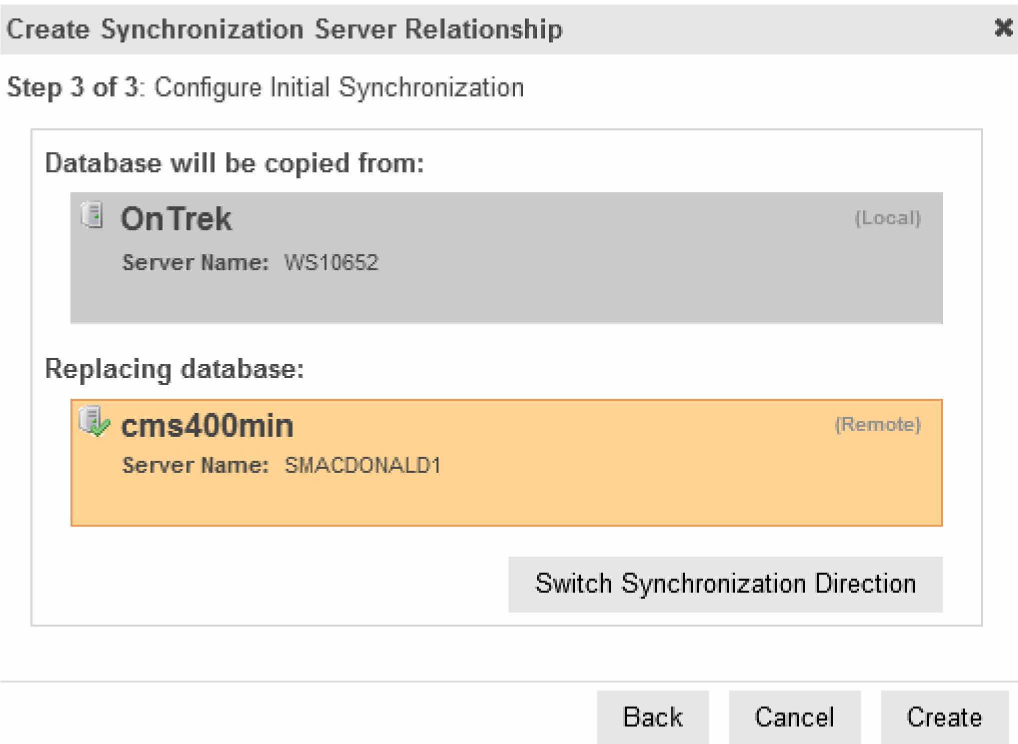
3. Click **Add** ( ). The Create Synchronization Server Configuration screen appears.



4. At the **Remote Server** field, enter the name of the staging server.
5. At the **Choose Certificate** field, the name of the staging server appears.
6. Click **Connect**. This action connects the development with the staging server. After you connect to the staging server, a new screen appears showing its database.

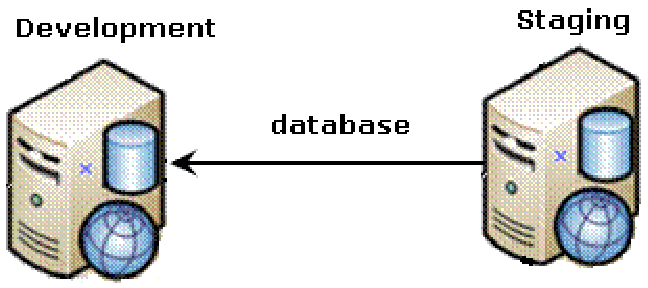


7. Click **Next**. A new screen appears, showing both servers.



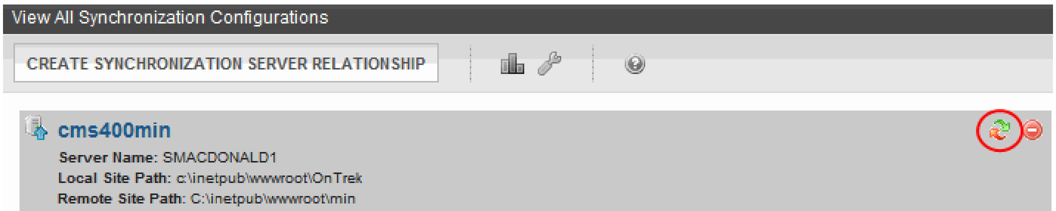
8. Click **Create**. This action connects the development and staging servers.

Part 7: Download Staging Server Database to Development Server

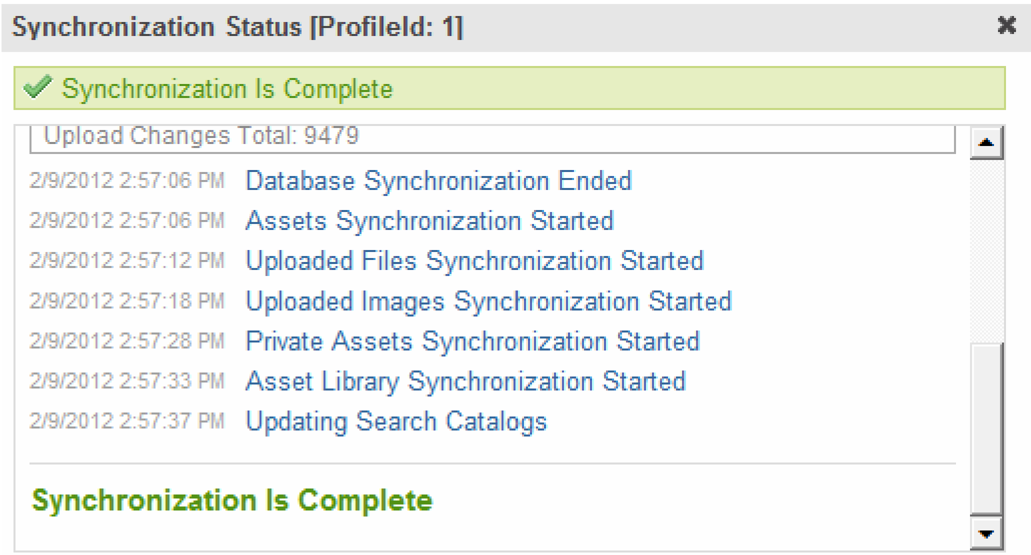


NOTE: If your Ektron has a very large database or number of assets, and you want to reduce the initial sync time, see *Minimizing the Time of the Initial Sync* on page 1490.

1. From the View All Synchronization Configurations screen, click **Start Initial Sync** ( ).



The initial sync downloads the staging server's database and resources to the development server. A screen tracks the sync's progress.

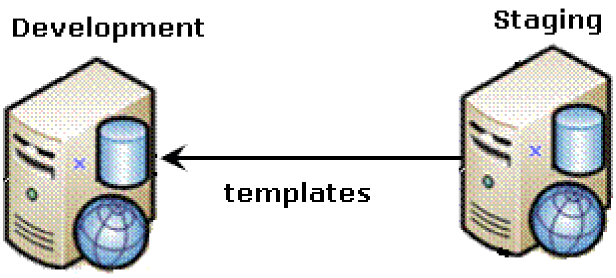


2. When the sync is complete, **Synchronization is Complete** appears.

   The initial sync also creates a *default database profile*. The profile remembers information about the sync, such as the source and destination databases, sync direction, and the fact that it syncs the database and resource files (see example below).

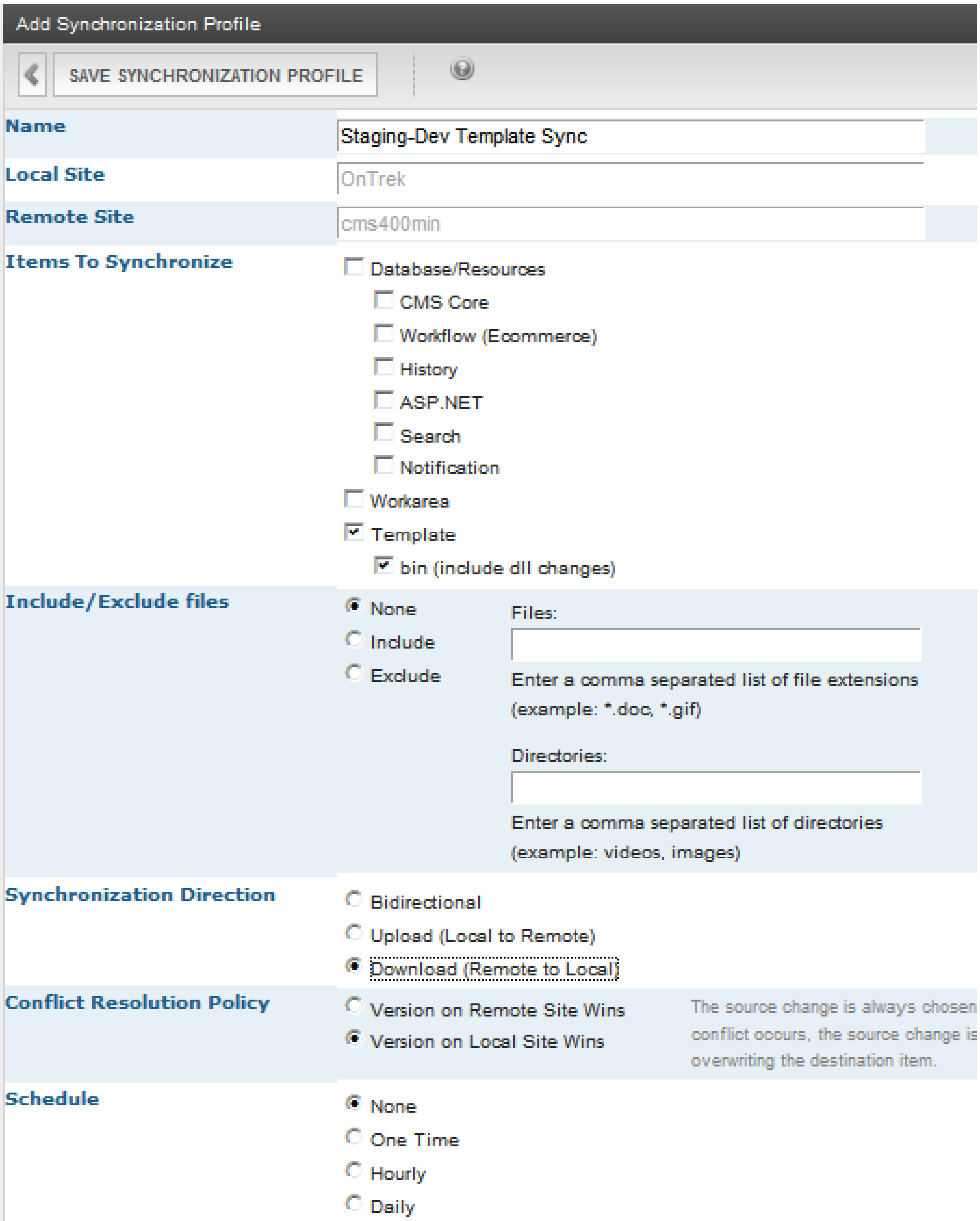
You can reuse this profile to sync the database/resources between these 2 servers at any time in the future.

Part 8: Download Staging Server Templates to Development



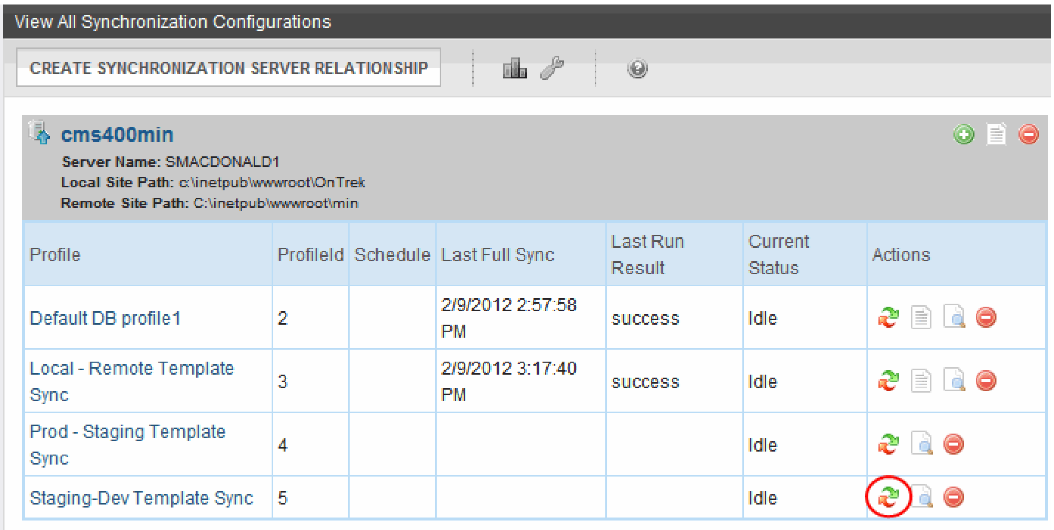
1. From the View All Synchronization Configurations screen, click **AddProfile** ( ). The Add Synchronization Profile screen appears.
2. At the **Name** field, give this profile a name, such as Staging-Dev Template Sync.
3. At the **Items to Synchronize** field, select **Template**.
4. Check **bin** to include dlls and assembly changes.
5. For **Direction**, choose **Download**.

6. For **Schedule**, choose **None**.



7. Save the profile.

8. Click **Sync** ( ) to the right of the profile. A screen tracks the sync’s progress.



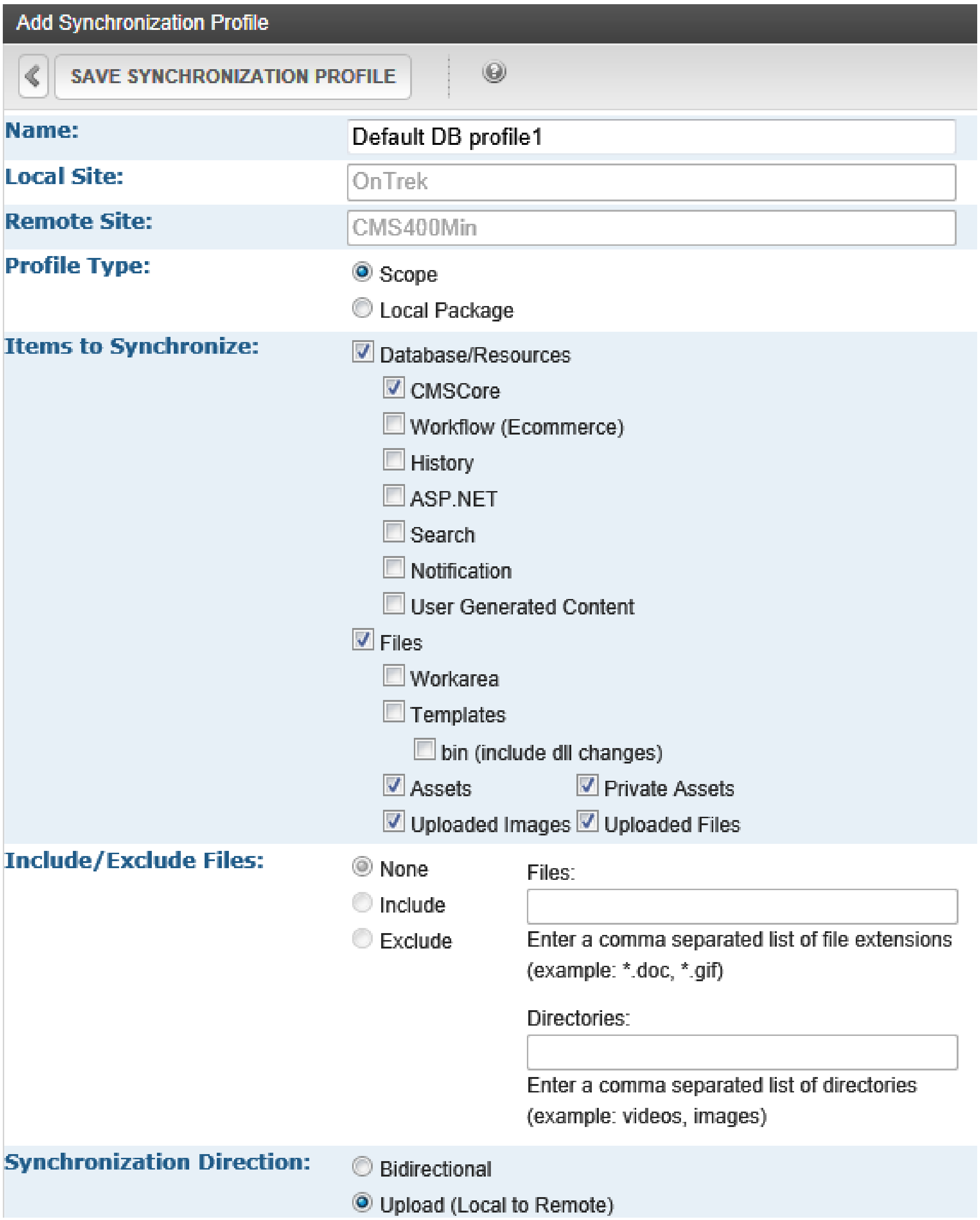
9. When the sync is complete, **Synchronization is Complete** appears. You can reuse the profile to sync templates in the future.

Setting up eSync Profiles

To minimize data entry, eSync saves an job specifications in a *profile*. After you enter specifications once, select the profile when you want to sync using the same details. A profile contains the following information:

- source and destination databases
- type of data being synched
- files to include/exclude
- direction
- schedule

Use the Add/Edit Synchronization Profile screen to manage eSync profiles.



While *Setting Up eSync* on page 1475, you created a default database and a template profile. This section explains how to modify those profiles and create new ones.

To sync a website, you need at least 2 profiles: one for the `siteroot/Workarea` folder, and another for all other site files. To create a profile for

- your `Workarea` folder, check **Items to Synchronize > Workarea**
- all other site files, check **Items to Synchronize > Database/Resources**, **Template**, and **bin**

The following list explains which files are synched by each grouping under **Items to Synchronize**.

- **Database/Resources**—Synchronizes database tables plus the following site root folders. See Also: *Setting up a Profile to Sync a Database* on the next page.

  - assets
  - PrivateAssets
  - uploadedimages
  - uploadedfiles
- **Workarea**—Synchronizes files in the site's `Workarea` folder. See Also: *Setting up a Profile to Sync Workarea Files* on page 1517
- **Template**—Synchronizes files in the site root folder. See Also: *Setting up a Profile to Sync Template and Bin Files* on page 1518

IMPORTANT: If you run a template sync and **Bin** is checked, and one server is running is 32-bit mode while the other is running in 64-bit mode, users will not be able to drag and drop DMS files on the staging server.

NOTE: If you perform an initial sync of a recently-installed min site with your staging site, the min site's templates could overwrite templates on your staging site. This is because, when 2 templates have the same name, the most recently-modified one overwrites the other.
To avoid this, rename the only template installed with the min site (login.aspx) before performing the initial template sync. You should also rename login.aspx's supporting files, such as login.aspx.vb.

- **Bin**—Synchronizes the *siteroot*/bin folder, including DLLs and assemblies.

The following file types are *not* synched by default.

- .config files
- .txt files
- .sln files

You may add these file types to a Workarea or Template profile via the **Include/Exclude Files** field.

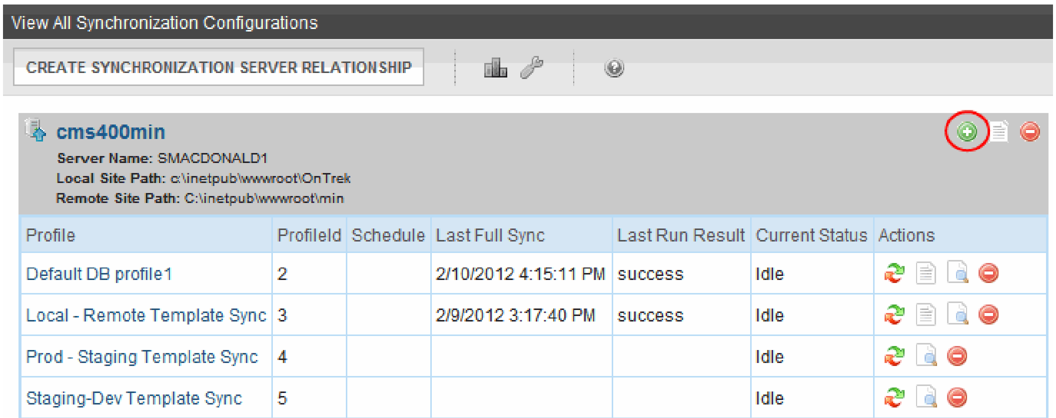
Setting up a Profile to Sync a Database

Prerequisites

- You created a Sync relationship and ran an initial sync. See Also: *Setting Up eSync* on page 1475.
- If your profile is based on an eSync package, it has been set up. See Also: *Synchronizing a Package* on page 1542.

To set up a profile:

1. Go to the **Settings > Configuration > Synchronization > Profiles** screen.



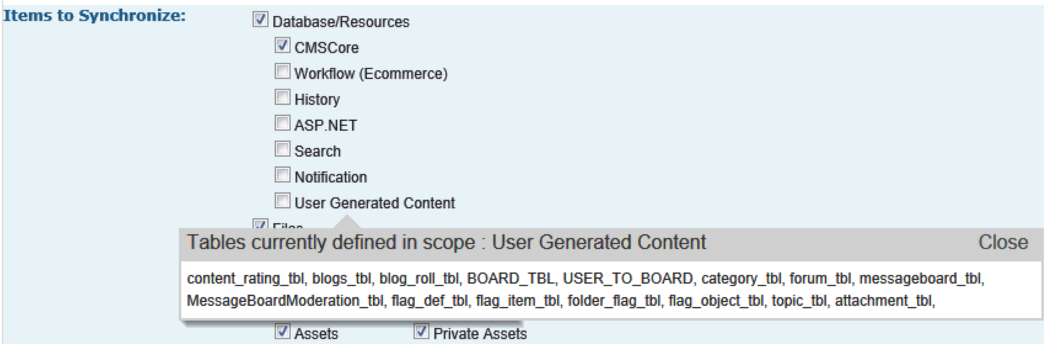
2. Click **Add Sync Profile** (). The Add Synchronization Profile screen appears.
3. At the **Name** field, enter a name for this profile.
4. At the **Profile Type** field, choose **Scope** or **Local Package**.
   - To define a **Scope**, continue through the steps below.
   - To define a **Local Package**, see *Synchronizing a Package* on page 1542. After selecting the package, you still choose a **Synchronization Direction**, **Conflict Resolution Policy**, and a **Schedule**.
5. At the **Items to Synchronize** field, select **Database/Resources**.

   The following list describes the database scope filter checkboxes.

   NOTE: The **Include/Exclude Files** field is available only for Workarea, Template, or bin syncs.

   Use these checkboxes to choose groups of database tables. You must choose one scope if you check **Database/Resources**.

   NOTE: Click any label under **Database/Resources** to see the database tables synched by that scope.



   - **CMS Core**—essential Ektron tables; includes Targeted Content rules
   - **Workflow(eCommerce)**—eCommerce event history
   - **History**—content history. Lets users on the destination server review content changes (edited, published, and so on).
   - **ASP.NET**—Microsoft .Net ASP provider

- **Search**—tables to support search functionality:
  - *Using Synonym Sets* on page 945
  - *Providing Suggested Results* on page 952
  - *Including External Files in Your Search* on page 946
- **Custom**—Custom tables (if defined) See Also: *Synchronizing Custom SQL Database Tables* on page 1540.
- **Notification**—Notification activities See Also: *Sending Notifications to a Community* on page 1194.
- **User Generated Content**—Content created by membership users and other site visitors. For example:
  - A membership user logs in and creates a new account
  - A site visitor rates content
  - Community members reply to forum questions and blog posts
  - A Community member creates a community folder

  Whenever user-generated content is synched, the profile of the user who created the content is also synched.

  User-generated content is a subset of CMS Core, so you would not choose both for the same sync. But you may select user-generated content with any other scope.

  When you set up a sync profile for user-generated content, you typically choose **Bidirectional** as the direction. In this case, if a membership user updates his or her profile on the production server, eSync copies the changes to staging. On the other hand, if your administrator changes that information on staging, the next eSync copies it from staging to production.

  NOTE: Since notifications are part of the User Communities feature, they are automatically checked if you check **User Generated Content**.

6. For the **Include/Exclude** files field, see *Include/Exclude Files Field* on the facing page.
7. At the **Synchronization Direction** field, select the direction of the copy. Your choices are:
   - **Bidirectional**—Changed data on either server is updated on the other. If the same data (for example, a membership user profile) is updated on both servers, the conflict resolution policy determines the outcome. See Also: *Choosing a Bidirectional Sync* on page 1520.
   - **Upload**—database copied from the local server (the one to which you signed on) to the remote server (specified at the **Remote Site** field above). Items on the remote server are overwritten.
   - **Download**—database copied from remote to local server. Items on the local server are overwritten.
8. At the **Conflict Resolution Policy field**, decide what to do if Synchronization Direction is **Bidirectional**, and the same data changed on both servers since the last sync. Your choices are:
   - **Version on Remote Site Wins**—the remote version overwrites the local version
   - **Version on Local Site Wins**—the local version overwrites the remote version

9. If desired, select a schedule on which sync runs automatically. The choices are
   - **None**—Don't set up a schedule. Sync as needed via the Sync Profile screen's **Sync Now** button.
   - **One Time**—specify a start time and date. The profile runs once at that date/time.
   - **Hourly**—specify a start minute. The profile runs every hour at this minute.
   - **Daily**—specify a start time. The profile runs every day at this time.
   - **Weekly**—specify a start time and weekday. The profile runs on this day every week at this time.
   - **Monthly**—specify a start time and calendar day (numbers 1 through 31). After the start date, the profile runs on this day every month at this time.

   NOTE: If you enter a date greater than 28, the sync will not run in a month that does not include that date. For example, if you enter 31, the sync will not run in February, April, June, September, and November.

Setting up a Profile to Sync Workarea Files

Setting up a profile to sync Workarea files is the same as *Setting up a Profile to Sync a Database* on page 1514 with the following exceptions:

- At the **Items to Synchronize** field, select **Workarea.**
- You may use the **Include/Exclude Files** field to refine the files to be synched. See Also: *Include/Exclude Files Field* below

Include/Exclude Files Field

Use the **Include/Exclude Files** field to include files not normally synched, or exclude files or directories that are synched by default. This screen section is active only if you choose a **Template** or **Workarea** sync and no **Database/Resources** scopes.

NOTE: By default, eSync ignores .config and .txt files.

For example, .txt files are not normally synched, but you want to sync several of them. In this case, check **Include** and enter ***.txt** into the **Files** field.

Examples of the **Exclude Files** option:

- you do not want to sync Flash (.swf) files. If you check the **Exclude** button, and enter .swf into the **Files** field, eSync ignores them.
- you do not want to sync files in the widgets folder. If you check the **Exclude** button, and enter widgets into the **Directories** field, eSync ignores them.

You can exclude file types *and* directories. eSync ignores files that satisfy either criterion.

Files Excluded from the Workarea Sync

Workarea synchronizes all files in the site's `Workarea` folder, *except* files in these subfolders:

- ewebeditpro
- explorer
- ewebdiff
- foundation

- resources
- sync

Setting up a Profile to Sync Template and Bin Files

Setting up a profile to sync Workarea files is the same as *Setting up a Profile to Sync a Database* on page 1514 with the following exceptions:

- At the **Items to Synchronize** field, under **Files**, select **Templates and Bin**.
- You may use the **Include/Exclude Files** field to refine the list of files to be synched.

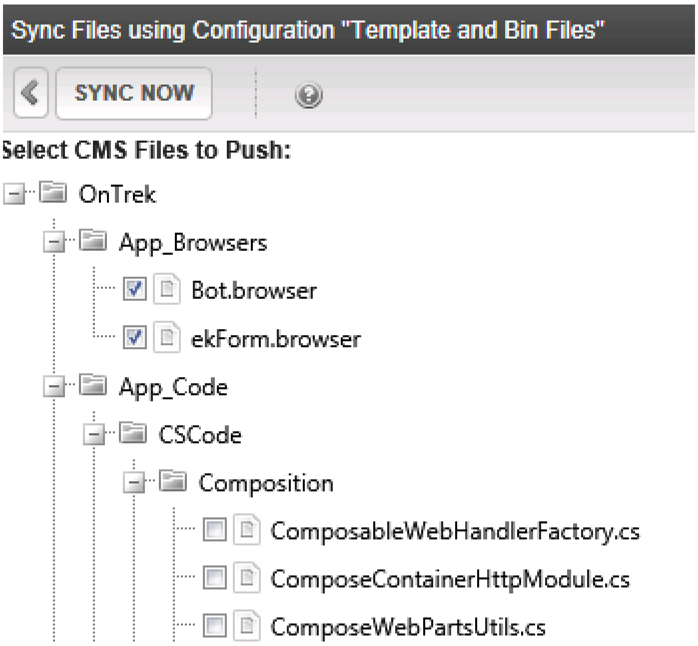
Regardless of how you complete the **Include/Exclude Files** field, the following siteroot folders are *not* synched:

- App_GlobalResources
- App_WebReferences
- Workarea
- assetlibrary
- assets, privateassets, uploadedfiles, uploadedimages (individual checkboxes under **Files**)
- latestchanges
- app_webreferences
- app_globalresources

Choosing Files and File Types via Include/Exclude Files

Within a template/bin sync's folders, you can select individual files. For example, you updated template files and related .css files on the staging server, and want to update the production server without moving everything else.

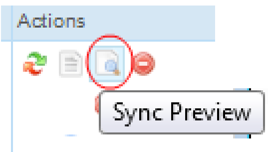
After saving the profile, click **Synchronize files** () from the View Profiles screen to access the Sync Files screen. Here, you can select individual files. If you *included* files types, only they are available for selection. If you *excluded* file types or directories, they are unavailable.



IMPORTANT: If you select one or more files on the Sync Files screen, the profile includes only those files. If you select no files, the profile includes all files indicated by your responses to the **Include/Exclude Files** field.

Previewing a Sync Profile

Before running a sync profile, you can view what will be synched. To do this, click **Sync Preview**.



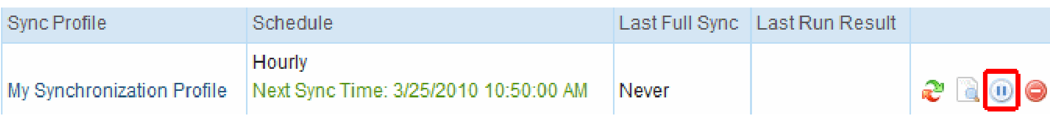
Ektron recommends this feature to help confirm that tables, assets, private assets, uploaded files, uploaded images and assetlibrary files that you delete, add, or change will be synched between servers as you expect. Also, you can predict how long a sync will take, because the preview takes the same amount of time.

The Sync Preview produces Sync Log files. See Also: *Viewing eSync Activity* on page 1546

NOTE: You cannot preview a sync profile that includes only Workarea files.

Pausing the Sync Schedule

If a sync profile runs on a schedule, you can pause it by clicking the profile's pause/play button.



While paused, the sync will not run. To resume the schedule, click the pause/play button again.

For example, a sync is scheduled to run every hour @ :50: 1:50, 2:50, 3:50, and so on. At 10:30 a.m., you pause the sync profile. So, at 10:50 a.m., the sync does not run. At 12:00 noon, you click the pause/play button again. The next sync starts at 12:50 p.m.

Choosing a Bidirectional Sync

Although most Ektron data is created and updated on the staging server, some data is collected on the production server. This information can be viewed and edited on the staging server. Here are some examples:

- membership users
- content ratings
- forum and blog posts
- community folders

When you set up a profile to sync this kind of data (maintained in the database), you typically choose **Bidirectional** as the direction, and **Notifications** and **User Generated Content** under **Database/Resources**. So, if a membership user updates his or her profile on the production server, eSync copies the changes to staging. On the other hand, if your administrator changes that information on staging, the next eSync copies it from staging to production.

If the same file on both servers was updated since the last sync, your conflict resolution policy determines which data is saved.

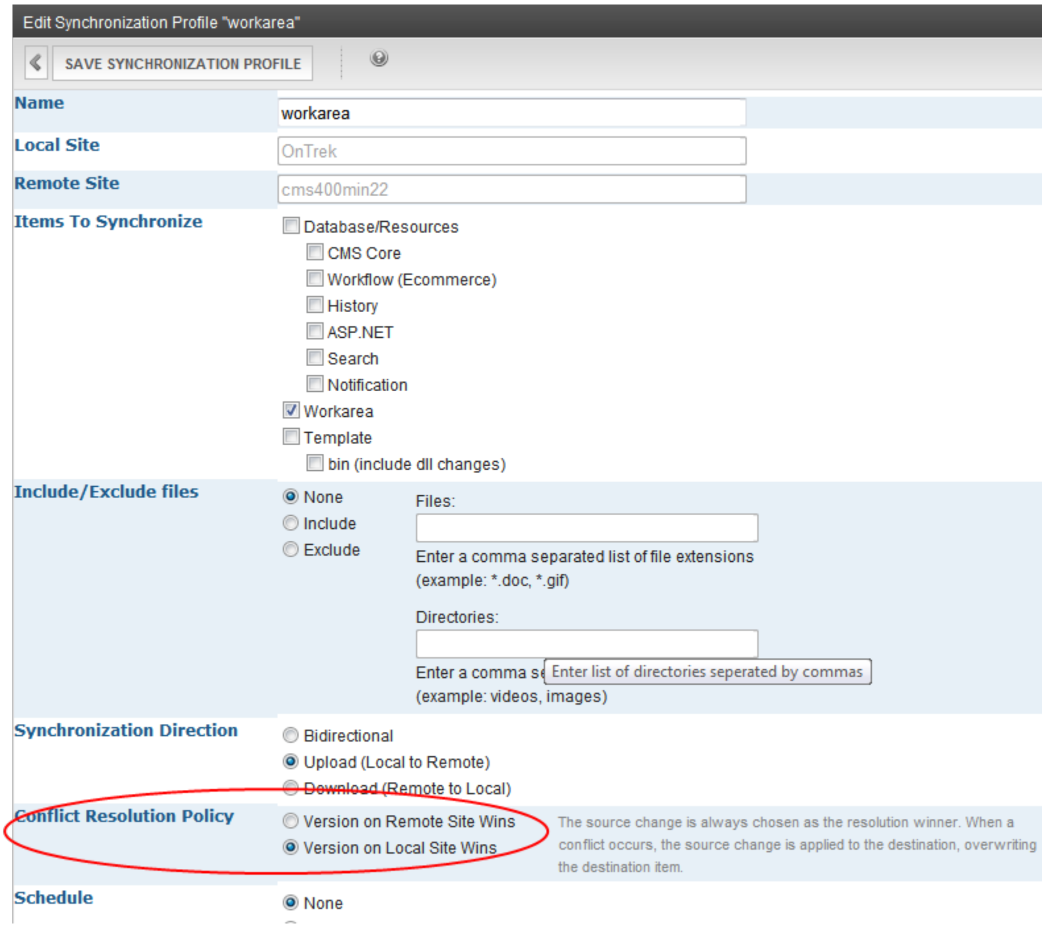
NOTE: The first time you run a sync for templates or Workarea files, the sync is bidirectional, regardless of the direction you specify on the Synchronization Direction screen.

If you are using a bidirectional sync, and the same item changed on both servers since the last sync, eSync must decide which version to keep, and which version to overwrite.

NOTE: If you use bidirectional sync and only one version was updated since the last sync, the updated version overwrites the unchanged version.

Use the Synchronization Profile screen's **Conflict Resolution Policy** field to determine which version ends up on both servers after synchronization. The choices are:

- **Version on Remote Site Wins**—the remote version overwrites the local
- **Version on Local Site Wins**—the local version overwrites the remote



Managing eSync Security Certificates

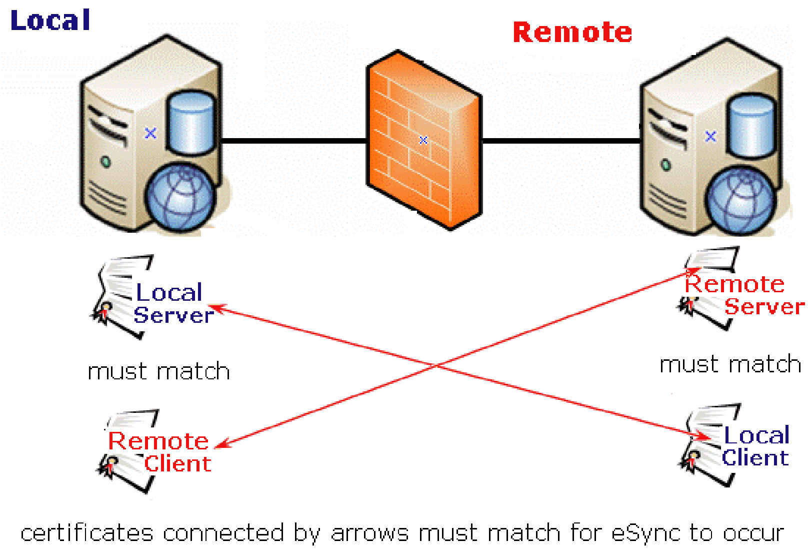
eSync uses security certificates to secure communication between servers. All servers in an eSync relationship must have matching, encrypted security certificates to establish an eSync relationship.

NOTE: If your relationship includes separate database servers, you do not need to install security certificates on them. You only need to install certificates on servers that host Ektron.

This section also contains the following topics.

See Also: *Create eSync Security Certificates for a Load Balanced Cluster* on page 1558

Before you can establish an eSync relationship between servers, each server must have its own (local) security certificates *and* certificates from every other server in the relationship.



As another example, if an eSync relationship consists of 5 servers, each server requires 5 security certificates: one local and 4 remote.

Each server creates 2 certificates: a server and a client. Then, you copy the client certificate to the other servers in the relationship. The local machine's *server* certificate must match a *client* certificate on the remote server, and vice versa.

You typically copy certificates only when establishing an eSync relationship between servers. After that, any eSync activity triggers a background check, and you can only proceed if certificates match.

Each certificate consists of these files.

- Server certificate
  - *servername*_SyncServer.pfx
  - *servername*_SyncServer.pvk
  - *servername*_SyncServer.cer
- Client certificate
  - *servername*_SyncClient.pfx
  - *servername*_SyncClient.pvk
  - *servername*_SyncClient.cer

The security certificates can apply to one site or all sites on a server. You determine this when installing them.

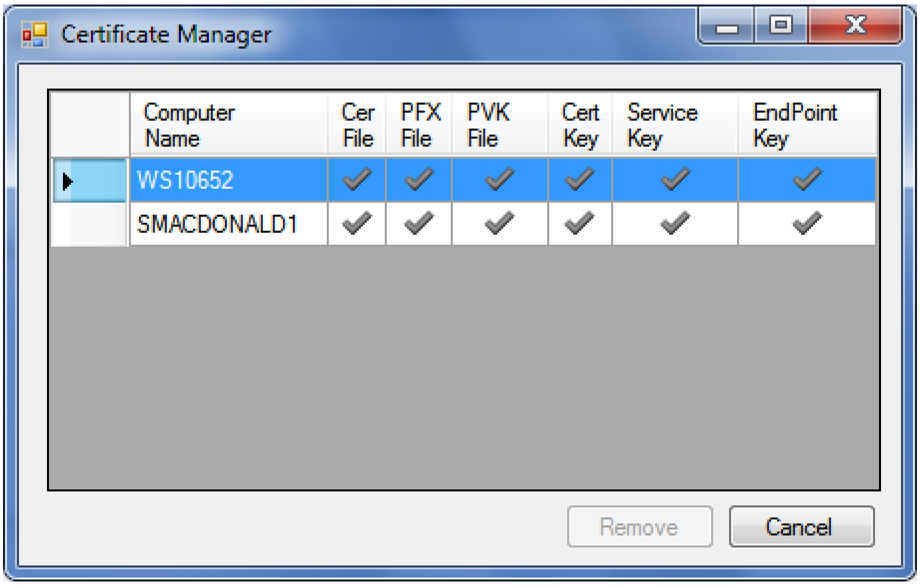
Viewing Security Certificates

Use Certificate Manager to view security certificates installed on your server. Check marks indicate the certificates. You can also delete all certificates for a server.

NOTE: You can only remove certificates from remote servers. You cannot remove them from the server to which you are logged in.

To view (and delete) certificates:

1. Right click **Start > Program Files > Ektron > CMS400vxx > Utilities > Security Configurator** > right click and choose **Run as Administrator.**
2. Click **Manage Certs**. Your server's security certificates appear.



3. To remove a remote server's certificates, select that row and click **Remove**.

Installing Security Certificates

PREREQUISITE

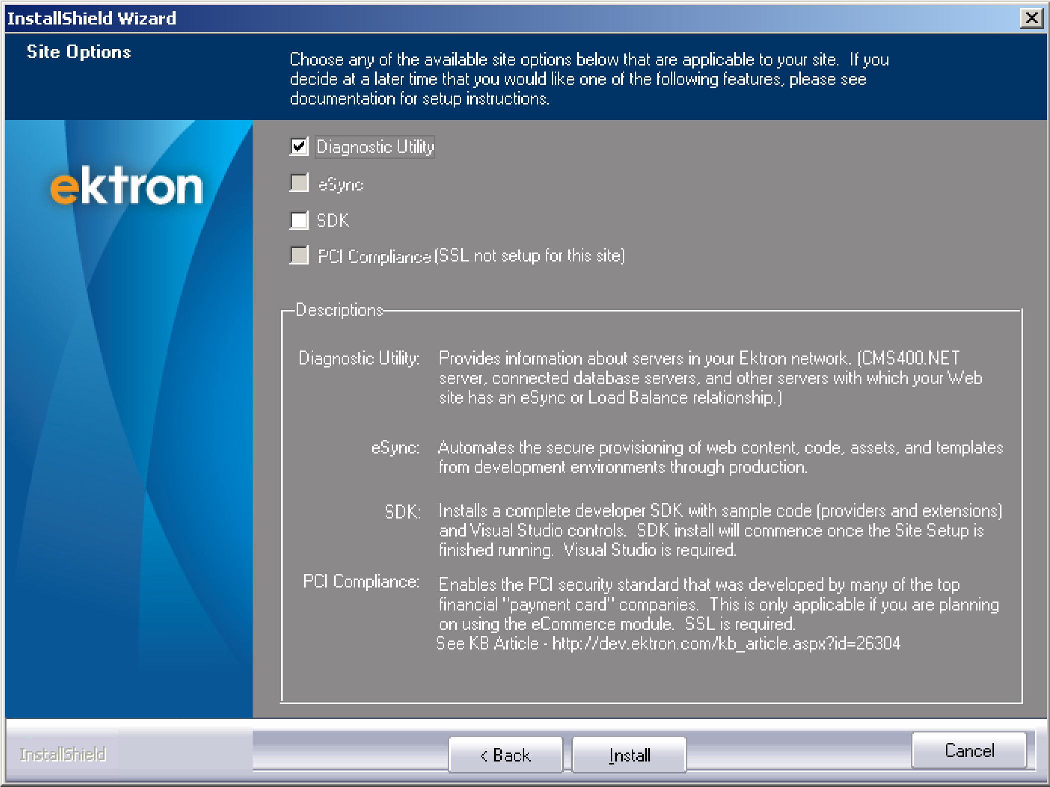
Permission to copy and paste files between local and remote servers

To create and place eSync security certificates in the correct locations:

- *Step 1: Create Security Certificates on Your Local Server* below
- *Step 2: Create Security Certificates on the Remote Server* on page 1525
- *Step 3: Copy Local Client Certificate to Remote Server* on page 1525
- *Step 4: Copy Remote Client Certificate to Local Server* on page 1527
- *Step 5: Test the Security Certificates* on page 1528

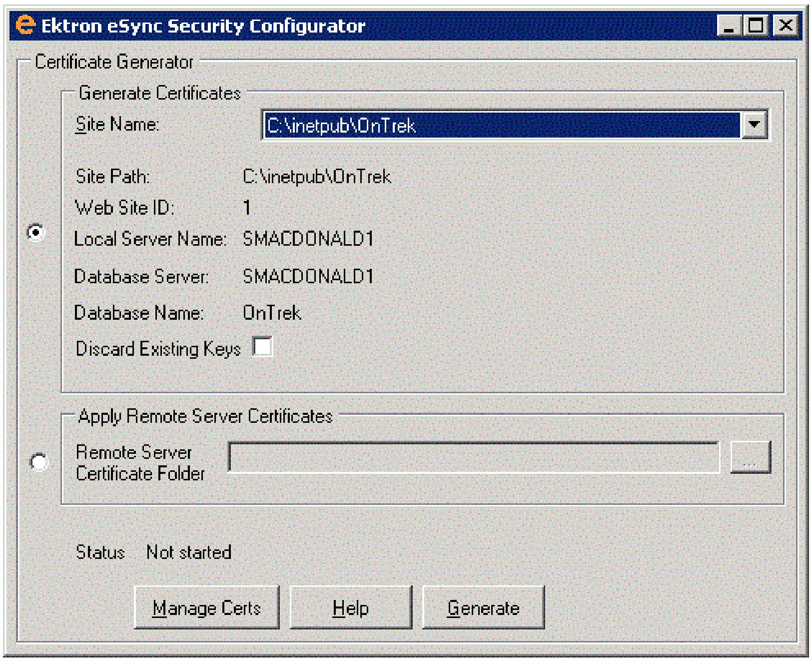
Step 1: Create Security Certificates on Your Local Server

1. Log on using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. During the Ektron installation, you are asked if you want to install eSync security certificates. The **eSync** checkbox (second from the top) is only accessible if your license key contains an eSync modifier.



3. If you check **eSync,** near the end of installation, the following screen prompts you to create the certificates.

NOTE: You can access this screen at any time screen by clicking the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator** > right click and choose **Run as Administrator**.

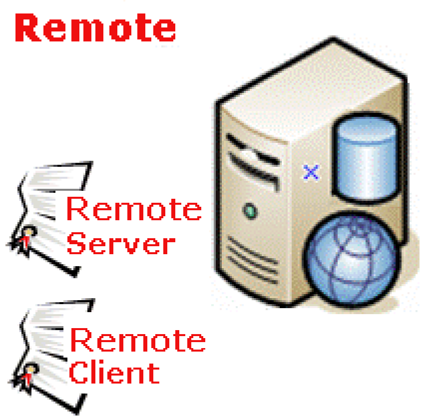


4. Use the following information to understand this screen.
   - **Generate Certificates**—Use this screen area to create security certificates that must be copied to a remote server with which you want to sync.
   - **Site Name**—If more than one site is installed on this server, use the pull-down list to select the website for which you are installing security certificates. Or, click **All** to apply certificates to all sites on the server.
   - **Apply Remote Server Certificates**—Use this screen area to apply security certificates that were copied from a remote server to your local server. See Also: *Step 3: Copy Local Client Certificate to Remote Server* below
5. Click **Generate**.
6. Local security certificates are created and configured.

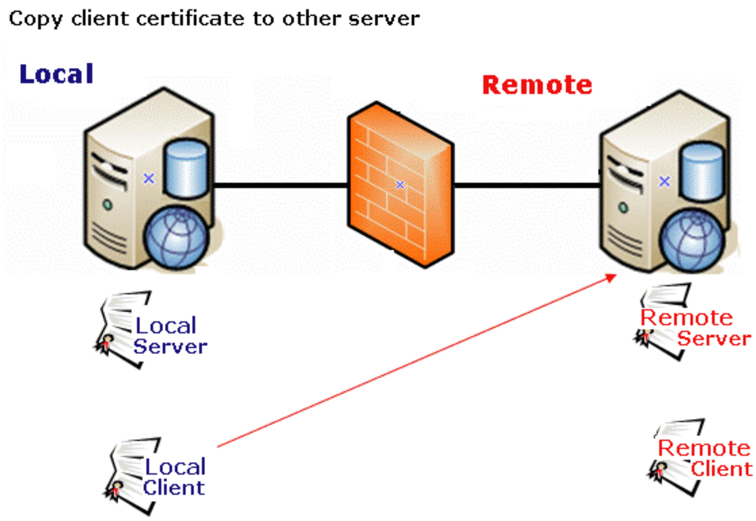
NOTE: Only click **Generate** once. The status field at the bottom of the screen updates as it progresses. If you click **OK** more than once, you delay the certificates' creation.

Step 2: Create Security Certificates on the Remote Server

1. Sign on to the remote server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Generate security certificates for the remote server, following instructions in *Step 1: Create Security Certificates on Your Local Server* on page 1523.



Step 3: Copy Local Client Certificate to Remote Server



1. On the local server, open 2 Windows Explorer windows: one showing the local server's file system, and the other showing the remote server's file system.
2. On the remote server window, create a folder underneath the root folder. The folder name is not important.

   IMPORTANT: Do not create the folder under the Web root folder, for example `C:\inetpub\wwwroot`.

3. In the local server window, open the following folder:
   `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`.
4. Copy the following files.
   - servername_SyncClient.pfx
   - servername_SyncClient.pvk
   - servername_SyncClient.cer
   - servername_SyncServer.pfx
   - servername_SyncServer.pvk
   - servername_SyncServer.cer

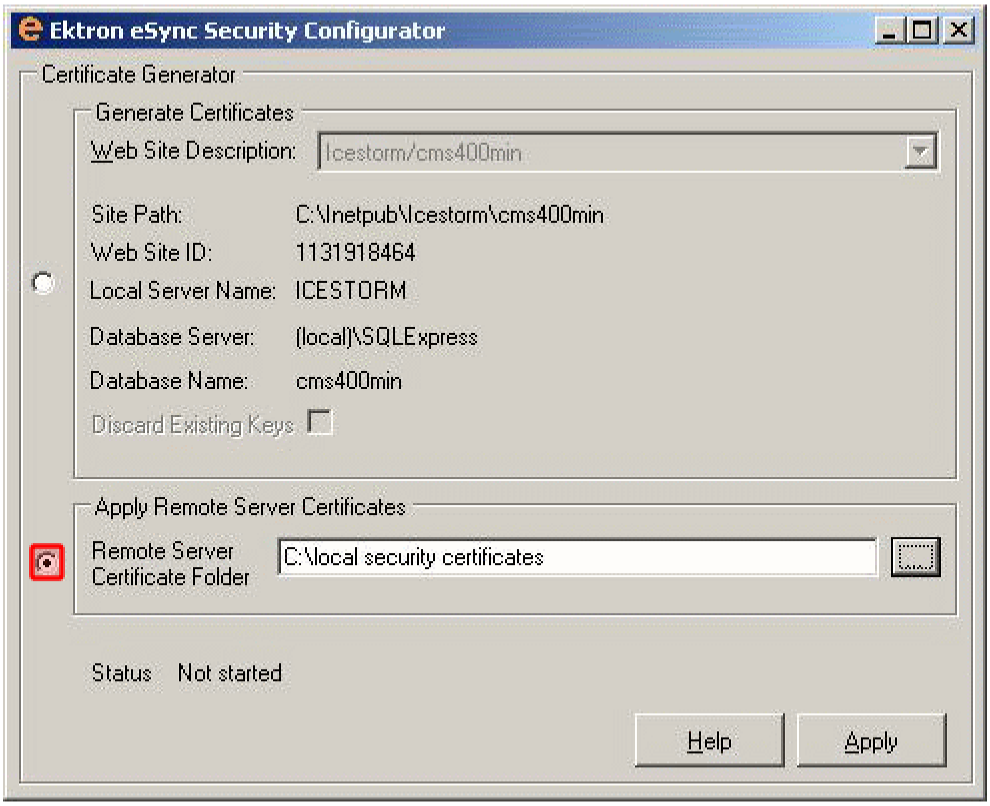
   NOTE: These files were created when you completed the eSync Security Configurator Screen in Step 1.

5. Paste the files to the remote server folder that you created in Step 2. Make sure there are no other security files in the folder.

   After you copy the local server's security certificates to the remote server, they need to be registered and moved to the correct folders. The Security Configurator screen does this.

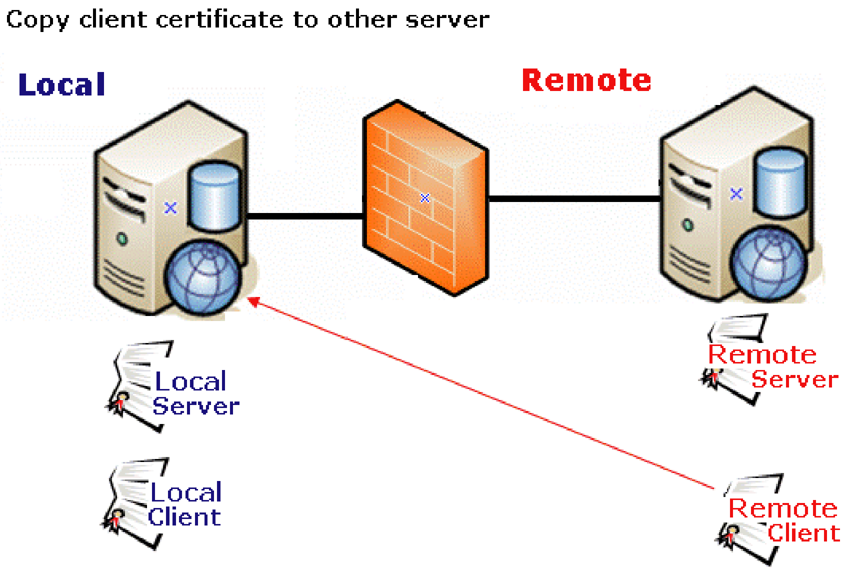
6. Log into the remote server, using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
7. Open the security configurator screen using this path: **Windows Start Button > All programs > Ektron > CMS400 v8x > Utilities > Security Configurator** > right click and choose **Run as Administrator**.

8. The security configurator screen appears.



9. Click **Apply Remote Server Certificates** (circled above).
10. Click the browse button next to that field.
11. Browse to the folder to which you pasted the security certificates in Step 5.
12. Click **Apply**.
13. The utility copies the security certificates you pasted in Step 5 to the correct folder, and configures them for the remote server.

Step 4: Copy Remote Client Certificate to Local Server



1. Sign on to the remote server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Follow the steps described in *Step 3: Copy Local Client Certificate to Remote Server* on page 1525, except substitute remote for local.

Step 5: Test the Security Certificates

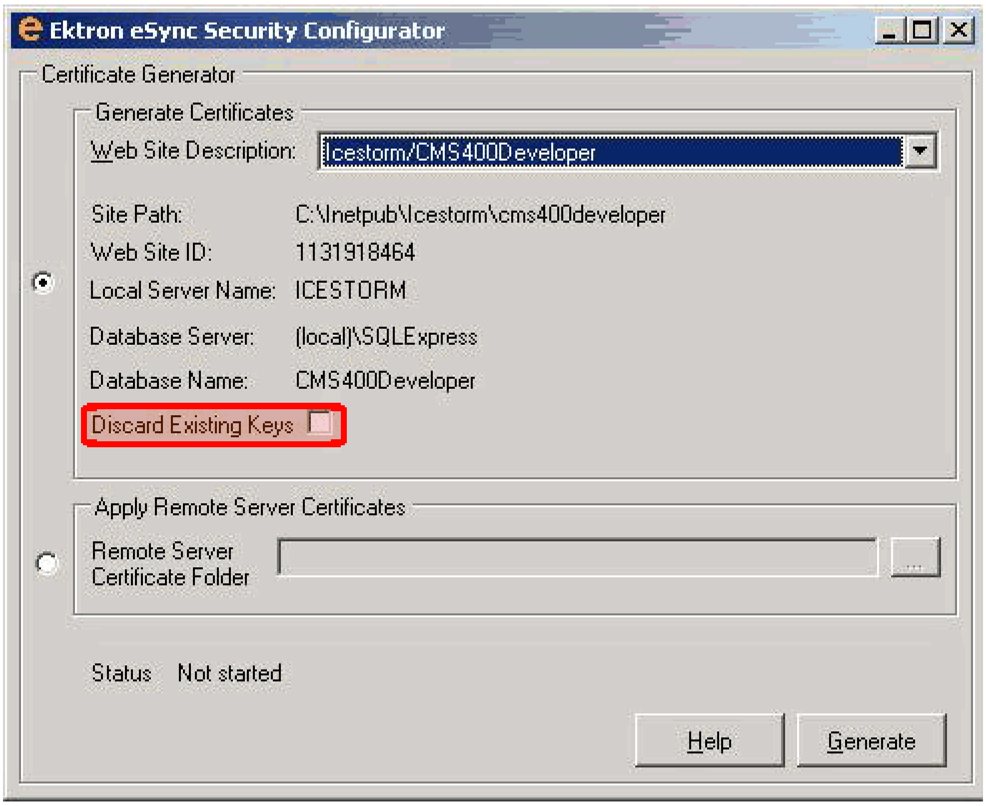
1. From the local server, sign on to Ektron using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. In the Workarea, go to **Settings > Configuration > Synchronization> Profiles**.
3. Click **Create Synchronization Server Configuration**.
4. Enter the name of the **Remote Server**.
5. Select the security certificate you are testing.
6. Click **Connect**. If the next screen appears, the security certificates are working properly.

Regenerating Security Certificates

Follow these steps to regenerate security certificates. You would do this if they stop working, or you are concerned about a security breach.

1. Log into the Ektron server using the credentials of the service account used by Ektron Windows Service 4.0 and your site's AppPool.
2. Access the eSync Security Configurator screen via **Windows Start Button > All programs > Ektron > CMS400 v8x > Utilities > Security Configurator** > right click and choose **Run as Administrator**.
3. Use the **Web Site Description** field to select a site on your server, or choose **All** sites.

4. Check the **Discard Existing Keys** box (circled below).

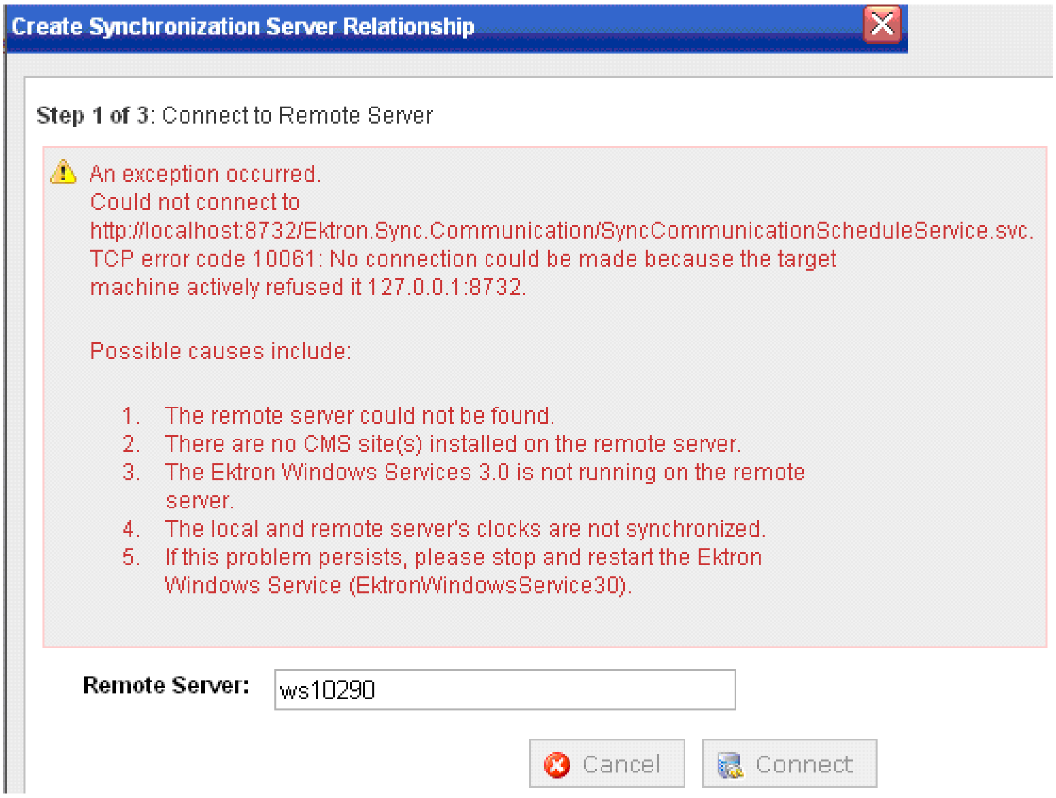


5. Click **Generate**. Security certificates are removed from your local server.
6. Reopen the Security Configurator screen.
7. Choose the correct website, verify the other settings, and click **Generate**. See Also: *Step 1: Create Security Certificates on Your Local Server* on page 1523. This action creates new security certificates on your server.
8. Copy the new certificates to all other servers in the eSync relationship. This is explained in *Step 3: Copy Local Client Certificate to Remote Server* on page 1525.

Troubleshooting Security Certificates

Could Not Connect Error

When trying to connect to a remote server, after selecting a security certificate, you may see the following message.



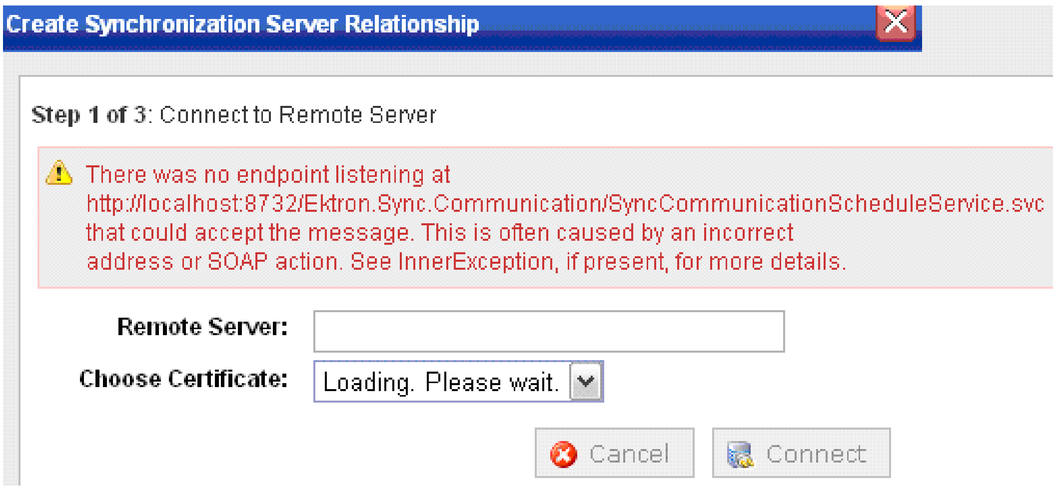
To resolve the problem:

- Check the Windows Event Viewer > EktronL2 log for the error. If the service is hosted but already exists, stop then start the service (do not restart).
- The certificates may be corrupted. To resolve this, see *Regenerating Security Certificates* on page 1528.

No Endpoint Error

The following error indicates that

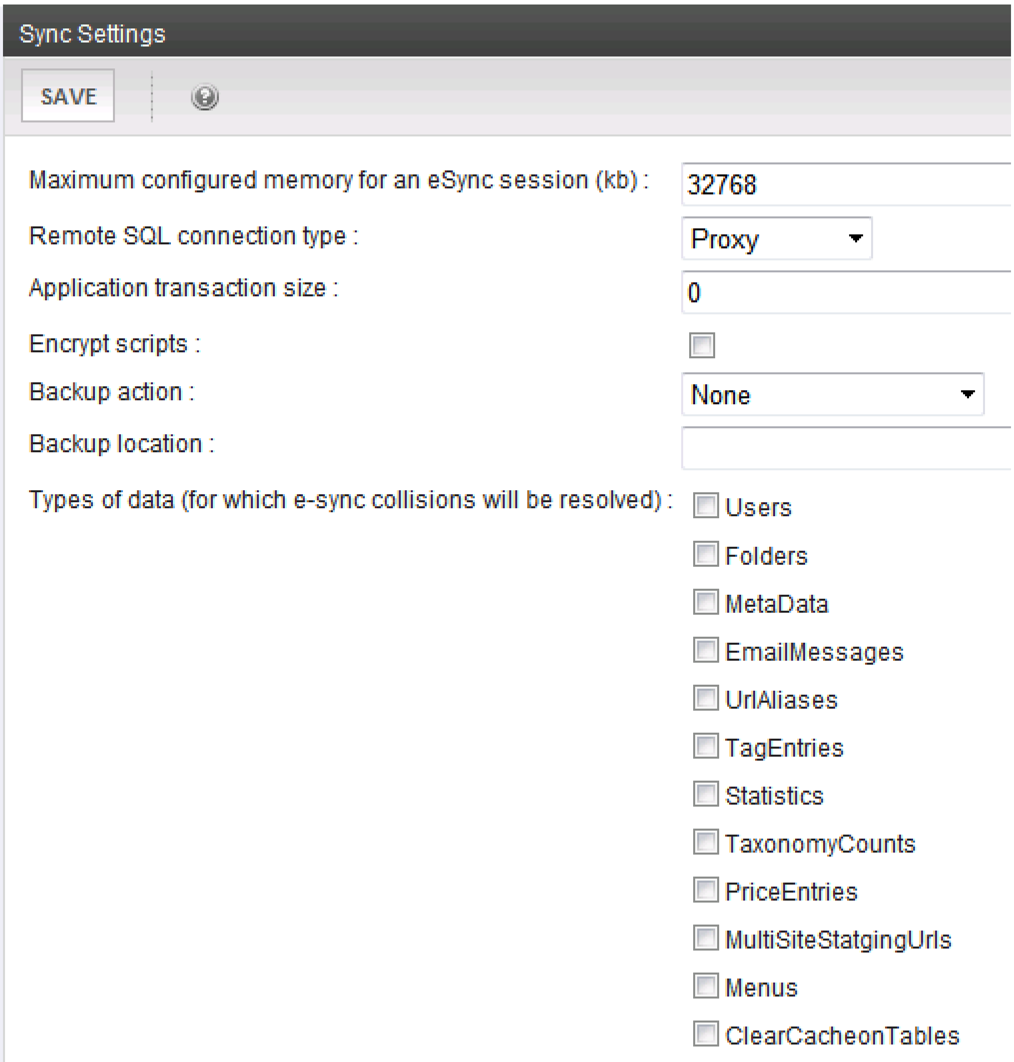
- the remote site may not be on the same Ektron version as the local site, *or*
- the Ektron Windows Service is not started



Specifying eSync Settings

The eSync Settings screen lets you define many eSync settings.

Workarea > Configuration > Synchronization > Settings.



- **Maximum configured memory for an eSync session (kb)—**Define a maximum amount of memory that your server uses during a sync. The default is 32 MB. You can change it to any size up to the amount of RAM in your eSync server.
- **Remote SQL connection type—**Data sync runs in one of 3 contexts: Direct, Proxy, or Auto detect.
  - Auto detect: Try to connect using TCP. If successful, the mode is switched to direct. Otherwise, the mode is proxy. Auto detect is the default.
  - Proxy: Use Windows Communication Foundation (WCF) service.
  - Direct: Direct SQL Connection (direct TCP connection used instead of WCF connection)
- **Application transaction size**—This value is typically the same as **Maximum configured memory for an eSync session**. The commit occurs after the data reaches this size.

- **Encrypt scripts**—If you check this box, all stored procedures and triggers are encrypted.

  The default value is false because Azure does not support encryption. You should only check this box if you are using eSync in an on-premises environment.
- **Backup action, Backup location**—Define when you want to run the backup (only initially or each time) and the backup file location. See Also: *Backing up the Destination Server During an eSync* on page 1536
- **Types of data (for which e-sync collisions will be resolved)**—Select data types for which you want to resolve collisions. See Also: *Determining which Collisions are Resolved* on page 1551

Running eSync

IMPORTANT: The names of the site and all folders *must* match on both servers. This is because paths to images, xslt files, and so on, refer to a site and its folders. If the servers' site and folder names do not match, the links break.

NOTE: You cannot run 2 syncs simultaneously.

This section also contains the following topics.

Optional Steps before Running a Sync

You may want to adjust the `web.config` and `db.config` settings before running a Sync. The following topics explain eSync features that you control via the .config files.

- *Synchronizing Content and Folders* on page 1537
- *Using eSync with Web Alerts* on page 1563
- *Using eSync with eCommerce* on page 1563
- *Forcing the Initial Sync* on page 1535
- *Replacing the File Sync* below
- *Synchronizing Servers Using eSync* on page 1473
- *Adjusting Relationship Settings* on the facing page

Replacing the File Sync

Some Ektron customers prefer a tool other than eSync to sync assets; for example RoboCopy. To disable eSync's asset sync:

1. On your Ektron server, open `C:\Program Files (x86)\Ektron\EktronWindowsService40\Ektron.ASM.Services40.exe.config`.
2. Set the `<add key="disableFileSyncProvider">` element to **true**.
3. Save `Ektron.ASM.Services40.exe.config`.
4. Restart the Ektron Windows service.

From now on, eSync will not copy assets. Set up your replacement tool to do that.

Adjusting Relationship Settings

You can modify settings in the Ektron Windows service (EWS) config file (`C:\ProgramFiles (x86)\Ektron\EktronWindowsService40\Ektron.ASM.EktronServices40.exe.config`) to accommodate your preferences. The settings are:

- **DebugEnabled**—By default, this is set to zero (0). If PDB files are present in the EWS folder or it is a DEBUG build, this value is set to **1**. Setting this value to **2** works as in version 8.5.
- **DependencyImageSyncExtensSprtForThumbnls—**All valid image file extensions. This list determines if a content item being synched is an image. If true, a thumbnail is also synched. If this value is BLANK, no thumbnails are synched while synchronizing dependent images (including the file sync retry and content dependency sync).
- **DependencySyncRecursionDepth**—The depth of recursion for the content dependency sync. Zero (0) indicates that *all* dependencies are evaluated, regardless of the number of recursions necessary. If you enter a number more than zero, EWS only evaluates as far as the specified depth.
- **DownloadFileStreamsInParallel**—If this is set to true on a server with more than 1 processor,, then it will download file streams from the remote server in parallel, using as many threads as specified in MaxNumberOfParallelThreads. Ensure that BOTH the local and remote server has enough resources to handle normal load if the number of MaxNNumberOfParallelThreads processors run at 100% CPU.
- **EnableMetadataEvalInDependencySync**—If set to **True**, metadata evaluation occurs during the content dependency sync. If set to **False**, files specified in metadata are not synched during a content sync. Default value is **True**.
- **EnableRecursiveDependencySync**—If set to **True**, recursive dependency sync is enabled for content sync. This means that if a content's metadata or HTML references other content blocks, their dependencies are also evaluated and synched. Default value is **True**. See Also: *Resource Selector* on page 476, *Creating and Deploying a Related Content Definition* on page 375
- **EnableSiteFileHashIndexingAtStartup**—If set to true AND if UseFileHashForFolderSyncChangeDetection OR UseFileHashForFilteredFolderSyncChangeDetection are also true, then the EWS will start indexing all the files in the site which are synced using file sync, without using high CPU. This process starts 5 minutes after the service starts.
- **FileSyncFailureMaxRetries—**The maximum number of times the EWS tries to sync a file that was not synched in the initial try. Default value is **5**.
- **FileSyncFailureSleepBetweenRetriesInSeconds**—The time (in seconds) the EWS "sleeps" before it attempts to retry a failed file sync. Default value is **5**.
- **LoadFileStreamsInParallel**—If this is set to true on a server with more than 4 processors, then it will load file streams locally, in parallel, using as many threads as specified in MaxNumberOfParallelThreads. Ensure that the server has enough resources to handle normal load if the number of MaxNumberOfParallelThreads> processors run at 100% CPU.
- **MaxNumberOfParallelThreads**—Specifies the maximum number of threads created. You should increase this value if you have an adequate CPU resources to significantly improve performance.

- **UploadFileStreamsInParallel**—If this is set to true on a server with more than 1 processor, then it will upload file streams to the remote server in parallel, using as many threads as specified in MaxNumberOfParallelThreads. Ensure that BOTH the local and remote server has enough resources to handle normal load if the number of MaxNumberOfParallelThreads processors run at 100% CPU.
- **UseFileHashForFilteredFolderSyncChangeDetection**—Similar to UseFileHashForFolderSyncChangeDetection, but used for file syncs where folder sync is filtered by file name.
- **UseFileHashForFolderSyncChangeDetection**—Runs file sync in CompareFileStreams mode as described here: FileSyncOptions Enumeration

  This is set to false by default because file hash mode can fail when the file is locked for reads.

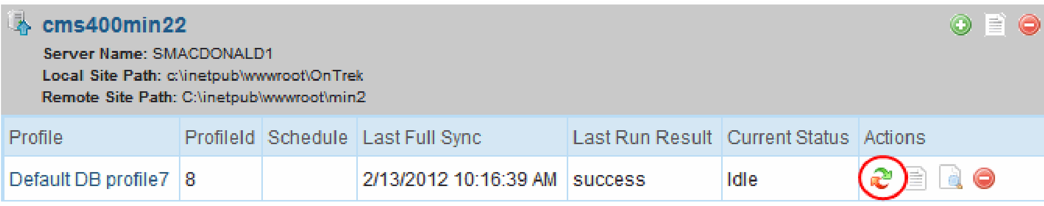
Prerequisites for Running a Sync

- *Prerequisites for Using eSync* on page 1475
- You created an eSync relationship and profiles. See *Setting Up eSync* on page 1475.
- You are not signed on to a production server that is outside the firewall. You cannot sync *from* a production server outside the firewall to other servers—you can only sync *to* this production server.

Beginning a Sync

You can run eSync on a schedule, or on demand. To sync a profile immediately:

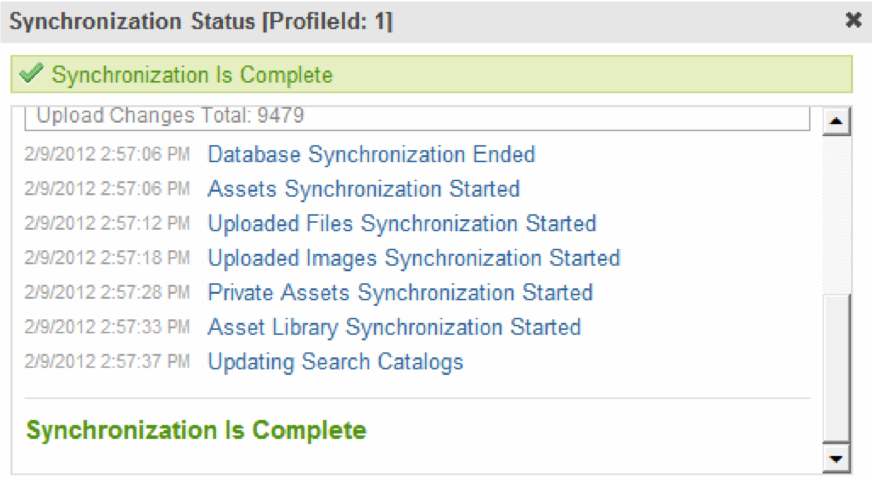
1. Go to the **Settings > Configuration > Synchronization> Profiles** screen.
2. If a profile is ready to sync, a sync button ( ) appears in the right column.



3. Click **Sync** ( ).

> **NOTE:** If another sync is running, you are notified. You can only begin a new sync when the current one finishes.

4. A screen monitors progress and indicates when the sync is complete.

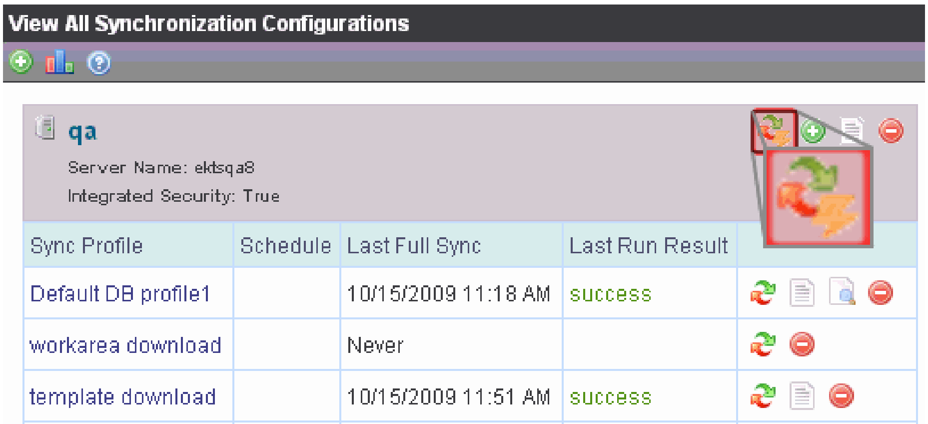


NOTE: You can close the window and reopen it at any time by clicking **Sync** ( ). If you do, the sync's current status appears.

IMPORTANT: If you performed a database sync and the site being synched uses URL aliasing, you must go to its URL Aliasing Settings screen and click **Refresh** ( ) to update its aliasing information.

Forcing the Initial Sync

Use the Force Initial Sync button to reinitialize a server that was previously initialized.



Here is an example of when to use Force Initial Sync.

1. You initialized a test server from your current Ektron server.
2. You experimented on the test server by adding new content, deleting content, and so on.
3. You no longer want the test server's database. Instead, you want to reinitialize the test server from your current Ektron server.

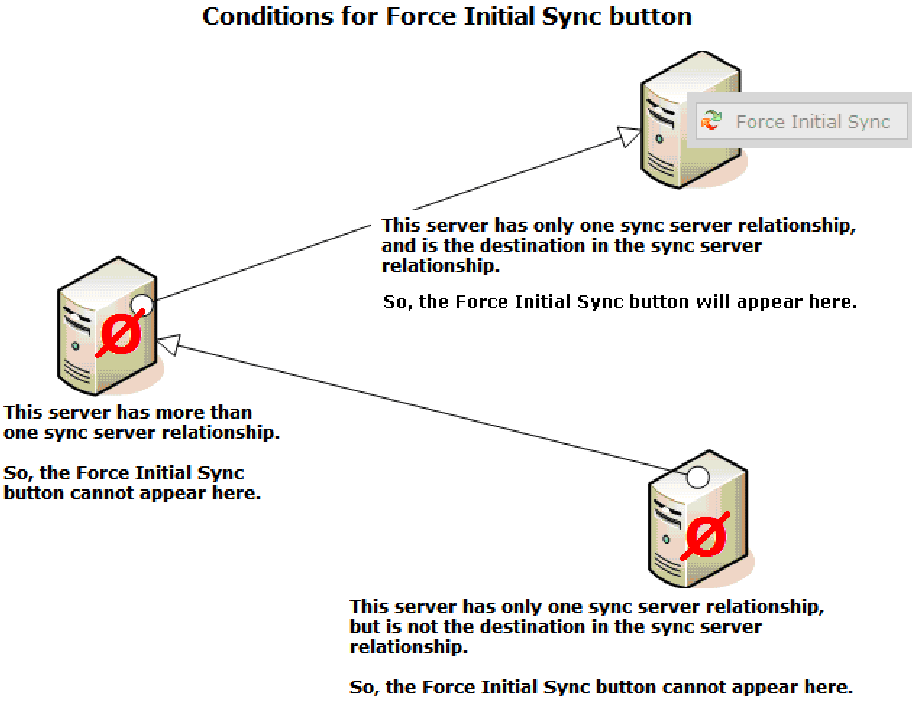
   To accomplish step 3, use the **Force Initial Sync** button. The button only appears when all of the following conditions are present.

FORCING INITIAL SYNC CONDITIONS

The Force Initial Sync feature requires these conditions.

- The server's `web.config` file's `ek_ForceReInit` property is set to `true`.
- The site is not part of a multi-site relationship.
- The server has only one sync server relationship.
- The server is the *destination* (that is, on the download side) of the sync server relationship.

The following image illustrates the last 2 conditions.



NOTE: The Force Initial Sync procedure ignores the checks that are normally made prior to synchronization:
* the destination database is smaller than the source database
* the site has not been previously staged

Backing up the Destination Server During an eSync

You can create a backup of the destination server's database. If you do and problems occur during the sync, the database is restored to its pre-backup state. You can specify the backup to occur on the initial sync only, or every time you sync.

NOTE: No backup is made when you sync a package, folder, content. See Also: *Synchronizing Content and Folders* on the facing page, *Synchronizing a Package* on page 1542

To set up database backup:

1. Go to **Workarea > Settings > Synchronization > Settings**.
2. At the **Backup action** field, select an option.
   - **Before initial sync**—Run backup before the initial sync only.
   - **Before each sync**—Run backup before each sync.
3. At the **Backup location** field, enter a local or network path to the folder to which the backup file will be saved. The user account that runs the Ektron Windows Service must

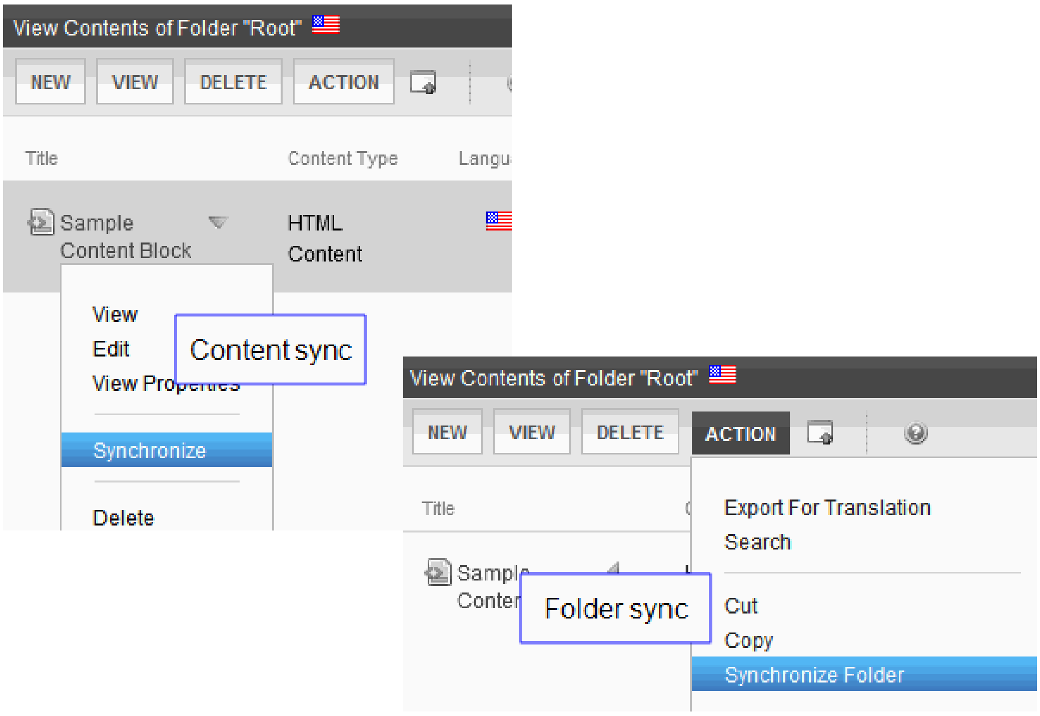
have read and write permission to the folder.

4. Click **Save**.

The backup file format is `[dbname][yyyy][mm][dd][hh][mm][ss][mmm].[product].bak`. For example: `cms400min20120216075946765.esync.bak`.

Synchronizing Content and Folders

This section explains how to sync content and folders using context menu options.



This section also contains the following topics.

Prerequisites for Content/Folder Sync

See Also: Prerequisites for Using eSync

- You are a member of the Administrators group or assigned the Synchronization Admin Role.
- Content/folder sync is enabled.

Set up content and folder sync

1. On the server on which content editors will sync content and folders, open the *site root*/`web.config` file.
2. In the following area, set `eSyncEnabled` to `true`.

```
<eSyncSettings>
<!-- Set this key to true to enable content/folder sync if the eSync
```

```
feature is available -->
<add key="eSyncEnabled" value="false"/>
</eSyncSettings>
```

3. Save.

- The server has a sync relationship and its initial sync has been run.

Rules governing folder and content sync

Rules Governing Folder and Content Sync

Content Sync

- You can only sync content whose status is Approved.
- If you try to sync content, and its folder was created or modified since the last full sync, you are warned that you must sync the folder before synching the content.
  - An example of folder modification is the assignment of a new metadata value.
- If new *tags* or *taxonomy categories* were added to content since the last full sync, you must run a folder sync before you can sync that content. You must also run a full sync for all other sync profiles that use those tags or taxonomy categories. See also: *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245.
- Forum posts are not synched.
- When you sync a content item, all physical files (DMS assets and library files) in the content's folder are also synchronized.

Folder Sync

- blogs and forum posts are not synched.

Synchronizing a Content Item

Content sync copies selected content to another server. The sync also copies all entities on which the content is dependent, such as

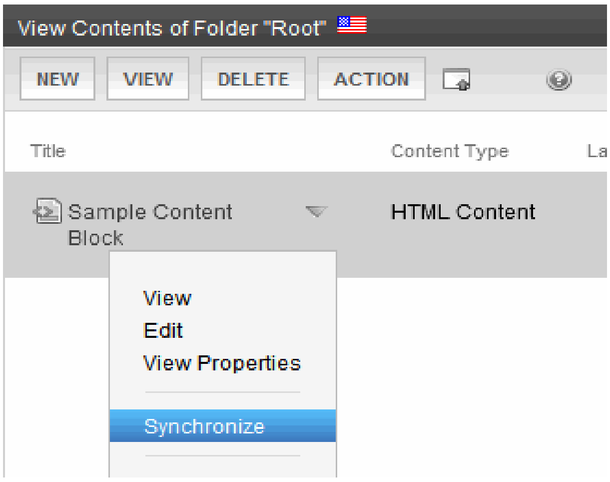
- library resources within that content, such as images and quicklinks
- content selector metadata, file selector metadata, image selector metadata See Also: *Creating and Deploying a Related Content Definition* on page 375
- aliases

NOTE: When you sync one content item, all physical files (DMS assets and library files) in the content's folder are also synched.

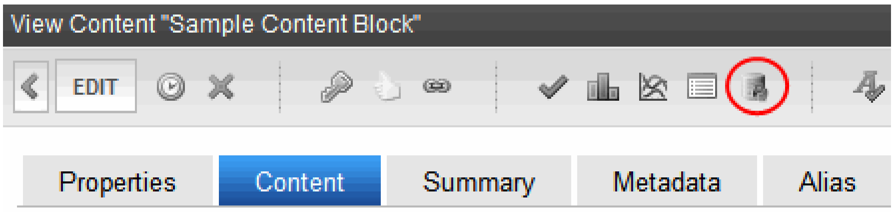
You can only synchronize Approved content. See Also: *Prerequisites for Content/Folder Sync* on the previous page

To sync a content item:

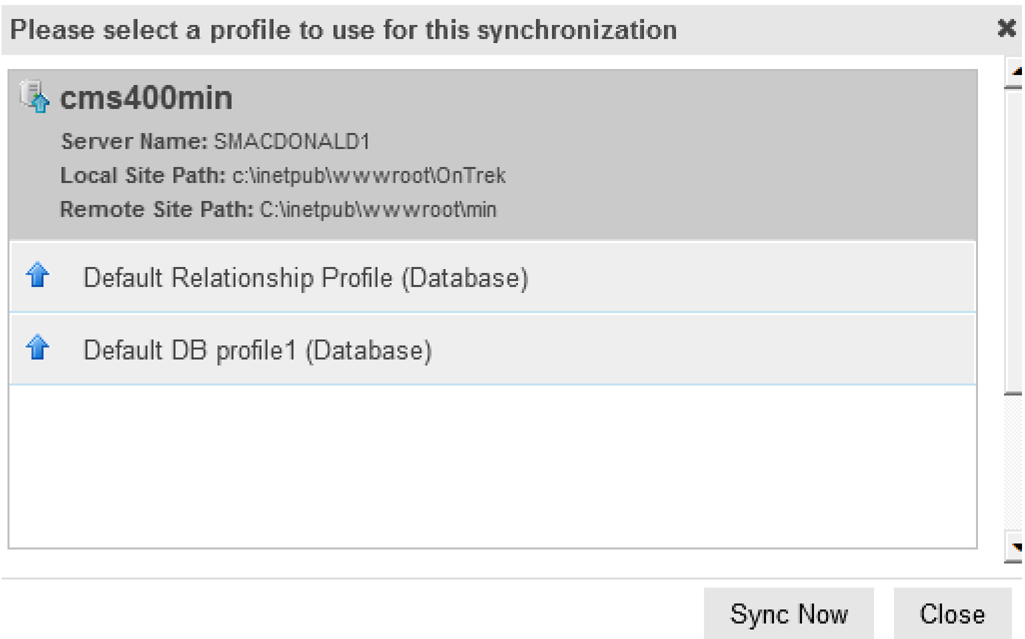
1. In the Workarea, navigate to the content.
2. Click the arrow to its right to see its drop-down menu.



NOTE: A Synchronize button appears on the View Content screen.



3. Click **Synchronize**.
4. All profiles whose direction is **Upload** or **Bidirectional** appear. Select the appropriate one.



5. Click **Sync Now**.
6. The content is synchronized with the selected database.

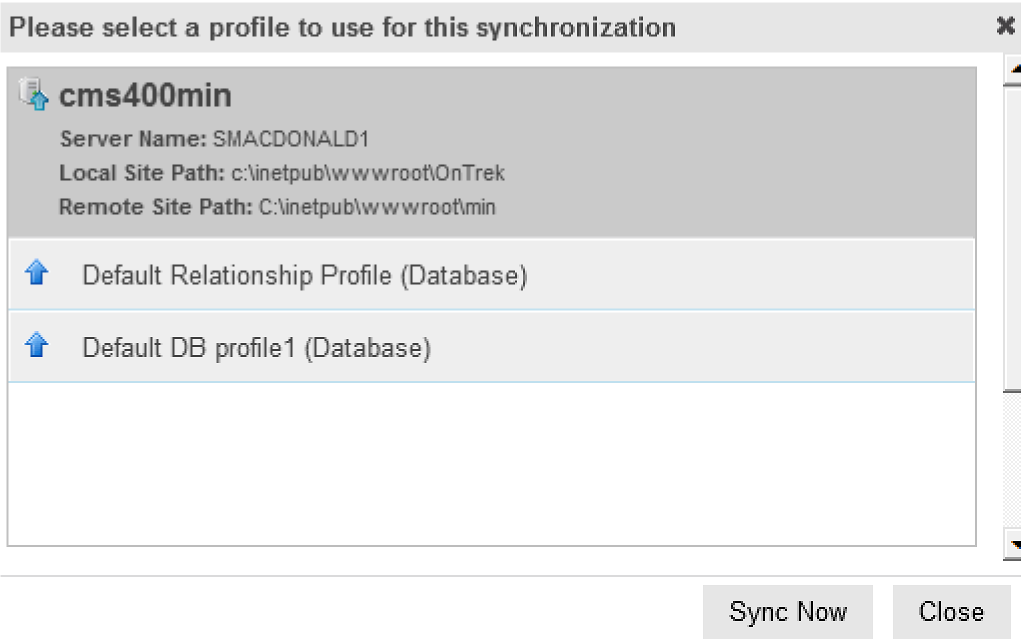
Synchronizing a Folder

The folder sync updates all content in a folder with the same folder in another server. It does not affect content in folders underneath the selected folder.

See Also: *Synchronizing Content and Folders* on page 1537

To sync a folder:

1. Navigate to the folder.
2. Choose **Action > Synchronize Folder**. A screen asks you to select a sync profile.



3. Click **Start Sync**. All content in the folder is synched with the selected database.

Synchronizing Custom SQL Database Tables

You can use eSync to synchronize custom SQL database tables. To do this, you must create the custom table on all servers. eSync does not create the tables, but will follow rules for populating records in them.

IMPORTANT: Table names are case sensitive. Names must be identical on all servers.

Adding an Empty Custom Table to your Database on the Source and Destination Servers

Run the following SQL Query on the database. The table must have a primary key and cannot use identity columns.

Here is an example of a valid table.

```
Create table foo3(Id int not null primary key clustered,
  Id2 int not null, company nvarchar(50) null)
```

Here are examples of *invalid* tables, which incorrectly use identity columns.

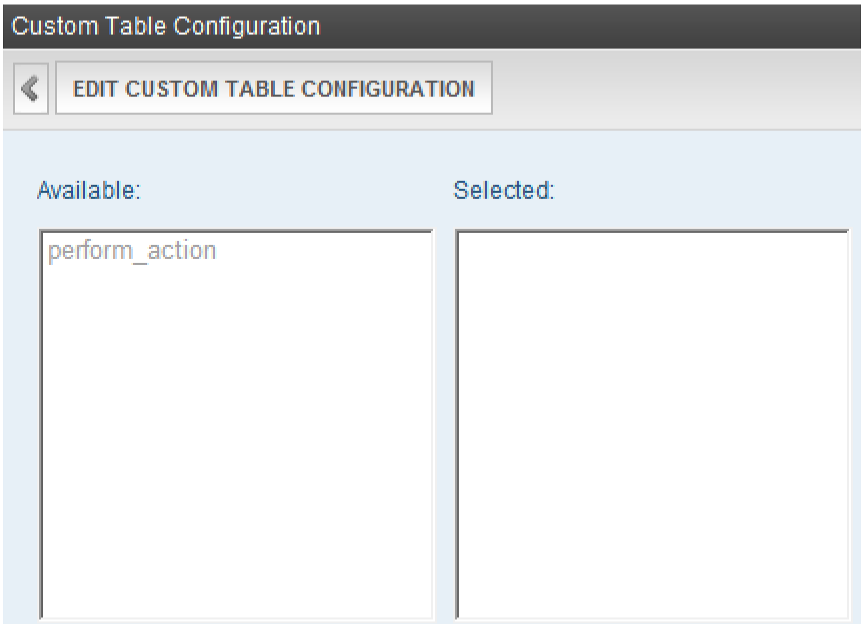
```
create table foo1(Id int not null identity(1,1) primary key clustered,
  company nvarchar(50) null)
create table foo2(Id int not null primary key clustered,
  Id2 bigint not null identity(1,1),
  company nvarchar(50) null
```

Adding a Custom Table to an eSync Configuration

NOTE: The Manage Custom Table Configuration button ( ) appears only if your database has custom tables.

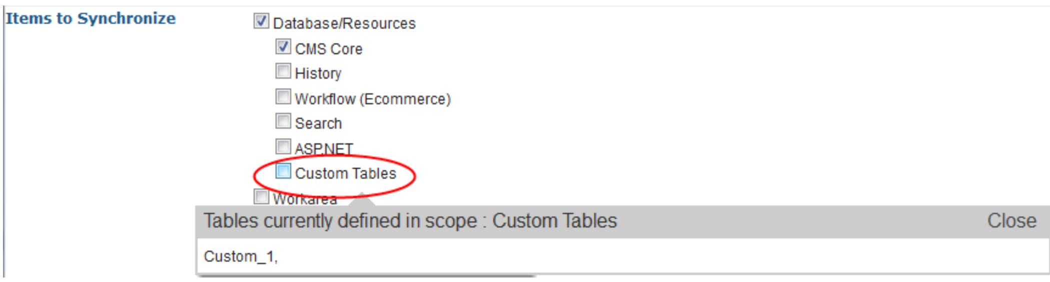
To add custom tables to an eSync Configuration, follow these steps on the source server.

1. Go to **Workarea > Settings > Configuration > Synchronization> Profiles**.
2. Click **Manage Custom Table Configuration** ( ). The Manage Custom Table Configurations screen appears.



3. Click **Edit Custom Table Configuration**.
4. Click a custom table from the **Available** column to select it.
5. Click the **right arrow** button to move it to the **Selected** column.
6. Click **Save Custom Table Configuration**.

After you add a custom table, your eSync profile displays a new Database/Resource scope, **Custom Tables**. Select it to sync custom tables.



Synchronizing a Package

You can group Ektron objects (content, folders, taxonomies, and so on) into a *package*, which can be synched at any time. So, you can synchronize these objects without having to run a complete sync. Advantages of a sync package include:

- Much quicker than a full sync
- More granular control over which items are synched
- Can sync individual items even if their dependencies were modified

NOTE: As described in *Prerequisites for Content/Folder Sync* on page 1537, eSync's content and folder sync has restrictions and dependencies. A sync package, on the other hand, includes modifications to parent objects. So, a package can sync content and folders whether or not a parent folder's properties were edited recently.

- Can sync various object types in a single action

For example, you are developing a new marketing campaign which consists of content in 2 folders, all library files in those folders, and 2 menus. After assembling the items into a sync package, you can sync it from development to production at any time without affecting other site files.

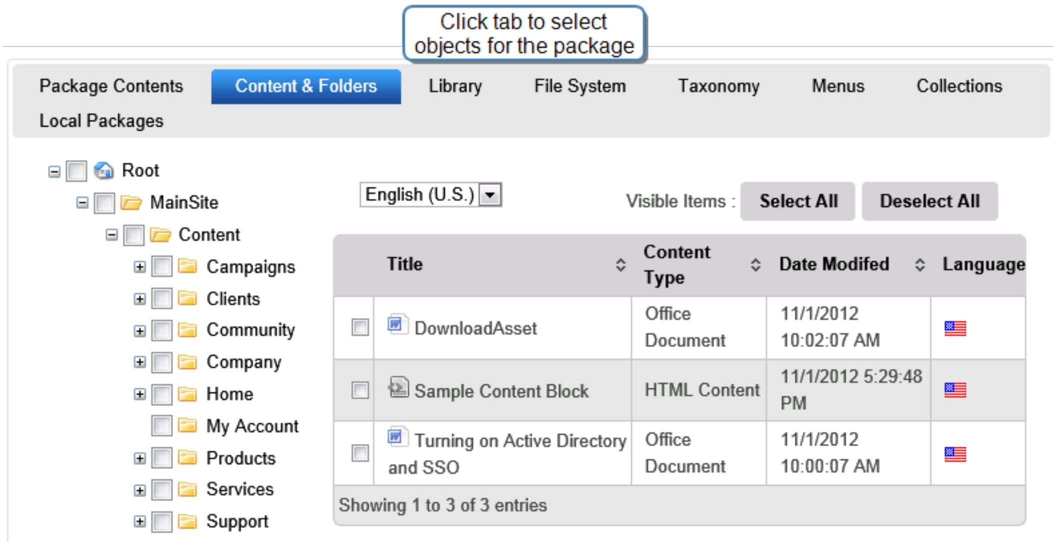
For a video tutorial on eSync packages, see eSync Packages (Ektron 8.6.1).

Objects that may be included in a package:

- Folders
- Content
- Library images and files
- Files within the site root folder and its children (for example, .css and .js files)
- Taxonomies—includes all assigned categories, content, users, and groups
- Menus—includes submenus along with content assigned to any menu in the "tree"
- Collections—includes all assigned content
- Other package definitions—do *not* include objects in those packages

Creating a Package

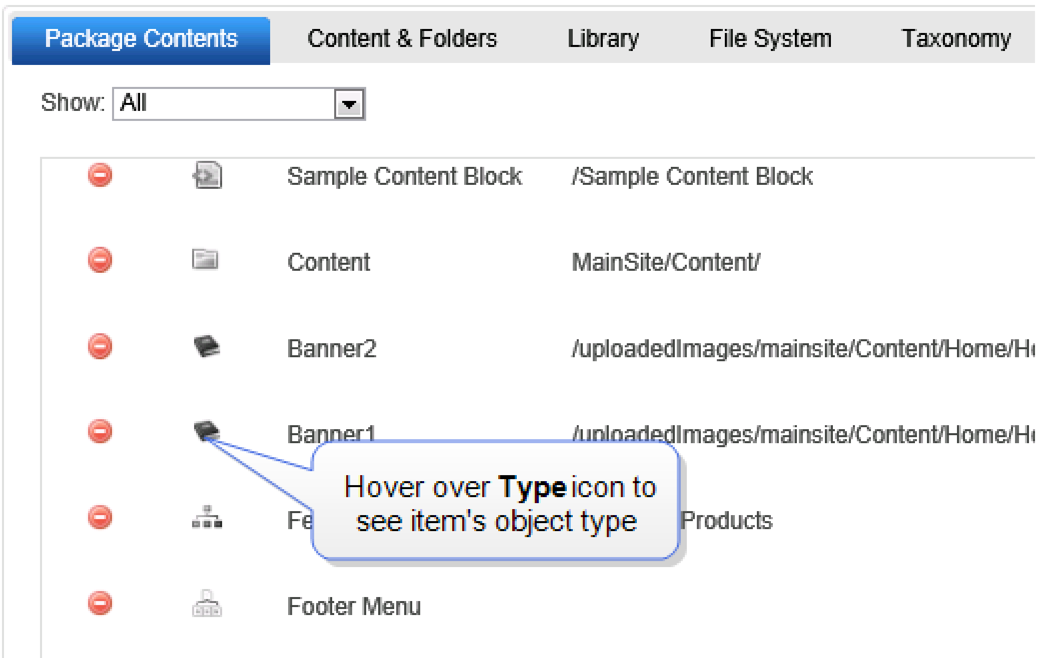
1. **Workarea > Settings > Configuration > Synchronization > Packages**.
2. Click **Create Package**.
3. Enter a unique **Name** and optional **Description**.
4. Click the tab of objects you want to add to the package.



5. Check items to include in the package.

Notes on the Packages Screen

- An item is added to the package as soon as you check it. There is no submit button. Click **Save Package** to save all items in a package.
- To view a package's contents at any time, click the **Package Contents** tab.
- When you view a tab, items in the package are checked.
- The **Package Contents** tab lists all objects in the package. Use the **Show** drop-down to display only objects of a selected type.

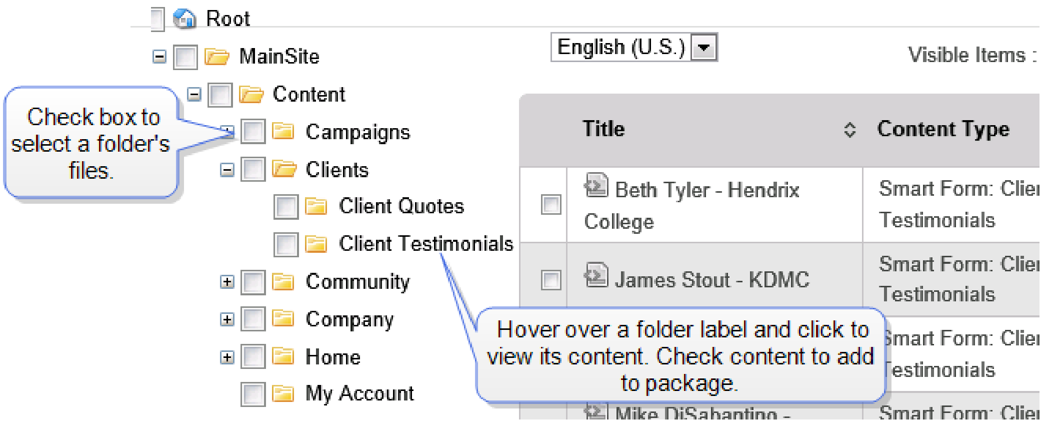


  - Use the delete button (⊖) to remove items. You can also remove an item by clicking its tab and unchecking it there.
  - If you choose a taxonomy, menu, or collection, only the top-level object appears on the **Package Contents** tab. However, all child objects (taxonomy categories,

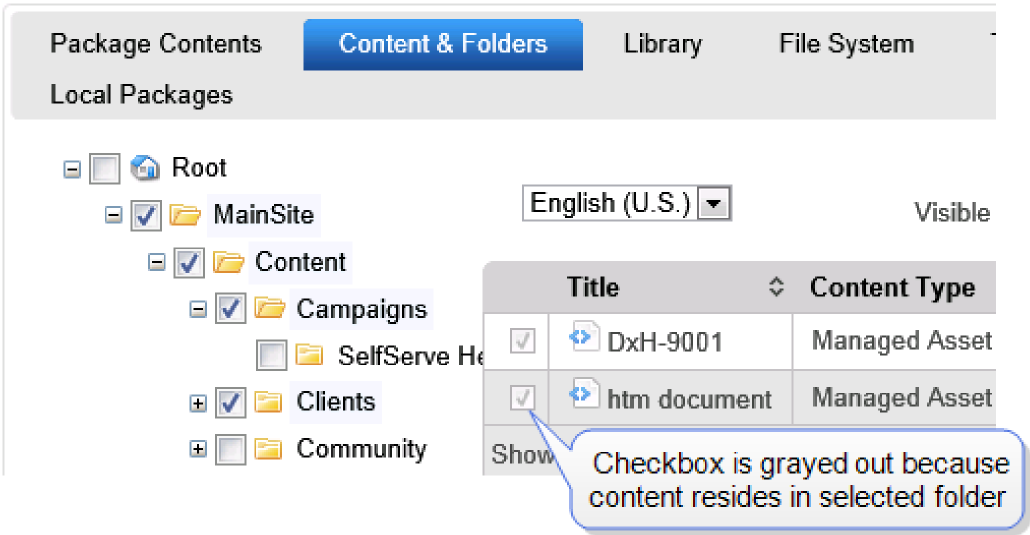
submenus, and so on) and all assigned content, users and groups are synched with the package.

- **Content and Folders** tab lets you select folders or content within them.

IMPORTANT: You cannot select eCommerce catalog folders.



  - Unlike content sync, content status does not affect your ability to sync it within a package.
  - If you select a folder, the package includes the folder's content, in all languages, when the package sync is run.
  - Folder selection is not recursive. So, you must select each child folder.
  - If you view a selected folder, its content is checked and grayed out (see example below). This indicates that the content's folder is included in the package.



- **Library** tab lets you select library images or files. Do not choose those inserted into selected content, since they are automatically included.
  - All attributes of folders (described in **Content and Folders**, above) apply to library folders.
- **File System** tab lets you select files within the siteroot folder and its children.
  - **Exception:** You cannot add these file types to a package: thumbs.db, .cer, .pfx, .pvk, .refresh, .ekt, .config, .dll, .exe, .metadata, .sln, .svn, .tekt, ._svn, .log,

metaconfig.doc. They do not appear in the selection grid.

- **Taxonomy** tab lets you select top-level taxonomies only. You cannot select categories within them. By selecting a taxonomy, you also add to the package
  - all categories below it
  - all content, users and groups assigned to the taxonomy and its categories

  As a taxonomy's content changes, the package automatically includes the current files.

  NOTE: If you add a taxonomy to a package, you automatically select all language versions of that taxonomy.

- **Menus** tab lets you select top-level menus only. You cannot select submenus. By selecting a top-level menu, you also add to the package
  - all of its submenus
  - all items assigned to the menu and its submenus: content, library assets, hyperlinks, and additional submenus

  As a menu's content changes, the package automatically includes the current files.

  Folders assigned to menus are not synched with them. See Also: *Assigning Folders or Templates to a Menu* on page 772

  NOTE: If you add a menu to a package, you automatically select all language versions of that menu.

- **Collections** tab lets you select any collection. By selecting a collection, you also add to the package all content assigned to it. As a collection's content changes, the package automatically includes the current files.
- **Local Packages** tab lets you include other package definitions in the package. This lets you re-use the packages on other servers in your eSync relationship. Other package definitions do not include objects assigned to them (content, folders, and so on).
- **Orphan Items** tab lists records referenced in a package which, for some reason, are not in the database.

Synchronizing a Package

To sync a package, add it to a sync profile, then sync the profile.

IMPORTANT: The package sync requires but does not validate identical folder structure on both servers. You must verify that folder structures on both servers match before beginning a package sync.

PREREQUISITES

One or more eSync packages See Also: *Creating a Package* on page 1542

1. From the View All Synchronization Configurations screen, click **Add Sync Profile** (). The Add Synchronization Profile screen appears.
2. In the **Profile Type** field, check **Local Package**.
3. Use the **Select Package** drop-down to choose the package.
4. Complete the remaining fields, which are documented in *Setting up a Profile to Sync a Database* on page 1514.
5. Click **Save Synchronization Profile**.

6. From the View All Synchronization Configurations screen, click the profile.
7. Click **Sync Now** ( ).

Deleting a Package

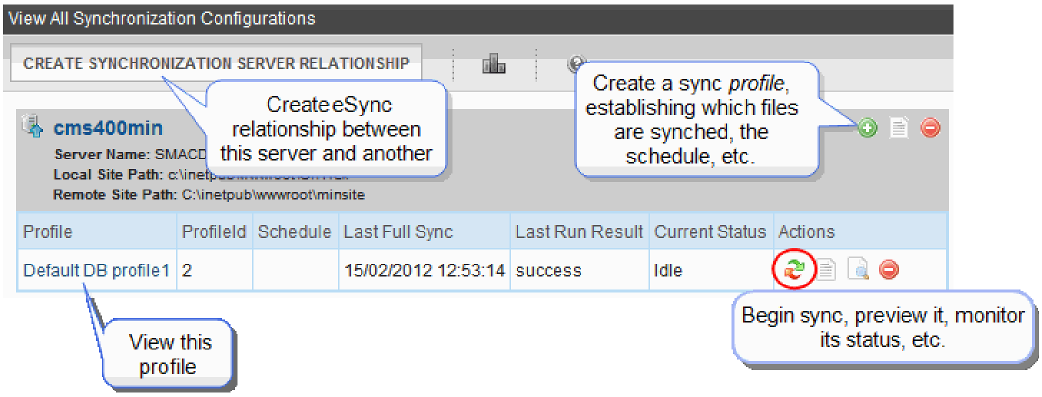
1. **Workarea > Settings > Configuration > Synchronization> Packages**.
2. Click **Delete** in the right column of the package that you want to delete.

Viewing eSync Activity

eSync provides the following logs of sync activity.

Viewing Synchronization Configurations

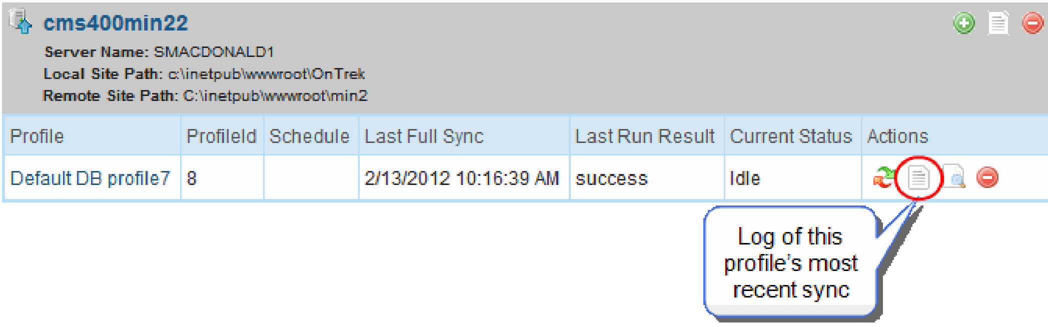
The View All Synchronization Configurations screen lets you perform the following eSync-related activities.



- Work with eSync *relationships*
  - Create a new one See Also: *Setting Up eSync* on page 1475
  - Run the initial sync for one See Also: *Initializing a New Site* on page 1480
  - View information about
  - Delete
- Work with eSync *profiles* See Also: *Setting up eSync Profiles* on page 1512
  - Create
  - View and edit
  - Sync a profile See Also: *Running eSync* on page 1532
  - Delete
- Review Resolved Collisions

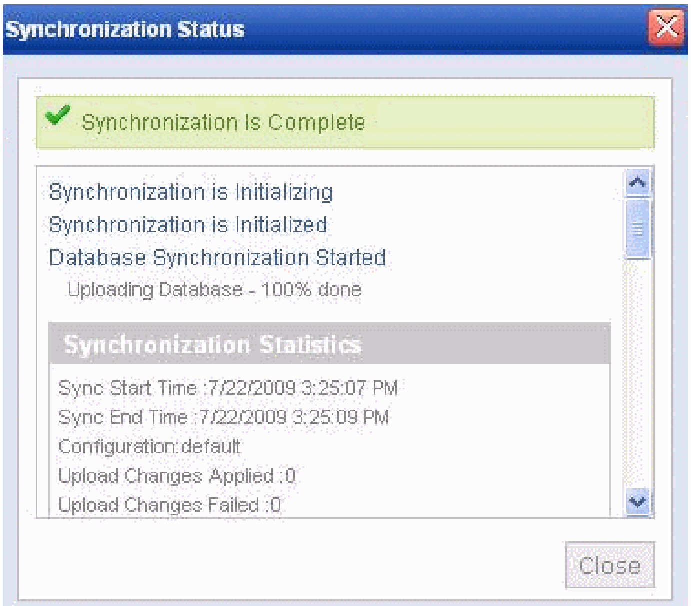
Viewing a Log of a Profile’s Most Recent Sync

You can view a log of any profile’s most recent sync by clicking **Get Status** ( ) next to the profile.



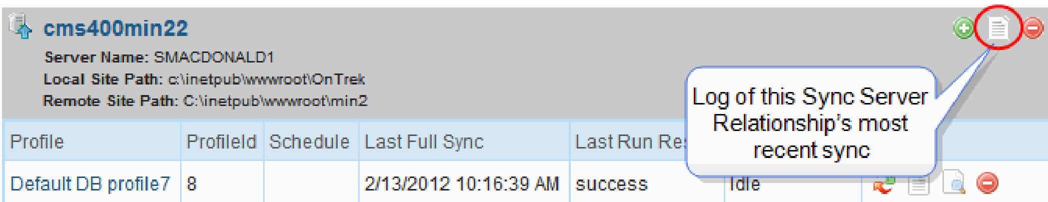
Get Status ( ) appears only for previously-synched profiles.

The sync log is the one that appears upon completing a sync.



Viewing a Log of a Sync Server Relationship's Most Recent Sync

You can view a log of a Sync Server Relationship's most recent sync by clicking **Get Status** ( ) in the header section of the screen.

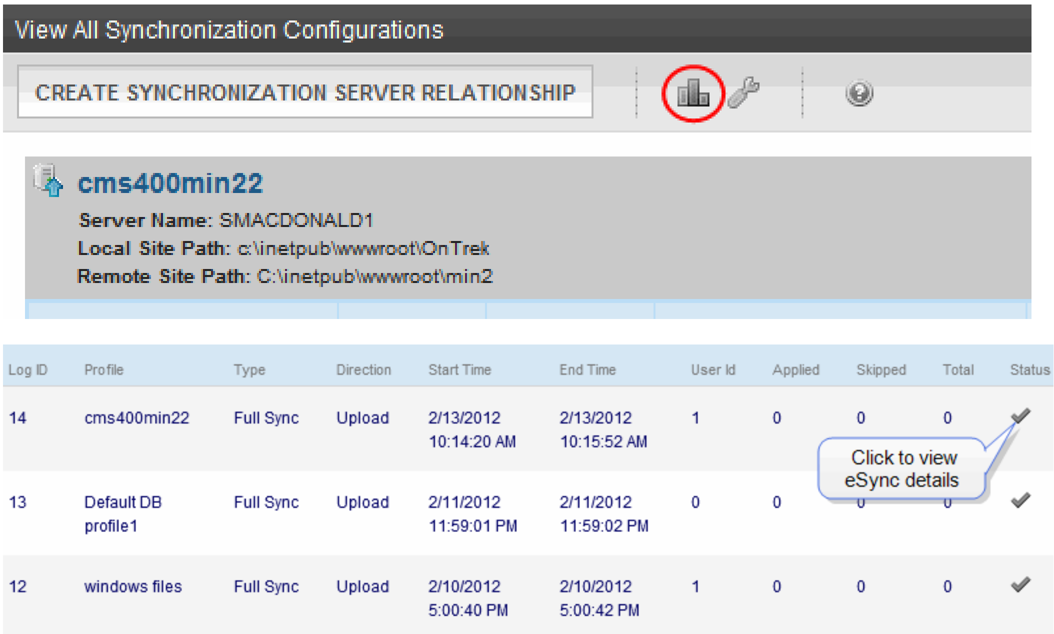


The sync log appears upon completing a sync.

Viewing a Log of all Syncs for a Sync Server

Relationship

The View All Synchronization Relationships screen provides a Synchronization Logs button ( ) that displays a chronological log of all syncs on your server, with the most recent at the top.



Click the icon in the **Status** column to view any sync's details. If the column contains a check mark, the sync was successful.

If the column contains a warning ( ), the sync failed for some items. If you click the icon, a screen lists causes for the failure, as shown below. Ektron support can use this log to troubleshoot the problem.

Synchronization Logs

Type:	FullSync
Position:	Sent
Start Time:	10/15/2009 2:29:43 PM
End Time:	10/15/2009 2:29:45 PM
Statistics:	Applied:0 Skipped:0 Total:0
Skipped Resons:	

TableName	Stage	ErrorMessage	RemoteChange
content	ApplyingInserts	The INSERT statement conflicted with the FOREIGN KEY constraint "content_FK00". The conflict occurred in database "CMS400Developer", table "dbo.content_folder_tbl", column 'folder_id'. The statement has been terminated.	content_id:2147483650 content_language:1033
content_meta_tbl	ApplyingInserts	The INSERT statement conflicted with the FOREIGN KEY constraint "content_meta_tbl_FK00". The conflict occurred in database "CMS400Developer", table "dbo.content". The statement has been terminated.	meta_type_id:11 content_id:2147483650 content_language:1033
content_meta_tbl	ApplyingInserts	The INSERT statement conflicted with the FOREIGN KEY constraint "content_meta_tbl_FK00". The conflict occurred in database "CMS400Developer", table "dbo.content". The statement has been terminated.	meta_type_id:12 content_id:2147483650 content_language:1033
content_meta_tbl	ApplyingInserts	The INSERT statement conflicted with the FOREIGN KEY constraint "content_meta_tbl_FK00". The conflict occurred in database "CMS400Developer", table "dbo.content". The statement has been terminated.	meta_type_id:13 content_id:2147483650 content_language:1033
content_meta_tbl	ApplyingInserts	The INSERT statement conflicted with the FOREIGN KEY constraint "content_meta_tbl_FK00". The conflict occurred in database "CMS400Developer", table "dbo.content". The statement has been terminated.	meta_type_id:14 content_id:2147483650 content_language:1033

Reviewing Collisions

To verify the accuracy of the data being synchronized, eSync may check for and resolve collisions between the following *matching* items.

- user names
- folder names
- metadata definitions
- messages
- eCommerce products
- URL aliases
- tag entries
- tag statistics
- taxonomy counts
- eCommerce price entries
- multi-site staging URLs
- menus

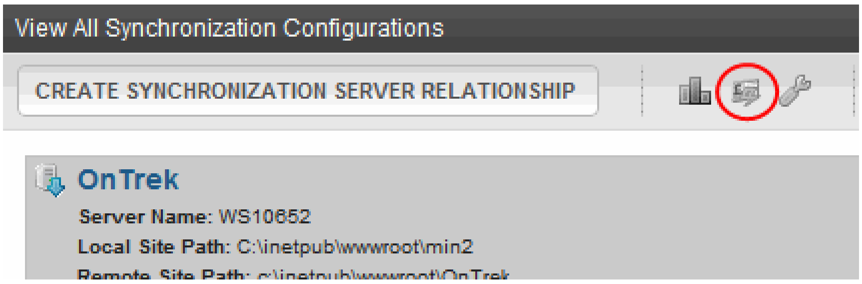
For example, on the staging server, a user creates a folder under the root folder called `Marketing`, and a user on the production server does the same.

NOTE: * Folders only match if they have the same name *and* folder path.
* Both Ektron and membership users are included.

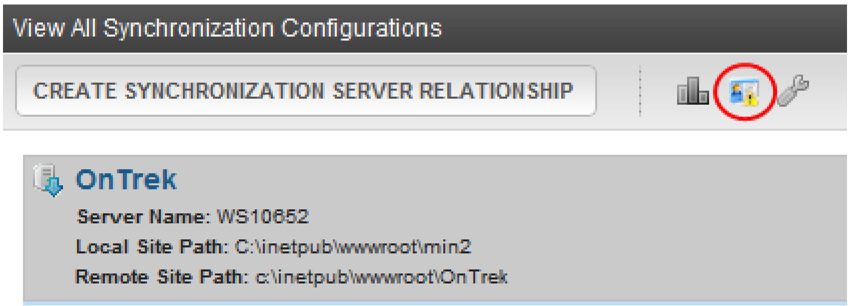
A collision only occurs if both items were entered since the last synchronization.

Although matching items have different ID numbers, their names are the same, so users may be unable to distinguish them. So, eSync appends a number to the more recently-created item. For example, the folder `Marketing` becomes `Marketing11329`. This is an example of a *resolved collision*.

To track resolved collisions, the View All Synchronization Configurations screen has a button ( ) that appears only after a collision is resolved. If the eSync direction is a download, the collision resolution information appears on the local server; if upload, then it appears on the remote server; if bi-directional, it appears on both servers.



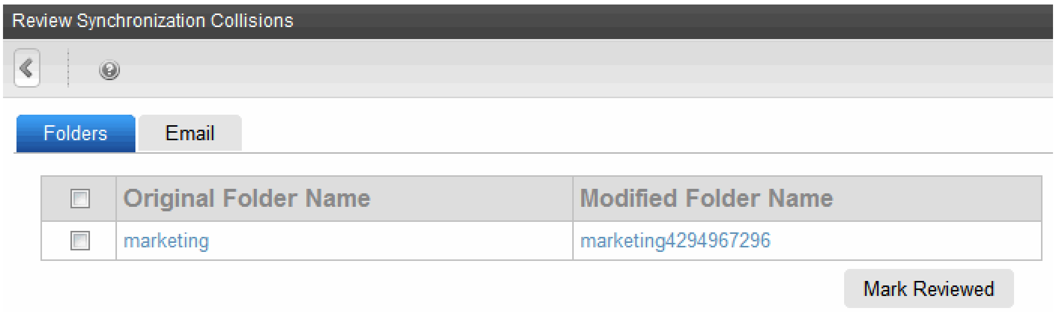
When you click the button, you are asked if you want to review resolved collisions. If you click **Resolve**, the following button appears on the toolbar.



Click that button to see the Review Synchronization Collisions screen, showing the original and changed items.

Reviewing Resolved Collisions

This Review Synchronization Collisions screen shows resolved collisions. Upon viewing it, you should notify appropriate content authors, who may want rename the object.



After noting these changes, you can check the box in the left column, then click **Mark Reviewed** to remove it.

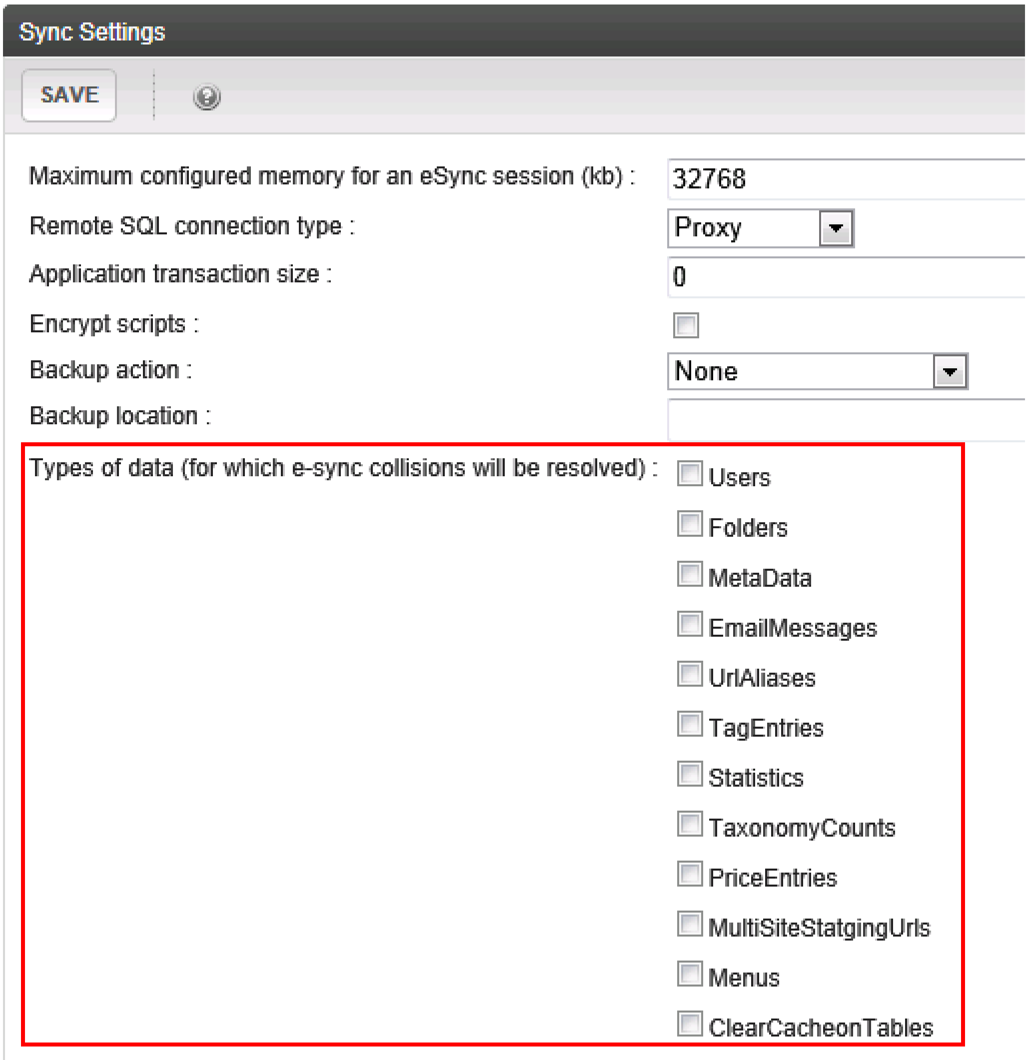
The **Users** tab has an additional button, **Mark Reviewed and Email**. Use it to remove the user from the screen and send an email to the user (using the address from the Add/Edit User screen's **E-Mail Address** field). The email text is below.

```
lbl sync collision email subject = Your username has been changed
lbl sync collision email body = For security purposes, your username has been
  changed.
Your new username is {0}.  You will need to use this new username the next time
  you login.  Thank you.
```

NOTE: You can change the text in the resource file. To learn about editing it, see *Translating the Workarea* on page 1086.

Determining which Collisions are Resolved

On the eSync Settings screen, use the **Types of data** field to identify objects for which you want to resolve collisions. Unchecked items are ignored.



Ektron recommends disabling the **Resolve Collisions during Synchronization** boxes for everyday use, because resources required to search for collisions may negatively impact your website's performance.

While activity that might cause collisions occurs, you may temporarily enable checkboxes, then disable them again once the activity is complete.

Using Performance Counters to Monitor the Ektron Windows Service

You can use the Windows Performance Counter to view the progress of a file sync without affecting the EWS's performance. You can also use the Performance Counter to debug and monitor the EWS.

You can set up the Performance Counter to write to a file, so that you may monitor its activity over a few days or weeks.

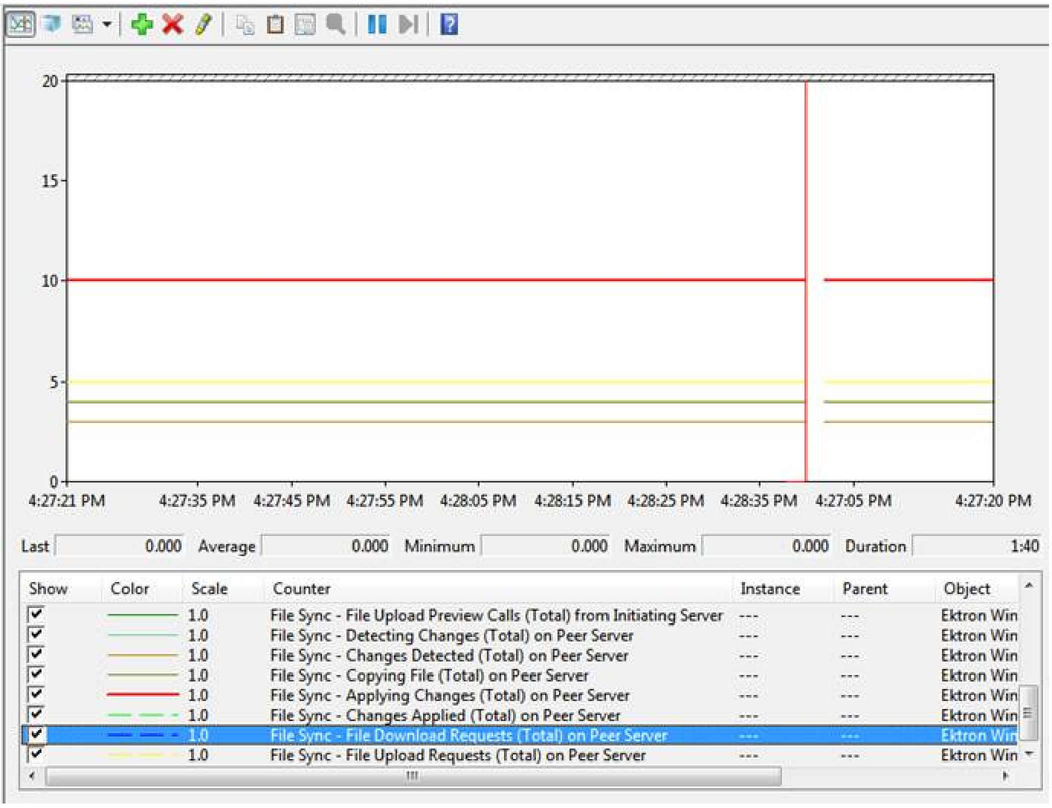
You can use the Performance Counter to monitor a sync's progress, especially if it has been running for a long time. If the counter's values stop changing, nothing is happening. This information can help you determine that it is safe to stop the service.

Notes about using the Performance Counter

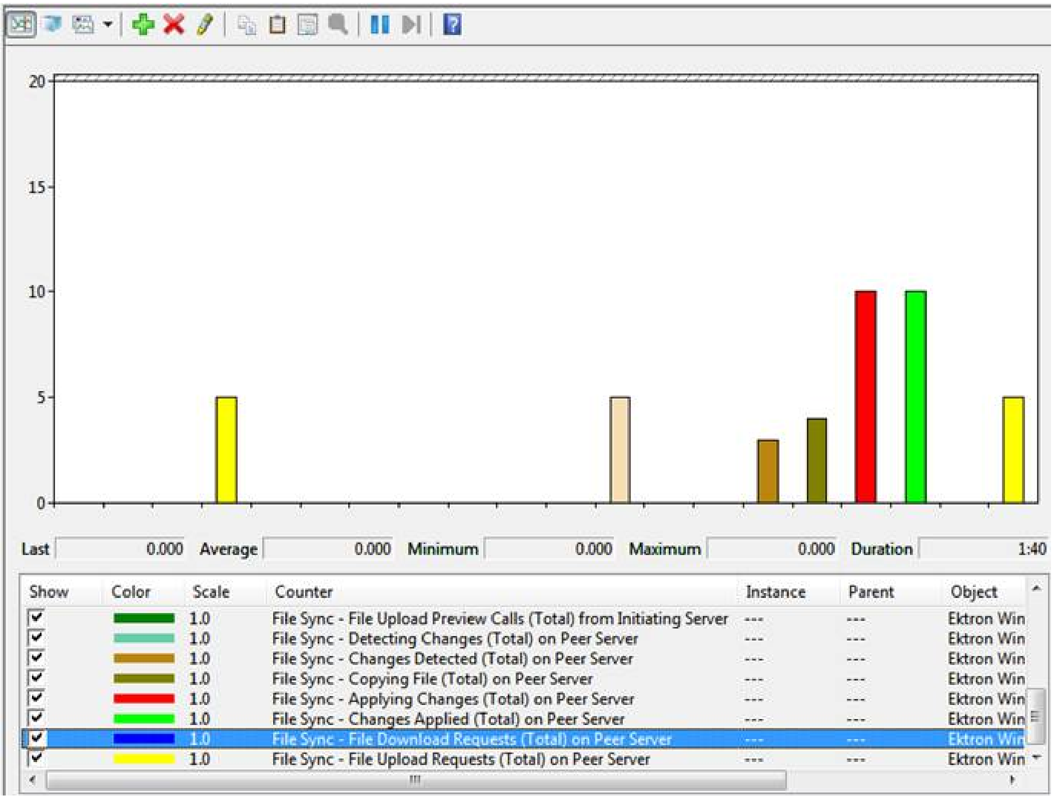
- Most counters increment over time—they do not rise and fall.
- Restarting the service resets the counters.

Performance Counter Display Options

- Line



- Histogram



- Report

\\AMH030-7

Ektron Windows Service - Performance Counters

Ektron Windows Service Exceptions Total	0.000
EWS - Database Read Operations Total	0.000
EWS - Database Write Operations Total	0.000
File Sync - Applying Changes (Total) on Initiating Server	0.000
File Sync - Applying Changes (Total) on Peer Server	10.000
File Sync - Changes Applied (Total) on Initiating Server	0.000
File Sync - Changes Applied (Total) on Peer Server	10.000
File Sync - Changes Detected (Total) on Initiating Server	0.000
File Sync - Changes Detected (Total) on Peer Server	3.000
File Sync - Completed Work on Initiating Server	0.000
File Sync - Copying File (Total) on Initiating Server	0.000
File Sync - Copying File (Total) on Peer Server	4.000
File Sync - Detecting Changes (Total) on Initiating Server	0.000
File Sync - Detecting Changes (Total) on Peer Server	0.000
File Sync - File Download Requests (Total) on Peer Server	0.000
File Sync - File Upload Calls (Total) from Initiating Server	5.000
File Sync - File Upload Preview Calls (Total) from Initiating Server	0.000
File Sync - File Upload Requests (Total) on Peer Server	5.000
File Sync - Temporary Files Deleted Total	5.000
File Sync - Total Work on Initiating Server	0.000

You have the following performance counters available to you:

NOTE: Definitions:
Initiating Server—The server from which file sync is initiated (via the website).
Peer Server—The other server(s) in a sync relationship.

Ektron Windows Service Data

- **EWS Approximate Total Number of Threads Alive Currently**—if eSync is running, at least one thread is alive
- **EWS Approximate Total Number of Timers Alive Currently**—increases as the number of scheduled syncs increases
- **EWS Database Write Operations Total**—increases when the EWS inserts/ updates or deletes rows in a site's database.
- **EWS Database Read Operations Total**—increases when the EWS reads rows from a site's database.
- **EWS Exceptions Total**—if eSync or load balancing exceptions occur while the service is running, they increment the performance counter and appear on the graph. A continual increase indicates a problem.

eSync Data

- **eSync—Total Number of Remote WCF Calls Made from Service—**increases when the EWS makes network calls to other EWS instances on the network.

File Sync Data

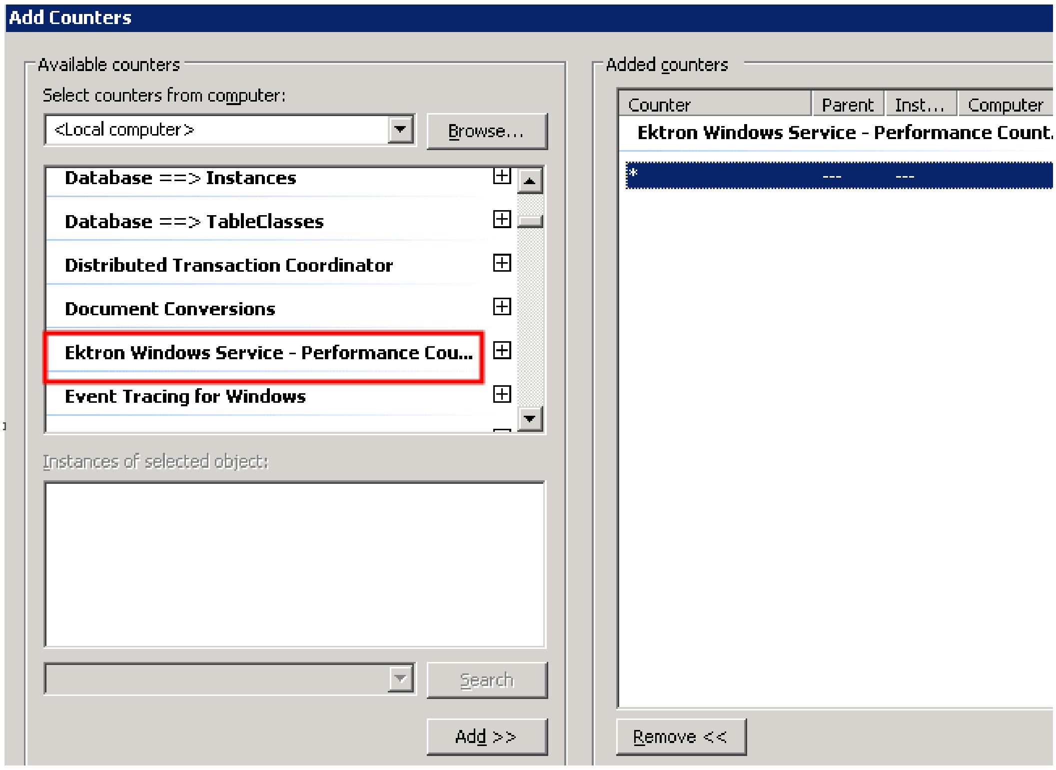
- **File Sync—Applying Changes (Total) on Initiating and Peer Servers—** incremented when a file change is about to be attempted
- **File Sync—Changes Applied (Total) on Initiating and Peer Servers—**counter is incremented when a file change is applied
- **File Sync—Changes Detected (Total) on Initiating and Peer Servers—**counter is incremented when a change detection pass is completed
- **File Sync—Changes Skipped (Total) from Initiating and Peer Servers—**eSync was supposed to do something but the action was skipped. This may occur if, for example, a file is locked.
- **File Sync—Completed Work on Initiating Server—**amount of work completed out of total work to be done
- **File Sync—Conflicts Detected (Total) from Initiating and Peer Servers—** indicates conflicts between servers in a sync relationship. This number always increases, never decreases unless someone restarts the EWS.
- **File Sync—Copying File (Total) on Initiating and Peer Servers**—incremented periodically to show progress while a file is being copied
- **File Sync—Detecting Changes (Total) on Initiating and Peer Servers—** incremented for every directory , including the root directory, during a change detection pass. This is incremented before change detection begins for that folder.
- **File Sync—File Download Requests (Total) on Peer Server**—total number of download requests
- **File Sync—Files Skipped Change Detection (Total) from Initiating and Peer Servers—**eSync was supposed to do something but the action was skipped. This may occur if, for example, a file is locked
- **File Sync—File Upload Calls (Total) from Initiating Server—**indicates the total number of upload calls from the initiating server to the remote EWS server
- **File Sync—File Upload Requests (Total) on Peer Server**—total number of upload requests received on the peer server
- **File Sync—File Upload Preview Calls (Total) from Initiating Server**—total number of upload preview calls made from the initiating server

- **File Sync—Temporary Files Deleted Total—**total number of temporary files deleted by EWS so far. This number should never be zero (0) on the destination server while a sync is running.
- **File Sync—Total Work on Initiating Server—** total work to be done by file sync

Setting up the Performance Counter Display

To set up the display of the Ektron Windows Service performance counters:

1. Click the Windows **Start** button > **Administrative Tools** > **Performance Monitor**.
2. Click the Add button ( ).
3. From the list in the upper left corner, click **Ektron Windows Service - Performance Counter,** then **Add** and **OK**.



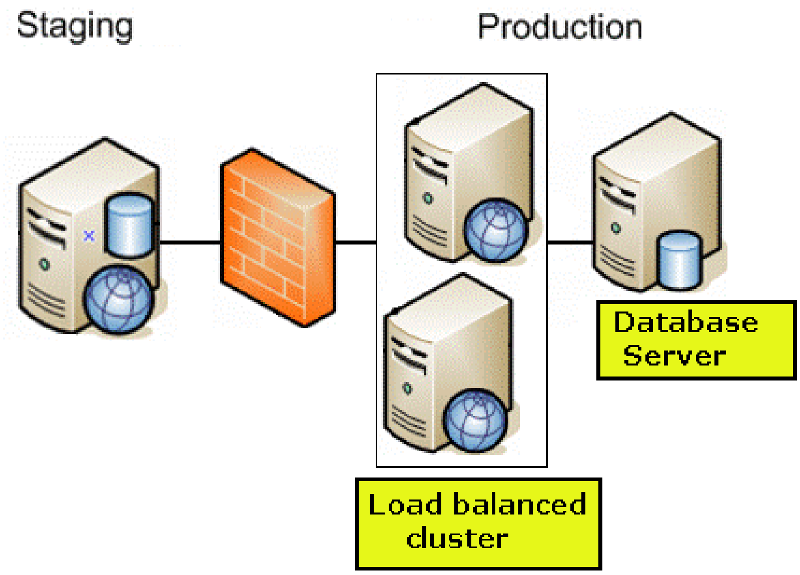
Using eSync with Other Ektron Features

eSync in a Load Balanced Environment

Ektron supports a load-balanced environment, in which several servers share your website's processing load. This feature is explained in *Balancing the Load on Your Servers* on page 89.

If your site uses load balancing, you can set up eSync so that, after one server in a load balance cluster is synchronized, the other servers are automatically synchronized. Note that if a separate database server is outside the load balance cluster (as shown below), eSync only synchronizes documents and files used by the search among the clustered servers. It does not touch the database.

Beginning with Ektron version 8.5, the load-balance chain of servers is updated automatically, and servers that are not available are removed. A typical load balanced cluster is below.



IMPORTANT: In a load balanced environment, only update templates on the staging server. Do not update them on the production server and assume they will be synchronized with the staging server.

IMPORTANT: Assume your load balanced cluster consists of 2 staging servers (S1 and S2) and 2 production servers (P1 and P2).
If you add/modify/delete a file on S1, to get the file to S2, you must run either a download sync on S2, or an upload sync on S1, or a bidirectional sync from either server. If you run a download sync on S2, you also need to run an upload sync to push the file to P2, which will then Load Balance with P1.
The best way to make sure that the added/modified/deleted file is changed on all servers is to initiate the sync from the server on which the file was changed. In this example, since you changed the file on S1, if you initiate a sync from S1, it will be automatically updated on S2, P1, and P2.

PREREQUISITES

- The connection string on all servers in the cluster matches
- You *must* initiate eSync relationships, and the actual synchronization, from a staging server
- If your staging servers are clustered, you must remove one from the cluster before you can sync

Follow these steps to set up this capability.

Install a Min Site on Every Server in the Cluster

1. Upgrade each server to the same version of Ektron. If Ektron is already installed on one server, install a minimum site on the others. To do this, run the Ektron base installation file (CMS400Base8x.exe). For more information, see *Installing the CMS Base* on page 13.
2. If the site with which you will sync is precompiled, precompile all min sites.

Update the Assetmanagement.config File

1. Sign on to the first server in your load balanced cluster.
2. In the site root folder, open `assetmanagement.config`.
3. Change the value of `LoadBalanced` to **1** and save.
4. Do this on every server in the cluster.

Update the Ektron Windows Service Config File

1. Sign on to the first server in your load balanced cluster.
2. Open `C:\ProgramFiles\Ektron\EktronWindowsService40\Ektron.ASM.EktronServices40.exe.Config`.
3. Change the value of `LoadBalanced` to **1** and save.
4. Do this on every server in the cluster.
5. **Stop** and then **Start** the Ektron Windows Service on every server in the cluster.

Create eSync Security Certificates for a Load Balanced Cluster

You should be familiar with eSync security certificates before beginning this procedure. See Also: *Managing eSync Security Certificates* on page 1521

Assume the load balance cluster has 3 servers: `mach1`, `mach2`, and `mach3`.

Part one: Generate Security Certificates

In this part, create the security certificates.

1. Sign on to `mach1` using an account with administrative privileges and generate security certificates. To do this, click the Windows **Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator** > right click and choose **Run as Administrator**.
2. The security configurator screen appears. See *Managing eSync Security Certificates* on page 1521. Select the **Generate Certificates** radio button. Click the **Generate** button then click **OK**when the Ektron Windows Service's warning dialog appears.
   This action creates security certificates for your server and applies them to all the sites on the server. Optionally, you can select a single site from the **Web Site Description** drop-down to install certificates to a selected site.
3. Create a new folder (for example, `mach1_certitificates`) on the desktop.
4. Open the following folder: `C:\ProgramFiles\Ektron\CMS400vxx\Utilities\Software\SecurityConfigurator`.
5. Copy the following files from the SecurityConfigurator folder into the folder you created in Step 3.
   - *mach1*_SyncClient.pfx
   - *mach1*_SyncClient.pvk
   - *mach1*_SyncClient.cer
   - *mach1*_SyncServer.pfx
   - *mach1*_SyncServer.pvk
   - *mach1*_SyncServer.cer

6. Repeat steps 1 to 5 for every server in your load balance cluster.

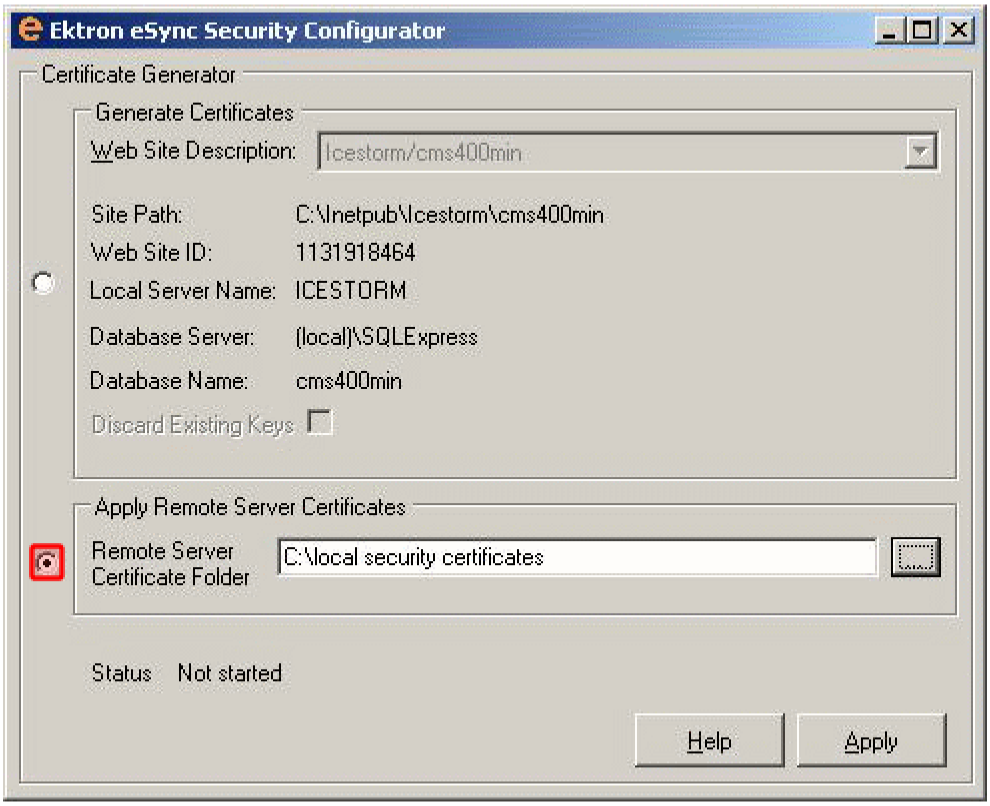
Part Two: Apply Security Certificates

In this part, copy then apply the certificates to all other servers in the cluster.

1. Copy each server's certificates folder to the other servers in the cluster.
2. Run the Security Configurator (**Start** button **> All programs > Ektron > CMS400 v8x > Utilities > Security Configurator**) and apply the certificates from every other server in the cluster. For example, apply certificates from *mach2* and *mach3* on *mach1;* and apply certificates from *mach1* and *mach3* on *mach2*.

   To apply certificates, follow these steps.

   a. Select the **Apply Remote Server Certificates** radio button.



   b. Click the browse button next to that field.
   c. Browse to the remote server's certificates folder (which you copied in Step 1).
   d. Click the **Apply** button. Then, click **OK** when the Ektron Windows Service warning dialog appears.
   e. Repeat the above steps for all remote server certificate folders.
   f. Repeat steps on every server in the load balance cluster.

Set Up and Run eSync

Set up and run eSync in a load balanced environment the same way you run it normally. See these sections for details.

- *Initializing a New Site* on page 1480
- *Setting up eSync Profiles* on page 1512

- *Optional Steps before Running a Sync* on page 1532
- *Running eSync* on page 1532

Using eSync in a Multi-site Environment

If you want to use eSync in a multi-site environment, you *must* do so before the initial synchronization of a relationship. That is, you cannot set up a eSync relationship in a single-site environment and then later change to multi-site. You can set up a new relationship at any time. See Also: *Supporting Multi-Site Configurations* on page 76

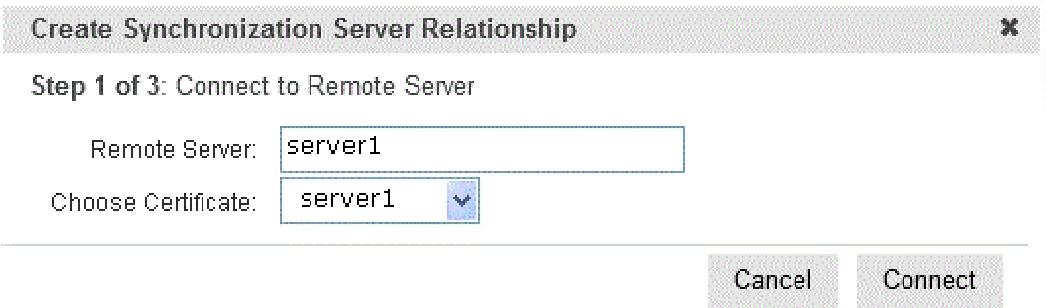
Limitations on Using eSync in a Multi-site Environment

- In a multi-site environment, you cannot create a staging site from a production site (as described in *Initializing a New Site* on page 1480). You must first create all sites on the staging server, then set up production sites with which they sync.
- You should log into the main site then synchronizing it and all multi-sites from there.

Setting up eSync in a Multi-Site Environment

WARNING! Back up your database before beginning this procedure!

1. Set up all sites on the staging server, following the instructions in *Supporting Multi-Site Configurations* on page 76.
2. Install an Ektron min site on each production server that will host a site. To do this, run the Ektron base installation file.
3. Install security certificates between the staging server and all production servers. This procedure is described in *Managing eSync Security Certificates* on page 1521.
4. Sign on to the staging server.
5. In the Workarea, go to **Settings > Configuration > Synchronization> Profiles**.
6. The View All Synchronization Configurations screen appears. Click **Create Synchronization Server Configuration**. The screen appears.



NOTE: If you see the following error, **The system cannot find the file specified**, you must set up security certificates. See Also: *Managing eSync Security Certificates* on page 1521

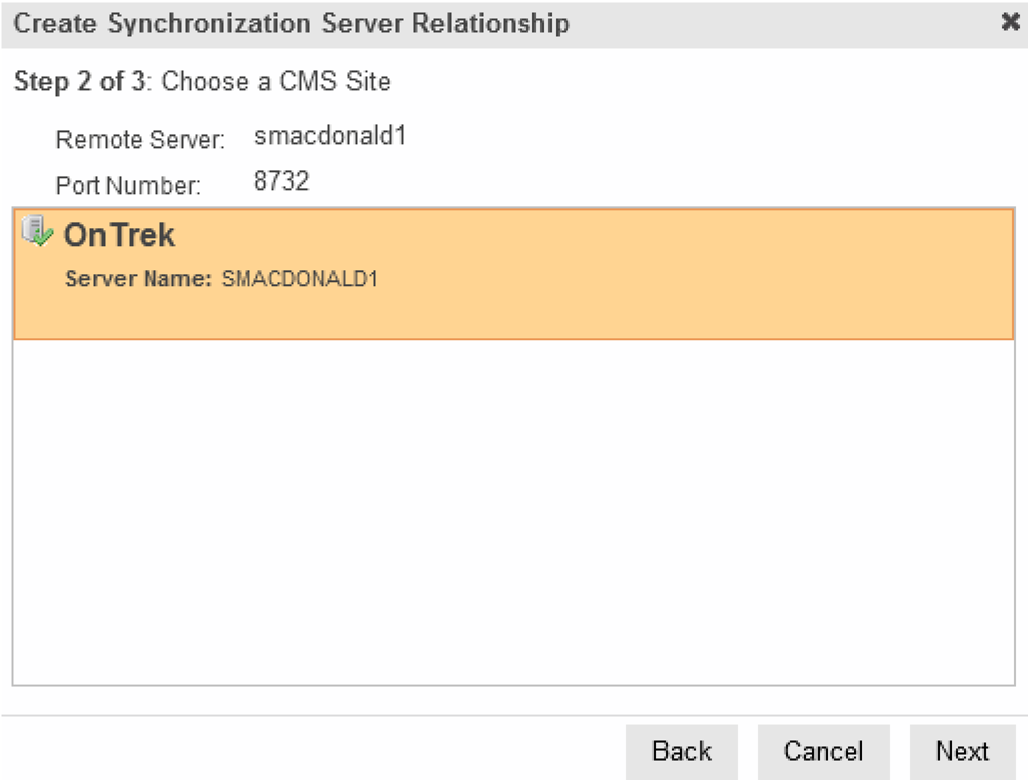
7. Use the following information to complete the screen.

WARNING! The first time you sync an Ektron website, all of its data is overwritten. Make sure that no important information resides on the production server before beginning the first sync.

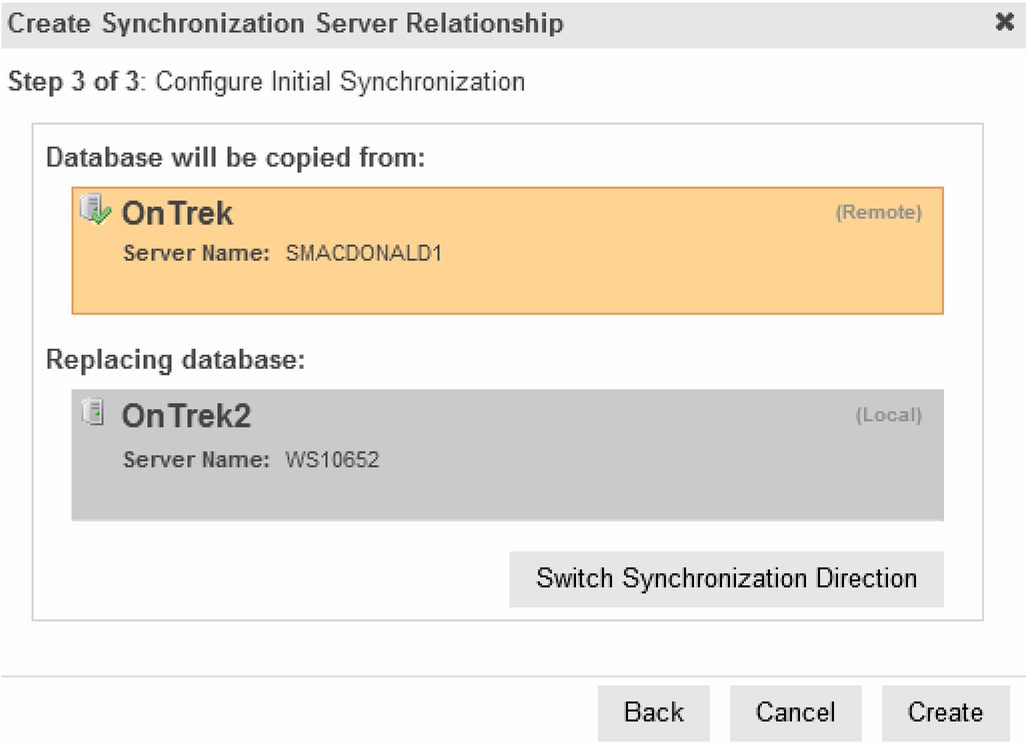
8. **Remote Server**—Select a production server by choosing the path to the site's physical location on the remote server.

9. **Choose Certificate**—If you selected a single server above, its name appears here. Proceed to the next step.

   If you selected a domain or IP address above, click the drop-down arrow to view all servers whose client security certificates reside on this server. Then, select the server with which you want to set up an eSync relationship.
10. Click **Connect**. After you connect to the production server, all eligible databases on it appear. The top one has a green check mark, indicating it is selected by default.



11. Click the database with which you want to sync. When you do, a green check mark appears on it, and its background color changes.
12. Click **Next**.
13. A new screen appears, showing both servers and allowing you to change the direction of the initial database copy. Make sure you are copying from staging to production. Because the staging server is multi-site, the staging server area has a **Site Path** pulldown field, which lets you select a site.



14. When you are satisfied, click **Create**. This sets up the server relationship but does not launch the initial sync.
15. The View All Synchronization Configurations screen appears with the new relationship. If you are ready to overwrite the production database with the staging one, click **Start Initial Sync** ( ). A confirmation message appears.
16. A screen monitors the sync's progress.
17. The initial sync creates a default profile, which appears on the View All Synchronization Configurations screen.
18. Set up and launch sync profiles to sync Workarea files and templates on the staging server with those on the production server. (This is described in *Setting up eSync Profiles* on page 1512 and *Running eSync* on page 1532.) For synchronization direction, choose *Running eSync* on page 1532.

Setting up Staging Multi-sites

By default, if you sign on to a staging server then insert library items (images, quicklinks, and so on) into content, the path to those items includes the production server. For example, your server setup includes 2 multi-sites: sales.ektron.com and support.ektron.com.

NOTE: Multi-site names are defined in the site's folder properties screen's **Production Domain** field, as described in *Supporting Multi-Site Configurations* on page 76.

So, library links in the sales.ektron.com site's content look like this: `http://sales.ektron.com/template?id=id number`. However, you may wish to change library links so they refer to the staging server. This would help you verify that the linked items exist on it.

To change library links to refer to your staging server:

1. Go to **Settings > Configuration > Setup**.
2. Click **Edit**.
3. Check the **Staging Server** checkbox.
4. Click **Update**.
5. Go to **Content** > the staging site folder.
6. Choose **View > Properties**.
7. Click **Edit Properties**.
8. Scroll down to the section labeled **Multi-Site Domain Configuration**:
9. In the **Staging Domain** field, enter the URL of your staging server.
10. Click **Update**.

From now on, when a user signs on to the staging server and works with library links, the links include the staging server instead of the production server.

Using eSync with Web Alerts

The Web Alert feature enables Ektron to generate email for a list of registered users whenever new content appears on your site, or existing content is updated. For more information, see *Administering Web Alerts* on page 1567.

In an eSync environment, you need to determine which servers send Web Alerts. For example, Web Alerts should probably not be generated when content is published on a *staging* server, but you would want them when content is published on a *production* server.

To determine if a server generates Web alerts, use the following property of each website's `web.config` file.

```
<add key="ek_DisableWebAlerts" ..... />
```

Set the property's value to **true** to suppress Web Alerts on a server.

Set the property's value to **false** to generate Web Alerts to on a server.

Also, the server clock on the download side of the eSync relationship must be exactly the same time as or slightly ahead of the clock on the sending server.

Using eSync with eCommerce

When using eSync with an eCommerce site, you need to prevent orders from being processed on your staging server to prevent orders from being processed twice.

For example, a customer on your production site purchases a product. If the staging server and production server are synched before the credit card is processed, it might be charged twice: once from the production server and again from the staging server.

To prevent orders from being processed on your staging server, edit your staging site's `web.config` file and set the following property to true:

```
<add key="ek_ecom_OrderProcessingDisabled" value="true" />
```

When the property is set to true, you cannot process or edit orders from the Workarea's View Order screen on the staging server. Also, if you try to create an order from the staging server's website, you receive the following message.

"*We're sorry, an error occurred while processing your request. Please try again later...*"

It is important to note that all other eSync functions still work properly. For example, when you create catalog entries on a staging server and perform a sync, the entries are moved to the production server. The `ek_ecom_OrderProcessingDisabled` key only affects the processing of orders.

Using eSync with Notifications

When using eSync with Notifications, any new agents are not synched. This means that you must manually add new agents to each server in your relationship.

When the agent exists on all servers in your relationship, eSync keeps them updated. For example, assume a membership user logs into the production server and updates the profile's **Activities** tab by changing the activities a custom agent will perform. eSync will sync those changes with the staging server.

See Also: *Adding a Custom Agent* on page 1206; *Sending Notifications to a Community* on page 1194

Running 8.5 and 8.7 eSync Simultaneously

If you install an 8.7 Ektron site to a server that is also running an 8.5 version, the 8.7 Ektron Windows Service replaces the 8.5 version. Also, the `dbSync.config` file was removed for 8.7. To manage settings you previously configured in `dbsync.config` file, run the following script.

```
IF(NOT EXISTS(SELECT NAME FROM SYS.OBJECTS WHERE (NAME='sync_settings') AND (type='u')))
begin
create table [dbo].[sync_settings
(
    profile_id bigint not null,
    memory_data_cache_size int not null default (32768),
    remote_sql_connection tinyint not null default(2),
    application_tran_size bigint not null default (0),
    script_encryption bit not null default (0),
    collision_action bigint not null default(0),
    backup_action tinyint not null default(0),
    backup_device nvarchar(max) null,
    log_retain_count int not null default(50),
    CONSTRAINT [PK_sync_settings] PRIMARY KEY CLUSTERED (profile_id)
)
end
go
if(not(exists(select 1 from sync_settings where profile_id=0)))
begin
insert into sync_settings(profile_id)values(0)
end
go
```

The following list describes some lines in the script.

- `memory_data_cache_size int not null default (32768`—Define a maximum amount of memory that your server uses during a sync. The default is 32 MB. You can change it to any size up to the amount of RAM in your eSync server.
- `remote_sql_connection tinyint not null default(2)`—0-direct; 1-proxy; 2-autodetect
    - autodetect is generally the best solution

- `application_tran_size bigint not null default(0)`—if changes are expected in multiple batches, set this value to `memory_data_cache_size`
- `collision_action bigint not null default(0)`—The value of the **Resolved Collisions during Synchronization** field, which specifies types of data for which collisions will be resolved See *Determining which Collisions are Resolved* on page 1551
  - 0=NONE
  - 1=USER
  - 2=FOLDERS
  - 4=METADATA
  - 8=EMAIL MESSAGE
  - 16=URL ALIAS
  - 32=TAG ENTRIES
  - 64=STATISTICS ON TAG
  - 128=TAG REGENERATION
  - 256=TAXONOMY COUNTS
  - 512=PRICE ENTRIES
  - 1024=MULTISITE STAGING URL
  - 2048=MENU
- `backup_action tinyint not null default(0)`—1-backup always; 2-backup only before initial sync; determines when to back up destination database before a sync
- `backup_device nvarchar(max) null`—backup location
- `log_retain_count int not null default(50)`—set the number of logs retained in the database See *Viewing eSync Activity* on page 1546

Troubleshooting eSync

Problem: Synchronization has failed

There was no endpoint listening at `http://alphatest:8732/Ektron.Sync.Communication/SyncCommunicationScheduleService.svc` that could accept the message. This is often caused by an incorrect address or SOAP action. See InnerException, if present, for more details.

One server in the relationship cannot resolve the address of the other server. This may be due to security restrictions or because the Ektron Windows service is off.

Solutions:

- Modify the hostname of the other server so that it can be found.
- Restart the Windows service
- Reconfigure security

Problem: The identity check failed for the outgoing message. The expected identity is *xxx* for the *xxx* target endpoint.

Local site cannot communicate with service.

Solution:

1. Load the security Configuration utility:

   `C:\Program Files\Ektron\CMS400vxx\utilities\software\securityconfigurator\securityconfigurator.exe.`

2. Select the website that is failing.
3. Click **OK**. This recopies client certificates to the site and updates `web.config` to use them.

Problem: No viable CMS sites were found on the remote server specified. Please check the remote server and try again.

No Ektron site exists on the remote server.

Possible Solution: Install an Ektron min site on the remote server.

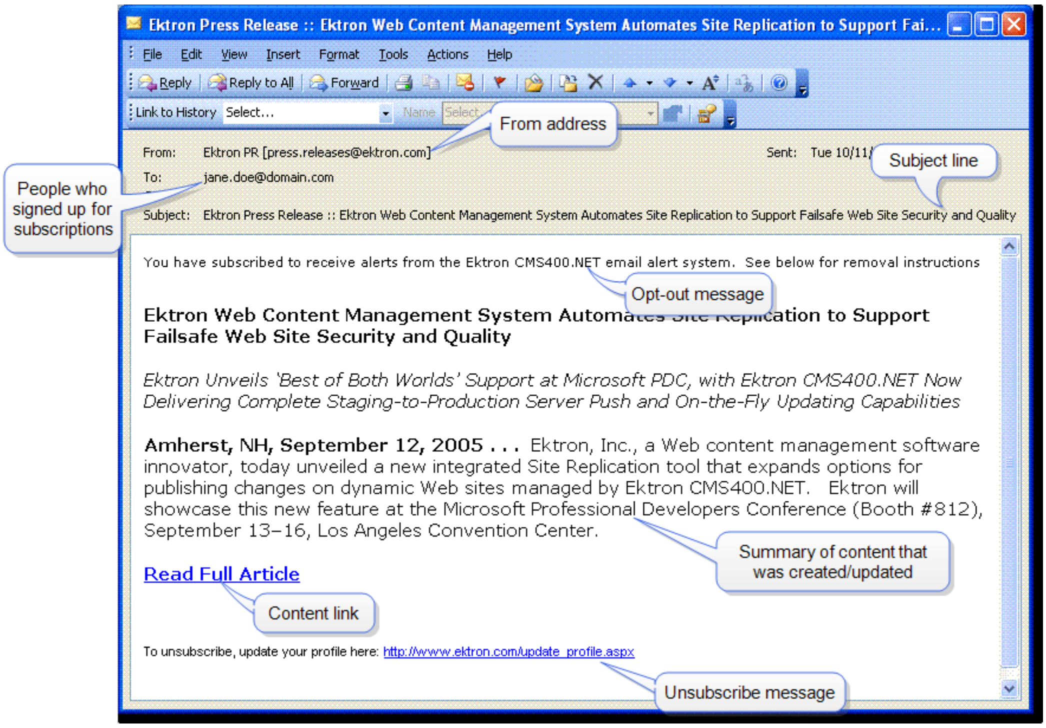
32

Administering Web Alerts

The Web Alert feature lets you generate email for a list of registered users whenever new or existing content is published. Interested site visitors register to be notified when new information about your product is published. When content is published, the users receive an email with a link to the new/updated page. The recipient clicks the link to access the page.

As a result, a self-selected group of users are notified of changes relating to their interests. When the Web Alert feature is set up, you don't need to do anything—everything happens in the background.

Sample Web Alert email



PREREQUISITE

Only members of the Administrator Group or users assigned to the Folder User Admin role can work with Web Alerts

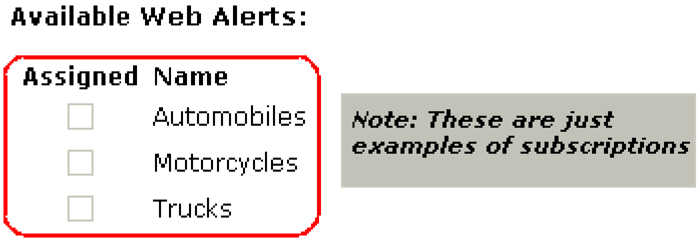
How Web Alert Works

The following explains the Web Alert feature.

1. Content is published.
2. Ektron checks the **Staging Server** checkbox on the **Settings > Configuration > Setup** screen. If it is unchecked, proceed to the next step. If the box is checked, no Web alerts are issued for this server.
3. Ektron checks to see if any subscriptions are assigned to folders or content.
4. If no subscriptions are assigned, the **Web Alerts** tab does not appear when editing content.
   - If any subscription is assigned, Ektron checks to see if an email should be created for this content. The settings appear under the **Web Alerts** tab. For example, some

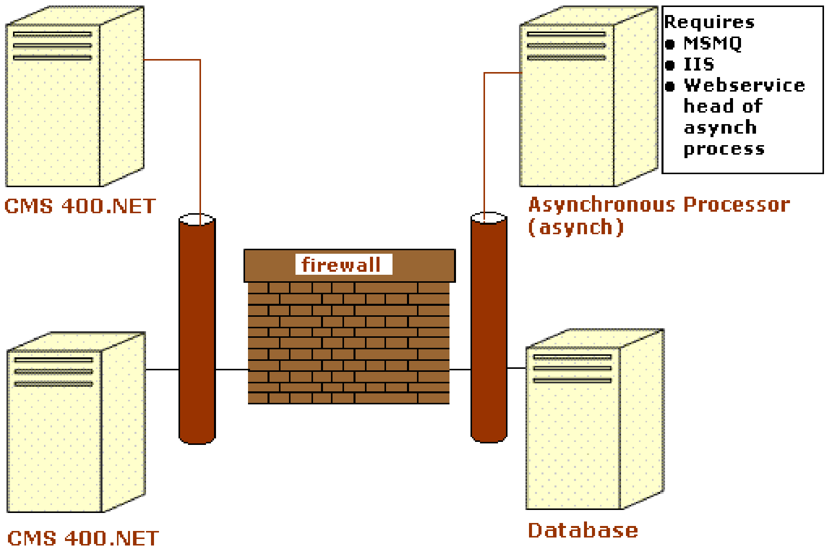
content only triggers an email when first published, while other items always generate an email.

5. If an email should be generated, Ektron composes the email by retrieving information from the Folder Properties screen > **Web Alerts** tab > **Web Alert Contents** fields.
6. Ektron determines which subscription lists should receive the email. These are identified on the **Available Web Alerts** area of the **Web Alerts** tab. The lists contain subscribers' email addresses.



Server Configuration

The following is a typical Web Alerts server configuration.



- **Firewall**—the Ektron business tier (which maintains the Ektron files) must have Web access to the asynchronous server. This configuration enables proper communication between Ektron and the asynchronous processor.
  - The asynchronous processor must have port 25 (SMTP) access to a valid mail server to send emails
  - The mail server (omitted from the illustration) must be allowed to send out port 25 (SMTP) traffic and can reside on the asynchronous server
- **Queuing**—Message queuing must be enabled on the asynchronous server.
  - You must create a message queue on the asynchronous machine and record its name. The message queue is specified in the exe.config file for the service, and in the `web.config` file for the Web Service interface.
- **CMS**—The `web.config` file includes a key for the location of the asynchronous processor. This needs to be verified as working.

- **Other**—IIS must be installed on the asynchronous processor. IIS allows a Web service call to schedule a file download and send commands.
  - The asynchronous machine should only allow HTTP traffic from Ektron servers. This provides additional security on the asynchronous processor.

Verifying Connections

- You can verify the Web service > queue connection by
  - leaving the Ektron asynchronous processor service off, submitting content with notifications, and verifying that a message arrived in the queue
  - turning on journaling for the queue. Submit a message in the queue. The Ektron asynchronous processor service picks it up and places it in the journaled messages.
  - turning on logging for the Ektron asynchronous processor service
- To verify the Ektron > Web service connection, open the asynchronous processor location inside a Web browser and test the Web services.
  - To verify the writing of files, ensure that Ektron has write access to the `[sitepath]subscriptions` directory and submit content that will trigger notifications. This action places a file inside that directory.
- To verify that the Ektron asynchronous processor service can download a file, open a Web browser on the asynchronous machine and connect to the location of the notification command files. Attempt to download one.

Enabling the Web Alert Feature

1. Set up message queue and asynchronous processor.
   See Also: *Setting Up Message Queuing and the Asynchronous Processor* on page 1572
2. Create messages—Define components of the email to be sent to subscribers.
   See Also: *CreatingMessage Components* on page 1576
3. Define subscriptions—Categories of information on your site. Site visitors can subscribe to be notified when content in a category is added or updated.
   See Also: *Defining Subscriptions* on page 1578
4. Assign Web Alert information to folders and content—For each folder or content item to which you assign subscriptions, determine
   - activities that trigger emails (for example, initial publishing of content)
   - the email content
   - subscription lists to which the email is sent
     See Also: *Assigning Web Alert Information to Folders and Content* on page 1581
5. Create and publish site visitor registration page—Create a new Web form and drop the membership server control onto it. Then, publish that form on your website. See Also: *Membership* on page 1771 server control

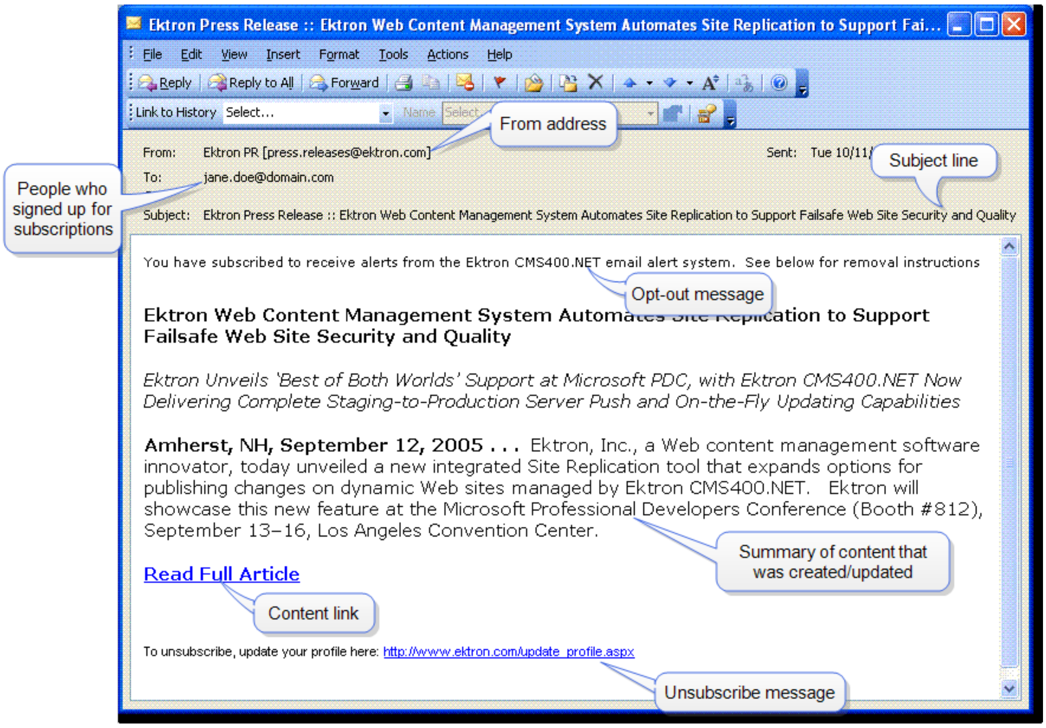
   NOTE: This task is typically done by a developer.

6. Site visitors subscribe to lists of interest—Someone signs up to be notified when changes in a selected subscription (category) are published. See Also: *How Users Sign up for Subscriptions* on page 1586
7. Ektron users can also subscribe. See Also: *CMS User Subscription Sign Up* on page 1589

8. Subscribers are notified when content is first published or updated—If at least one subscription is assigned to the content or its folder, email is sent according the folder's Web Alert settings.

Message Components

A Web Alert email is made up of the following components, defined on the Folder properties **Web Alerts** tab. See Also: *Assigning Web Alert Information to Folders and Content* on page 1581



NOTE: If you reached this screen while creating an eCommerce message, see *Configuring eCommerce* on page 1305.

NOTE: To set or modify this information, you must have permission to edit the folder.

- **From address** (required)—See *Creating "From" Addresses* on page 1578
- **Recipient** (required)—Users who signed up for subscriptions that are enabled for the folder. See Also: *How Users Sign up for Subscriptions* on page 1586.
- **Subject line**—The **Subject** field on the **Web Alerts** tab of the Folder Properties screen. See *Assigning Web Alert Information to Folders and Content* on page 1581
- **Default message**—See *Creating Default Message Text* on page 1577.
- **Opt out message** (required)—See *Creating Opt Out Message Text* on page 1577
- **Content summary**—The Summary of the content whose creation or change generates the email. See Also: *Writing a Summary for Content* on page 292.

  NOTE: The Summary can include variables that retrieve information about the content. See *Including Variables in the Default Message* on page 1577.

- **Content link**—Link to content whose creation or change generates the email.
- **Any CMS content item**—You may include Ektron content in the email.

- **Unsubscribe message** (required)—See *Creating Unsubscribe Message Text* on page 1578.

The elements appear in the sequence shown above.

Setting Up Message Queuing and the Asynchronous Processor

After installing Ektron, set up Microsoft Message Queuing and the Ektron Asynchronous Processor. The installation places the following directories and files on your server.

- `C:\Program Files\Ektron\CMS400`*`versionnumber`*`\EktronAsyncProcessor_Service\`
- `C:\inetpub\wwwroot\`*`siteroot`*`\bin\EktronAsyncProcessorWS.dll`
- `C:\inetpub\wwwroot\`*`siteroot`*`\Workarea\webservices\EktronAsyncProcessorWS.asmx`

NOTE: If you need to move Web services file, use the **Asynchronous Processor Location** field in the Configuration > Setup screen to specify the new folder location.

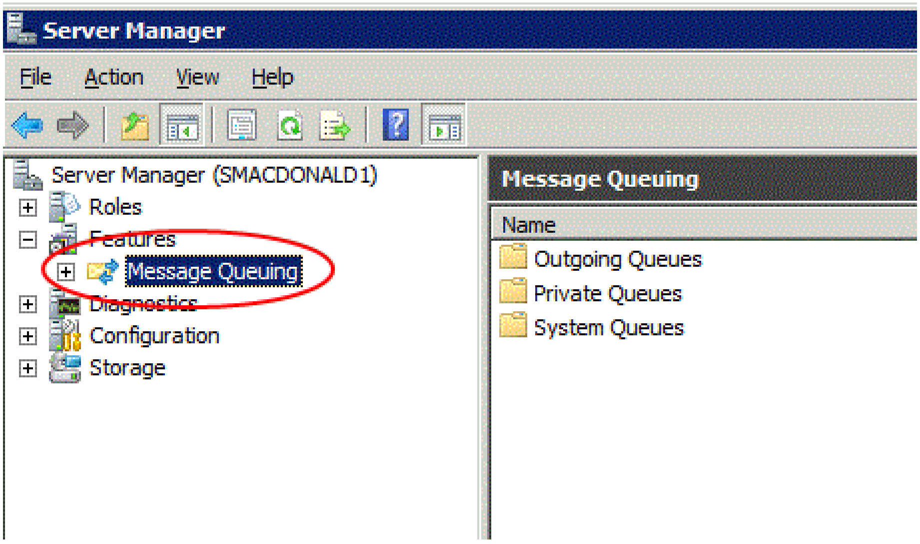
This section also contains the following topics.

Setting Up Message Queuing and the Asynchronous Processor

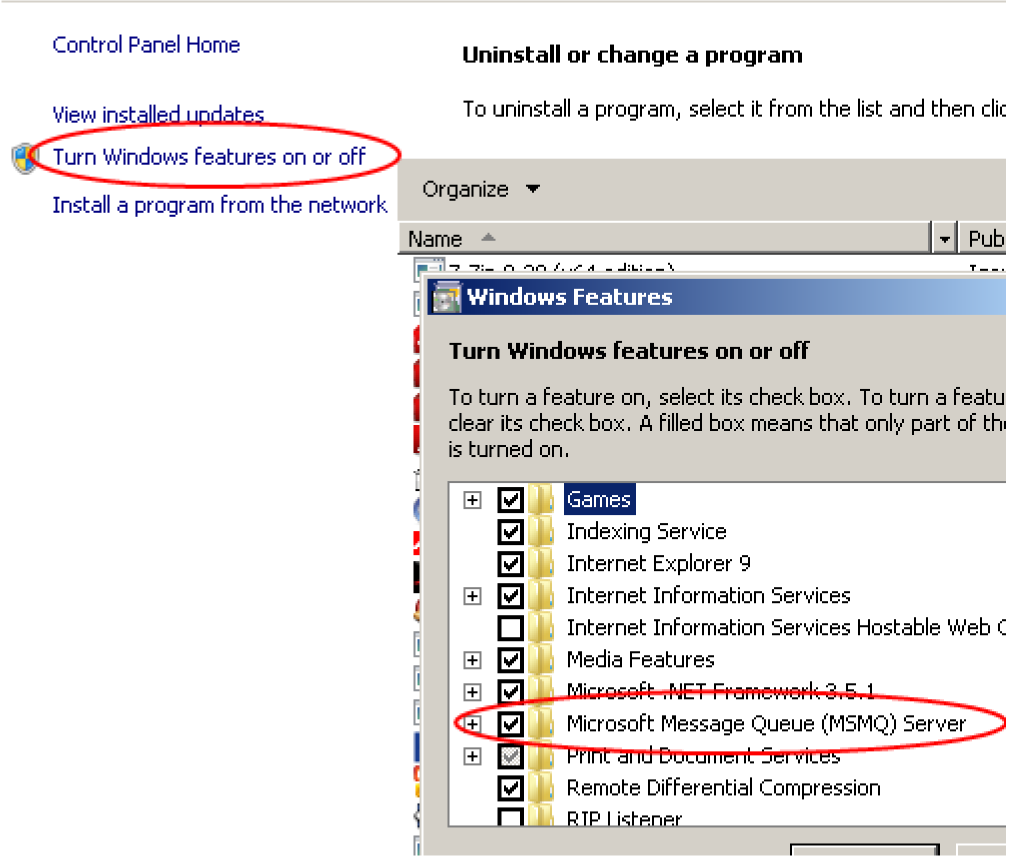
1. On the server that hosts Ektron,
   - If you are using Windows 7 or 2008 R2, go to **Control Panel > Add/Remove programs > Add/Remove Windows Components**.

     NOTE: In some Windows versions, you access **Turn Windows features on or off** then select **Microsoft Message Queue (MSMQ) Server**.

   - If you are using Windows 8 or 2012,
2. If it is not checked, check **Message Queuing Services**.
   Windows 2008 R2



Windows 7

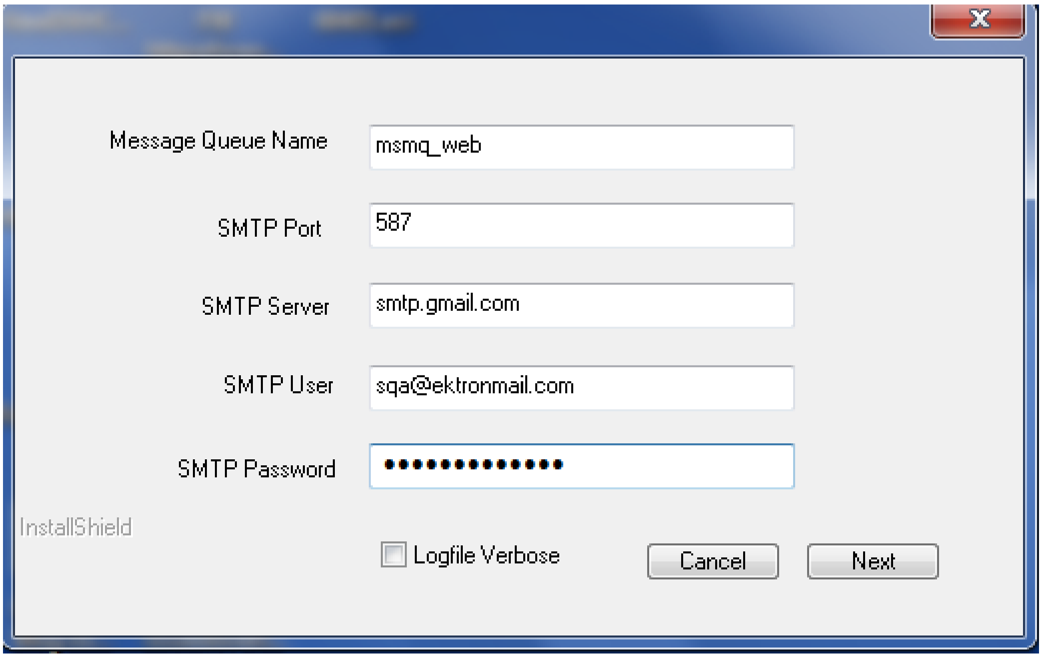


3. If **Message Queuing Services** was checked when you viewed it, go to step 5. If it was not checked, click **Next**. A wizard creates the component.

   The rest of this procedure employs a wizard that saves several manual steps. If you have a problem using the wizard, or prefer to install Web Alerts manually so you can track the files being installed to your server, see *Manual Setup of Message Queue and Asynchronous Processor* on page 1575.

4. From the Windows Start Menu, click **All Programs > Ektron > CMS400vxx > Utilities > Web Alert Setup**. The Web Alert Wizard setup screen appears.
5. Click **Next**. The wizard begins installing the Web Alerts feature.

   The following screen appears.



6. At **Message Queue Name**, enter the name of the message queue that will manage the Web Alert email.
7. At **SMTP Port**, enter the port number that sends Web Alert email.
8. At **SMTP Server**, enter the name of the server that hosts your Ektron website.
9. Enter the username and password that will be used to send and receive email.
10. If you want a very detailed log file, click **Logfile Verbose**.
11. If your Asynchronous Processor service is not running, the following message appears. If you see this message, click **OK** then click **Finish**.

12. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Services**.
13. Start the Ektron **Async Processor** service.
14. When specifying the **SMTP port** in Step 7, if you entered a port number other than 25
    a. Open `C:\Program Files (x86)\Ektron\CMS400vxx\EktronAsyncProcessor_Service\Ektron.Services.EktronAsyncProcessor.exe.config`.
    b. Change the value of `ek_SMTP_EnableSsL` to `False`.

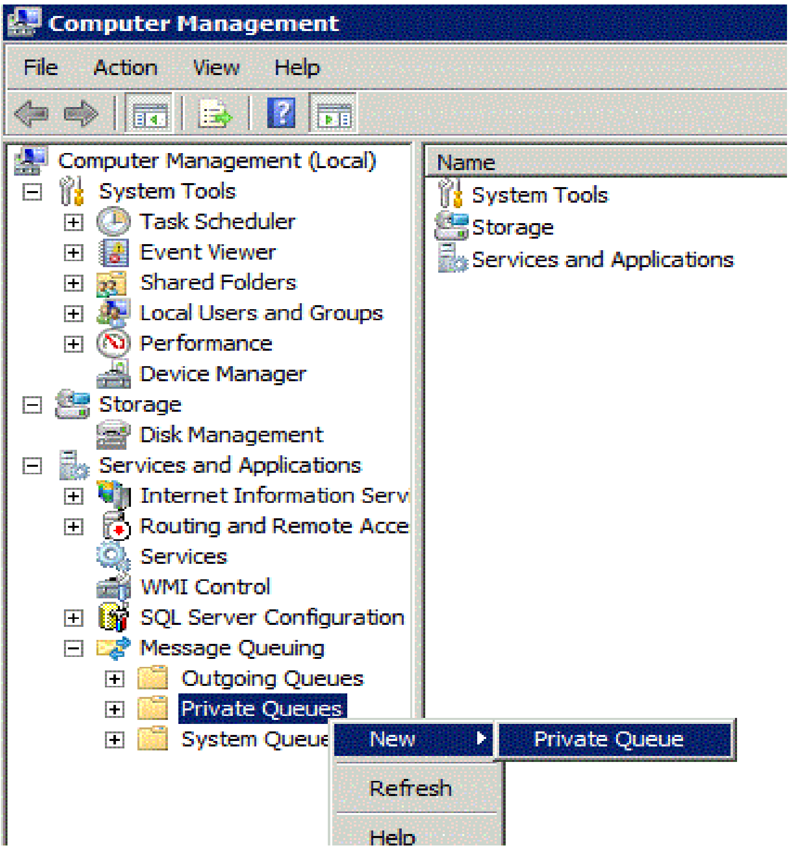
Manual Setup of Message Queue and Asynchronous Processor

This section describes manual steps for setting up the Message Queue and Asynchronous Processor. You can use this procedure if you had a problem using the wizard, or you want to know which files are being installed on your server.

1. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Message Queuing**.

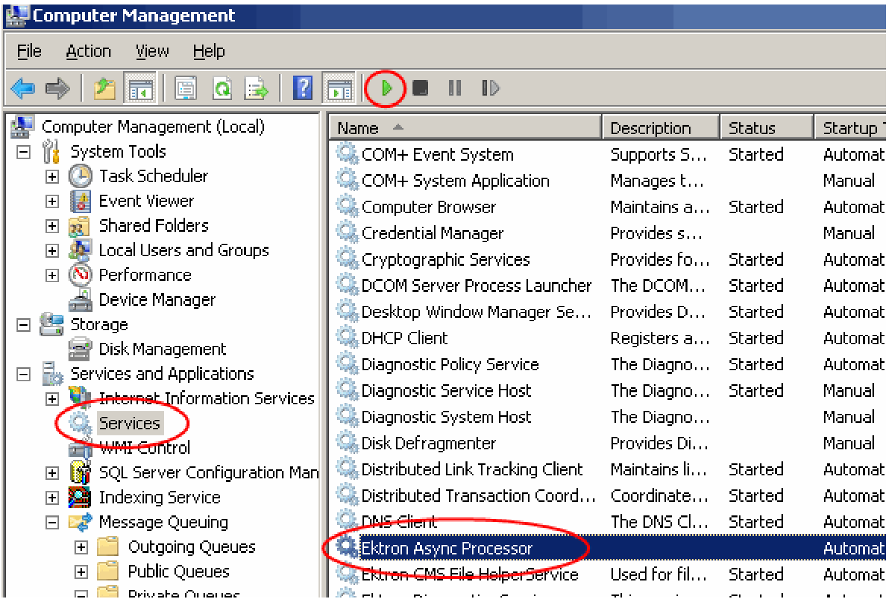
   NOTE: In some Windows versions, you access this screen by clicking **Start > Computer > Manage**.

2. Right click the **Services and Applications > Message Queuing > Private Queues** folder and select **New > Private Queue**.

3. Create a private queue named `msmq_web`.
4. Right click `msmq_web` and select **Properties**.
5. Go to the **Security** tab. You can give the Everyone group Full Control if you are in a testing environment. If you are on a production server or want better security, delete the following permissions for the local system account (the account under which the EktronAsyncProcessor Service runs):
   - Receive Message
   - Peek Message
   - Send Message

6. Give the ASP.NET account (the account under which the Web services interface runs) **Send Message** permission.
7. Click **OK**.
8. Open the following file: `C:\Program Files\Ektron\CMS400vxx\EktronAsyncProcessor_Service\RegEktron.Services.EktronAsyncProcessor.bat`
9. Review and update as necessary the paths to the .NET directory and `Ektron.Services.EktronAsyncProcessor.exe` file.
10. Update the paths to the .NET Directory and the .exe file if necessary.
11. Execute the .bat file. Or, from a command line or **Start Menu > Run**, enter: `C:\Windows\Microsoft.NET\Framework\v2.0.50727\installutil "C:\program Files\Ektron\CMS400vxx\EktronAsyncProcessor_Service\Ektron.Services.EktronAsyncProcessor.exe"`
12. Open the following file and enter your SMTP connection settings: `C:\Program Files\Ektron\CMS400vxx\EktronAsyncProcessor_Service\Ektron.Services.EktronAsyncProcessor.exe.config`.
13. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Services**. Start the **Ektron Async Processor** Service.



CreatingMessage Components

Before you can create an email message, define the following components.

- default message text
- opt out message
- unsubscribe message
- "from" address

You can define several of each item. You *must* define at least one opt-out message, unsubscribe message, and "from" address to use the Web Alert feature.

After setting up message components, they are referenced on the folder's properties screen's **Web Alerts** tab. See Also: *Message Components* on page 1571

Creating Default Message Text

1. From the Workarea, choose **Settings > Configuration > Web Alerts > Messages**.
2. Click **Add Email Message**.
3. Enter a **Title** that describes the message.
4. At the **Type** field, select **DefaultMessage**.
5. In the editor, enter the message text.
6. Click **Save**.

Including Variables in the Default Message

The default message can include variables that retrieve content information into the message text. The variables are surrounded by at signs (@). For example

```
The following content was recently updated: @AppContentLink@
```

The email text might read:

```
The following content was recently updated: The Effect of Coumadin on Cardiac
Patients
```

Use the following variables in a Web Alert message.

- **@appContentTitle@**—The title of the content block.
- **@appCRLF@**—A carriage return. Moves text down one line.
- **@appContentLink@**—The link to the content block on the website.

  NOTE: You must be logged in to see the changes.

- **@appContentURL@**—The URL of the content, from the quicklink and domain.
- **@appSubscriptionNames@**—Comma separated list of subscriptions that a user selected.
- **@appComment@**—The comments for the content block.
- **@appSubmitterFirstName@**—The first name of the user who submitted the content block.
- **@appSubmitterLastName@**—The last name of the user who submitted the content block.

Creating Opt Out Message Text

An Opt-Out message appears as the first line of every email. It directs the reader to the Unsubscribe message at the bottom. Here is an example:

```
You have subscribed to receive alerts from the Ektron email alert system.
  See below for removal instructions.
```

You can add variables to the Opt Out text. See Also: *Including Variables in the Default Message* above

1. Go to **Settings > Configuration > Web Alerts > Messages**.
2. Click **Add Email Message**.
3. Enter a **Title** that describes the Opt-Out message.
4. At the **Type** field, select **OptOut**.
5. In the editor, enter the message text.
6. Click **Save**.

Creating Unsubscribe Message Text

An Unsubscribe message helps an email recipient remove himself from the subscription list. You can add variables to the Unsubscribe text. See Also: *Including Variables in the Default Message* on the previous page

1. Go to **Settings > Configuration > Web Alerts > Messages**.
2. Click **Add Email Message**
3. Enter a title that describes the Unsubscribe message.
4. At the **Type** field, select **OptOut**.
5. In the editor, enter the message text.
6. Click **Save**.

Creating "From" Addresses

Web Alert emails must have a "from" address.

1. Go to **Settings > Configuration > Web Alerts > Email From List**.
2. Click **New > Email From**.
3. Enter an email address to be used in the "From" field of Web Alert messages.
4. Click **Save**.

Defining Subscriptions

Create a subscription for each type of information site visitors might want to be notified about. For example, if your site sells electronics, create subscription for televisions, computers, and smart phones. Site visitors subscribe to areas of interest. Ektron and membership users can also sign up for subscriptions.

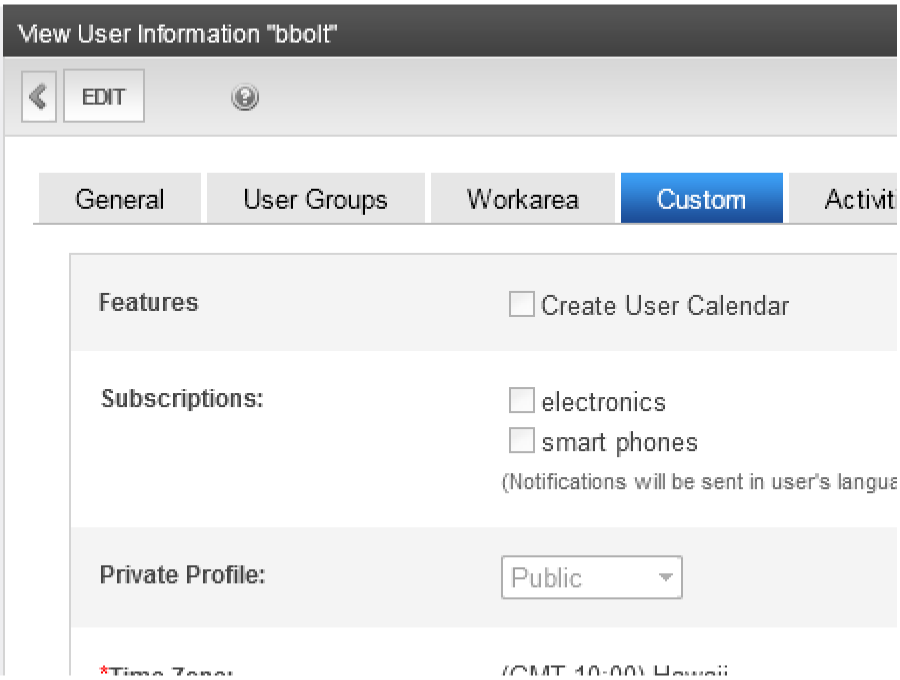
Creating Subscriptions

1. Go to **Settings > Configuration > Web Alerts > Subscriptions**.
2. Click **Add Subscription**.
3. Enter a name for the subscription.
4. Check the **Enabled** box if the subscription is active.
5. Click **Save**.

Appearance of Subscriptions on Custom User

Properties Screen

When you create a subscription, a new entry is created on the User Properties screen's **Custom** tab. By default, its name is **Subscriptions**, and its type is **Category**.



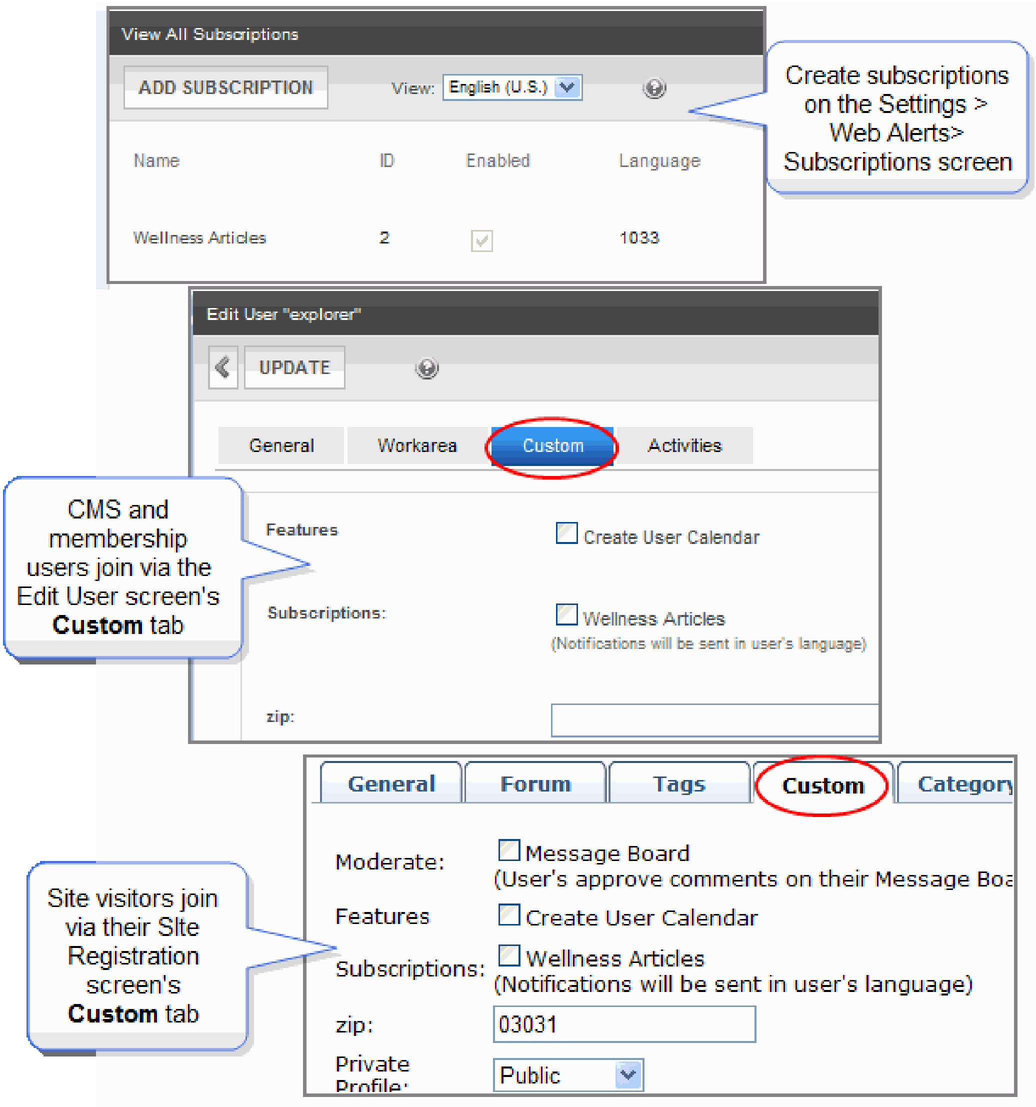
Subscriptions appear on the

- Site Visitor Registration screen
- Membership user information screen > **Custom** tab
- User information screen > **Custom** tab
- User group information screen > **Custom** tab

By default, the label **Subscriptions** appears on the screen. To change it to something more helpful, such as **Select Areas of Interest**:

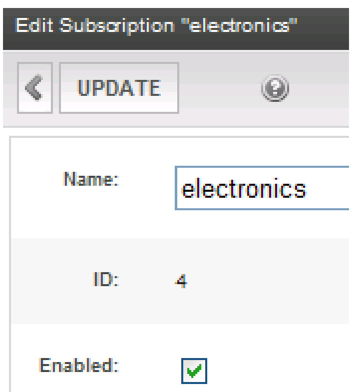
1. In the Workarea, go to **Settings > Configuration > Custom Properties**.
2. In the **Object Type** field, select **User**.
3. Click **Subscriptions**.
4. Edit the **Label** field.

The following graphic illustrates the relationship among the Subscriptions, Custom Properties, and the Site Visitor Registration screen's **Custom** tab.



Using Subscriptions in a Multi-Language System

When you create a subscription, a version is created for every enabled language. You can edit the subscription name and **Enabled** value for any language, but cannot change the ID number.



1. Choose **Settings > Configuration > Web Alerts > Subscriptions**.
2. From the View Languages drop-down list, select the language into which you want to translate the subscription.
3. Click the subscription that you want to translate.
4. Click **Edit**.
5. In the **Name** field, enter the translation for the subscription name. If desired, you can check or uncheck the **Enabled** checkbox. Only enabled subscriptions appear.
6. Click **Update**.

Assigning Web Alert Information to Folders and Content

After creating messages (as explained in *CreatingMessage Components* on page 1576) and subscriptions (as explained in *Assigning Web Alert Information to Folders and Content* above), you identify which folders include content that, when updated, trigger a Web Alert. For example, new product announcements are placed in the Marketing folder.

NOTE: To set or modify Web Alert information, you must have permission to edit the folder. See Also: *Managing Folder Permissions* on page 257

For each folder, you can assign the following kinds of message information.

- whether Web Alert information is *inherited* from a parent folder or customized
- *when* email is sent: always, only on initial publication, or never
- the *content* of the Web Alert email
- the subscriptions assigned to the folder. These determine which recipients receive the Web alert email.

Customizing Web Alert Information for a Folder

Like other folder-level information in Ektron, Web Alert information is inherited from a parent folder. By default, all folders inherit Web Alert settings from the root (Content) folder. However, you can break inheritance and customize the settings for any folder or content item. See Also: *Assigning Web Alert Information to Content* on page 1584

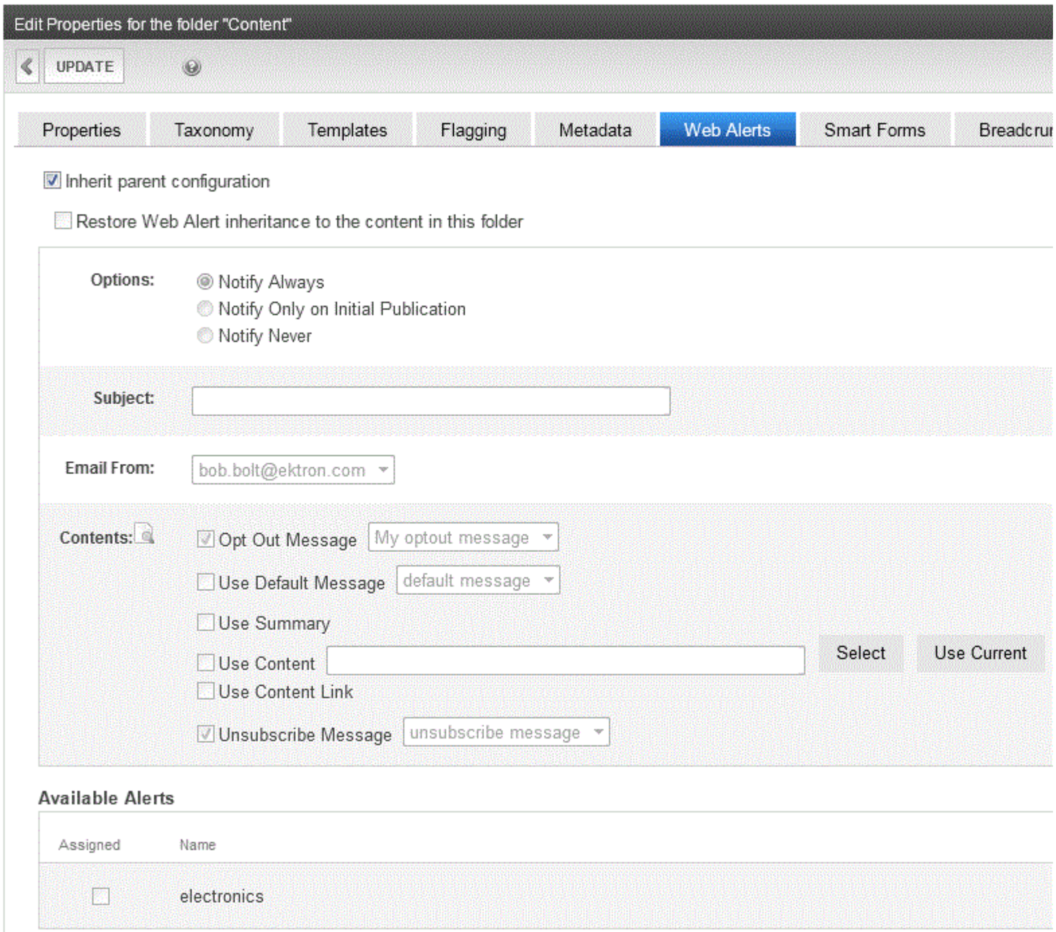
To modify folder-level Web Alert information:

PREREQUISITES

- You defined at least one opt-out message, unsubscribe message, and "from" address. See Also: *CreatingMessage Components* on page 1576
- You defined at least one subscription. See Also: *Defining Subscriptions* on page 1578
- You have edit permissions for the folder

1. Navigate to the folder whose Web Alert information you want to edit.
2. Click **View > Properties**.

3. Click the **Web Alerts** tab. The Web Alert options appear.



- **Inherit parent configuration**—To inherit Web Alert settings (described below) from this folder's parent folder, leave this box (**Break Inheritance**) checked.
- To assign custom Web Alert settings for this folder, uncheck this box and use the fields below.
- **Restore Web Alert inheritance to the content in this folder**—Check this box if Web Alert inheritance has been broken for some content in the folder, and you want to restore inheritance. If you do, all folder content uses the Web Alert properties applied to this folder.
- **Options**—Check *when* Web Alert emails are sent as content in this folder is published.
  - **Notify Always**—send email whether content is being published for the first time or updated
  - **Notify Only on Initial Publication**—send email only the first time content is published. After that, email is not sent.
  - **Notify Never**—email is never sent for content in this folder.
- **Web Alert Subject**—Enter the email's subject line.
- **Web Alert email From Address**—Select the address from which email for this folder is sent. See Also: *Creating "From" Addresses* on page 1578
- **Web Alert Contents**—Check the following components to determine the email text . See Also: *Message Components* on page 1571

- **OptOut Message**—see *Creating Opt Out Message Text* on page 1577
- **Use Default message**—see *Creating Default Message Text* on page 1577
- **Use Summary**—include the content summary in the email
- **Use Content**—You may include Ektron content in the email.

NOTE: If the content item is an Office document or a managed file, a *link* to that item appears within the email, not the item itself.

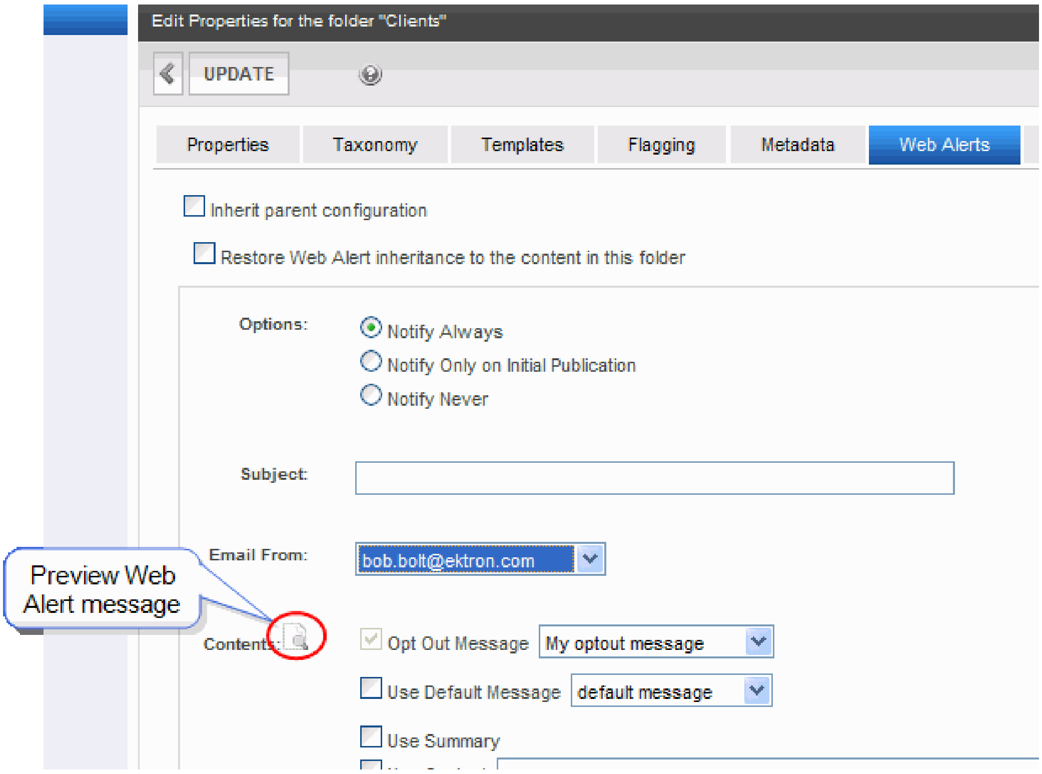
- To select existing content, click **Select** next to the **Use Content** checkbox. Then, navigate to the content item.
- To select the content whose creation or change triggers the Web Alert, click **Use Current**.
- To create new content to be inserted into the Web Alert message for this folder, click **Select** next to the **Use Content** checkbox. When the folder navigation window appears, click **Add Content**. Then, see *Creating New Content* on page 287.

- **Unsubscribe message**—See *Creating Unsubscribe Message Text* on page 1578. The components appears within the email in the order listed above.
- **Available Web Alerts**—All enabled subscriptions set up in the Subscriptions screen appear. Check those to be notified when content in this folder is added or updated. See Also: *Defining Subscriptions* on page 1578

IMPORTANT: If you uncheck all subscriptions, you disable the Web Alert feature for this folder and all of its content, even if unique subscription information is assigned to content within the folder.

Previewing the email Message

To preview the email message, click **Preview** ( ) on the **Web Alerts** tab.



Assigning Web Alert Information to Content

You can customize Web Alert settings for any content item. If you do, you break the inheritance from its folder. From then on, the content’s Web Alert settings are independent of the folder’s settings.

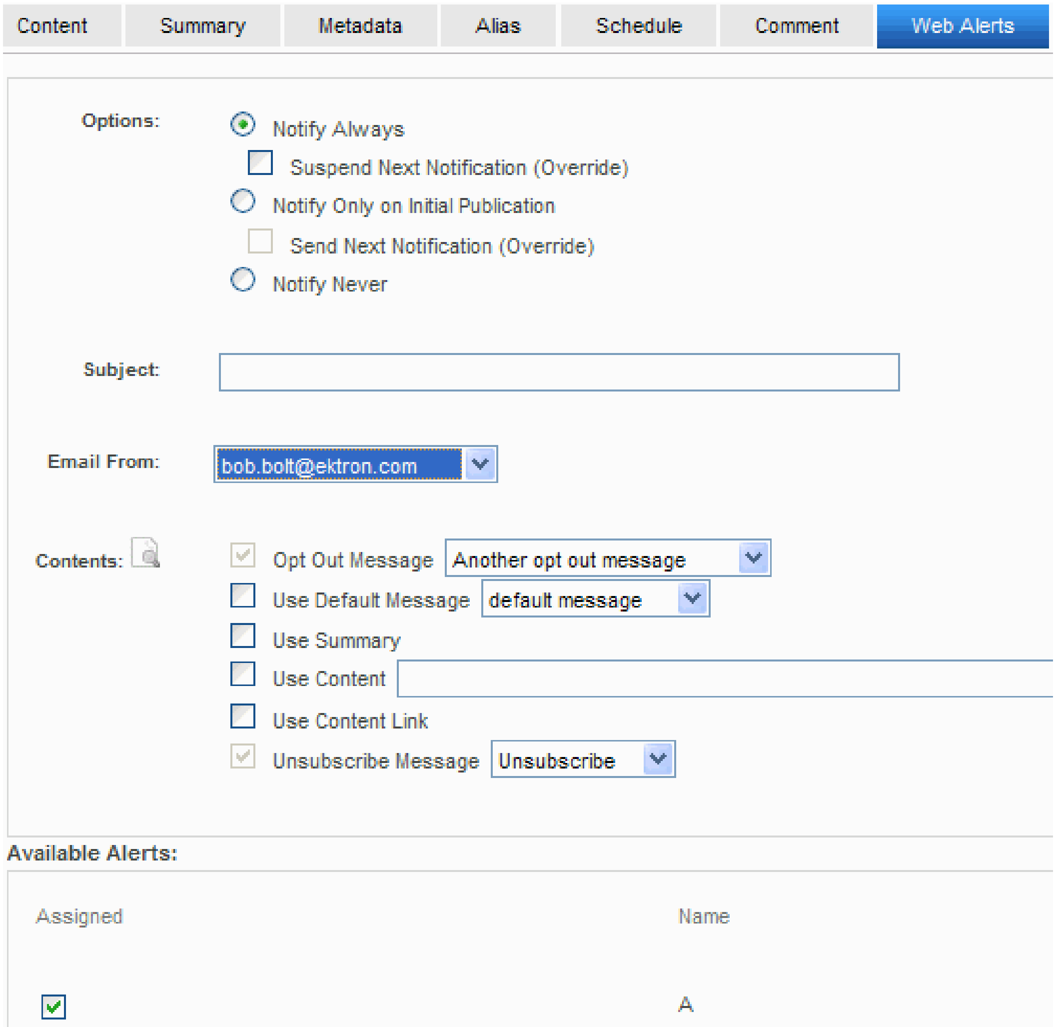
IMPORTANT: If *all subscriptions* are unchecked for a folder, the Web Alert feature is disabled for all content in the folder. This applies even if unique Web Alert information is assigned to content.

To customize the Web Alert settings for any content item:

1. Navigate to the folder that contains the content.
2. Click the content. The View Content screen appears.
3. Click **Edit**.
4. Click the **Web Alerts** tab.

   NOTE: The Web Alerts tab only appears if required messages, “from” email addresses, and at least one subscription are assigned to the content’s folder.

   The Web Alert settings for the content appear



- **Options**—Check *when* Web Alert emails are sent as this content is published.
  - **Notify Always**—send email whether content is being published for the first time or updated
  - **Suspend Next Notification (override)**—check this box to suspend the next email to be sent for this content. You might use this feature if you noticed a small error in the content and don't want to notify subscribers that the page was updated.

    NOTE: - This setting only applies until the next time this content is published. When that happens, this box is automatically unchecked.

  - **Notify only on Initial Publication**—send email the first time content is published. After that, email is not sent.
  - **Send Next Notification (override)**—send email to all subscribers the next time this content is published. Use this checkbox to send a one-time mailing to all subscribers about content that was already published.

    NOTE: - This setting only applies until the next time this content is published. When that happens, this box is automatically unchecked.

  - **Notify Never**—email is never sent when this content is published.
- **Subject**—Same as for a content folder.

- **email From**—Same as for a content folder.
- **Contents**—Same as for a content folder.
- **Available Alerts**—Only Web Alerts assigned to the folder appear. Check ones that you want to assign to this content item.

Restoring Folder-level Web Alert Information to Content

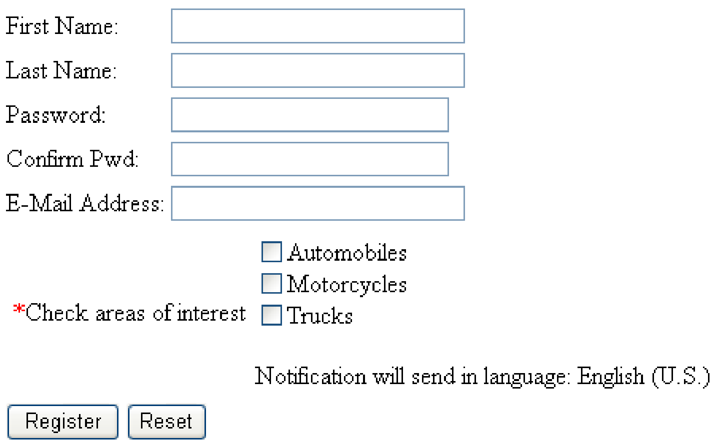
If you customize Web Alert information for content and later decide to standardize that information for all content in a folder, use the **Restore Web Alert Inheritance** checkbox on the folder properties **Web Alerts** tab. This action copies the folder's Web Alert information to every content item in the folder, replacing any content-level information.

How Dragged and Dropped Content is Handled

Web Alert emails are not generated for files that are dragged and dropped into Ektron and immediately published. To generate email for these files, you must manually publish them. Like HTML content, these files must reside in a folder for which the Web Alert feature is enabled.

How Users Sign up for Subscriptions

After setting up subscriptions, you create a Web page that lets site visitors subscribe to areas of interest.



To place this form on a Web page, your developer inserts a Membership Server Control. See Also:

Any user who subscribes via the above screen becomes an Ektron membership user, and is automatically added to the All Members user group. For more information, see *Membership Users and Groups* on page 1161.

NOTE: The email address collected on the screen is used as the membership **Username** field.

What happens next depends on the **Enable Verify email** check box in the Application Setup screen (shown below).

What Happens if Verification email is Not Used

If the **Enable Verify email** checkbox is *not* checked, everyone who signs up automatically becomes a membership user.

What Happens if Verification email is Used

IMPORTANT: When using the Checkout Server Control on an eCommerce site, the **Enable Verify Email** setting must be unchecked. Otherwise, new users will receive an error message when they sign-up using this control. See Also: *Using the eCommerce Server Controls* on page 1404

Typically, when managing a self-subscribe list, you want new users to confirm their intention of being on the list. This prevents people from being subscribed without their permission.

If the **Enable Verify email** checkbox *is* checked, everyone who signs up is placed on the Users Not Verified list. (To see this list, go to **Workarea > Settings > Community Management > Memberships > Users Not Verified**.)

These people then receive an email. (You define its content in **Workarea > Settings > Community Management > Messages**.) The email should direct the unverified user to a Web page that asks for confirmation of the person's interest in the subscription. (See *Customizing the Verification Message* below.) New users are activated when the subscriber confirms interest.

To create this page, your Web developer creates or updates a Web Form using the Membership Server Control. Set the control's **DisplayMode** property to **AccountActivate**.

NOTE: Users can also be manually activated or removed via the View Not Verified Users screen. For more information, see *The View Not Verified Users Screen* on the next page.

Customizing the Verification Message

By default, Ektron supplies a generic message asking the user to confirm the password and directing the person to your website's `activateuser.aspx` page. To customize that message:

1. Go to **Workarea > Settings > Community Management > Messages**.
2. Click **AddEmail Message**.
3. Assign a title to the message, such as **Verification Message**.
4. In the **Type** drop-down, select **Verification**.
5. Click the check mark in the **Default** box.
6. In the **Subject** field, enter a subject line for the message.
7. Enter the message. You must insert the `@appQueryLink@` variable in the message to create a link to the confirmation page. For example:

```
Welcome to example.com. You registered to be notified of updates
to our site. Before we can do this, you need to activate your
account. To do so, please visit @appQueryLink@.
```

The `@appQueryLink@` variable gets resolved as follows (one line):

```
http://sitepath/workarea
  /activateuser.aspx?uid=[username]&acc=[accountID]
```

For example (one line):

```
http://www.example.com/Workarea
  /activateuser.aspx?uid=john.edit@example.com&acc=ce5w84o936477
```

You can insert these membership variables into the confirmation message.

- **@appEmail@**—email address
- **@appActivateId@**—Account ID
- **@appUserName@**—UserName
- **@appFirstName@**—First name
- **@appLastName@**—Last name
- **@appDisplayName@**—Display name
- **@appAvatar@** —Avatar
- **@appSignature@**—Signature

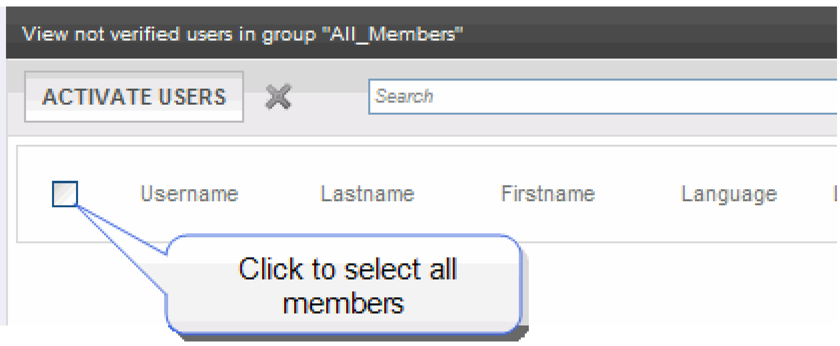
The View Not Verified Users Screen

Users who signed up for a subscription but who have not been verified appear on the View Not Verified Users Screen. This screen is available via **Settings > Community Management > Memberships > Users not Verified**.

On this screen, you can activate accounts by selecting users then clicking **ActivateUsers**. Alternatively, you can delete members by selecting and clicking **Delete** ( ).

NOTE: The `ek_PageSize` setting in the `web.config` file determines the maximum number of users that can appear on a page before it "breaks." When a page breaks, additional entries appear on another screen, and the following text appears near the bottom of the list:
`Page 1 of 2 [First Page] [Previous Page] [Next Page] [Last Page]`

To select all members, click the check box next to **Username**.



You can also change the way membership users are sorted, or use the **Search** button to find users that match your criteria (for example, users whose username includes *example.com*.)

Setting up Other Web Pages for Site Visitors

You can set up other Web pages that let subscribers perform these actions:

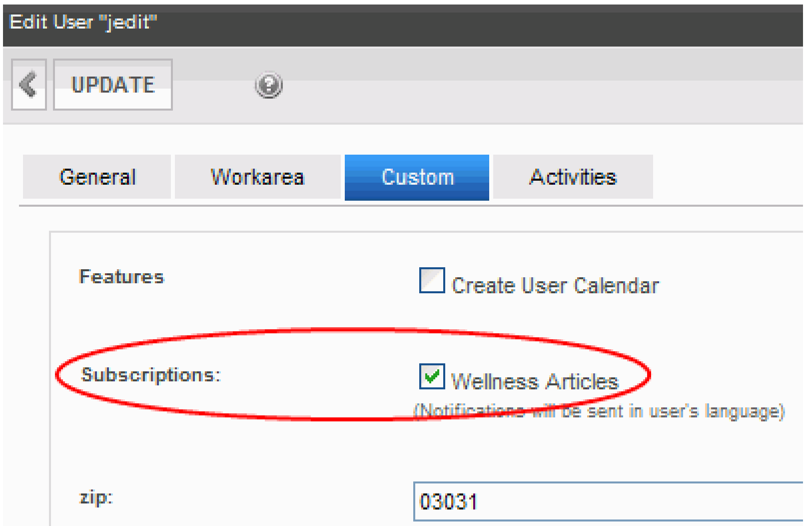
- Activate their account
- Reset their password
- Unsubscribe

To create these pages, place a Membership server control on the page. Then use its **DisplayMode** property to determine the kind of screen you want to place. For example, to create a screen that lets the user reset a password, set the control's **DisplayMode** property to **ResetPassword**. See Also: *Membership* on page 1771 server control

CMS User Subscription Sign Up

CMS users can subscribe to any subscription list. This is particularly useful on an intranet where, for example, employees are notified when job-related information is updated.

Another example is your internet site. The Marketing manager can sign up to be notified whenever Marketing content is added or updated. To do so, go to **Settings > Users > Edit User > Custom tab**.



See Also: *Using eSync with Web Alerts* on page 1563

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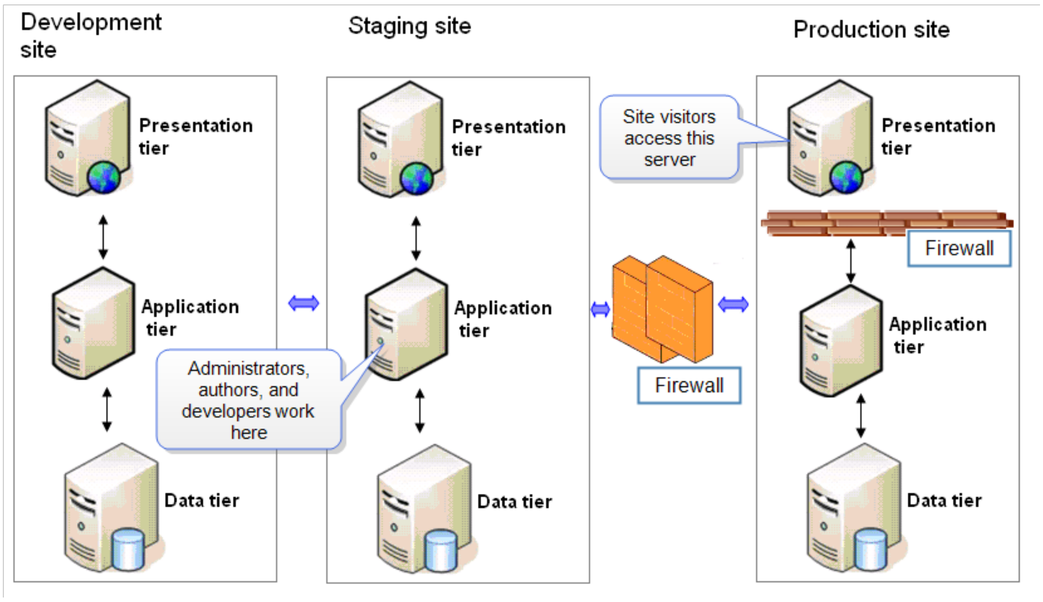
33

Distributing Resources with 3-Tier Architecture

Versions of Ektron previous to 8.5 featured 2-tier architecture, in which the Application and Presentation tiers resided on the same server. In 3-tier architecture, you can locate the Application tier in the client's environment or an Ektron hosting environment. This represents a true separation of the Web server from the database. The Application tier does the bulk of the work, while the Presentation tier does basic processing.

IMPORTANT: You are not required to use 3-tier architecture—Ektron continues to run successfully on 2-tier architecture.

A 3-tier architecture lets you spread the processing of Ektron data among 3-Tiers, as shown in the following figure. Each tier should reside on its own server.



NOTE: You may run all 3 tiers on a single server for development purposes only.

The 3 tiers are Data, Application, and Presentation.

- **Data**—Contains SQL and Ektron database objects (stored procedures, views, tables, and so on).
- **Application**—Full Ektron installation.
  - Ektron DLLs
  - Ektron Workarea
  - Ektron Windows Services
  - Ektron WCF Services
  - Custom WCF Services
- **Presentation**—
  - Handles site visitor requests and displays Web pages
  - Minimal footprint, lightweight
  - Requires IIS
  - No Ektron installation

- Contains
  - Standard ASP.NET website
  - Minimal set of Ektron.dlls in bin folder
  - Configuration files (`web.config`, unity.config)
  - Workarea required only if website uses PageBuilder or templated server controls.

The Presentation tier was added in Ektron Version 8.5.

The Ektron Framework API uses the Microsoft Unity Framework to inject business logic implementations into our Framework API. When running in 3-Tier mode, the Framework API on the Presentation tier uses a WCF service client implementation, thereby routing Framework API calls through WCF services, while the actual logic is running on the Application server.

To minimize network requests the between Presentation and Application tiers, Ektron includes a caching tier.

NOTE: 3-tier architecture is different from MVC coding style, which consists of a data layer, business logic layer, and an API layer.

NOTE: To communicate between servers, you can choose any unused port. If you choose a port other than 80, Ektron recommends using one outside of the well-known port range (0 to 1023).

Benefits of 3-Tier Architecture

3-tier architecture provides the following benefits.

- Scalability—Each tier can scale horizontally. For example, you can load-balance the Presentation tier among 3 servers to satisfy more Web requests without adding servers to the Application and Data tiers.
- Performance—Because the Presentation tier can cache requests, network utilization is minimized, and the load is reduced on the Application and Data tiers. If needed, you can load-balance any tier.
- Availability—If the Application tier server is down and caching is sufficient, the Presentation tier can process Web requests using the cache.

Limitations of 3-Tier Architecture

3-tier architecture has the following limitations.

- You must manually push templates, assets, private assets, uploaded images, and uploaded files from the Application tier to the Presentation tier. You may use a tool like Robocopy to do this.
- You create content (HTML, assets, PageBuilder pages, and so on) only in the Application tier. You can only view content from Presentation tier.
- Because 3-tier architecture uses WCF, it requires:
  - the 8.5 or higher Framework API and databinding. You cannot use API calls outside of the Framework API
  - templated server controls
  - widgets created by the Framework API
- Because the business logic executes on the Application tier, its website directory must be identical to the Presentation tier's.

Impact of 3-Tier Setup on a Developer

The Unity Framework provides the same developer experience, whether you use 2- or 3-tier architecture, by defining which container to use in the `web.config` file. See Also: Introduction to Unity, *Creating a Sample Content Block in 3-Tier Architecture* on page 1597

NOTE: You do not need to know about the Unity Framework—it is mentioned here to help you understand how Ektron achieves 2-tier and 3-tier architecture.

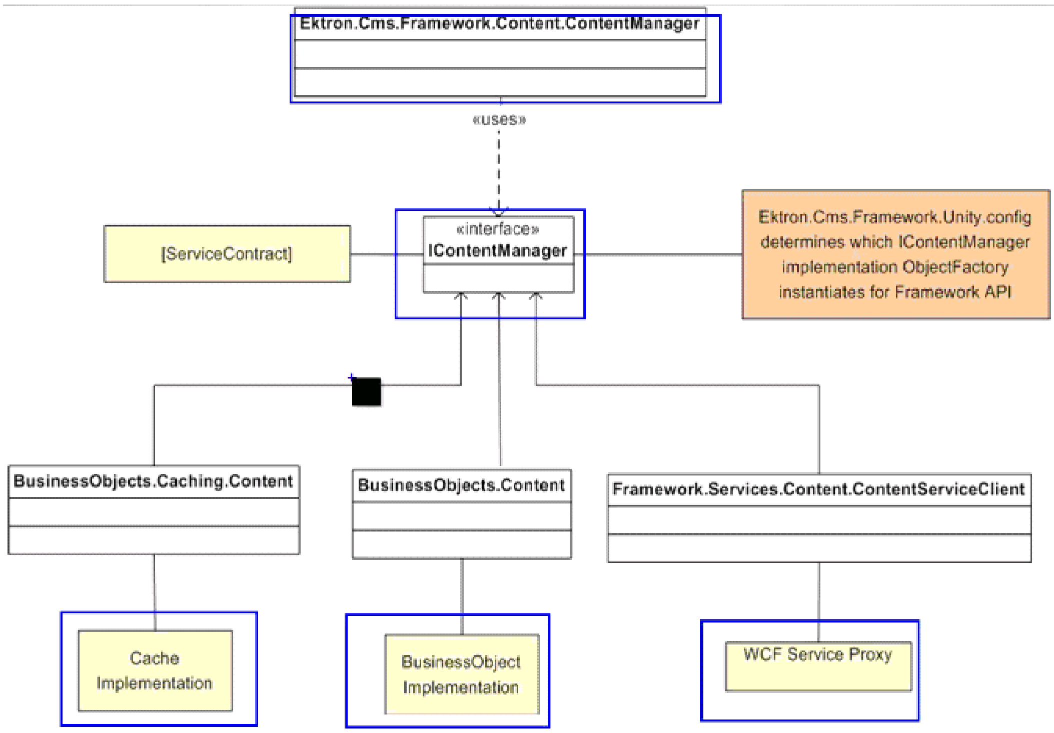
Ektron has 3 main containers, which transmit data between tiers.

- **Business object** (`BusinessObjects.Content`)
  - contains the implementation of business logic for Ektron
  - used in 2-tier architecture
  - in 3-tier architecture, executed in the Application tier
- **WCF service proxy** (`Framework.Services.Content.ContentServiceClient`)
  - used in 3-tier architecture to communicate between Application and Presentation tiers
- **Cache** (`BusinessObjects.Caching.Content`)
  - Ektron uses the Unity Framework to insert a caching layer
  - When an API call is made (or a templated server control is used) from the Presentation tier, Ektron caches frequently-used objects
  - Caching minimizes API calls between Application and Presentation tiers

  NOTE: Caching uses a provider model. By default, Web caching is implemented, but you can replace it with other caching options.

The following chart shows how the Framework API uses the containers.

1. Content manager gets initialized and implements the IContentManager interface.
2. The Presentation tier uses the container specified in `web.config`. In `web.config`, if `defaultContainer= "Default"`, the Presentation tier first looks in cache for the requested data object. If the data object is not there, the Presentation tier looks in the `ChildContainer` property value, which is **WCF** by default.



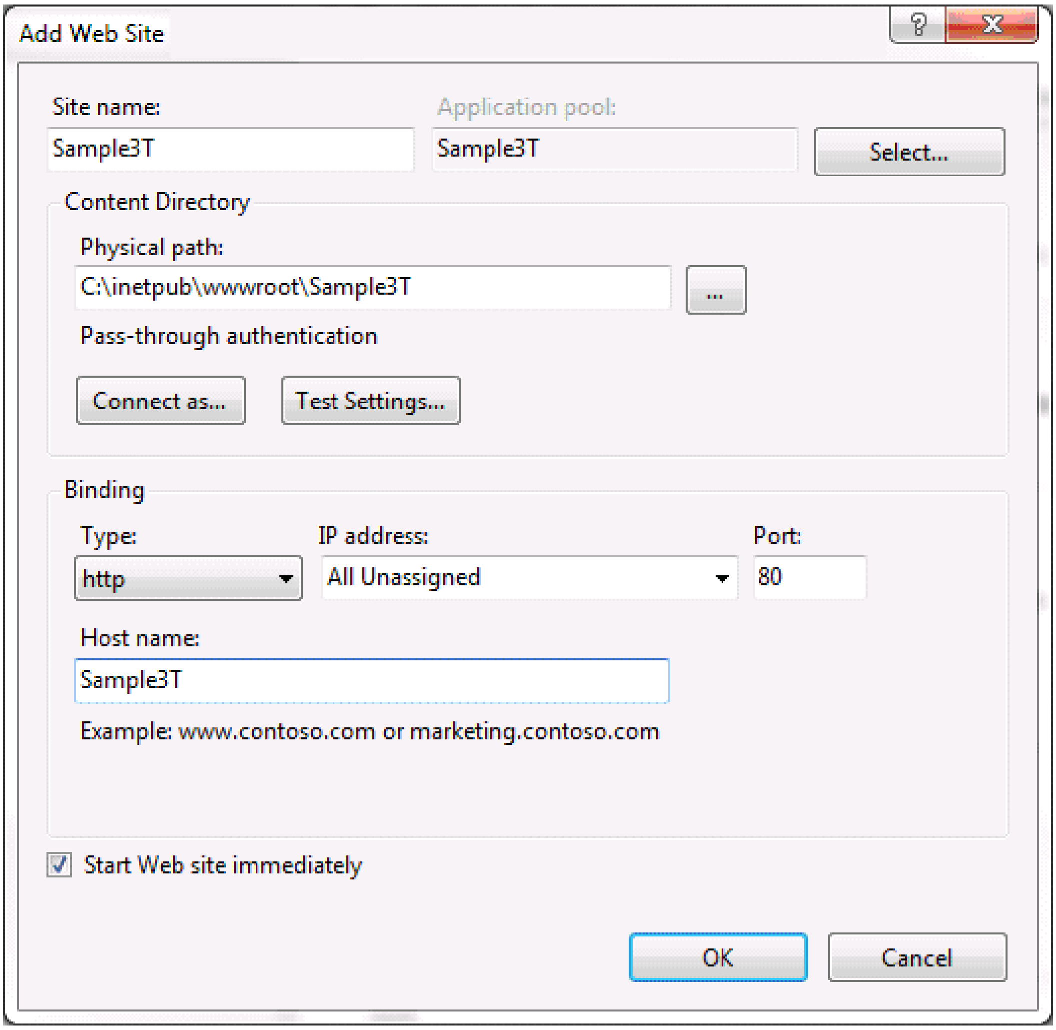
This section also contains the following topics.

Setting up 3-Tier Architecture

1. On your Web Application server, install an Ektron website to the site root folder (if you don't already have one). During installation, install the Ektron database to a remote SQL Server.

   NOTE: The 8.5 and higher installation includes a `startersites\3TierMin\Content` folder that contains files needed for the Presentation tier.

2. On the Web application server, copy the `C:\Program Files (x86)\Ektron\CMS400vxx\startersites\3TierMin\Content` folder.
3. On the Presentation tier server, paste that folder to the website root folder.
4. On the Presentation tier server, open IIS and make the new folder a website. See Also: *Creating Multiple Websites on a Single Server* on page 86



5. On the Presentation tier server, open the site `root/web.config` file.
6. Update `ek_ServicesPath` to point to the `workarea/services` folder on your Application tier server.

```
<appSettings>
<!-- This is the path to your CMS App Site.
It should always end in workarea/services/  -->
<add key="ek_ServicesPath" value="http://[YOUR_CMS_SERVER]
  /workarea/services/" />
</appSettings>
```

7. If you want to turn on caching, set the following values in the `web.config` file:

```
<ektron.cacheProvider defaultProvider="webCache">
  <providers>
    <add name="webCache" cacheTimeSeconds="300"
      type="Ektron.Cms.Providers.Caching.WebCacheProvider,
      Ektron.Cms.Providers" />
  </providers>
</ektron.cacheProvider>
```

8. Make sure the value of the `framework defaultContainer` tag is `Cache`, and the `framework childContainer` tag is `WCF`.

```
<framework defaultContainer="Cache" childContainer="WCF">
```

9. Open a browser and browse to your site.
10. Deploy templates and supporting files to the Presentation server.

Files Copied to the Presentation Tier

The following lists files are copied from the Application tier server to initialize the Presentation tier after you complete the set up. The files are located in the `startersites\3TierMin\Content` folder.

- `App_Code` folder—contains URL Aliasing module See Also: *Aliasing with 3-Tier Architecture* on page 1599
- `Bin` folder—subset of full bin folder; contains binaries for Presentation tier only
- `Workarea` folder—subset of full Workarea folder; Framework UI is required to run templated controls and PageBuilder controls on Presentation tier
- The following configuration files:
  - `Ektron.cms.framework.ui`—contains default templates for templated server controls
  - `Ektron.cms.framework.unity`—has mapping interfaces and implementation
  - `Ektron.cms.framework.ui.unity`—has mapping for templated control to services
- Within `web.config`
  - Within `<configsections>` tags— `<sectionGroup>` settings define how the Presentation tier communicates with the Application tier
  - `ek_ServicesPath`—defines the path to the Application tier's Web services file
  - The following UI elements for templated server controls

```
<ui.unity configSource="ektron.cms.framework.ui.unity.config" />
<ui configSource="ektron.cms.framework.ui.config" />
```

- The `<ektron.framework.services>` tag defines the container.

```
<ektron.framework.services>
<unity configSource="ektron.cms.framework.unity.config"/>
<framework defaultContainer="Default" childContainer="WCF"/>
</ektron.framework.services>
```

If `defaultContainer= “Default”`, the Presentation tier first looks in cache for the requested data object. If the data object not there, the Presentation tier looks in the `ChildContainer` property value, which is **WCF** by default.

- content of `<pages>` tag. Controls used by PageBuilder and templated server controls.
- The `<modules>` section manages Aliasing. See Also: *Aliasing with 3-Tier Architecture* on page 1599

```
<system.webServer>
<modules runAllManagedModulesForAllRequests="true">
<add name="EkUrlAliasModule" type="UrlAliasingModule"
  preCondition="integratedMode"/>
</modules>
</system.webServer>
```

Creating a Sample Content Block in 3-Tier Architecture

This example illustrates how the same code can work in the Application and Presentation tiers. Ektron uses the Framework API to get a content item.

1. In Visual Studio, open the Presentation tier's website.
2. Add a new Web form.
3. Add a label control that can render a content block.
```
<asp:Label ID="contentblock1" runat="server"> </asp:Label>
```
4. Open the form's code-behind file.
5. Insert the following code.

NOTE: This example assumes that ID 30 is a valid content item in Ektron.

```
long id = 30;
if (!string.isNullorEmpty(Request.QueryString["id"]))
{ long.TryParse(Request.QueryString["id"].ToString(), out id);
}
```
6. While in the code-behind file, initialize content manager as the logged in user.
```
ContentManager contentManager = new ContentManager();
```
7. Get the content and return it to the asp Label control.
```
ContentData data = contentManager.GetItem(id);
contentblock1.Text = data.Html;
```
8. Build and run.
9. Open a Web browser.
10. Insert the Presentation server/page you just created into your browser address field, where you will see Ektron content through the Presentation tier.

Creating a PageBuilder Page with 3-Tier Architecture

PREREQUISITES

- A PageHost file in the Presentation tier used specifically to support 3-tier architecture. The file lets you view only; you cannot edit.
- A widget built using the Framework API (for example, the sample Content Block widget)

NOTE: While a 3-Tier site contains many widgets, only those built using the Framework API work on the Presentation tier.

- A wireframe template (`content.pb.aspx`) that exists on the Application and Presentation tiers.

1. Go to the Application tier website's Workarea.
2. Create a sample PageBuilder page. See Also: *Developing Wireframe Templates* on page 676
3. Navigate to a folder to which the `content.pb.aspx` wireframe template is applied.
4. Create new Page Layout.

5. Drag and drop a content block widget onto the page layout and assign an Ektron content item.
6. Publish.
7. Browse to the Presentation website to see the content.

Aliasing with 3-Tier Architecture

URL Aliasing works within 3-tier architecture. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

NOTE: Aliasing code is stored in the `App_Code/CSCode/UrlAliasingModule.cs` file.

PREREQUISITE

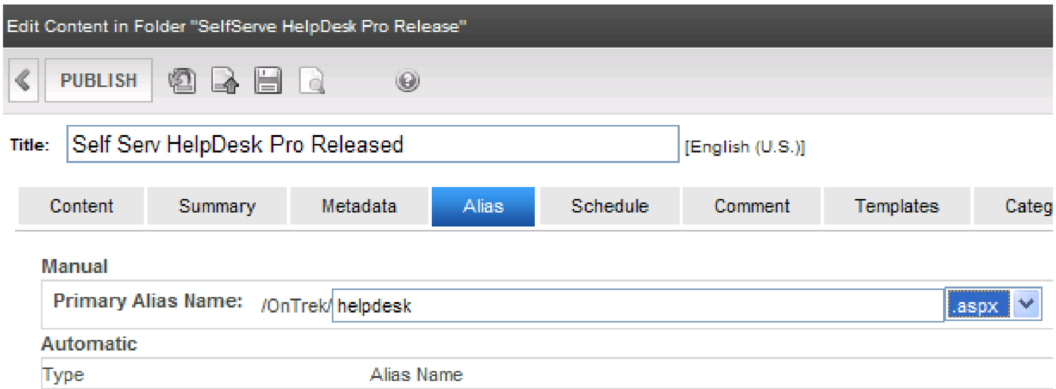
3-tier architecture requires the Aliasing module files (`UrlAliasingModule.cs` and `UrlAliasingBase.cs` in the `App_Code/CSCode` folder), and the registration of that module in the `web.config` file. To verify the registration:

1. In the Presentation website, open *`siteroot`*`/web.config`. See Also: *Setting up 3-Tier Architecture* on page 1595
2. Go to the `<Modules>` tag.
3. Verify that the URL alias module is registered, as shown in the following code.

```
<modules runAllManagedModulesForAllRequests="true">
<add name="EkUrlAliasModule" type="UrlAliasingModule"
  preCondition="integratedMode" />
</modules>
```

To test the URL aliasing, follow these steps.

1. Go to the Application tier website.
2. Create a content block.
3. On its **Alias** tab, enter a manual alias.



4. On the **Template** tab, choose a template that exists on the Application and Presentation tiers.
5. Publish the content.
6. Verify that Aliasing works on the Application tier.
7. Verify that Aliasing works on the Presentation tier.

Using eSync with 3-Tier Architecture

You may use eSync to move files among tiers and sites, but eSync is not a prerequisite of 3-tier architecture.

You can use eSync to move changes from the development to the staging to the production sites. You also can use eSync to move changes from the Data to Application tier. Then, use Web Services to move files from the Application tier to the Presentation tier. However, see *Limitations of 3-Tier Architecture* on page 1593.

Using search with 3-tier architecture

Using Search with 3-Tier Architecture

If you use Microsoft Search Server 2010 with 3-tier architecture, you do not need to make any adjustments.

To use Microsoft FAST Search Server 2010 search with 3-tier architecture, see *Distributing Resources with 3-Tier Architecture* on page 1591.

Using Microsoft FAST Search Server 2010 with 3-tier architecture

Using Microsoft FAST Search Server 2010 with 3-Tier Architecture

If you are using Microsoft FAST Search Server 2010 for your presentation layer, follow these steps to prepare it for FAST.

1. Open the presentation layer's *site root*/ektron.cms.framework.unity.config file.
2. Locate the following line.
```
<typeAlias alias="BusinessObjects.ISearchProvider"
type="Ektron.Cms.Search.SS2010.SS2010SearchProvider, Ektron.Cms.Search"/>
```
3. Replace that line with the following line.
```
<typeAlias alias="BusinessObjects.ISearchProvider"
type="Ektron.Cms.Search.FS2010.FS2010SearchProvider, Ektron.Cms.Search"/>
```

Additional 3-Tier Architecture Resources

- The 3-Tier Architecture (Ektron 8.5 and newer)
- Advanced Development in a 3-Tier Environment (Ektron 8.5 and newer)
- Your Questions Answered - '3-Tier or 2-Tier'

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Using Ektron Building Block Server Controls

Ektron building block server controls provide the basic modular components used to construct a website with easy-to-use server controls. These controls allow your site to use themes, and complex coding is reduced.

Ektron building block server controls are based on jQuery, a commonly used open source library that makes Web development easy and the user interface engaging. See Also: www.jquery.com.

- Ektron extends jQuery functionality to easily integrate into .Net code and Ektron best practices. While simplifying the coding effort with server controls and reducing the code-behind work, it also provides basic functionality for the developer to build on simple components to quickly create highly functional Web pages. Input fields extend Microsoft WebControls and only expose properties that are useful to the designer. In many cases, user input can be limited to particular data types and value ranges.

IMPORTANT: The Ektron Developer Reference site contains documentation and examples of the Framework UI, Framework API, and templated controls.

How Templated Server Controls Work

Server controls that have a template property lets a developer do more with the UI components and styles without using extensive XSLT.

You can modify the user interface of server controls with markup inside the `<ItemTemplate>` element as shown in the following code.

```
<ServerControl [properties]>
       <ItemTemplate>example html markup and eval functions
               <p><%# Eval([Model Property]) %></p>
       </ItemTemplate>
</ServerControl>
```

In this example, *ServerControl* has a property called *ItemTemplate*. The *ItemTemplate* allows markup that describes UI components rendered in the browser.

All controls in the namespace *EktronUI* use their name in the outermost wrapper of the HTML. This provides an easy way to adjust margins and padding styles for specific controls. The naming convention for this class is ektron-ui-*control*. For example, when using the `EktronUI: EktronDatePicker`, you will see this html rendered to your browser.

```
<span id="ctl00_datepicker1_DatePicker_uxDatePicker" class="ektron-ui-datepicker">
```

An exception to this rule is `EktronUI:Blueprint`, which is a wrapper control.

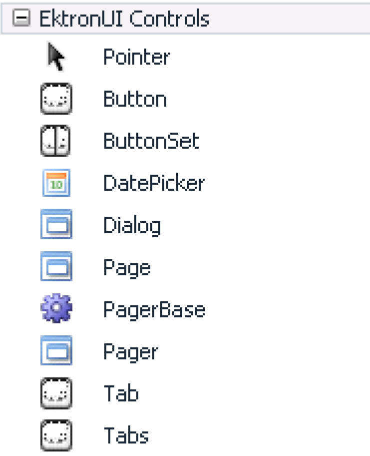
For more information, see:

- ASP.NET Web Server Controls Templates
- How to: Create ASP.NET Web Control Templates Declaratively

Adding UI Server Controls into Visual Studio

1. Open your Ektron project in Microsoft Visual Studio 2010.
2. Open the Visual Studio Toolbox.
3. Add a tab and give it a name like `EktronUI Controls`.
4. Right click and select **Choose Items...**.

5. Click **Browse**.
6. Choose `siteroot/bin/`**`Ektron.Cms.Framework.UI.Controls.EktronUI.dll`**
7. Click **OK**. The controls appear on the Toolbox tab.



Building Block Server Control Common Properties

- **AppRelativeTemplateSourceDirectory** (String)—Gets or sets the application-relative directory of the System.Web.UI.Page or System.Web.UI.UserControl object that contains this control.
- **Attributes** (AttributeCollection)—Sets the collection of arbitrary attributes (for rendering only) that do not correspond to properties on the control.
- **ClientIDMode**—Gets or sets the algorithm that is used to generate the value of the ClientID property.
  - **AutoID**—Sets the id automatically depending on the heirarchy of the nested element.
  - **Inherit**—Inherits from the immediate parent element's ID.
  - **Predictable**—Used if the control is in data-bound control
  - **Static**—Sets the clientID of the control.
- **Controls** (ControlCollection)—Provides a collection container that enables ASP.NET server controls to maintain a list of their child controls.
- **ControlStyle** (Style)—Gets the style of the Web server control.
- **ControlStyleCreated** (Boolean)—Gets a value indicating whether a System.Web.UI.WebControls Style object has been created for the System.Web.UI.WebControls.WebControl.ControlStyle property.
- **ControlStyleCreated** (Boolean)—Gets a value indicating whether a System.Web.UI.WebControls Style object has been created for the System.Web.UI.WebControls.WebControl.ControlStyle property.
- **CssClass**—Gets or sets the Cascading Style Sheet (CSS) class rendered by the control on the client.
- **HasAttribues** (Boolean)—Sets a value indicating whether the control has attributes set.
- **ID** (String)—Gets and sets the programmatic identifier assigned to the server control.

- **NamingContainer** (Control)—Sets a reference to the server control’s naming container. This creates a unique namespace for differentiating server controls with the same System.Web.UI.Contorl.ID property value.
- **Page** (Page)—Gets a reference to the System.Web.UI.Page instance that contains the control.
- **Parent** (Control)—Sets a reference to the server control’s parent control in the page control hierarchy.
- **RenderingCompatibility** (Version)—Sets a value that specifies the ASP.NET version that is compatable with the rendered HTML.
- **Site** (ISite)—Sets information about the container that hosts the current control when rendered on a design surface.
- **Style** (CssStyleCollection)—Gets a collection of text attributes that is endered as a style attribute on the outer tag of the Web server control.
- **SupportsDisabledAttribute** (boolean)—Sets whether the control should set the disabled attribute of the rendered HTML element to “disabled” when the control’s System.Web.UI.WebControls.WebControl.IsEnabled.
- **TemplateControl** (TemplateControl)—Gets and sets a reference to the template that contains this control.
- **TemplateSourceDirectory** (String)—Sets the virtual directory of the System.Web.UI.Page or System.Web.UI.UserControl that contains the current server control.
- **UniqueID** (String)—Gets the unique hierarchically qualified identifier for the server control.
- **Visible**—Gets or sets a value indicating whether the control and all its child controls are displayed.

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Working with Ektron Server Controls

A server control uses API language to interact with the CMS and Framework UI to display the output. You can drag and drop a server control onto an ASPX page to coexist with other components. This includes control for almost everything from content, to user management, breadcrumbs, and social network controls—to provide out-of-the-box markup and functionality. In addition to having a set of properties that you can use to change the controls' output and behavior, you can access the server control API. *Server Control Reference* on page 1636 describes the Ektron server controls.

Ektron's server controls let you insert many standard methods and properties within the Visual Studio environment. This means that you can see the effect of your changes in real time—you do not have to modify a page then compile a sample project to see the results.

You can insert server controls using drag and drop or programmatically. You can also use databinding to retrieve and display data from Ektron.

Additional information and examples for Ektron server controls are available online after you install the following sample site.

`http://localhost/samplesite/Default.aspx`

Replace `localhost` with the `webroot` where you installed the sample site.

IMPORTANT: For improved security,you should rename or remove the Web services file when you move it to your production server. After installation, this file is named `ServerControlWS.asmx` in the `/siteroot/Workarea/` folder in your Web root.

`ServerControlWS.asmx` is the Web service that lets server controls communicate with Ektron. The path is coded in the `web.config` file, as follows. Edit this line if you change the location or name of the `ServerControlWS.asmx` file.

```
<!-- Web Service URL for Server Controls design time  -->
<add key="WSPath"
  value="http://localhost/siteroot/Workarea/ServerControlWS.asmx" /
```

This section also contains the following topics.

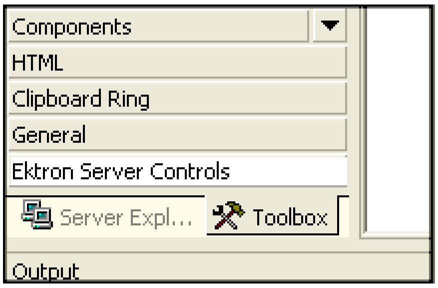
Installing Server Controls

This section describes how to install server controls (other than Search Server controls; to install those, see *Adding Search Server Controls to Visual Studio* on page 975).

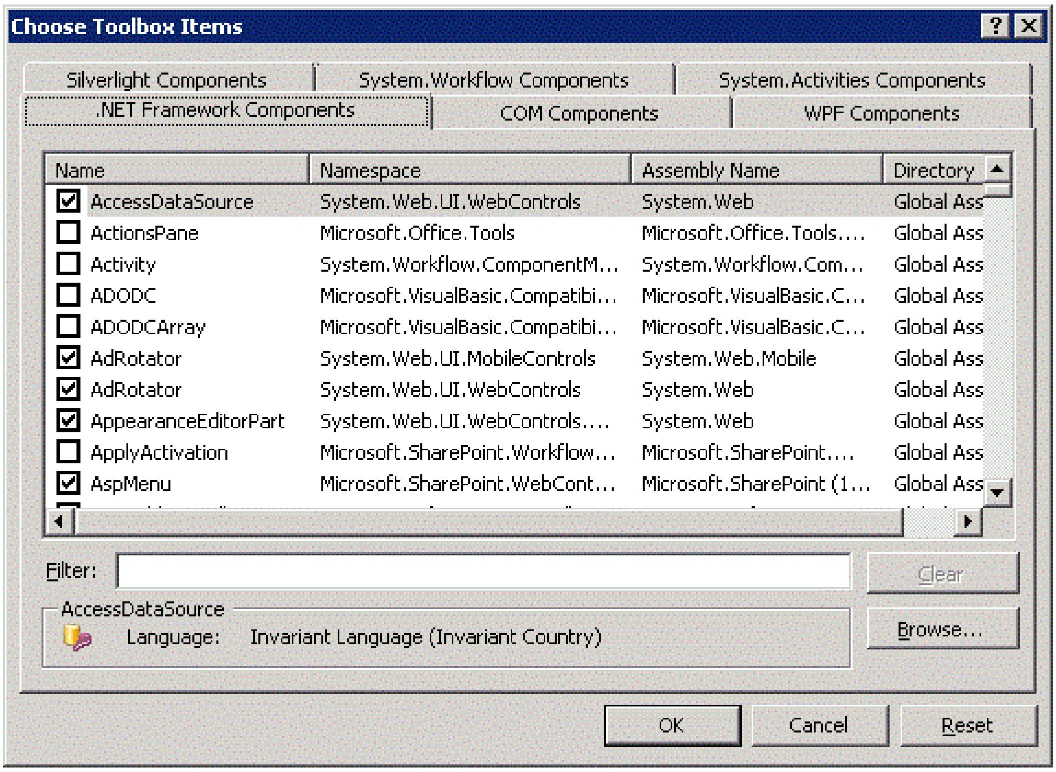
NOTE: You must copy the dlls to a local drive before installing them. You cannot copy them from a network drive.

1. Display the Visual Studio 2010 toolbox (**View > Toolbox**).
2. Right click the mouse within the Toolbox and click **Add Tab**.

3. Type **Ektron Server Controls** then press **Enter**.



4. Click the Ektron Server Controls tab to open it.
5. Right click the mouse in the empty area and click **Choose Items**. The Customize Toolbox dialog appears.



6. Click **Browse...** on the .NET Framework Components tab and find the directory that stores `Ektron`'s dll files (*`siteroot`*`/bin`).
7. Select `Ektron.Cms.Controls.dll` file and click **Open**. This file provides access to Ektron's server controls.

> **NOTE:** Alternatively, you could use the following location, `C:\Program Files\Ektron\CMS400vxx\bin`. The file is identical in both places. Using the bin folder in your site provides better speed when loading Web pages. However, if you use the bin folder located in Program Files, you do not have to worry about deleting the .dll file if you change or delete your site.

8. Click **OK** on the Choose Toolbox Items dialog box. The controls are added to the Ektron Server Controls tab of the Visual Studio Toolbox.

For easier viewing once the server controls are installed, you can right click on them and select **Sort Items Alphabetically**. You can only see the server controls when an ASPX template is selected.

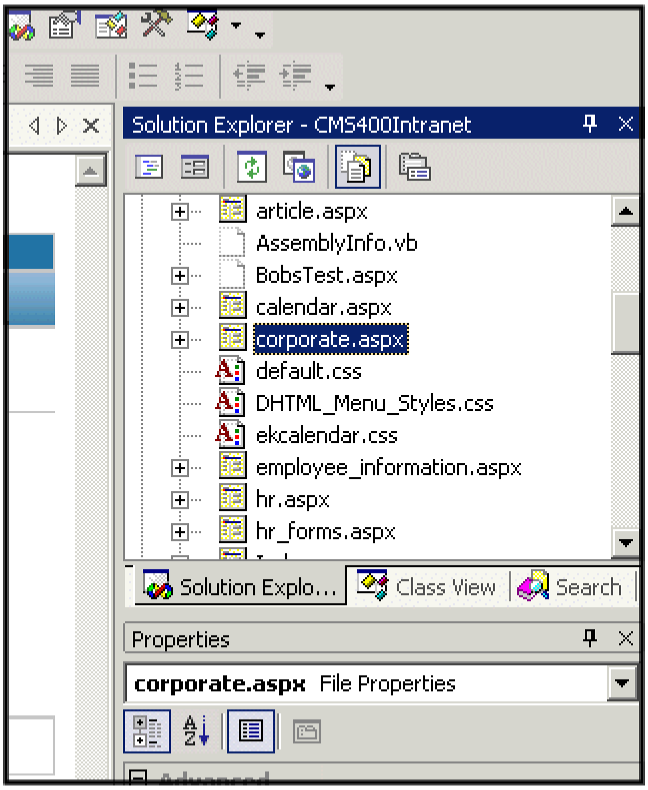
Removing Server Controls from the Visual Studio Toobox

1. Display the Visual Studio toolbox (**View > Toolbox**).
2. Right click the mouse within the Toolbox.
3. Click **Choose Items...**.
4. Click **Namespace** or **Assembly Name** to sort the server controls by manufacturer.
5. Uncheck boxes next to the server controls you want to remove.
6. Click **OK**.

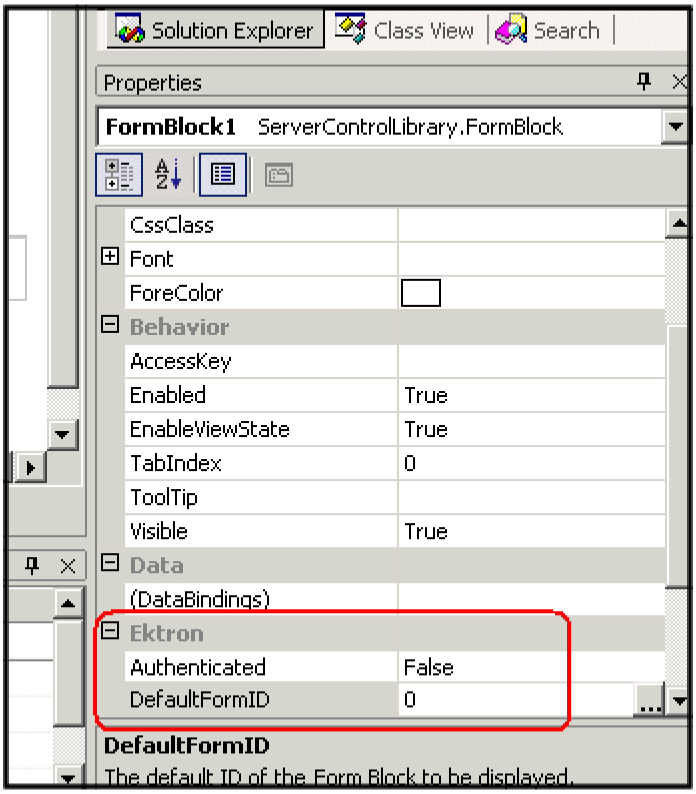
NOTE: If you want to delete all of the server controls from the **Ektron Server Control** tab, right click on the tab and choose **Delete Tab**.

Opening a Sample Project in Visual Studio

1. Using Visual Studio, choose **Open > Project/Solution** and browse to and double click Ektron's solution file, `localhost/`*`siteroot`*`/`*`projectname`*`.sln`. For example, for the OnTrek sample site, the file is `OnTrek.sln`. The sample site project opens.
2. To work on a template page, open the Solution Explorer and click the page you want.

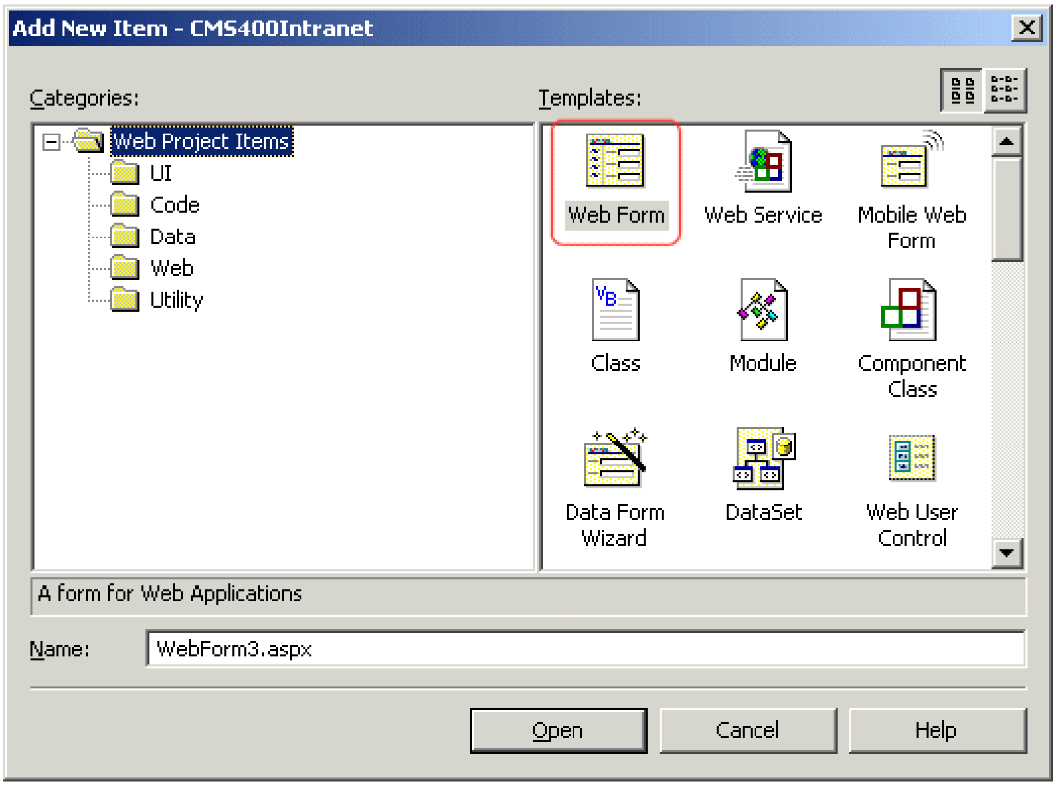


When you select a page, its properties appear in the Properties Window, and the page appears in the center of the screen. A control's properties include several standard .NET properties along with Ektron-specific ones. The Ektron properties are labeled as illustrated below.



Creating a New Template in Visual Studio

1. Choose **Website > Add New Item...**.
2. On the Add New Item screen, click **Web Form** and assign a name.



3. Add controls to determine the page content.

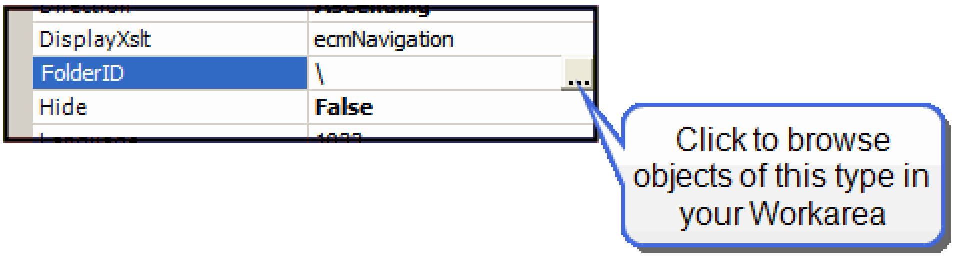
After you open the solution file in Visual Studio and add the required files, build the project. After the project is built, a browser opens and it appears as a Web page. You can also view a Web page while working on it by right clicking on the Web form and clicking **View in Browser**.

Browsing Your Ektron Site Using CMS Explorer

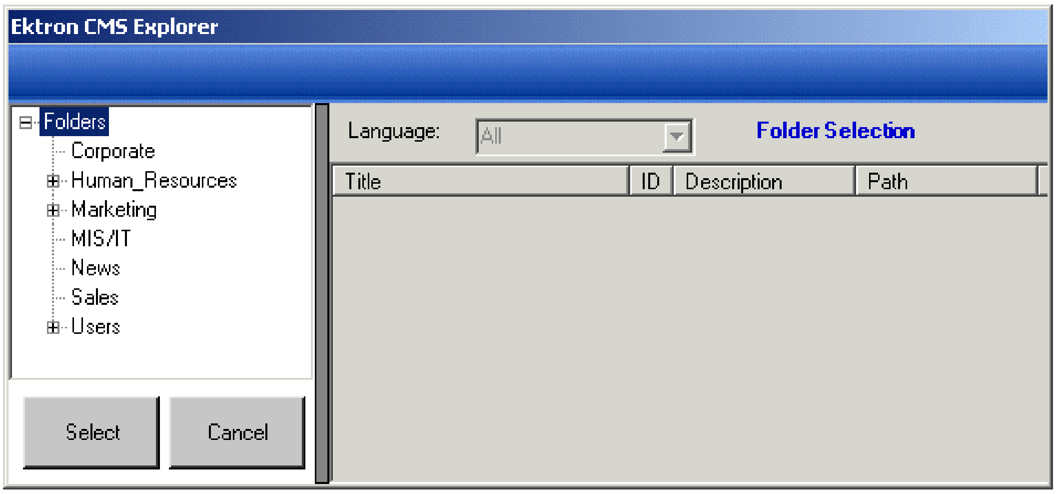
CMS Explorer lets you browse your website to identify Ektron objects such as folders, calendars, blogs, and content blocks. You access the CMS Explorer from the Properties window. For example, if you insert a ListSummary server control, its `FolderID` property identifies the folder whose contents are displayed.

1. If you are not sure of the folder path, click the ellipsis (**...**) button next to the property field. A login screen appears.

> **NOTE:** You cannot be logged into the CMS Explorer and the Workarea at the same time. If you log into the CMS Explorer while logged into the Workarea, an error message appears. If you log into the Workarea while logged into the CMS Explorer, you will need to re-login to the CMS Explorer when you return to using it.



2. Enter your Ektron username and password. The CMS Explorer window appears so you can browse your Ektron website.



3. Navigate through the folders, select an object, then click **Select**. The selected object is pasted to the server control property.

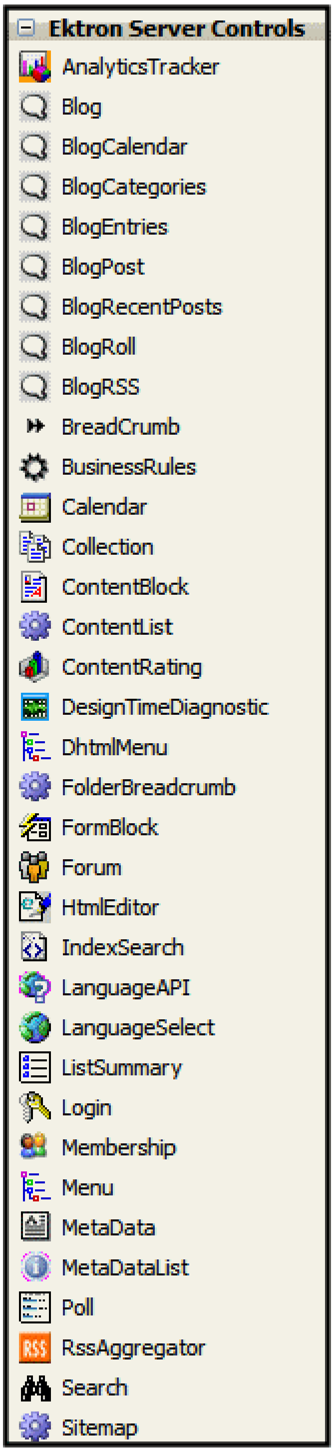
> **NOTE:** Although you see the object in the selected language in Visual Studio, the language is not stored. For example, if you select a German content block whose ID=2, Ektron only stores

`content block ID=2`. When a visitor to your site browses to that page, the content block does not appear in the selected language. Instead, it is determined by a cookie or the user’s language selection.

Inserting a Server Control Using Drag and Drop

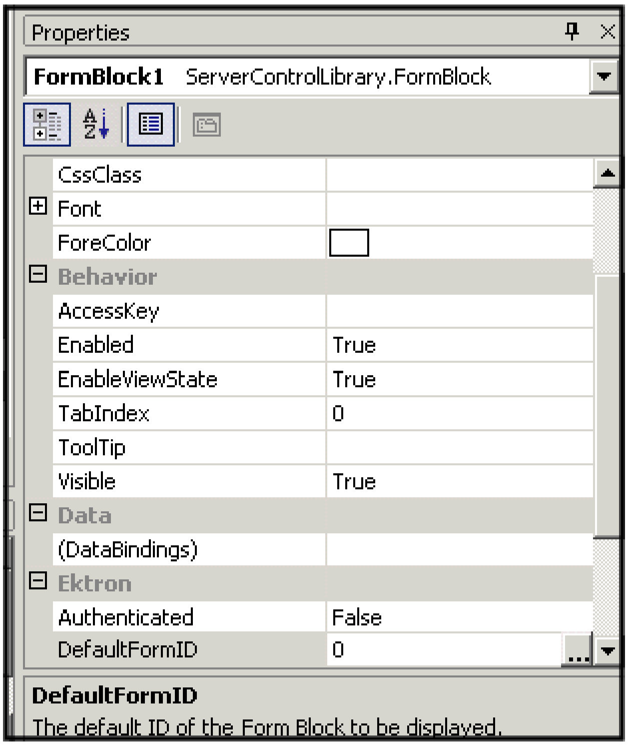
Because Visual Studio is a visual environment, you can watch the page layout change as you add or move a control and adjust its properties. Use the CMS Explorer whenever you need to identify an Ektron object (such as content block or collection).

1. Display the Visual Studio toolbox (**View > Toolbox**).
2. Click the **Ektron Server Control** tab. Ektron's server controls appear.



3. Drag a server control and drop it into the desired location on the page.

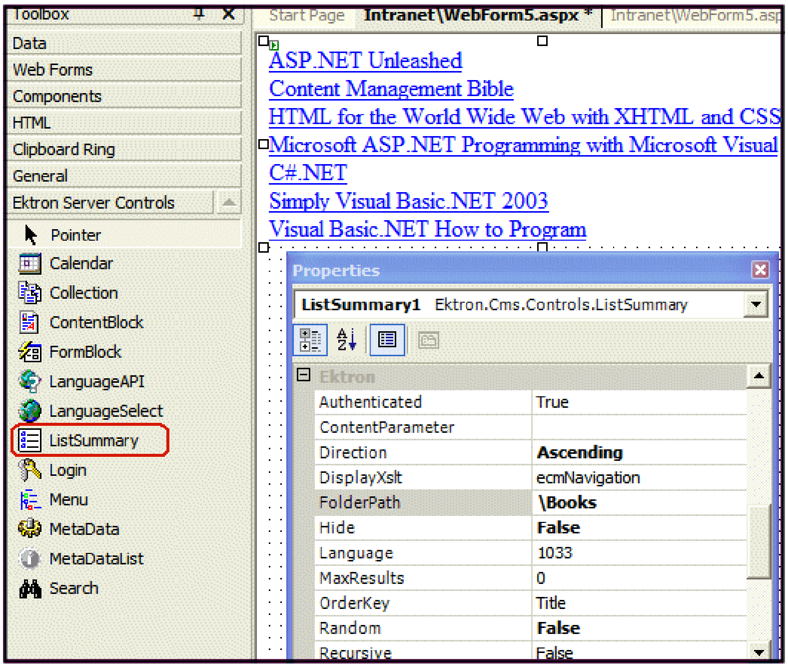
4. As desired, modify the control's properties using the Properties window of Visual Studio.



Modifying a Server Control after Drag and Drop

You can manipulate a server control after dragging and dropping it on a Web form by using the code-behind. The following example shows using a drag and drop ListSummary server control then modifying it programmatically.

1. Drag and drop a ListSummary on your Web form and set your properties.



2. Add the following code to the code-behind.

```
Dim myString As String
Dim i
For i = LBound(ListSummary1.EkItems)To UBound(ListSummary1.EkItems)
  myString &= "<a href=""" & ListSummary1.EkItems(i).QuickLink & """>"
  & ListSummary1.EkItems(i).DateCreated & "</a><br>"
ListSummary1.Text = myString
Next
```

   ListSummary1 is the ID of the object. It is used to get access to its properties.

3. Create a string that contains the output (myString).

```
Dim myString As String
```

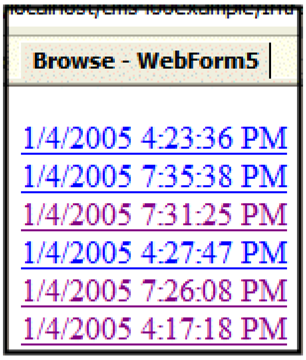
4. Set the object's `Text property to that string.`

```
myString &= "<a href=""" & ListSummary1.EkItems(i).QuickLink & """>"
  & ListSummary1.EkItems(i).DateCreated & "</a><br>"
```

5. Wrap in a loop so it loops through each of the items.

```
Dim i
For i = LBound(ListSummary1.EkItems) To UBound(ListSummary1.EkItems)
Next
```

   This example outputs the date created for each content block in a List Summary.



Inserting a Server Control Programmatically

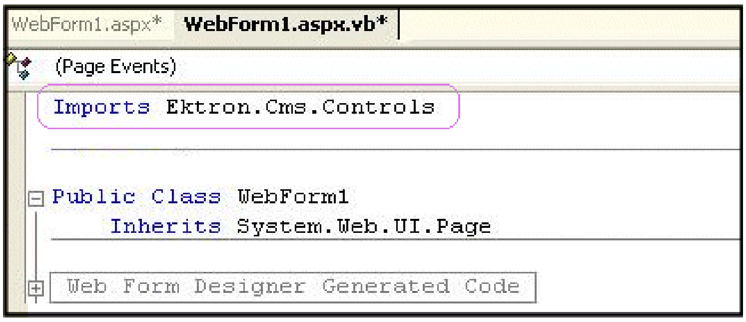
You can insert server controls programmatically for several reasons:

- You want the control to be loaded into memory only under certain conditions. In this case, insert the logic that only displays the control if the condition exists.
- You want to display only certain properties of an object, such as the title of last edited date of a content block.

To insert an Ektron server control programmatically:

1. Declare the Namespace at the top of the code-behind Visual Basic file.

   NOTE: You do not need to declare a namespace. However if you do not, you must fully qualify objects that you create. For any customization of Ektron, classes or controls that inherit from Ektron classes, you should create your own namespace within 'Ektron.Cms.Custom'. For example, if your company is 'AcmeExampleTech, Inc.' you should create all of your custom classes within the namespace 'Ektron.Cms.Custom.AcmeExampleTech'.



2. Create an instance of the new control by declaring a control as an object in the code-behind; in this example, a collection named `MyColl`.

```
Ektron.Cms.Controls.Collection MyColl =
  new Ektron.Cms.Controls.Collection();
```

You can declare any server control as an object by using the server control name. See *Working with Ektron Server Controls* on page 1605. Another example would be: `Dim MyMdl as New MetaDataList.`

3. Set the properties that you want to display on the page. For example:

```
Dim MyColl as New Collection
MyColl.DefaultCollectionID = 4
MyColl.Page = Page
```

For descriptions of the properties and how to use them, see *Accessing Server Control Properties in Code-behind Programmatically* on the next page.

With C#, use this syntax.

```
>
Ektron.Cms.Controls.Collection MyColl =
  new Ektron.Cms.Controls.Collection();
MyColl.DefaultCollectionID = 4;
MyColl.ID = "Collection1";
MyColl.Page = Page;
```

These lines tell the page to display CollectionID 1 unless otherwise specified.

IMPORTANT: When using code-behind to add a server control to your Web form, you must set the Page object for the server control to Page. For example, `Mycoll.Page = Page`
This line needs to appear between Dim new server control line and the Fill() line. This line is not added when dragging and dropping a server control on a Web form. See Also: *Referencing a Parent Page* on page 1621.

If you do not know an object's ID number, you can switch to Design mode, drag and drop the object, then use the CMS Explorer to find the ID number. (See *Browsing Your Ektron Site Using CMS Explorer* on page 1610.) If you do this, remember to delete the dropped object when you are done. You can also obtain the ID number via the Workarea. This line sets the `Random` property to **true**.

```
Dim MyColl as New Collection
MyColl.ID = "Collection1"
MyColl.DefaultCollectionID = 4
MyColl.Page = Page
MyColl.Random = True
```

4. Call the Fill method to fill an object's properties on the page because there is no render event when using objects as components not as controls.

```
>
Dim MyColl as New Collection
MyColl.ID = "Collection1"
MyColl.DefaultCollectionID = 4
MyColl.Page = Page
MyColl.Random = True
MyColl.Fill()
```

5. Use the property to determine what appears on the Web page. For example, to display the first item in a collection, use this syntax.

NOTE: Before adding this line you need to drag and drop a label on your Web form.

```
>
Dim MyColl as New Collection
MyColl.ID = "Collection1"
MyColl.DefaultCollectionID = 4
MyColl.Page = Page
MyColl.Random = True
MyColl.Fill()
Label1.Text = myColl.EkItems(0).Title
```

To display *all* items in a collection, use this syntax.

```
Dim myColl As New Ektron.Cms.Controls.Collection
Dim ekitem As New Ektron.Cms.Common.ContentBase
MyColl.DefaultCollectionID = 2
MyColl.ID = "Collection1"
MyColl.Page = Page
MyColl.Fill()
Label1.Text = "<ul>"
For Each ekitem In myColl.EkItems
Label1.Text &= "<li><a href=""" & ekitem.QuickLink & """>"
  & ekitem.Title & "</a>"
Next
Label1.Text &= "</ul>"
```

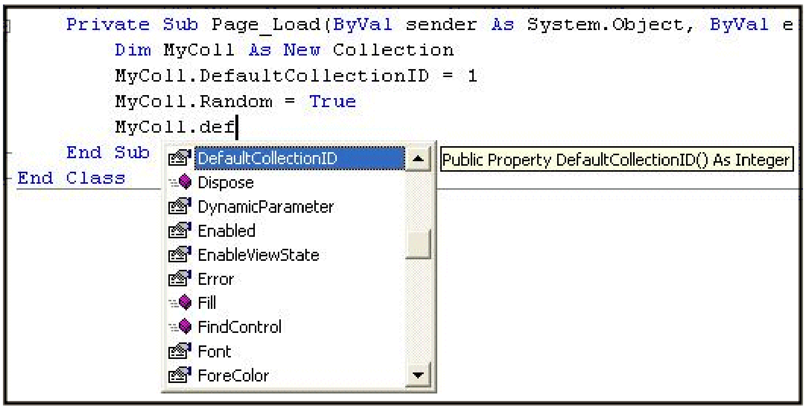
This example displays the quick link for every content block in the collection, formatted as a bulleted list. You can use similar code to display a List Summary or search results. The following explains the new (red) code above.

- `label1.Text = "<ul>"` displays the opening tag for the bulleted list
- `For Each ekitem In myColl.EkItems` creates a loop for all content blocks in the collection
- `label1.Text &= "<li><a href=" & ekitem.QuickLink & ">" & ekitem.Title & "</a></li>"` for each content block in the collection, displays its quicklink and title
- `Next` loops through all content blocks in the collection
- `label1.Text &= "</ul>"` closes the bulleted list

Accessing Server Control Properties in Code-behind Programmatically

Every server control has properties associated with it that you can access only programmatically. This section explains what they are, how to access them, and how to use them.

You can use Visual Studio's intellisense feature to display a control's properties. The intellisense box appears as soon as you insert the period (.) after the object, as illustrated below.



The intellisense box displays *all* properties that can be applied. To learn about native Visual Studio properties, see the Visual Studio documentation.

The property's tooltip text indicates its type. In the previous example, note that the `DefaultCollectionID`'s type is integer.

For more information about accessing Ektron object properties, see *Customizing a Server Control in the code-behind* on page 1623.

Personalizing a Page with User Names and IDs

Every server control has the following read-only properties in the code-behind that let you personalize any page with user names and IDs, and show if they are logged in.

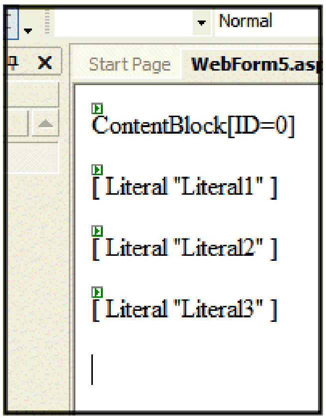
NOTE: The properties do not display values within Visual Studio during design time. Instead, they only display values at run time, which are dependent on the user's login status.

- **IsLoggedIn** (Boolean)
  Tells if a user is logged in to Ektron.
  - **True**—User is logged in
  - **False**—User is not logged in
- **LoggedInUserName** (String)
  Gets the Ektron user name to display.
- **LoggedInUserID** (Integer)
  Gets the Ektron ID of the user to display.

The following example shows these properties in code-behind.

NOTE: You must be logged in to Ektron for this example to show your name and ID.

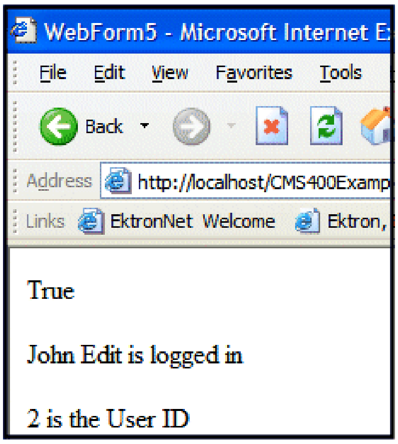
1. Drag an Ektron server control onto a Web form.
2. Drag 3 Literals onto the Web form.



3. Open the code-behind for the Web form.
4. Add the following code to the Page_Load event.

```
Literal1.Text = ContentBlock1.IsLoggedIn
If ContentBlock1.IsLoggedIn Then
  Literal2.Text = ContentBlock1.loggedInUserName
  & " is logged in " Literal3.Text = ContentBlock1.loggedInUserID
  & " is the User ID "
End If
```

5. Build and run the solution.
6. Browse to the login page and log in.
7. Browse to the new Web form you added. The login information appears.

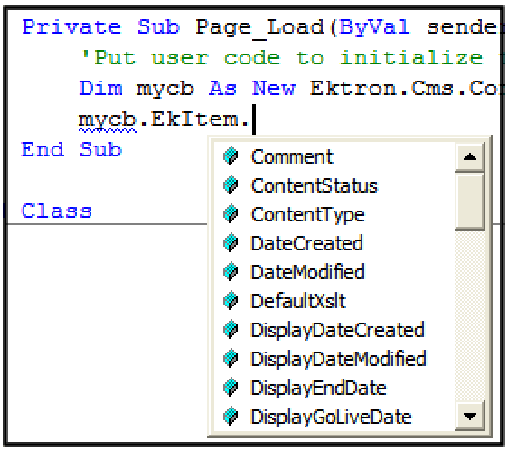


Accessing Additional Properties

Ektron provides access to additional properties for the following objects.

- ListSummary
- collection
- Search
- ContentBlock
- FormBlock

You can use intellisense to select from a list of additional object properties.



To access additional properties, use the standard property's syntax but add `.ekitem` or `.ekitems` after the object.

- *EkItem* is a single `Ektron.Cms.Common.ContentBase`
- *EkItems* is an array of `Ektron.Cms.Common.ContentBase`

```
dim MyCB as New ContentBlock
MyCB.DefaultContentID = 30
MyCB.ID = "ContentBlock1"
MyCB.Page = Page
MyCB.Fill()
label1.text = MyCB.EkItem.dateCreated
```

or

```
dim MyCB as new Ektron.Cms.Controls.ContentBlock
MyCB.DefaultContentID = 30
MyCB.ID = "ContentBlock1"
MyCB.Page = Page
MyCB.Fill()
label1.text = MyCB.EkItem.dateCreated
```

IMPORTANT: To access additional properties for the Collection, ListSummary, and Search objects, use ekitems, not ekitem. For example: `MyColl.ekitems(0).dateCreated`. where (0) is the index of the array.See Also: *Accessing Items in an Array* on page 1621.

The additional properties are as follows.

NOTE: The following properties are read-only. For example, you can get a content block's ID and pass it to another part of the code. However, you cannot set a content block ID to be shown.
For example, `mycb.Ekitem.id = 8` does not set a content block's ID. To set a content block's ID, use `DefaultContentID = 8`.

- **Comment**—The content block's comment.
- **ContentStatus**—The status of the content block. See *Content Statuses* on page 307.
- **ContentType**—One of the following: See *Scheduling Content* on page 296.
  - all types
  - archived content
  - archived forms

    - content
    - forms
- **DateCreated**—The date when the content block was created, formatted as a .NET date type.
- **DateModified**—The date when the content block was modified, formatted as a .NET date type.
- **DefaultXslt**—The default XSLT used to display the content.
- **DisplayDateCreated**—The date when the content block was created. It is formatted as a string that represents Ektron's display of the date.
- **DisplayDateModified**—The date when the content block was edited. It is formatted as a string that represents Ektron's display of the date.
- **DisplayEndDate**—The content block's end date. It is formatted as a string that represents Ektron's display of the date. See *Scheduling Content* on page 296.
- **DisplayGoLiveDate**—The content block's start date. It is formatted as a string that represents Ektron's display of the date. See *Scheduling Content* on page 296.
- **DisplayStartDate**—The content block's start date. It is formatted as a string that represents Ektron's display of the date. See *Scheduling Content* on page 296.
- **EndDate**—The content block's end date, formatted as a .NET date type. See *Scheduling Content* on page 296.
- **EndDateAction**—One of the following: See *Scheduling Content* on page 296.
    - archive display
    - archive expire
    - refresh report
- **FolderID**—The ID of the folder that contains each content block.
- **GoLiveDate**—The content block's start date formatted as a .NET date type. See *Scheduling Content* on page 296.
- **Html**—The content that makes up the content block. If content block is in XML it will return it as raw XML content.
- **Hyperlink**—Content block title wrapped by `<a href>` tags.
- **Id**—The content block 's ID number.
- **InheritedFrom**—If folder permissions are inherited, the folder from which they are inherited.
- **IsInherited**—Whether a content block's permissions are inherited.
- **IsPrivate**—Whether or not a content block is private. See *Making Content Private* on page 294.
- **Language**—The content block's language. See *Working with Multi-Language Content* on page 1057.
- **LastEditorFname**—The first name of the last person to edit the content block.
- **LastEditorLname**—The last name of the last person to edit the content block.
- **PackageDisplayXSLT**—If the content block is XML, the name of its XSLT.
- **QuickLink**—The content block's quicklink. See *Adding a Quicklink or Form to Content* on page 346.
- **StartDate**—The content block's start date formatted as a .NET date type. See *Scheduling Content* on page 296.

- **Status**—The status of the content block. See *Content Statuses* on page 307.
- **Teaser**—The content block summary. See *Writing a Summary for Content* on page 292.
- **TemplateLink**—Currently empty and not being used with the ContentBlock server control.
- **Title**—The content block title.
- **UserID**—Last user who edited the content.
- **Xslt1**—The content block’s first Xslt, as defined in Ektron.
- **Xslt2**—The content block’s second Xslt, as defined in Ektron.
- **Xslt3**—The content block’s third Xslt, as defined in Ektron.
- **Xslt4**—The developer can use this property programmatically. Ektron only uses Xslt1, 2 and 3 in the workarea.
- **Xslt5**—The developer can use this property programmatically. Ektron only uses Xslt1, 2 and 3 in the workarea.

Accessing Items in an Array

To access and manipulate content blocks returned by an object, use the common class `Ektron.Cms.Common.ContentBase`. For example, Search, Collection and ListSummary have `EkItems` (an array of ContentBase), while ContentBlock has a single `EkItem`. This example creates a bulleted list of every item in the collection.

```
dim MyC as new Ektron.Cms.Controls.Collection
MyC.DefaultCollectionID = 1
MyC.ID = “Collection1”
MyC.Page = Page
MyC.Fill()
dim item as Ektron.Cms.Common.ContentBase
MyC.Text = "<ul>"
for each item in MyC.EkItems
MyC.Text &= "<li>" & item.Title & "</li>"
next
MyC.Text &= "</ul>"
Response.Write(MyC.Text())
```

NOTE: For information on using `ekitems` with eCommerce server controls, see *Using the Cart Server Control* on page 1406.

Referencing a Parent Page

Server controls require a reference to their parent page (for example, using the `DynamicParameter` property on a content block to check for a query string). You *must* provide access to the page object if you declared your control in the code-behind. To do this, set the control's `Page` property to the Web page you're working on, as shown in the following example.

```
Ektron.Cms.Controls.Search MySearch = new Ektron.Cms.Controls.Search();
MySearch.Page = Page;
MySearch.Fill();
```

This relationship only is required when inserting a control in the code-behind. When dragging and dropping, even if you make changes in code-behind, the relationship is automatically generated.

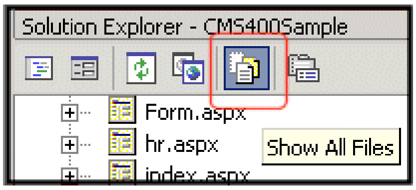
BEST PRACTICE

You should include the `Page` property reference when using server controls as components in the code-behind.

Customizing a Server Control

Visual Studio separates coding and logic from presentation. Web page formatting is handled by a page's HTML, while the logic is handled by the code-behind, which is stored in the corresponding .vb file. For example, if the ASP.NET page is `mypage.aspx`, the code-behind file is `mypage.aspx.vb`.

NOTE: If you do not see the code-behind files, click **Show All Files** on the Visual Studio Solution Explorer toolbar (circled in the following figure).



Within the Visual Basic file, you can use Visual Basic to insert code to manipulate the events that occur on the page.

This subsection contains the following topics:

- *Viewing a Server Control in HTML* below
- *Viewing a Server Control in the Code-behind* below
- *Customizing a Server Control in the code-behind* on the facing page
- *Troubleshooting Error Creating Control Message* on the facing page

Viewing a Server Control in HTML

Within a Web page's HTML, a `<cms>` tag wraps the Visual Studio object. The following is an example of the Search and Contentblock server controls.

```
<cms:Search id="Search1" runat="server" ButtonText="Search"
  Display="Vertical">
</cms:Search>
<cms:ContentBlock
  id="ctrlMainContentBlock"
  runat="server"
  DefaultContentID="1"
  DynamicParameter="id”
  OverrideXslt="Default">
</cms:ContentBlock>
```

Viewing a Server Control in the Code-behind

Within a Visual Studio code-behind file, the Ektron server controls appear (along with the Visual Studio controls) in the Web Form Designer Generated Code section. When you click **+** to display this section, you see something like the following. The content block listed in HTML (from the previous section) is circled to help you see their relationship.

```
#Region " Web Form Designer Generated Code "
  'This call is required by the Web Form Designer.
  <System.Diagnostics.DebuggerStepThrough()> Private Sub InitializeComponent()...
  Protected WithEvents MetaDataArea As System.Web.UI.WebControls.Literal
  Protected WithEvents DhtmlJavaScript As System.Web.UI.WebControls.Literal
  Protected WithEvents DropDownMenu As System.Web.UI.WebControls.Literal
  Protected WithEvents ctrlMainContentBlock As Ektron.Cms.Controls.ContentBlock
  Protected WithEvents ctrlTopContentBlock As Ektron.Cms.Controls.ContentBlock
  Protected WithEvents ctrlBottomLeftContentBlock As Ektron.Cms.Controls.ContentBlock
  Protected WithEvents ctrlBottomRightContentBlock As Ektron.Cms.Controls.ContentBlock
  Protected WithEvents ctrlLanguageSelect As Ektron.Cms.Controls.LanguageSelect
  'NOTE: The following placeholder declaration is required by the Web Form Designer....
  Private designerPlaceholderDeclaration As System.Object
```

The next section of the code-behind page loads the page into the browser.

```
Private Sub Page_Load(ByVal sender As System.Object, ByVal e As
  System.EventArgs) Handles MyBase.Load
```

You want your events to occur while the page is loading, so add the custom code following this line.

Customizing a Server Control in the code-behind

To customize an Ektron server control in the code-behind, insert code similar to the following *after* the Page_load command.

```
Dim MyObj As New Ektron.Cms.Controls.ContentBlock
```

This code declares a variable named `MyObj` and assigns to it the value of a content block. The content block is part of the Ektron.CMS.Controls content base, so it has access to the Ektron database.

After defining MyObj as a content block, you can access its properties. For example, to assign a defaultID of 24, insert the following.

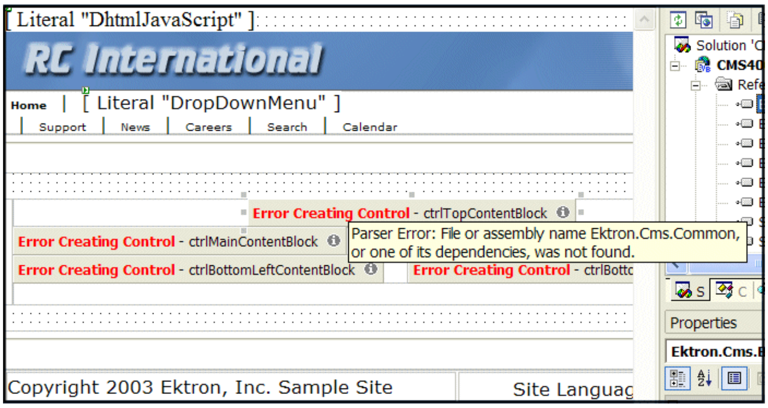
```
Dim MyObj As New Ektron.Cms.Controls.ContentBlock
MyObj.DefaultContentID = 24
```

The content block can be specified dynamically in the URL of the hyperlink that calls it. If not, content block 24 displays.

This is an example of programmatically applying property values to content blocks.

Troubleshooting Error Creating Control Message

If you get an Error Creating Control message while trying to use a server control, you can view the message by hovering the mouse over the control.



Using Ajax-Enabled Server Controls and Custom Code

BEST PRACTICE

When using Ajax server controls and custom code, wrap the custom code in a check for "is not a callback," so it is not executed when a callback from an Ajax server control occurs.

If you use an Ajax-enabled server control and write custom code, it may generate an exception, indicating the server control does not work. This issue happens during callback for the Ajax server control when custom code accesses a property that is filled during page load, but not filled during callback.

For example, a Poll server control is on a Web form, and you want the title of a content block to appear in a literal on that form. The `EkItem.Title` property for the content block is filled upon page load. When a site user answers a poll question, an exception occurs during the callback because the `EkItem.Title` property is not refilled. However, the site user does not see the exception because it looks like the Poll server control is not working.

The following example shows custom code that makes the content block's title appear in the literal:

```
Literal1.Text = ContentBlock1.EkItem.Title
```

To solve this issue, wrap the custom code in a check for "is not a callback". This prevents the code execution when callback occurs. For example:

```
[C#]
If( !IsCallback )
  {
    Literal1.Text = ContentBlock1.EkItem.Title
  }

[VB]
If
  ( Not IsCallback )
  Literal1.Text = ContentBlock1.EkItem.Title
End If
```

Data Binding with Server Controls

With data binding, you can bind Ektron server controls to a GridView Control, DataList Control, or Repeater Control. This gives more flexibility when you use data from the Ektron server controls. Benefits of data binding include ease of data manipulation and the ability to format data.

WARNING! When HTML is bound to a column, you need to add `HtmlEncode = False` to it. Otherwise, the HTML appears as code. For example, `<p>Ektron Inc., an innovator in Web content management software, today announced...</p>`.

The following are data bindable Ektron server controls.

- Collection
- ContentList
- IndexSearch
- ListSummary
- MetaDataList
- RssAggregator

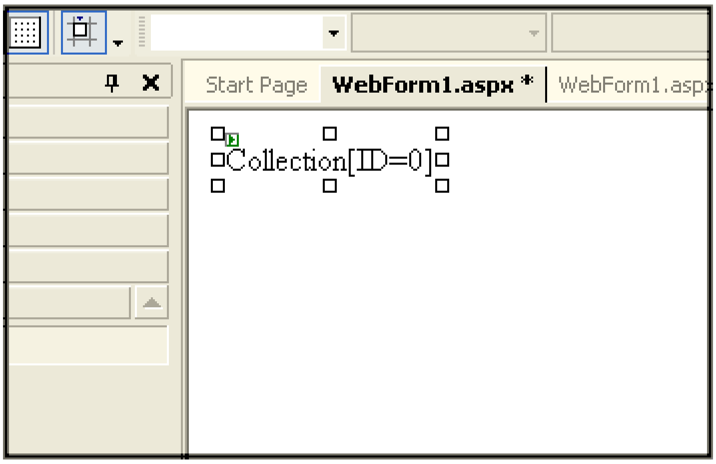
The following example shows code-behind that uses a GridView to display a Collection:

NOTE: For the example code to work properly, you need to drag and drop a GridView server control on a Web form.

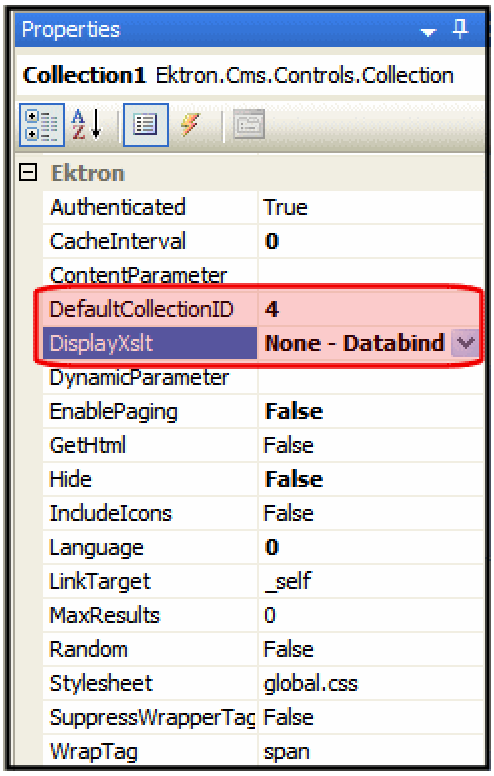
```
Dim myCol As New Ektron.Cms.Controls.Collection
  MyCol.ID = "Collection1"'''Create an ID for the Collection
  myCol.DefaultCollectionID = 4
  myCol.Page = Page
  myCol.Fill()
GridView1.DataSource = myCol
GridView1.DataBind()
```

Steps to data binding using drag and drop server controls are as follows:

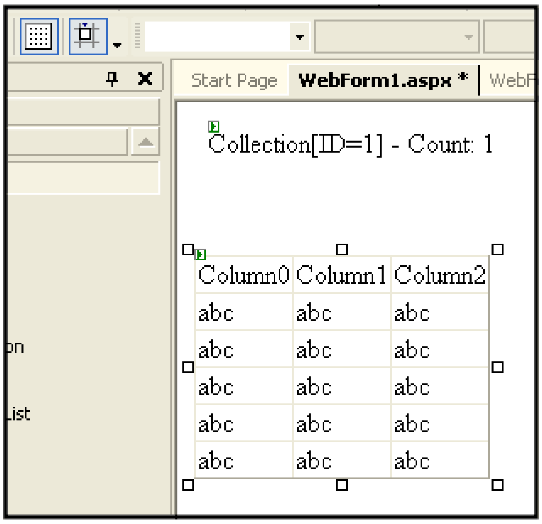
1. Create a new Web form.
2. Drag and drop a data bindable Server Control on the Web form. For example, a Collection server control.



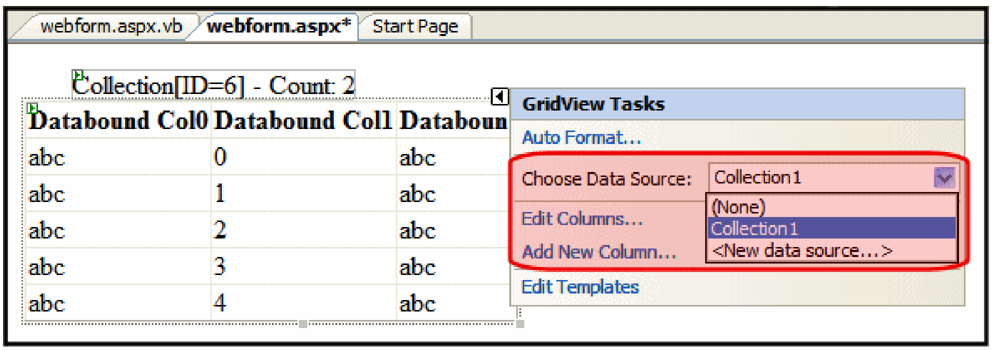
3. In properties, choose a `DefaultCollectionID` for the Server Control and make sure DisplayXslt is set to **None- DataBind Only**.



4. Drag and drop a GridView on the Web form.



5. In the GridView Tasks, choose the **DataSourceID**.



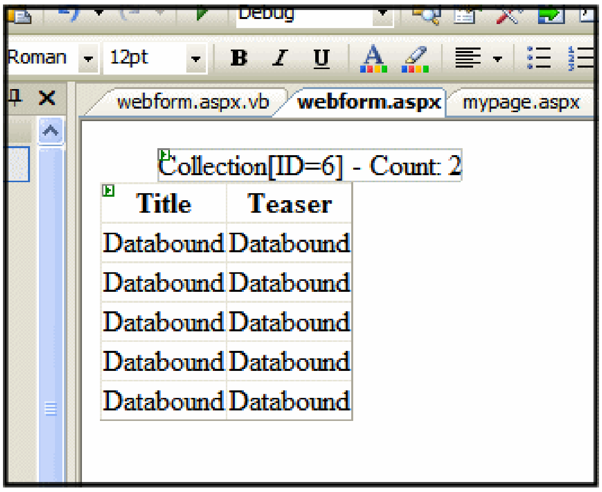
6. In code-behind, add the following line of code to the Page add field.gifnit event:\

```
Collection1.Fill()
```

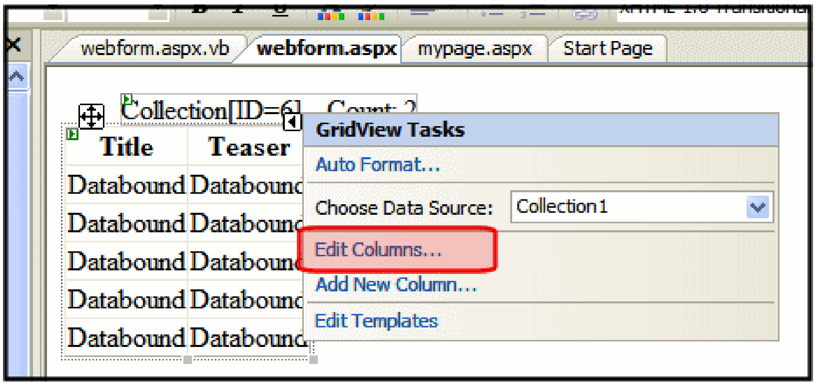
7. Select the columns to be databound by clicking **Add New Column** in GridView Tasks.
8. Complete the Add Field window.

   - **Choose a field type**—BoundField
   - **Header text**—The title name for each column.
   - **Data field**—The data to bind to each column. Choose one of the following:
     - **ID**—the content block ID
     - **Title**—the content block title
     - **Teaser**—the content summary
     - **Html**—the html content
     - **StartDate**—the content's start date
     - **DateModified**—the content's last modified date
     - **EndDate**—the content's end date
     - **LastEditorFname**—the last editor's first name
     - **LastEditorLname**—the last editor's last name
     - **QuickLink**—the content's quicklink
     - **HyperLink**—the content's hyperlink
     - **DisplayStartDate**—the string representation of the start date
     - **FolderID**—the folder ID where the content is located
     - **ContentStatus**—the content's status
     - **Language**—the content's default language
     - **DisplayDateModified**—string representation of the content's last modified date
     - **DisplayEndDate**—string representation of the content's end date
     - **EndDateAction**—an action tied to end date. For example, Refresh_Report
     - **Comment**—the content's comments
9. Click **OK**.

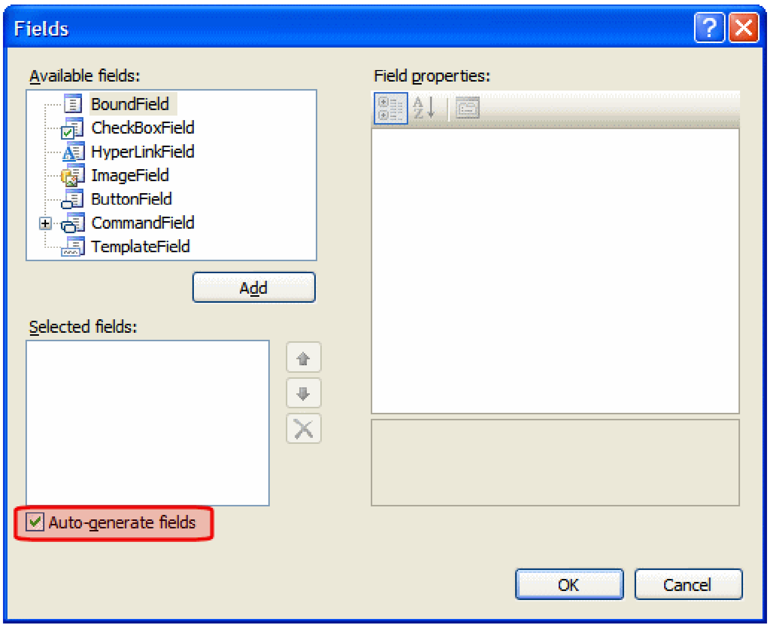
10. Repeat steps 6, 7 and 8 for each column you want to add.



11. If you want to add all of the columns automatically, in the GridView Task menu click **Edit Columns**. Otherwise, skip to step thirteen.



12. Click the **Auto-generate fields** checkbox.



13. Click **OK**.

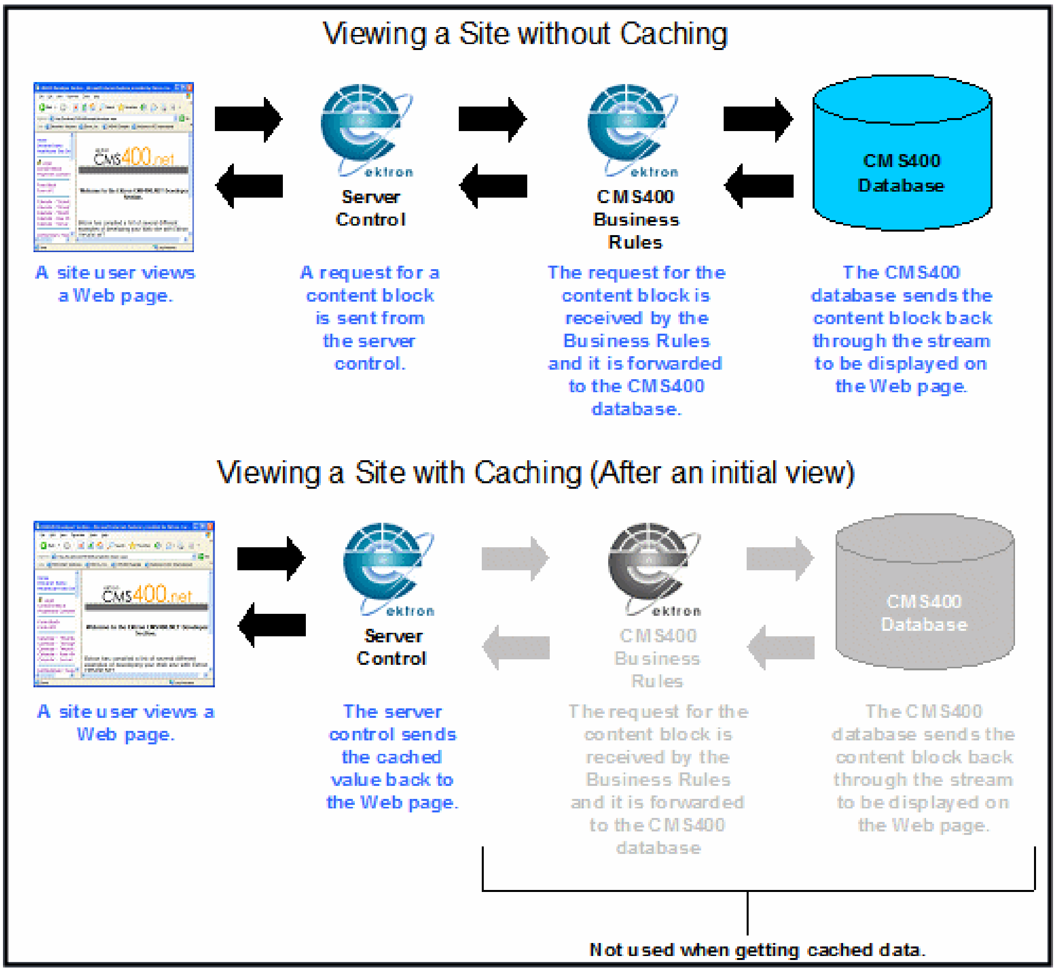
14. From the Build menu, click **Build Page**.
15. In design view, right click the form and select **View in Browser**.

Title	Teaser
Ektron Rated Positive	Ektron Inc., an innovator in Web content management software, today announced ...
Ektron to Demonstrate Healthcare	"Healthcare Content Indexing Framework" which enables hospitals, medical groups and health insurers to deliver indexed content via the Web.

For more information on GridView, DataList, Repeater and DetailsView, see the help inside Visual Studio.

Caching with Server Controls

High-performance, scalable Web applications store items in memory after the first time they are requested. The items include data objects, pages, and parts of a page. Caching saves and later reuses page output or application data across HTTP requests. You can store items on the Web server or other software in the request stream, such as the proxy server or browser. Caching saves time and resources because the server does not have to recreate information, particularly things that demand significant processor time or other resources. The following image contrasts data flow in non-cached and cached environments.



Ektron provides 2 kinds of caching.

- *Caching While Logged In* below—lets you cache part of a Web page; available with some server controls
- *Page-Level Caching* below—lets you cache an entire page while not logged in; available with all server controls

Caching While Logged In

When a user is logged in, changes appear on the site only after time defined in the cache interval. This reduces the number of database hits, which improves your server's performance. For example, if you add a new item to a Collection, the change only appears on the site when the cache interval expires. In the meanwhile, use Preview mode to see the updated Collection immediately.

The following server controls can cache individual content while you are logged in.

- Collections
- ContentList
- DhtmlMenu
- ListSummary
- MetadataList
- Menu

IMPORTANT: Caching while logged in does not work with Private content. See Also: *Making Content Private* on page 294

To set up caching of content for a Web page:

1. Set the *siteroot*/Web.config file's `ek_CacheControls` property's `value` to `"1"`.
2. Add to a Web form a server control that supports caching of individual content.
3. Set the control's `CacheInterval` property to the number of seconds for which data should be cached. For example, to cache for 5 minutes, set `CacheInterval` to 300.

   The default value is 0 seconds. So, you must change the default to enable caching.

Page-Level Caching

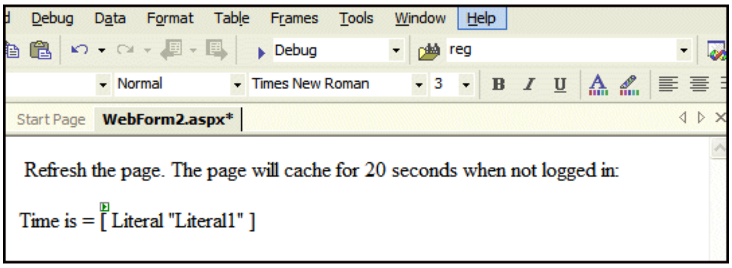
The following controls can cache individual content while you are not logged in.

- ActiveTopics
- All blog controls
- Collections
- CommunityDocuments
- CommunityGroupBrowser
- CommunityGroupList
- CommunityGroupMembers
- CommunitySearch
- ContentBlock
- ContentList
- DhtmlMenu

- Directory
- Favorites
- FlexMenu
- FormBlock
- Forum
- Friends
- ListSummary
- MetadataList
- Menu
- Poll
- PostHistory
- SiteMap
- SmartMenu
- TagCloud
- UserProfile

The following example shows a page-level cache for non-logged-in users. You use a server control to define whether a user is logged in, then define if the page is cached, based on the user's status.

1. Create a new Web form in your Ektron project.
2. Add the following text to the Web form:
```
Refresh the page. The page will cache for 20 seconds when not logged in:
Time is =
```
3. Next to **Time is =**, add a literal.



4. Below that, add a ContentBlock Server Control.
5. Set the DefaultContentID. For this example, `DefaultContentID = 20`.
6. Add the following to the Page_Load event in the code-behind.
```
If Not ContentBlock1.IsLoggedIn Then
  Response.Cache.SetExpires(DateTime.Now.AddSeconds(20))
  Response.Cache.SetCacheability(HttpCacheability.Public)
  Response.Cache.SetValidUntilExpires(True)
  Response.Cache.VaryByParams("id") = True
```

NOTE: On a PageBuilder page, you would use `Response.Cache.VaryByParams("pageid") = True`.

```
Response.Cache.SetVaryByCustom("cmsCache")
End If
Literal1.Text = Now()
```

7. Build your Web form.
8. Browse to your Web form using a browser.
9. Press your browser's refresh button. If you are not logged in to Ektron, the time remains for twenty seconds. After twenty seconds, when you refresh, the new time appears.

NOTE: You can use the same code in a user control to cache output in a particular region of the page.

Displaying Custom XML in Ektron's Server Controls

Several Ektron server controls have a CustomXml property to add custom XML to a control's generated XML before it is processed by its XSLT. Use the CustomXml property in code-behind with these server controls:

- Cart
- Checkout
- CurrencySelect
- MyAccount
- OrderList
- Product
- ProductList
- ProductSearch
- Recommendation

The following examples shows a C# usage of the CustomXml property in code-behind.

```
protected void Page_Load(object sender, EventArgs e)
       {
       product1.CustomXml =
         "<banner>Save $$$ While Christmas Shopping!</banner>
       <specials><special><link>ProductDemo.aspx?id=1013</link>
       <text>A great gift for Dad!</text></special><special>
       <link>ProductDemo.aspx?id=1015</link><text>
       A great gift for Mom!</text></special></specials>";
       }
```

The following example shows the XML sent to the XSLT file.

```
<root>
  <customXml>
    <banner>Save $$$ While Christmas Shopping!</banner>
       <specials>
          <special>
               <link>ProductDemo.aspx?id=1013</link>
               <text>A great gift for Dad!</text>
          </special>
          <special>
```

```
                <link>ProductDemo.aspx?id=1015</link>
                <text>A great gift for Mom!</text>
            </special>
         </specials>
     </customXml>
</root>
```

Learning About Visual Studio

This section provides background information about Microsoft's Visual Studio. For more information, use the help feature installed with Visual Studio and Microsoft's developer Center (Microsoft Visual Studio).

NOTE: The following definitions are from Visual Studio Help.

- **Grid Layout**—Absolute positioning attributes are inserted into elements that are added, and updated in elements that are moved. Elements can be dragged across the Design view surface. The positioning grid and Snap to Grid are available.
- **Flow Layout**—Elements are added without absolute positioning attributes. Web browsers arrange elements in the order that they occur on the page, from top to bottom. You cannot drag elements across the Design view surface or use the positioning grid.

Grid layout is the default, which means that all controls drawn to the Web form in the designer window have absolute positioning. Here is an example.

```
<body MS_POSITIONING="GridLayout">
<form id="Form1" method="post" runat="server">
  <asp:Button id="Button1" style="Z-INDEX: 101;
    LEFT: 160px; POSITION: absolute;
    TOP: 80px" runat="server" Text="Button">
  </asp:Button>
  <asp:Button id="Button2" style="Z-INDEX: 102;
    LEFT: 480px; POSITION: absolute;
    TOP: 88px" runat="server" Text="Button">
  </asp:Button>
  <asp:GridView id="GridView1" style="Z-INDEX: 103;
    LEFT: 208px; POSITION: absolute;
    TOP: 152px" runat="server">
  </asp:GridView>
</form>
</body>
```

In Grid layout, you can position your controls like a WYSIWYG editor with no knowledge of HTML. However, because absolute positioning is not rendered consistently by all browsers, the page layout can be flexible based on the size of other controls on the page, and the Web browser window.

When other controls are dynamically populated, such as a GridView, controls that appear beneath it in the Web form would be obscured if they were positioned absolutely at design time. In addition, when utilizing globalization of pages with different languages, the size of text areas can vary and cause obstructions.

Using Ektron's Developer SDK

The Developer SDK for Ektron contains the following components to help you extend and customize your site.

- **Developer API**, which includes:
  - **Server Control API**: An interface for calling the methods and properties of the Ektron server controls. For additional information on the server controls, see Introduction to Server Controls and the Developer API Documentation.
  - **Web Services API**: Exposes a method's functionality for use with SOAP over HTTP. For additional information on the Web Services, see Web Services and the Developer API Documentation.
  - **.NET Assembly API**: Similar to the Business API provided in previous version, the .NET Assembly API provides an interface for calling the methods and properties that are exposed in Ektron. See Also: the Developer API Documentation.
- **Developer API Documentation**

  The API Documentation contains a detailed description of the functions included in each of the APIs. To access the Developer's API documentation in Visual Studio, choose **Help > Contents**. Next, choose Ektron API Documentation from the list of contents. You can also filter the documentation so you see only Ektron's API documentation. Click **Ektron API Documentation** in the filter drop-down box.

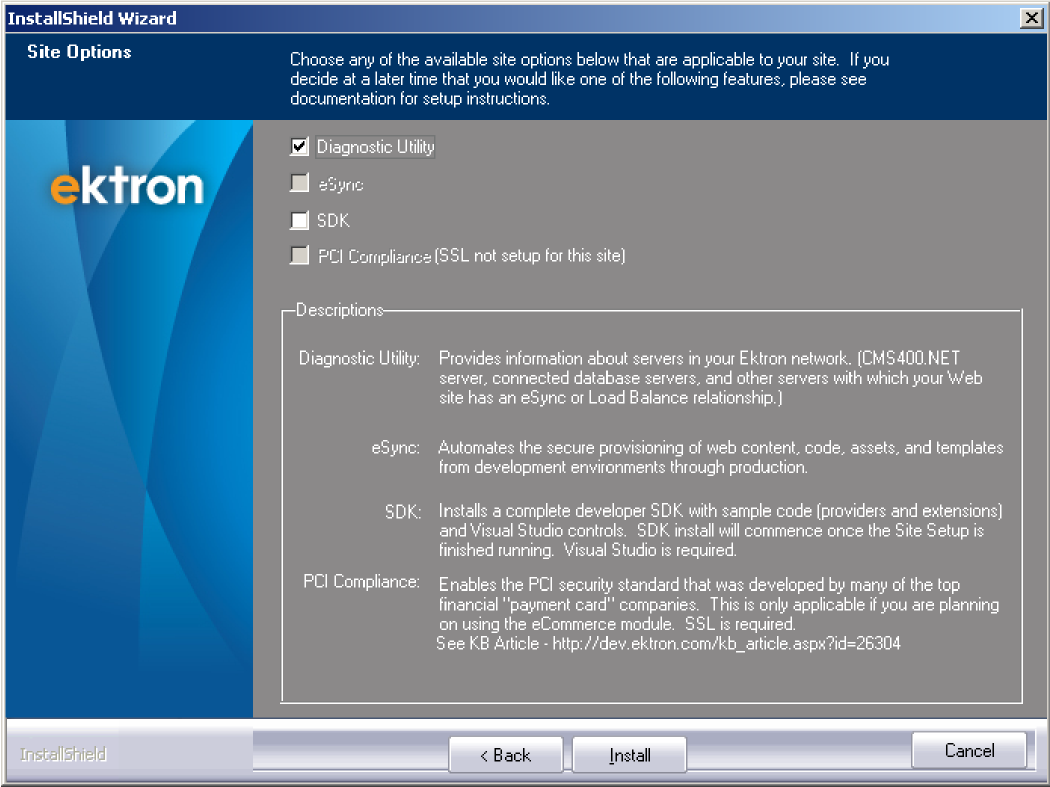
  You can also access the API documentation online by clicking Ektron Developer Reference.
- **Extensions**

  Extensions are developer-defined software modules that modify the behavior of Ektron.

  In versions previous to Ektron version 8.0, developers used the Plug-in Extension Wizard to extend the system. As of version 8.0, Extensions are preferred over the Plug-in system.See Also: *Customizing Behavior with Extensions* on page 1867
- **Ektron Server Controls Toolbox**

  Ektron controls are installed with the Developer SDK. Server controls let you insert, via drag and drop or programmatically, many standard methods and properties within the Visual Studio environment. This means that you can see the effect of your changes in real time -- you don't have to modify a page then compile a sample project to see the results.

An opportunity to install the Developer SDK appears during the installation or upgrade of Ektron (see third checkbox from top in the following dialog box).



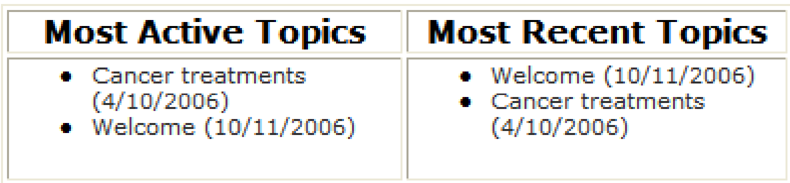
If **Developer SDK** is not checked during installation, you can install it by going to Windows **Start** button **> All Programs > Ektron > CMS400vx*x* > Utilities > CMS400SDK Install**.

Server Control Reference

This section also contains the following topics.

ActiveTopics

The ActiveTopics server control displays a forum's most active or most recent topics. The most active are determined by the number of new posts in a topic, or how many replies a post receives. The most recent are determined by the date of the post. The following example shows 2 ActiveTopics server controls: one is set to Active, the other to Recent.



The items in the list are clickable links, which open to the topic.

NOTE: On a PageBuilder page, you can drop the Recent Forum Posts widget, which displays a selected number of the most recent forum posts. See Also: *Widget Reference* on page 714

ActiveTopics Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (Boolean)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BoardID** (Long)

  The ID of the board from which to get entries. If you don't know the ID, click **Ellipses** (...), then sign in, browse to, and select a discussion board.

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DisplayMode** (eDisplayMode)
  Choose between Active or Recent. The default is Active.
  - **Active**—lists the most active posts.
  - **Recent**—lists recently added posts.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Select **False** to display this server control on the page. Select **True** to suppress it.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **MaxNumber** (Integer)
  The maximum number of topics listed. The default is **10**.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **URLPath** (String)
  Enter the path to the Forum server control's Web page. For example: `http://<your site>/`*`siteroot`*`/forum.aspx` or `/CMS400Developer/forum.aspx`. If your Forum page and your Active Topics page are in the same folder, just enter the name of the page. For example: `forum.aspx`.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ActivityStream

The ActivityStream server control displays notification messages generated by Ektron's Notification system. *Sending Notifications to a Community* on page 1194

When this control is added to a Web page, Ektron looks for a `DefaultObjectID` defined in properties. If one is found, the activity stream is based on that user or group. If none is found, notifications are based on the pages's dynamic query string parameter, which typically identifies the logged-in user.

You can exclude any user or a group from the activity stream. To achieve this, open the page that hosts the Activity Stream server control, find the control, and add the following to the control's code-behind.

```
//activityStream
cmsActivityStream.ExcludeUserIds.Add(this.ProfileId);
You can also exclude groups.
cmsActivityStream.ExcludeGroupIds.Add(GroupId1);
cmsActivityStream.ExcludeGroupIds.Add(GroupId2);
:
cmsActivityStream.ExcludeGroupIds.Add(GroupIdN);
```

To add this control to a page, drop it on a Web form and set the following properties.

- **DefaultObjectID**—If you want a user's or community group's activity stream to appear in the control, enter that ID.
- **DefaultObjectParameter**—enter the default object parameter used on the QueryString to define an object's ID. For example, if you are passing the ID value of a community group, you might enter 'gid' for this property. So, if you pass `http://~yoursite~/CGHome.aspx?gid=21` in the query string to a page containing this control, you see the activity stream for the community group whose ID is 21.
- **ObjectType**—select the whether the control is associated with a user or Community Group
- **TemplateUserProfile** and **ProfileParamName**—If you want a user's avatar in the activity stream to be a clickable link that leads to the user's profile page, set these properties.

ActivityStream Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultObjectID** (Long)

  The ID of the object whose activity stream will appear where you place this server control. For example, if you want this control to display Scott Markey's activities, and his USER ID is 142, place **142** here, and set the `ObjectType` property to **User**. To display the activity stream for the logged-in user, enter zero (**0**).

- **DisplayXslt** (String)

If desired, enter a relative or absolute path to an Xslt that determines the display of the page.If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicObjectParameter** (String)

  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank. For example, if you are passing the ID value of a community group, you might enter 'gid' for this property. So, if you passed `http://~yoursite~/CGHome.aspx?gid=21` on the Query Strings to a page containing this control, you would see the activity stream for the group with an ID of 21.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  The Maximum number of notifications to fetch. 0 (zero) = unlimited.

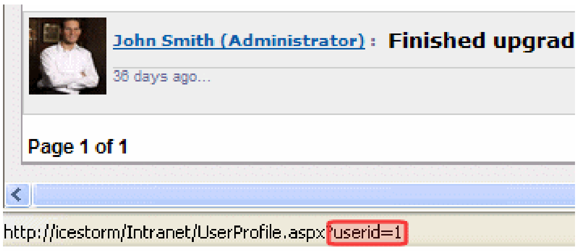
- **ObjectType** (ActivityFeedType)

  The type of object to which this control is assigned. Choices are:

  - **User**—control is assigned to an individual
  - **Group**—control is assigned to a community group

- **ProfileParamName** (String)

  The parameter name to pass in the QueryString to the TemplateUserProfile page, if you want it to be anything other than id. For example, you may prefer `userid`, because it is more descriptive, as shown in the following example.



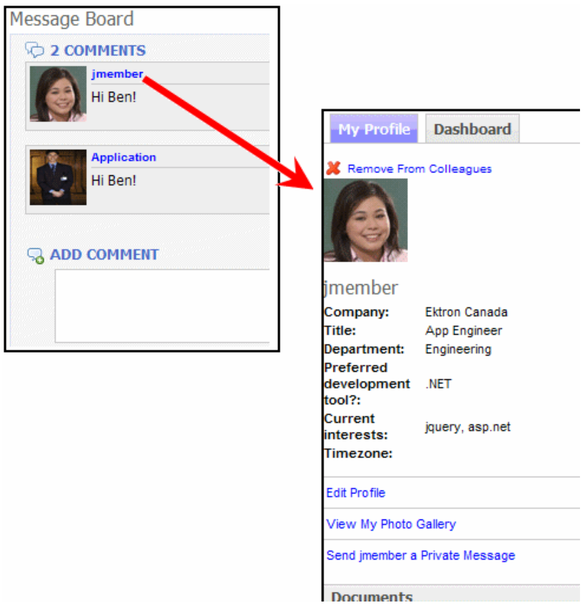
- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TemplateActivity** (String)

  The URL path to a page that contains another ActivityStream server control. When this property contains a path and the destination page has an ActivityStream control whose `ObjectType` property is set to `Activity`, a user can click an Activity Stream's time span on the first page to open a second page that contains just that activity. See Also: *Server Control Reference* on page 1636
- **TemplateUserProfile** (String)

  The URL path to a page that contains the UserProfile server control. The path can be relative or absolute. If you enter a path, a user can click a user's name or avatar from the Message Board server control and be forwarded to the profile page. See illustration.

  User templates can be defined in the Ektron **Workarea > Settings > Community Management > Templates** screen. However, if you assign a template in this field, this setting takes precedence over the setting on the Workarea Template screen.
- **WrapTag** (String)

  Lets a developer specify a server control's tag.

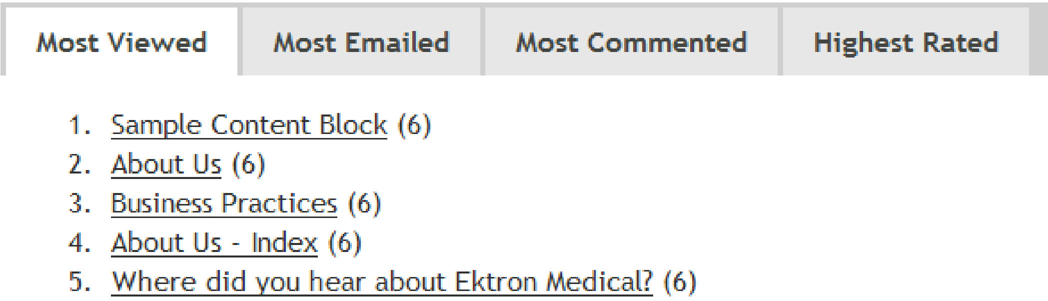
- **Span** (default)—designate an inline portion of an HTML document as a span element.
- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

Analytics Tracker

Track Business Analytics statistics about visits to your site, such as:

- how often content is viewed
- how many site visitors viewed for first time, and how many returned
- the most popular referral pages

The data recorded by this server control is used by the Most Popular and Trends widgets' **Most Viewed** category. See Also: *Business Analytics* on page 602



The data recorded is also used by the Classic Analytics Reports, available from the Ektron Workarea **> Reports > CMS Site Analytics** section.

IMPORTANT: Your site license key must support Analytics. You must also set the control's `enableanalytics` property to `true` or set the `enableanalytics` property to `ConfigSpecified`, and the `enableAnalytics` key in your `web.config` file to `true`

The AnalyticsTracker server control provides 3 properties for determining which content items are viewed when a site visitor browses to a page that contains the control. The properties are additive, that is they can be used together.

- **DefaultContentID**—tracks one content item
- **ContentIdsList—**tracks additional content items. For example, a page contains 4 content blocks, and you want to track a hit for each of them when a site visitor views the page. Insert one ID into the `ContentID` property, and the other 3 into this property.
- **DynamicParameter—** tracks the content ID in the query string parameter of the URL used to access the page

If you want to track your entire site, place an Analytics Tracker server control on your master pages on your site templates, and use the `DynamicParameter` property.

Analytics Tracker Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (Boolean)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **ContentIdsList** (String)
  Enter a comma-separated list of content IDs to be tracked. The DefaultContentId and the dynamicParameter are also tracked. See Also: *Business Analytics* on page 602
- **DefaultContentID** (Long)
  The ID of a content block being tracked by this server control. It typically would be the content directly above the analytics tracker if no other content block is identified, or is not available. If you don't know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  To make this control dynamic, select **id**. When you do, this server control is attached to the content block passed as a URL parameter.
- **EnableAnalytics** (String)
  Set one of these values to determine if this server control tracks Business Analytics statistics.
  - **true**—this control tracks analytics
  - **false**— this control does not track analytics
  - **ConfigSpecified**—use the setting in the `site root/web.config`file's`enableAnalytics` key. For example, if that key =**true**, this control tracks analytics.

  Note that the first 2 options (true and false) let you enable/disable this particular control. Use the last option, **ConfigSpecified**, if you want to use a single `web.config` setting to enable/disable *all* analytics controls.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.

- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

AssetControl

The AssetControl server control, when viewed on a Web form, displays a drag and drop icon that lets you upload a new asset or update an existing one. When you click this icon, a drag and drop box appears. This box is similar to the upload box in the Workarea. The difference between the Workarea and the server control is, in the Workarea users can only upload assets. With the AssetControl server control, you can upload a new asset or update an existing one by overwriting it. If the asset is overwritten, the previous version is available through Ektron's history feature. See Also: *Managing Versions of Content* on page 299.

The appearance of the AssetControl server control can vary depending on your browser. See Also: *Methods for Importing Assets* on page 315.

AssetControl Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultAssetID** (Long)

  The ID of the asset you want to update. This property is used when the `UploadType` property is set to **Update**. If you don't know the ID number of the asset, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DefaultFolderID** (Long)

  The ID of the folder where assets are added. This property is used when the `UploadType` property is set to **Add**. If you don't know the ID number of the folder, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a content ID or folder ID dynamically. The content ID is read when the `UploadType` property is set to Update. The folder ID is read when `UploadType` property is set to Add. To use the default content ID or default folder ID, leave blank.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

- **True**—Hide the control output.
- **False**—Display the control output.

- **IsImage** (Integer)
  Setting this control to 1 (one) restricts the control so only images can be uploaded.
  - **1** (one)—restrict the control to uploading images only.
  - **0** (zero)—upload all types of assets.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **OverrideExtension** (String)
  Lets you restrict the type of asset that can be uploaded by its extension. For example, to restrict the control to uploading Word documents, enter **doc** in the property.

  NOTE: When using this property, enter only the extension's letters not the wildcard (*) or the dot (.).

  You can add multiple extensions by creating a comma separated list of extensions. You should limit the list to 5 extensions.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TaxonomyID** (Long)
  The ID of the taxonomy with which to associate the asset.
- **UploadType** (UploadTypeEnum)
  Select whether the control adds new assets or updates existing ones.
  - **Add** (default)—add assets and use the `DefaultFolderID` property. If a file of the same name already exists in the folder, the new file is created using the naming convention `filename(2)`.
  - **Update**—update assets. In this case, you *must* identify an asset at the `DefaultAssetID` property.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Blogs

Ektron provides server controls for displaying a blog on a website. The Blog server control lets you display pieces that typically make up a blog site on a Web form, such as blog entries, posts, subjects, recent posts, RSS feed, archive, calendar, and a blog roll.

Additional Blog server controls let you display each item individually and offer additional ways to customize the layout and appearance. For example, you might display Blog entries and a Blog roll but not a Blog calendar. The individual Blog server controls also let you further define the display details.

The Blog server controls are as follows:

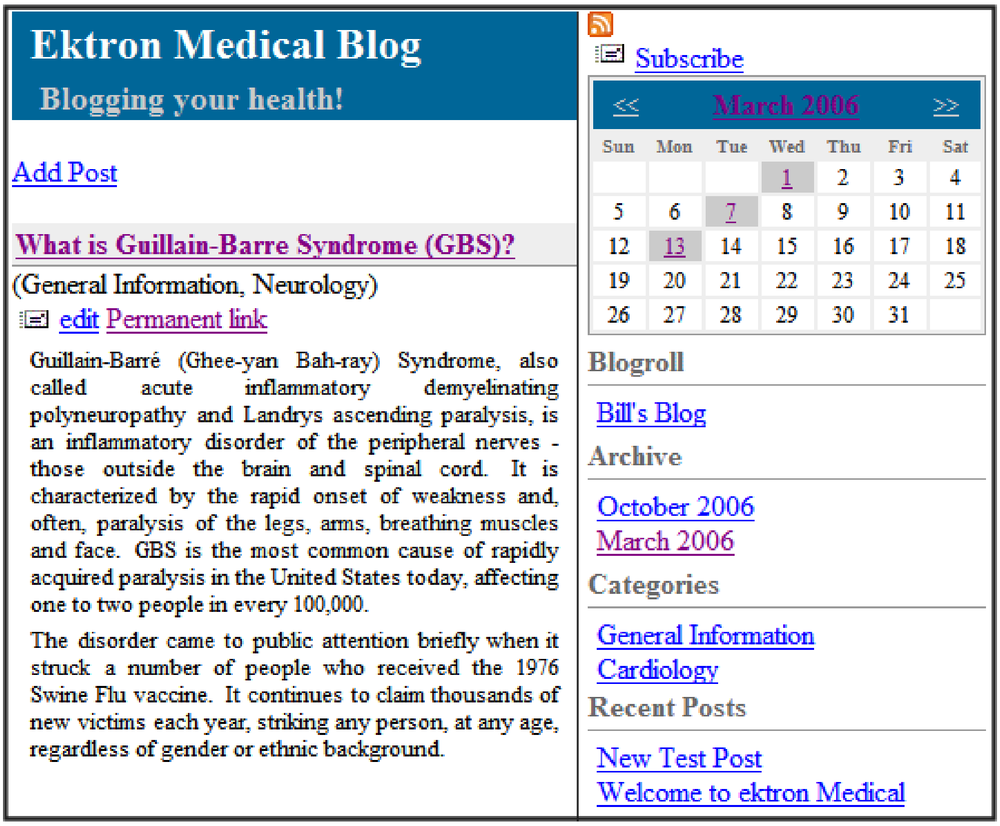
- *Blog* below
- *BlogArchive* on page 1650
- *BlogCalendar* on page 1654
- *BlogCategories* on page 1655
- *BlogEntries* on page 1651
- *BlogPost* on page 1656
- *BlogRecentPosts* on page 1658
- *BlogRoll* on page 1659
- *BlogRSS* on page 1660

NOTE: On a PageBuilder page, you can insert a blog using the Blog widget.

Blog

The Blog server control lets you add a blog to a Web form. This control has the items commonly found on a blog page, such as blog posts, comments link, a blog roll, blog subjects, recent blog posts, the blog's RSS feed, archive, and a blog calendar.

The Blog server control lets you easily maintain the overall look of the blog. Any change to display properties, such as background color or font, affects the entire blog. However, you cannot change the location of each server control item. The title always appears on top, with the tagline below it. The blog posts always appear to the left,and the calendar, blog roll, blog subjects, recent blog posts, RSS feed, archive and blog roll to the right.



NOTE: You can use individual blog server controls to change the page layout.

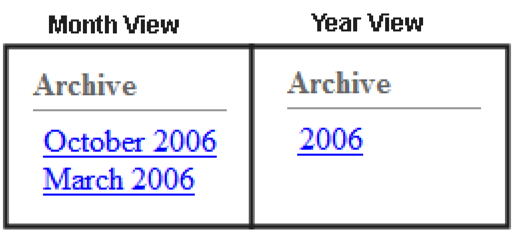
To customize a blog's styling, edit the `Blog.css` file located in `webroot\siteroot\Workarea\csslib`.

Blog Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **ArchiveMode** (String)

  Select whether the archive appears in *month* format or *year* format. The default is **month**

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BlogID** (Long)
  The ID of the blog in Ektron. For example: 41. If you don't know the blog ID, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610
- **BlogStartDateRange** (String)
  Set the date range of the Blogs to show. For example, if you want to display blogs for only the past 3 months, set this value to *Quarterly*.
  - **None—**no start date range
  - **Monthly—**current month
  - **Quarterly—**past 3 months
  - **BiYearly**—past 6 months
  - **Yearly**—past 12 months
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DateToStart** (DateTime)
  The date of the most recent blog entries to appear. For example, to display blog entries for January 1, 2012 and before, enter 1/1/2012. Click the drop-down box to access a calendar.
- **DefaultUserID** (Long)
  The ID of the user who owns the blog to be displayed. This property is used when the server control displays a user's blog. To display a blog not associated with a user, leave this property set to 0 (zero) and enter the blog's ID in the `BlogID` property.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a Blog ID dynamically. Set to **None—Use Default** if you want to always display the default blog.
  - **None—Use Default**—use the default Blog ID list
  - **ekfrm**—reads a form block's ID dynamically
  - You may display blogs dynamically by entering any value other than **id**. **id** is the default parameter for **PostParameter**.
- **DynamicUserParameter** (String)
  Gets or sets the QueryString parameter to read a user ID dynamically. Set to **Use Default** if you wish to always display the default user's blog (static).
- **EditorHeight** (Integer)
  Sets the height of the blog editor in pixels.
- **EditorWidth** (Integer)
  Sets the width of the blog editor in pixels.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MaxResults** (Integer)

  Set the maximum number of posts to display. If set to 0 (zero), there is no limit. If set to

  -1—all posts for the day are shown

  -2—all posts for the month are shown

  -3—use the **# of Post Visible** setting in the Workarea.

  The default is **-3**.

- **PostParameter** (String)

  Works like the `DynamicParameter` for content blocks. When `id` is selected, this server control passes the blog post ID as a URL parameter. The default setting is **id**.

  - **Blank**—the list of blog posts is static. The links in the blog posts are inactive.
  - **id**—the id of the blog post is passed to the URL as a parameter.
  - **None use default—**the list of blog posts is static. The links in the blog posts are inactive.
- **RecentPosts** (Integer)

  The number of post links contained in the Recent Posts list. The default is 5.

- **RssTemplate** (String)

  Specify the .aspx page used to render the RSS for blogs. The default value is `WorkArea/blogs/blogrss.aspx`.

- **ShowHeader** (Boolean)
  - **True** (default)—show title and tagline.
  - **False**—do not show header and tagline.
- **ShowRSS** (Boolean)
  - **True** (default)—show RSS feed icon ().
  - **False**—do not show RSS feed icon.
- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)

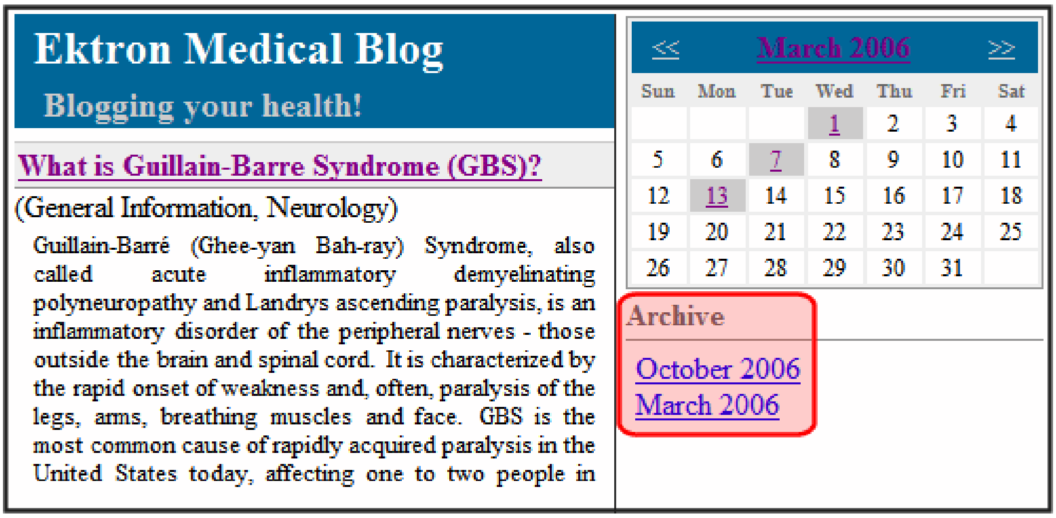
  Lets a developer specify a server control’s tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.

- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

BlogArchive

The BlogArchive server control displays past months or years that have blog posts. Use this control with the BlogEntries and Calendar controls to let site users scan for older Blog posts.



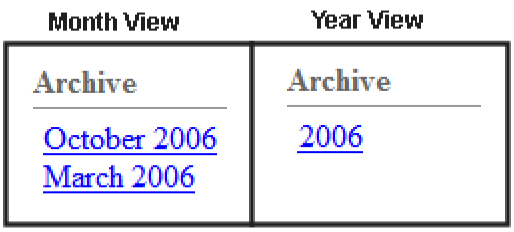
When a site visitor clicks a month in the archive, the blog posts for that month appear.

Typically this control appears along side other individual Blog server controls.

BlogArchive Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **ArchiveMode** (String)
  Select whether the archive appears in *month* format or *year* format. The default is **month**

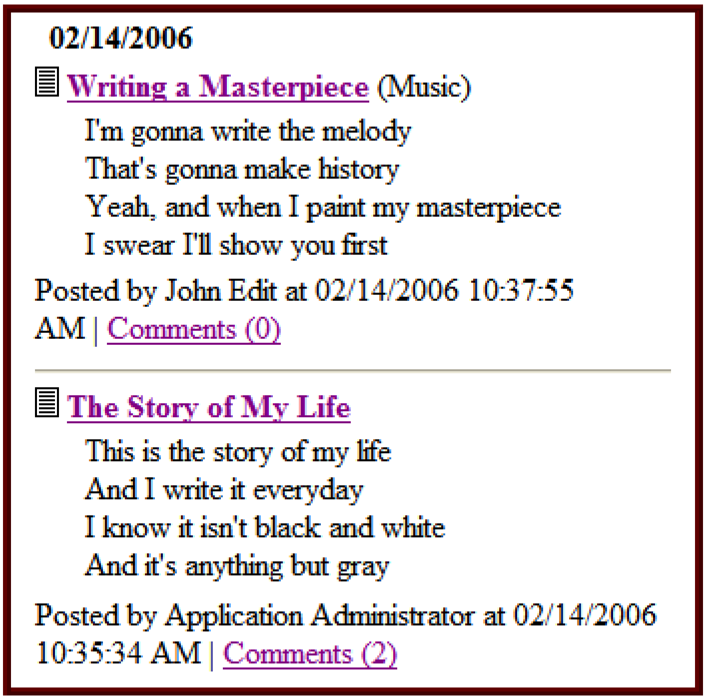


- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **BlogID** (Long)
  The ID of the blog in Ektron. For example: 41. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **DynamicParameter** (String)
  Sets the QueryString parameter to read a Blog ID dynamically. Leave blank to always display the default blog.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

BlogEntries

The BlogEntries server control displays several blog posts or a user's Journal (personal blog) on a Web form. You can change this server control's appearance without changing the other blog controls. Below is an example of a BlogEntries server control.



To use this server control to dynamically display a *blog's* entries, set the following properties:

- `DynamicParameter`—set this property to the parameter name used to pass a blog ID to the QueryString. The default is **blogid**.
- `BlogPostParameter`—set this property to the parameter name used to pass a blog post's ID to the QueryString. The default is **id**.

To use this server control to dynamically display a *user's Journal*, set the following properties:

- `DynamicUserParameter`—Set this property to the parameter name used to pass a user's ID to the QueryString.
- `BlogPostParameter`—set this property to the parameter name used to pass a blog post's ID to the QueryString. The default is **id**.

BlogEntries Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BlogID** (Long)

  The ID of the blog in Ektron from which blog entries are displayed; for example, 41. This is the default ID that is used when a blog ID is not passed dynamically to the QueryString. To pass a blog ID dynamically, set the `DynamicParameter` property. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **BlogPostParameter** (String)

  Set this property to the parameter name used to pass a blog post's ID to the QueryString. The default is **id**. When a parameter is defined, this server control passes the blog post's ID as a URL parameter. If you do not set this parameter to **id**, you will not be forwarded to the blog post's page when you click on any links in the post. The default setting is **id**.

  - **Blank**—the list of blog posts is static. The links in the blog posts are inactive.
  - **id**—the ID of the blog post is passed to the URL as a parameter.
  - **None use default—**the list of blog posts is static. The links in the blog posts are inactive.
- **BlogStartDateRange** (String)

  Set the date range of the Blogs to show. For example, if you want to display blogs for only the past 3 months, set this value to *Quarterly*.

  - **None—**no start date range
  - **Monthly—**current month
  - **Quarterly—**past 3 months
  - **BiYearly**—past 6 months
  - **Yearly**—past 12 months
- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DateToStart** (DateTime)

  The date of the last blog entries you want to appear. For example, if you want to display blog entries for January 1, 2012 and before, enter 1/1/2012. Click the drop-down box to access a calendar.

- **DefaultUserID** (Long)

  The ID of the user who owns a Journal from which to display journal entries. To display journal entries not associated with a user, leave this property set to 0 (zero) and enter the blog's ID in the `BlogID` property.

  WARNING! If you define a DefaultUserID, it overrides the BlogID property.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a Blog ID dynamically. Set to "None—Use Default" if you want to always display the default blog. The default is **blogid**.

  NOTE: If an ID for this property is passed on the QueryString and a an ID for the DynamicUserParameter property is passed the control displays blog entries for a user.

- **DynamicUserParameter** (String)
  Gets or sets the QueryString parameter to read a User ID dynamically. Set to **Use Default** if you wish to always display the default user's blog (static.)

  NOTE: If an ID for this property is passed on the QueryString and a an ID for the DynamicUserParameter property is passed the control displays blog entries for a user.

- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **MaxResults** (Integer)
  Set the maximum number of posts to display. The default is **-3**.
  - **0** (zero)— no limit
  - **-1**—all posts for the current day
  - **-2**—all posts for the current month
  - **-3**—the **# of Post Visible** Workarea setting
- **ShowHeader** (Boolean)
  Shows the title and tagline when set to True. The default is **True**.
  - **True**—show title and tagline.
  - **False**—do not show header and tagline.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

BlogCalendar

The BlogCalendar server control displays a calendar on a Web page and associates it with a blog. Days with blog posts are highlighted on the calendar. You can use a BlogCalendar server control with a BlogEntries server control to display blog posts for a given day.

BlogCalendar Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **BlogID** (Long)
  The ID of the blog in Ektron. For example: 41. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

BlogCategories

The BlogCategories server control displays a blog's subjects as a clickable list of links on a Web form. When a link is clicked, it displays all subjects associated with the category. See Also: *Adding Blog Subjects* on page 496. Typically this control appears with other Blog server controls.

BlogCategories Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BlogID** (Long)

  The ID of the blog in Ektron. For example: 41. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

BlogPost

The BlogPost server control displays an individual blog post on a page. There are 2 ways that this control displays a blog post.

- If a user is *logged in* as an Ektron or a membership user, the control displays the blog post, comments, and comments from the Web page.
- If a user is *not logged in*, the control displays only the blog post.

NOTE: The **Enable Comments** property in the Workarea must be enabled for comments and the comments form to appear.

BlogPost Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultContentID** (Long)

  The ID of a default blog post that appears where you inserted this server control if no other content block is identified, or is not available. If you don't know the ID number of the blog post, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  To make this blog post dynamic, select **id**. When you do, this server control uses the blog post passed as a URL parameter.

- **GetThankYouMessage** (Boolean)

  Determines whether a message appears after adding a blog comment.

  - **True**—Displays "Thank you" message after adding a blog comment
  - **False**—Do not display the message.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **ShowType** (String)

  Shows a blog post's content and its comments or only its comments. The default is **Content**.

- **Content**—Show blog post's content and comments.
- **Description**—Show comments only.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

BlogRecentPosts

The BlogRecentPosts server control displays a list of recent blog post links on a Web form. When you click a link, you are directed to the blog post. The `NumberofPosts` property lets you control how many links appear. Typically, this control appears with other individual Blog server controls.

NOTE: On a PageBuilder page, you can display recent blog posts using the Recent blog posts widget. See Also: *Widget Reference* on page 714

BlogRecentPosts Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BlogID** (Long)

  The ID of the blog in Ektron. For example: 41. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **BlogStartDateRange** (String)

  Set the date range of the Blogs to show. For example, want to display blogs for the past 3 months, set to*Quarterly*.

  - **None—**no start date range
  - **Monthly—**current month
  - **Quarterly—**past 3 months
  - **BiYearly**—past 6 months
  - **Yearly**—past 12 months

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **NumberofPosts** (Integer)

  Sets the number of post links to display. The default is 5.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

BlogRoll

The BlogRoll server control displays a *blog roll* on a Web form. A blog roll is a list of links to other blogs. For more information, see *Adding Blog Roll Links* on page 497. Typically, this control appears with other individual Blog server controls.

BlogRoll Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BlogID** (Long)

  The ID of the blog in Ektron. For example: 41. If you don’t know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

BlogRSS

The BlogRSS server control displays a blog's RSS feed icon ( ) on a Web form. When the icon is clicked, the blog's RSS feed appears. Typically this control appears along side other individual Blog server controls.

BlogRSS Properties

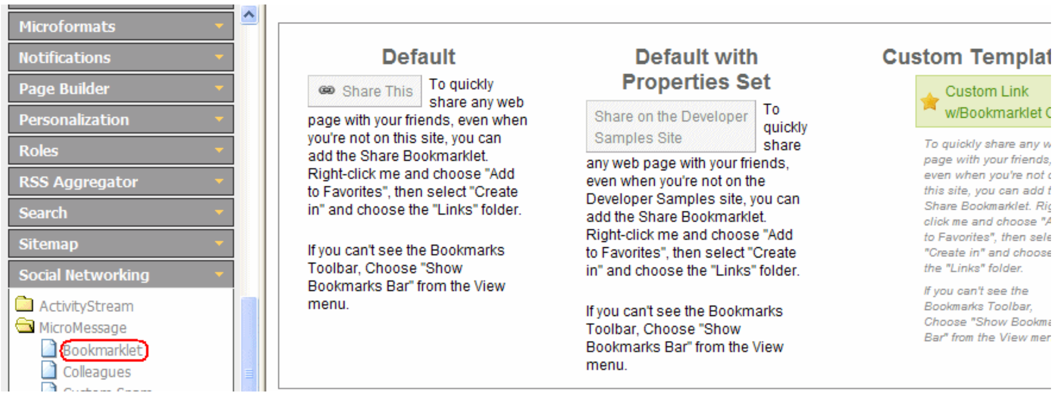
The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **BlogID** (Long)
  The ID of the blog in Ektron. For example: 41. If you don't know the ID of the blog, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

Bookmarklet

The (Micro-messaging) Bookmarklet server control detects the user's browser and modifies the text accordingly. For more information, see *Using Ektron's Micro-messaging Bookmarklet* on page 1249.



Bookmarklet Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **CssClass** (String)
  Use this field if you want to change the .css class used in the default template’s outermost wrapper (DIV tag). This lets you change the styling and appearance of the server control without having to change the markup.
- **FormURL** (String)

The path to the page that appears when a user clicks the Micro-messaging bookmarklet link. By default, when a user clicks a link, he is redirected to the `siteroot/Workarea/share.aspx` page.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **ID** (String)

  A unique name you apply to this instance of the control.
- **IncludeCSS** (Boolean)

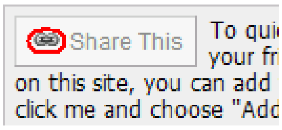
  Lets you include or exclude the control's default .css file, which provides the "look and feel" of the control on a Web page.
- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LinkText** (String)

  The text that appears on the Micro-messaging bookmarklet link.

  To modify the look and feel of this area, edit the ektron.micromessaging.bookmarklet.css file in the `siteroot/Workarea/csslib` folder.
- **OutputLinkIcon** (Boolean)
  - **False**—suppress the icon
  - **True**—show the Micro-messaging bookmarklet link icon on the button

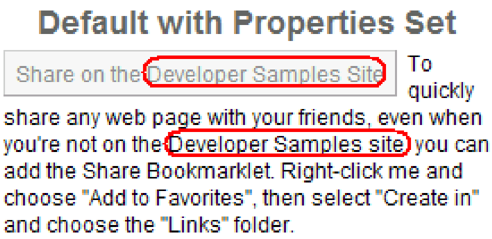
    

  To modify the look and feel of this icon, edit the ektron.micromessaging.bookmarklet.css file in the `siteroot/Workarea/csslib` folder.
- **PopupHeight** (Integer)

  The height of the Micro-messaging bookmarklet link window in pixels.
- **PopupWidth** (Integer)

  The width of the Micro-messaging bookmarklet link window in pixels.
- **SiteName** (String)

  The name of the website using this server control. The SiteName value is embedded in the instructions for adding the bookmarklet to the toolbar. See example below.

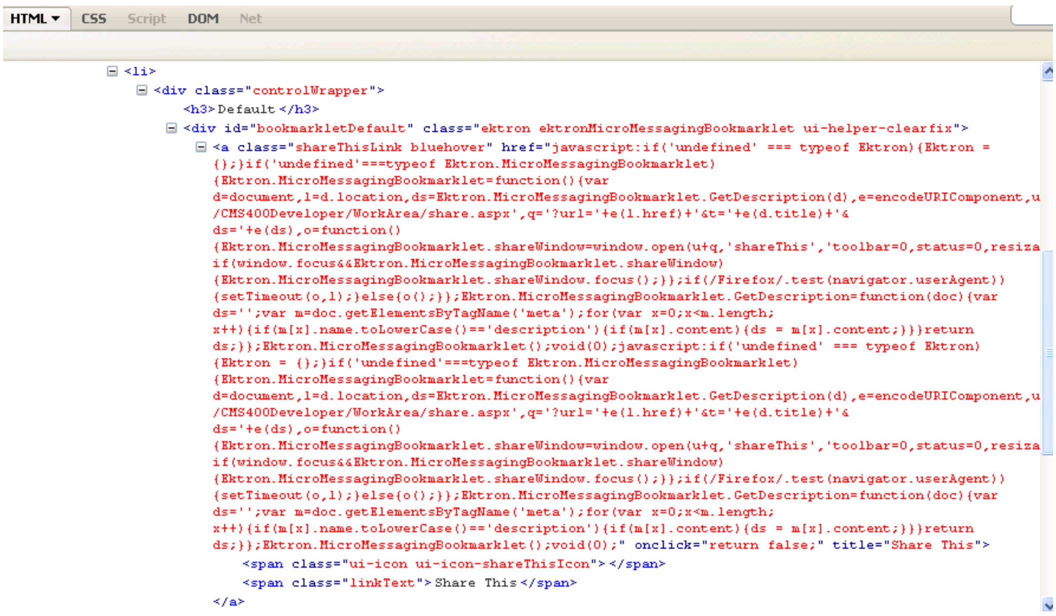


- **Visible** (Boolean)
  - **True**—the control is visible and rendered
  - **False**—the control is not visible

Customizing the Bookmarklet Server Control

The (Micro-messaging) Bookmarklet server control is template-based which means you can change the control's appearance without an extensive XSLT or EkML file.

The JavaScript used to render the Bookmarklet control is loaded into the `Href` property of the control's anchor tag.



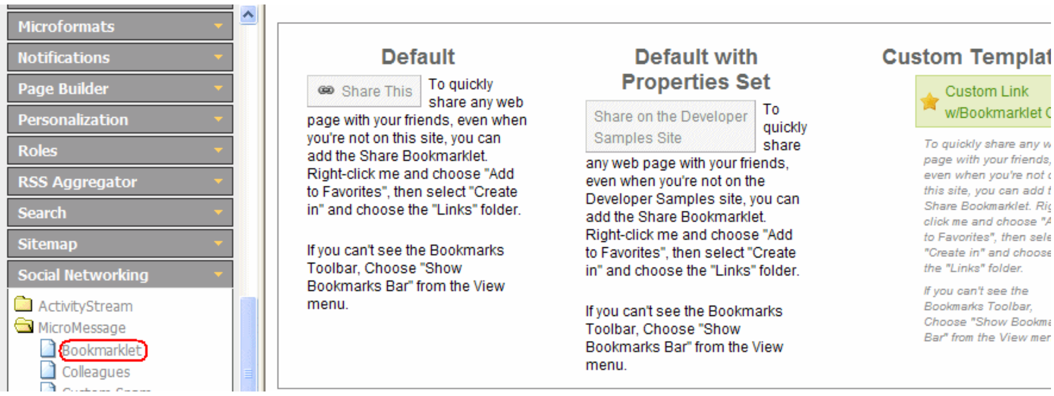
The following code shows the first Bookmarklet server control in `bookmarklet.aspx`.

```
<li>
<div class="controlWrapper">
<h3>Default</h3>
<CMS:micromessagingbookmarklet ID="bookmarkletDefault" runat="server" />
</div>
</li>
```

Because Bookmarklet is a templated server control, you can enter any valid markup, and it will be rendered exactly as you entered it. As examples, you can enter the following items within the `<div>` tags that surround the control.

- another Ektron server control
- any third-party server control
- HTML syntax

- databinding syntax
- style classes
- style tags, such as `<strong>`



BreadCrumb

Your website is made up of Web forms. Each page depends on a form to determine much of its appearance. Forms and pages have a parent > child relationship. That is, a form can be associated with any number of pages. When you define breadcrumb properties, you define them for a *form*. All pages that use a form inherit its breadcrumb properties.

Assume, for example, that a Web form is used for the Human Resources section of your website. You might use the title **Human Resources** to identify the form in the BreadCrumb server control. Whenever a page is visited that uses that form, **Human Resources** appears on the breadcrumb trail -- that is, the form title appears, not the individual page.

For information about how to use the Breadcrumb server control, see *Using Breadcrumbs* on page 819.

Types of BreadCrumb properties

BreadCrumb properties are divided into 2 categories:

Properties that Determine a Breadcrumb Trail's Appearance

For each Web form, you can customize the breadcrumb trail. For example, you might want the breadcrumb trail to appear horizontally on one Web form and vertically on another. The following property list determines the breadcrumb trail's appearance.

- **CurrentPageIndicator**—Symbols or characters to identify the current page.
- **DisplayStyle**—Whether it appears horizontally or vertically.
- **LinkLastItem**—Whether the last item is a hyperlink.
- **LinkTarget**—The type of window that appears when a user clicks an item.
- **MaxItems**—The maximum number of items.
- **Mode**—whether the breadcrumb trail appears as hyperlinked text or plain text.
- **Separator**—Symbols or characters that separate items.

Properties that Determine How Form Pages Appear on

Breadcrumb Trail

Use these properties define how any page that uses this form appears within a breadcrumb trail. It does not matter where the trail appears.

Note that you can use text, an image, or both to describe the form within the breadcrumb trail. If you use both, the image appears first, followed by the text. The following property list determines how the Web form appears on a breadcrumb trail.

- **DisplayTitle**—Text to describe it.
- **IconAlt**—"Alt" text associated with image specified in IconPath property.
- **IconPath**—Image to define it.

BreadCrumb Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CurrentPageIndicator** (String)

  If desired, enter one or more symbols or characters that identify the current page in the breadcrumb trail. See example below.

  These characters appear *after* the image or title that identifies the current page in the breadcrumb trail.

- **DefaultContentID** (Long)

  Gets or Sets the ContentID for the BreadCrumb display title.

- **DisplayStyle** (String)

  Indicate how to display the breadcrumb trail: horizontally or vertically. The default is Horizontal.

- **DisplayTitle** (String)

  Enter text to describe this Web form in the breadcrumb trail. For example, if the Web form's properties you are defining is used for all Human Resources pages on your site, enter **Human Resources**.

  If you define an image in the `IconPath` property below, the image appears in the trail, followed by this text.

  IMPORTANT: This property is for code-behind only. It cannot be set in design time.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a content ID dynamically.

- **Hide** (Boolean)

  Used to hide the breadcrumb trail in design time and run time.

  - **True**—Hide breadcrumb trail
  - **False**—Show breadcrumb trail

- **IconAlt** (String)

  If you define an image in the `IconPath` property, enter "Alt" text that should appear when a site visitor hovers the cursor over that image. Here is an example.

- **IconPath** (String)

  If you want the breadcrumb trail to display an image to identify this Web form, enter the path to the image. For example: `\CMS400Developer\Workarea\Images\bc_meta_icon.gif`

  IMPORTANT: The image location must be relative to the Web root.

  On the breadcrumb trail, the image precedes any text defined in the `DisplayTitle` property.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkLastItem** (Boolean)

  Use this property to determine whether the last breadcrumb item appears as a hyperlink on this Web form. If this property is set to **True**, and a user clicks the item, the current page reappears.

  - **True**—last item is a hyperlink
  - **False**—last item is an image or text only; the user cannot click on it

- **LinkTarget** (String)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MaxItems** (Integer)

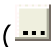
  Enter the maximum number of items in the breadcrumb trail on this Web form. The default is **5**. If you set a value of 1 or greater and the user navigates beyond that number of pages, only the most recent pages appear. The older pages disappear from the trail. 0 (zero) = unlimited.

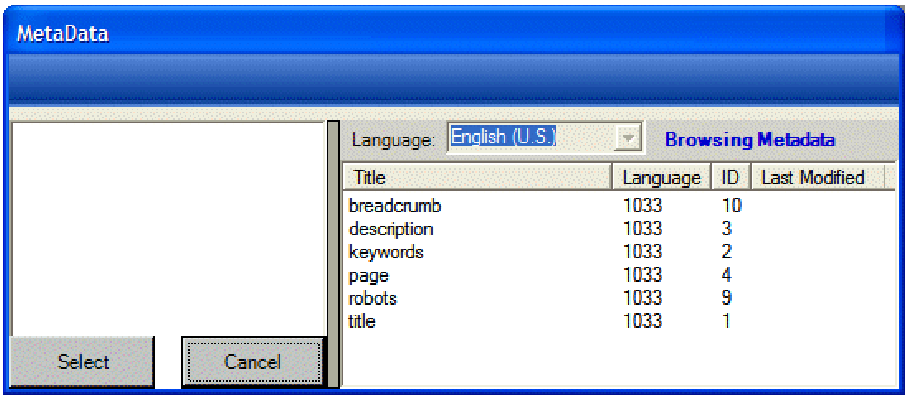
- **MetadataName** (String)

  Specify the name of a Metadata Type that you want to associate with the page.

BreadCrumb Metadata Type

To associate a Metadata Type with the BreadCrumb server control:

1. In the properties window for the BreadCrumb server control, click on the **MetadataName** property.
2. Click **Ellipses** ().
3. If you are not logged in, log in using the CMS Explorer window.
4. The Browsing Metadata screen appears.

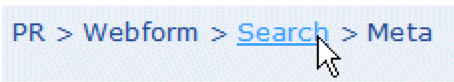


5. Select a Metadata Type to apply to the BreadCrumb server control.
6. Set the DynamicParameter to ID. This allows the metadata to reflect the content block on the page.

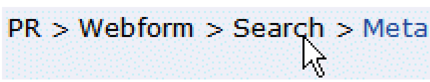
- **Mode** (String)

  Lets you display the breadcrumb trail as non-hyperlinked, plain text. The default is **Normal**.

  - **Normal**—breadcrumb trail is hyperlinked

  - **DisplayOnly**—breadcrumb trail is plain text

- **Separator** (String)

  Enter one or more characters to separate breadcrumb trail items on this Web form. The default character is the greater than sign (**>**).

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
- Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

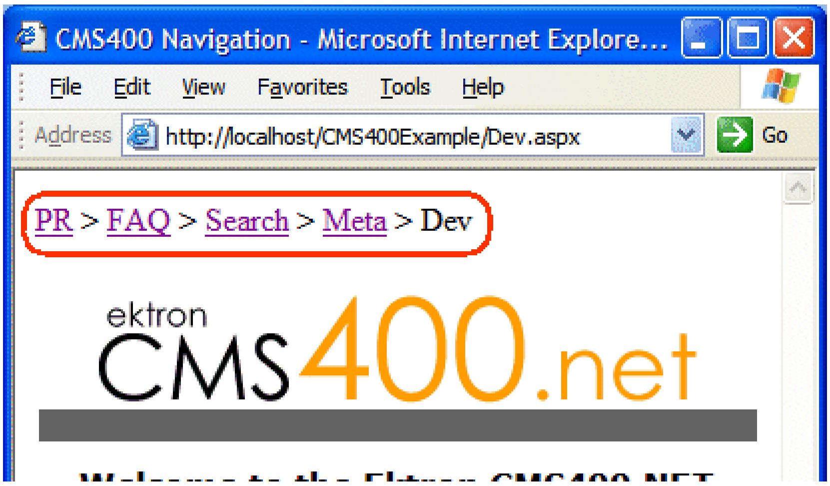
Using the BreadCrumb Server Control

NOTE: Do not add a BreadCrumb server control to a Web form that contains a Calendar server control. When both controls appear on a page and a site visitor clicks on different months, the BreadCrumb trail could look like this: Calendar > Calendar > Calendar > Calendar > Calendar. This happens because each time a site visitor clicks on a month, you are in effect opening a new Web form.

To learn about the Breadcrumb server control properties, see *BreadCrumb* on page 1664.

Add a BreadCrumb server control to each Web form for which you want to create a breadcrumb trail. To use the BreadCrumb server control:

1. Open a Web form for which you want to create a breadcrumb trail.
2. Drag and drop the BreadCrumb server control onto the Web form.
3. Set the `DisplayTitle` property.
4. Save the Web form.
5. Repeat steps 1 through 4 for all Web forms in the breadcrumb trail.
6. Open a browser.
7. View a Web page with a BreadCrumb server control in it.
8. Navigate to the rest of the Web pages that contain BreadCrumb server controls.
9. As you move around, the pages are added to the breadcrumb trail.



The Trail Created by the Breadcrumb Server Control

A breadcrumb trail can appear vertically or horizontally on a Web page. In addition, you can define how many breadcrumbs are left for site visitors to navigate back. You can also use an image and Alt text instead of, or in addition to, text to display the breadcrumb trail. These variations are illustrated below.

NOTE: If a site visitor revisits a page that is in the breadcrumb trail already, the breadcrumb trail reverts back to that point in the trail. For example, if you visit the following pages **Dev > FAQ > WebForm > PR**, and then return to FAQ, the breadcrumb trail looks like this: **Dev > FAQ**.

- Horizontal; text only

- Horizontal with images

- Horizontal with images and Alt text

- Vertical; text only

- Vertical with images

- Vertical with images and Alt text

To implement sitemap breadcrumb navigation, add a BreadCrumb server control to every Web form in your site. Doing this ensures that a breadcrumb trail may appear on each Web page.

Displaying a Content Block’s Title in the Breadcrumb Trail

By adding a line or 2 of code, the breadcrumb trail can display a content block's title. You can add a line of code to each Web form. Or, if your content is dynamic, add the code once and, each time a new piece of content is called dynamically, a new breadcrumb is created.

You can only use one content block per Web form with the breadcrumb. If a page has multiple content blocks, select one that best describes the page.

Steps to Use a Content Block’s Title as a Breadcrumb

1. Drag and drop a **ContentBlock server control** on a Web form.
2. Choose a **DefaultContentID** for the content block.
3. Drag and drop a **BreadCrumb server control** on the same form.
4. Remove the word **Title** from the `DisplayTitle` property.
5. Add the following line of code to the pageload event code-behind:

```
BreadCrumb1.DisplayTitle = ContentBlock1.EkItem.Title
```

6. Build the project.
7. View the Web form in a Web browser.

The following example content block shows titles used as breadcrumbs.

The word Title appears in the breadcrumb trail when the `DisplayTitle` property is left empty. Even with the added code, if the breadcrumb loads before the content block, the breadcrumb has no information in the `DisplayTitle` property and therefore displays the word title by default.

If the word Title appears in the breadcrumb trail, check to make sure the word Title does not appear in the `DisplayTitle` property. Next, if Title still appears, add the following line of code to the page load event of the code-behind:

```
ContentBlock1.Fill()
```

The code in the page load event should now look like this:

```
ContentBlock1.Fill()
BreadCrumb1.DisplayTitle = ContentBlock1.EkItem.Title
```

This ensures that the content block information is loaded first.

BusinessRules

The BusinessRules server control lets you add a Business Rule created in the Workarea to a Web form. It also lets you add a place holder for a Business Rule. Then, an Ektron administrator can create a business rule at a later date.

BusinessRules Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **RuleID** (Long)

  The ID of the Ruleset to evaluate. If you don't know the ID number of the Ruleset, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Cart

The Cart server control lets a customer (site visitor) select products to purchase; an online "shopping basket." Products are added to the cart when the customer selects them. See Also: *Using the Cart Server Control* on page 1406

Cart Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CustomXml** (Code-behind Only) (String)
- Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

  ```
  <root><customXml>custom-xml-inserted-here</customXml></root>
  ```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.

- **DisplayXslt** (String)—If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `Cart.xsl`. This file is located in `<siteroot>\Workarea\Xslt\Commerce`.

  IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)—Controls when Fill occurs.

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicProductParameter** (String)—The QueryString parameter name which is used to pass the product ID to the product details page. For example, if your QueryString parameter for products is ID, enter that in this property. Then, when a customer clicks a product's title, this parameter is passed with the product's ID to the product details page.
- **EnableCoupons** (Boolean)—Set to true to allow a customer to enter coupon codes for discounts. When set to false, the **Apply Coupon** button is hidden. Default value is True if this property is not set. See Also: *Applying Coupons* on page 1411, *Using Coupons* on page 1373.

- **Hide** (Boolean)—Used to hide the control in design time and run time.
  - **True**—Hide the control
  - **False**—Show the control
- **Language** (Integer)—

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LoadingImage** (String)—The image to display while the cart is loading. The default is `ajaxloader_circle_lg.gif`. This file is located in *siteroot*`\Workarea\images\application`.
- **Stylesheet** (String)—Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet. The default is **Cart.css**. This file is located in: *siteroot*`\Workarea\csslib\Commerce`

  IMPORTANT: If you want to edit this file, make a copy, change its name and move it outside of the Workarea folder. If you make changes to this file and do not move it out of the Workarea, this file and the changes will be lost when you upgrade.
- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TemplateCheckout** (String)—The template that contains the Checkout server control. A customer is directed to this page when he clicks **Checkout**. If the template file is located in the same folder as the Web form containing this server control, just enter its name. The path can be relative or absolute.See Also: *Checking Out* on page 1411.
- **TemplateProduct** (String)—The template that contains the Product server control. A customer is directed to this page when a product in the cart is clicked. This page provides details about the product.See Also: *Displaying an Item's Information* on page 1410.

  If this property is blank, the server control uses the Product's QuickLink information.

  If the template file is located in the same folder as the Web form containing this server control, just enter its name. The path can be relative or absolute.See Also: *Displaying an Item's Information* on page 1410.
- **TemplateShopping** (String)—The URL to navigate to when the customer clicks **Continue Shopping**. This URL could direct the customer to a template containing a ProductSearch or ProductList server control, which lets the person select additional products. See Also: *Continuing to Shop* on page 1411.

  See Also: *Using the ProductList Server Control* on page 1430 or *Product Search Server Controls* on page 1822

Checkout

IMPORTANT: When using the Checkout server control, your website should have an SSL certificate installed. Set its `IsSSLRequired` property to **True**. This protects your customers' payment information during transmission. Do not use a self-signed SSL certificate—obtain one from a trusted certificate authority.

The Checkout server control lets a customer navigate through the checkout process. This process includes:

- adding billing and shipping information
- selecting a shipping method
- reviewing the order
- submitting the order and credit card information
- notification that checkout process is complete

See Also: *Using the Checkout Server Control* on page 1411.

Checkout Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **CurrentPhase** (code-behind Only) (ControlPhase)

  Reports or selects the current page (or phase) of the checkout control. This lets you customize the flow of the control. For example, if you only offer one shipping option, skip the ShippingInfoEntry phase.

  - **Login**—allows existing users to log in. See Also: *Logging In or Setting Up an Account* on page 1412
  - **BillingInfo**—displays a customer's billing information. See Also: *Billing Information* on page 1414
  - **BillingInfoEntry**—allows entry of a customer's billing information. See Also: *Billing Information* on page 1414.
  - **ShippingInfo**—allows entry of a customer's shipping information.
  - **ShippingInfoEntry**—allows entry of a customer's shipping information. See Also: *Shipping Information* on page 1416
  - **ShippingMethodSelect**—allows selection of the shipping method. See Also: *Shipping Method* on page 1417
  - **ReviewOrder**— displays the current order's details. See Also: *Review Order* on page 1417
  - **SubmitOrder**—lets customers add payment information. See Also: *Submit Order* on page 1418
  - **Complete**—displays completion message. See Also: *Order Complete* on page 1419
  - **Error_EmptyBasket**— used when a cart has no items and the customer somehow enters the control.

- **Error_UnhandledException**—occurs when there's an error that the control cannot resolve.

- **CustomXml** (code-behind Only) (String)

  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

```
<root><customXml>custom-xml-inserted-here</customXml></root>
```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.

- **DefaultCountryId** (Integer)

  The ID of the default country that appears in the Billing Address and Shipping Address. Set this to the country from which the majority of your customers make purchases. If a customer is from a different country, he can change it when editing the Billing or Shipping Address.

  To find a country's numeric ID, go to **Workarea > Settings > Commerce > Configuration > Countries**. The Numeric ID is in the left column of that screen.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicPhaseParameter** (String)

  The name of the parameter on the QueryString that identifies desired phase ID.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `Checkout.xsl`. This file is located in *siteroot*`\Workarea\Xslt\Commerce\Checkout\Standard`

  IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **FriendlyErrorMessage** (String)

  The message displayed when an unhandled error occurs. Details are sent to the event log.

  The default message is "*We're sorry, an error occurred while processing your request. Please try again later...*"

- **AllowGuestCheckout** (Boolean)

  Set to true if you wish to allow the Guest Checkout feature. See Also: *Logging In or Setting Up an Account* on page 1412

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **IsSSLRequired** (Boolean)

  When set to True, switches to an SSL encrypted URL. For the SSL encryption to work, you must have an SSL certificate installed for your site. See Also: *Installing Ektron* on page 9. Information on SSL can be found at the following websites.

  - Secure Sockets Layer (SSL) (Tech-FAQ)
  - Introduction to SSL (Symantec)

  NOTE: Ektron, Inc. is not associated with TechFAQ or VeriSign. However, both sites offer good explanations of Secure Sockets Layer.

  Installing and using an SSL is one of the most important things you can do to protect your customer's credit card data.

- **Language** (Integer)

  Set a language for viewing the checkout control. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LoadingImage** (String)

  The image to display while the control is fetching data. The default is `siteroot\Workarea\images \application\ajax-loader_circle_lg.gif`.

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

- **SuppressWrapperTag** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TemplateCart** (String)

  The URL path of the template that contains the Cart server control. The path can be relative or absolute.

  When a path is entered, a link appears in the Review Order part of the process that allows a user to navigate to the template containing the Cart server control. See Also: *Review Order* on page 1417 and *Using the eCommerce Server Controls* on page 1404

- **TemplateOrderHistory** (String)

  The URL path of the template that contains the OrderList server control. The path can be relative or absolute. When a path is entered, a link appears at the end of checkout process that allows a user to navigate to the template containing the OrderList server control. See Also: *Order Complete* on page 1419 and *Managing Customer Orders* on page 1381.

- **TemplateRecoverPassword** (String)

  The URL path of the template that helps a customer recover a password. The path can be relative or absolute. When a path is entered and a customer has not logged in, a link appears at the beginning of checkout process that lets the customer navigate to a template containing information to recover the password. The Membership server control contains an option for recovering passwords. See Also: *Logging In or Setting Up an Account* on page 1412 and *Membership* on page 1771 server control

- **TemplateShopping** (String)
  The URL path of the template that allows the customer to continue shopping. If a path is entered, a link appears at the end of checkout that allows a user to navigate to a template that lets the person continue shopping; for example, the template containing a ProductList or ProductSearch server control. See Also: *Order Complete* on page 1419, *Using the ProductList Server Control* on page 1430 and *Product Search Server Controls* on page 1822

Collection

IMPORTANT: Starting from release 8.6, the Collection server control was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the Collection server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The Collection server control displays a collection that you create in the Workarea. The control lets you customize the display of the collection on a Web page.

When added to a template and visited, collections can look like the following illustration, which shows 3 collections on the same page of a sample site. You can modify the display by editing its properties.

NOTE: On a PageBuilder page, you can insert a collection using the Collection widget. See Also: *Collection—Displays a collection. You select a Collection ID.See Also: Working with Collections on page 355* on page 715

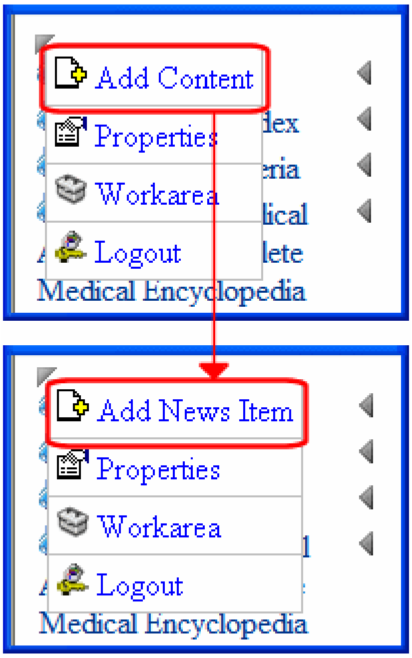
This section also contains the following topics.

Collection Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AddText** (String)

  Override the control's default text for the Add Content menu item. For example, If you have a News website, you could change **Add Content** to **Add News Item**.



- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)
- The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

  NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **ContentParameter** (String)

  Checks the QueryString for this value and replaces the collection with a content block when specified. Leave blank to always display the Collection.

- **DefaultCollectionID** (Long)

  The ID of a collection that appears where you insert this server control if no other collection is identified, or is not available. If you don't know the ID number of the collection, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DisplayXslt** (String)

  Determines how the information on the page appears.

- **None**—databind only
- **ecmNavigation**—lists the title of every content block in the collection
  See Also: *Collection* on page 1677
- **ecmTeaser**—lists the title of every content block in the collection plus the content summary
  See Also: *ecmTeaser Display Example* on page 1682
- **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

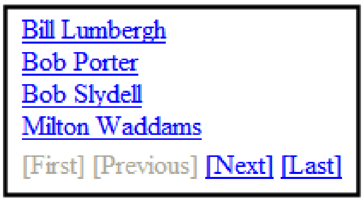
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  To make this collection dynamic, select **coll_id**. When you do, this server control uses the collection passed as a URL parameter.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.See the following example.



  For example, if a collection has 9 items and the `MaxResults` property is set to 4, the screen displays only the first 4 items. When the site visitor clicks **[Next]**, he sees items 5, 6, 7 and 8, and so on.

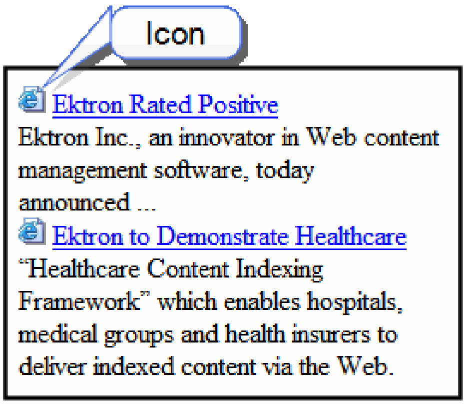
NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **GetAnalyticsData** (Boolean)

  Set this property to **True** if you want the following information for each content in the list. Returns **Content View Count**, **Content Rating**, **Content Rating Average**. Create your own XSLT styles to display this data. This property only provides reliable data when the Business Analytics Feature is on. *Analyzing Content* on page 601.

- **GetHtml** (Boolean)
  Set to **True** if you want to retrieve and display content (html body) for all content blocks in the collection. For example, to display content inside a Web server control such as a GridView.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeIcons** (Boolean)
  Choose whether to display icons next to the collection list's links.

  IMPORTANT: This property only works when ecmSummary or ecmTeaser are used in the `DisplayXslt` property. If the `[$ImageIcon]` variable is used in an EkML file and that file is assigned to the `MarkupLanguage` property, this property acts as True.

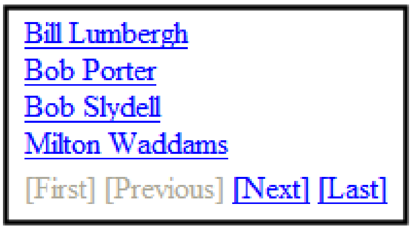
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LinkTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **MarkupLanguage** (String)
  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905.

  See Also: *collection.ekml* on page 1906

NOTE: If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space, enter the maximum number of results per page here. Then, set the **EnablePaging** property to **True**. If you do and more than the number of **MaxResults** are available, navigation aids help the site visitor view additional items. See example below.

- **MemberMenuActive** (Boolean)

  Set this property to True to hide the drop-down menu next to a content item when a membership user is logged-in.

  - **True**—Hide the drop-down next to a content item from membership users.
  - **False**—Membership users can have access to the drop-down menu next to content item.

NOTE: This only affects membership users. Ektron users always see the drop-down menu when they are logged-in.

- **Random** (Boolean)

  Set to **True** if you want to randomly display one collection item. The item changes each time a site visitor views the page.

NOTE: If you use a custom XSLT or EkML file, the type of content displayed can be manipulated. For example, if you use an EkML file that has the `[$Html]` variable in it, the actual content appears instead of a link. See Also: *Controlling Output with Ektron Markup Language* on page 1905 and *[$Html]* on page 1937.

- **SelTaxonomyID** (Integer)

  Set the ID of the taxonomy with which content is associated if a logged-in site visitor uses the Silver Access Point's **Add HTML Content** option to add content to a Collection server control.

- **SuppressWrapperTags** (Boolean)

  This property is set to `false` because Ajax uses `<div>` tags to rewrite the region around the tag. You *cannot* change the value to `true`.

- **WrapTag** (String)

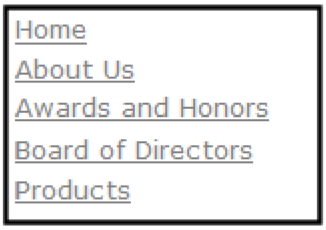
  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.

- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

ecmNavigation Display Example

The following figure shows a collection being used as a navigation menu.



ecmNavigation XSL code

The following XSL code creates the ecmNavigation Display. You can use this code as the basis to design your own XSLT.

WARNING! If you create a custom file, do not store it in the Workarea folder. If you do, the file will be overwritten when you upgrade.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
  <table border="0" cellspacing="0" cellpadding="0" width="100%">
   <xsl:for-each select="Collection/Content">
   <tr>
      <td>
         <a>
            <xsl:attribute name="href">
                <xsl:value-of select="QuickLink"/>
            </xsl:attribute>
                <xsl:value-of select="Title"/>
         </a>
     </td>
   </tr>
   </xsl:for-each>
  </table>
</xsl:template>
</xsl:stylesheet>
```

ecmTeaser Display Example

The following example shows a collection using the ecmTeaser display style.

ecmTeaser XSL code

The following XSL code creates the ecmTeaser Display. You can use this code as the basis to design your own XSLT.

WARNING! If you create a custom file, it is strongly recommended to not store the file in the Workarea folder. If you do, the file will be overwritten when you upgrade.

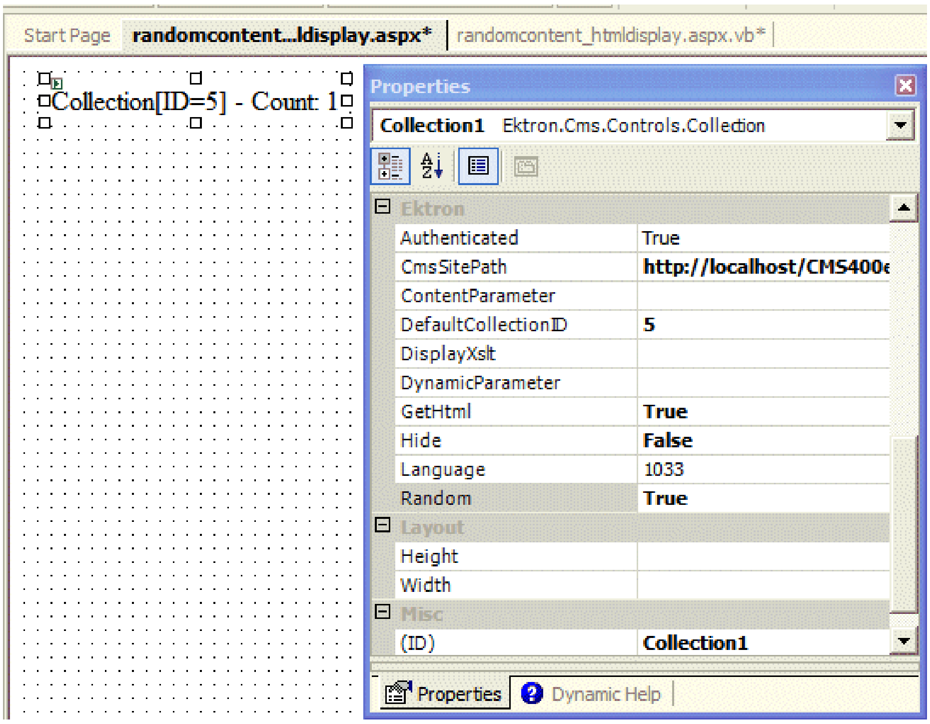
```
<?xml version="1.0" encoding="ISO-8859-1"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
  <table border="0" cellspacing="0" cellpadding="0" width="100%">
    <xsl:for-each select="Collection/Content">
      <tr>
        <td>
          <a>
            <xsl:attribute name="href">
              <xsl:value-of select="QuickLink"/>
              </xsl:attribute>
             <xsl:value-of select="Title"/>
          </a> 
        </td>
      </tr>
      <tr>
         <td>
            <xsl:value-of select="Teaser" />
         </td>
      </tr>
      <tr>
          <td> </td>
      </tr>
    </xsl:for-each>
  </table>
</xsl:template></xsl:stylesheet>
```

Using the Collection Server Control Programmatically Example

The following is an example of using code-behind, and a drag and drop Collection server control to display random content from a collection.

1. Drag and drop a Collection server control on your Web form.
2. Set the properties in the properties window.

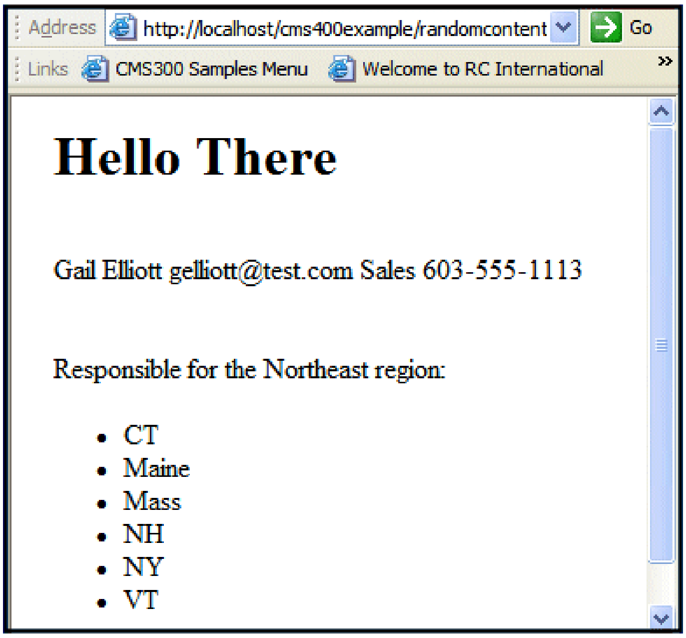
   NOTE: In this example, the `Random` and `GetHtml` properties must be set to **True**.



3. Add the following code to the code-behind.

```
Dim str As String
str = "<h1>Hello There</h1><br>"
str &= Collection1.EkItems(0).Html
Collection1.Text = str
```

4. Build and browse your Web form.



Retrieving the XML Structure of a Collection

Retrieving the XML structure of a collection allows for greater control over developing XSLs. The following is an example of how to do that.

1. Open a new Web form.
2. Drag and drop a Collection server control onto it.
3. Set the `DefaultCollectionID` property.
4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to MultiLine.

   NOTE: Set the text box width to at least 400px.

6. On the code-behind page, add the following line.

   ```
   Textbox1.Text = Collection1.XmlDoc.InnerXml
   ```

7. Build the project.
8. View the Web form in a browser.
9. The XML structure of the collection appears in the textbox.

For an additional example, see the Collection XML page on the Developer samples page. It is located at:

- In a browser:

  ```
  http://sitroot/CMS400Developer/Developer/Collection/CollectionXML.aspx
  ```

- In the source code:

  ```
  siteroot/CMS400Developer/Developer/Collection/CollectionXML.aspx
    and CollectionXML.aspx.vb
  ```

CommunityDocuments

The control displays a list of uploaded content filtered by category. In addition, a logged-in member can manage files, create categories, and decide which users can view the documents. This server control is typically placed on a user's or a group profile page.

NOTE: When you drag and drop this control on a Web form in Visual Studio, the following message appears in the label of the control: "Workspace for user does not exist". This happens because no ID is assigned to the control. When you assign an ID, the control's name and the ID are displayed. If you use the `DynamicParameter` property to dynamically pass an ID from the QueryString, the above message appears because an ID is not assigned to the control.

CommunityDocuments Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultObjectID** (Long)

  The default object ID for this control to use when there is no matching dynamic parameter value passed.
- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.
- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicContentBoxHeight** (Integer)

  The height of the dynamic content box in pixels
- **DynamicContentBoxWidth** (Integer)

  The Width of the dynamic content box in pixels
- **DynamicContentTemplate** (String)

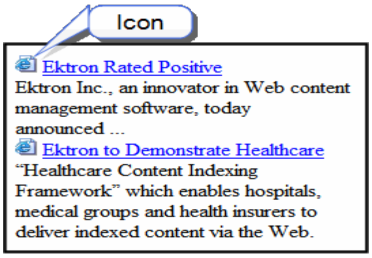
  The template to use when displaying dynamic content. Leave blank to use the dynamic box.
- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank.
- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.
- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeIcon** (Boolean)

  Choose whether to display icons next to the navigation list’s links.
  - **True**—Show icons
  - **False**—Hide icons



- **ItemSortOrder**

  Specify the sort order of results. Choices are:

  - **taxonomy_item_display_order**—the order of taxonomy items as set in the Workarea. For additional information, see *Reordering Content Assigned to a Taxonomy Category* on page 806.
  - **content_title**—alphabetical order by title
  - **date_created**—chronological order by creation date
  - **last_edit_date**—chronological order by last edit date

  You can specify the direction of the items with the `SortDirection` property.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (String)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

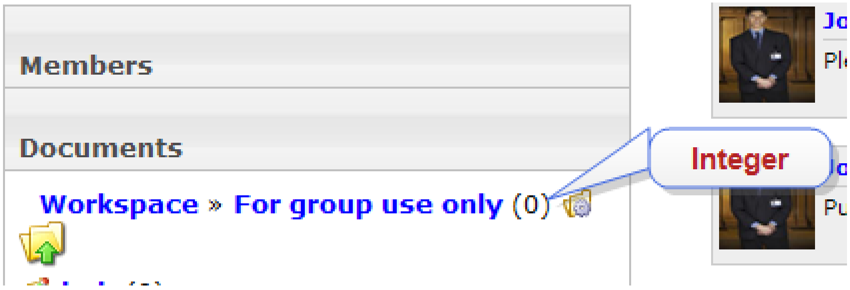
  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space, enter the maximum number of results per page here. Then, set the **EnablePaging** property to **True**. If you do and more than the number of **MaxResults** are available, navigation aids help the site visitor view additional items.

- **ObjectType** (CommunityDocumentsObjectType)

  The type of object to which this control is assigned. Choices are:

  - **User**—control assigned to an individual
  - **Group**—control assigned to a community group

- **ShowCount** (Boolean)
  Determines if an integer representing the number of items in a category appears next to the category.
  - **True**—Show number next to category
  - **False** (default)—Do not show number next to category



- **SortDirection** (String)
  Select the direction of the `itemSortOrder` property. Choose **Ascending** or **Descending**.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **TaxonomyCols** (Integer)
  Enter the number of columns in which this taxonomy/category appear on the page.
- **TaxonomyItemCols** (Integer)
  Enter the number of columns in which the taxonomy item appears on the page.
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

CommunityGroupBrowser

The CommunityGroupBrowser server control allows a user to browse a taxonomy structure for community groups. As the user browses, community groups at each level appear in a results box.

In addition, a user can click **Create Group** to create a new group. When the group is created, it is automatically added to the taxonomy you are viewing.

CommunityGroupBrowser Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AvatarHeight** (Integer)

  The display height of the avatar in the results box.

- **AvatarWidth** (Integer)

  The display width of the avatar in the results box.

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade. If you enter a valid EkML file at the `MarkupLanguage` property, the `DisplayXslt` property value is ignored.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Link** (String)
  Add a link to the group's profile page. This allows a user to click a link in the community group list and be taken to the group's profile page. There are 2 variables used within the link that represent the group ID and the group name.
  - **{0}**—represents the group's ID.
  - **{1}**—represents the group's name.

  You need to have both variables in the link. The Web form can be relative or absolute. Below is an example.

  ```
  groupprofilepage.aspx?gid={0}&gn={1}
  ```
- **LinkTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **MarkupLanguage** (String)
  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905
- **MaxResults** (Integer)
  The Maximum number of items to fetch. 0 (zero) = unlimited.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TagTemplate** (String)
  Add a path to another Web form to create links for the tag text. The path can be relative or absolute. By providing the path to CommunitySearch server control, a user viewing the list of groups can click a tag and search for other groups with the same tag. There are 5 parameters that are automatically added to the link's QueryString that let you pass information about tag.
  - **searchgrptag**—the tag's text for community groups.
  - **TagId**—the tag's ID.
  - **TagLanguage**—the tag's language.
  - **TagCount**—the tag's count (the number of times a tag has been used.)
  - **TagType**—the tag's type: user or community group.

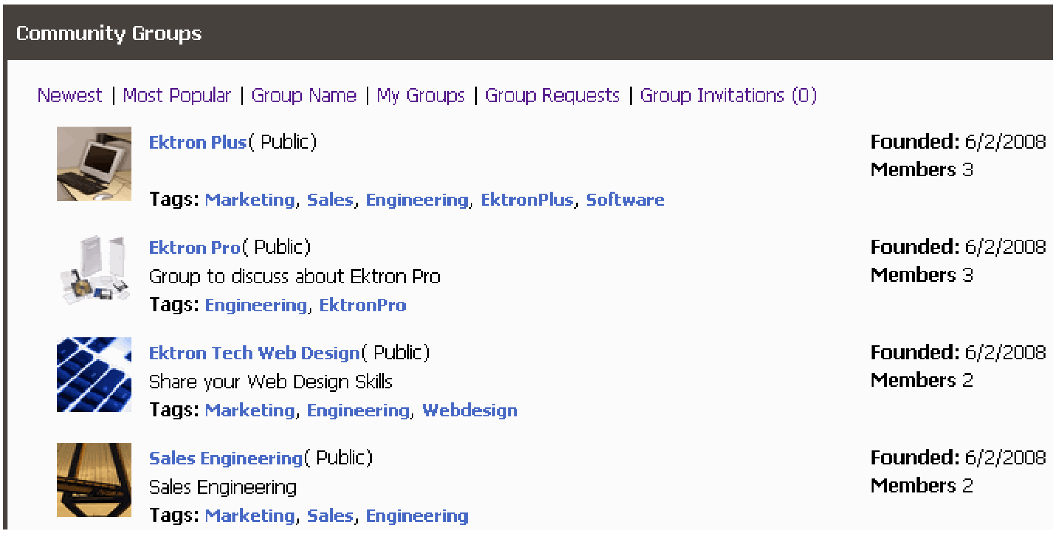
  In addition to these parameters, you can add your own by defining them in the path. If you do, these parameters are appended to yours.
- **TagTemplateTarget** (String)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **TaxonomyId** (Long)
  Enter the ID number of the taxonomy or category to appear in this server control. If you don't know the number, click the button and navigate to the taxonomy or category. When you select one, it appears in the center of the Visual Studio window.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

CommunityGroupList

The CommunityGroupList server control, part of Ektron's Community Platform, displays a list of community groups. It can be configured to sort groups by name, newest, or most popular.

When associated with a user, this control can show

- community groups with which a user is associated
- community groups the user has been invited to join
- community groups for which the user's request to join is pending



CommunityGroupList server control displays the following information about each community group.

- **Community Group Avatar**—An image representing the group.
- **Community Group Name**—The name of a community group.
- **Type**—Whether the community group is Public or Restricted. See Also: *Accepting/Declining Requests to Join a Community Group* on page 1185
- **Short Description**—The community group's description, as entered in the Short Description field of the group's properties.
- **Tags**—Tags associated with the community group.
- **Founded**—When the community group was created.
- **Members**—The number of users in the community group.

CommunityGroupList Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AllowGroupCreation** (Boolean)

  If the user has permission to create community groups and this property is set to True, the Create Groups link appears in the control.

  - **True**—Create Group link appears on the control.
  - **False**—Create Group link is hidden on the control.
- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **AvatarHeight** (Integer)

  The display height (in pixels) of the avatar in the results box.
- **AvatarWidth** (Integer)

  The display width (in pixels) of the avatar in the results box.

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DefaultUserID** (Long)
  The default User ID for this control to use if no matching dynamic parameter value is passed.
- **DisplayMode** (eDisplayMode)
  Select the way this control initially displays community group information. Choices are:
  - **Newest**—newly added community groups.
  - **MostPopular**—community groups with the most members.
  - **Name**—community groups sorted alphabetically by name
  - **MyGroups**—community groups to which the logged-in user belongs
  - **MyPendingGroups**—community groups to which the logged-in user has asked to join, but has not yet been accepted
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicUserParameter** (String)
  Gets or sets the QueryString parameter to read a user ID dynamically. To use the default user ID, leave blank.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Link** (String)
  Add a link to the group's profile page. This allows a user to click a link in the community group list and be taken to the group's profile page. The link includes these 2 variables.
  - **{0}**—group ID
  - **{1}**—group name

The link requires both variables. The Web form can be relative or absolute. Below is an example.

```
groupprofilepage.aspx?gid={0}&gn={1}
```

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  The Maximum number of items to fetch. 0 (zero) = unlimited.

- **ShowMySortingOptions** (Boolean)

  If this control is associated with a user and this property is set to True, the controls displays the following sorting options:

  - **My Groups**—a list of community groups to which the user belongs.
  - **Group Requests**—a list of community groups to which a user has requested to join, but has yet to be accepted.
  - **Group Invitations**—a list of community group that the user has been invited to join, but has yet to accept.

  When set to False, **Leave Selected Group** is the only option that appears.

  Depending on how the `DisplayMode` property is set, you may see additional sorting options.

- **ShowSortingOptions** (Boolean)

  If this control is used to display a general list of community groups and this property is set to `True`, the following sorting options appear.

  - **Newest**—recently added community groups
  - **Most Popular**—community groups with the most members.
  - **Group Name**—community groups sorted alphabetically

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

- **True**—Suppress wrap tags.
- **False** (default)—Allow wrap tags.

- **TagTemplate** (String)

  Add a path to another Web form to create links for the tag text. The path can be relative or absolute. By providing the path to CommunitySearch server control, a user viewing the list of groups can click a tag and search for other groups with the same tag. There are 5 parameters that are automatically added to the link's QueryString that let you pass information about tag.

  - **searchgrptag**—the tag's text for community groups.
  - **TagId**—the tag's ID.
  - **TagLanguage**—the tag's language.
  - **TagCount**—the tag's count. The tag's count is the amount of times a tag has been used.
  - **TagType**—the tag's type. The tag's type will be user or community group.

  In addition to these parameters, you can add your own by defining them in the path. When you do, these parameters will be appended to your parameters. See Also: *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245

- **TagTemplateTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

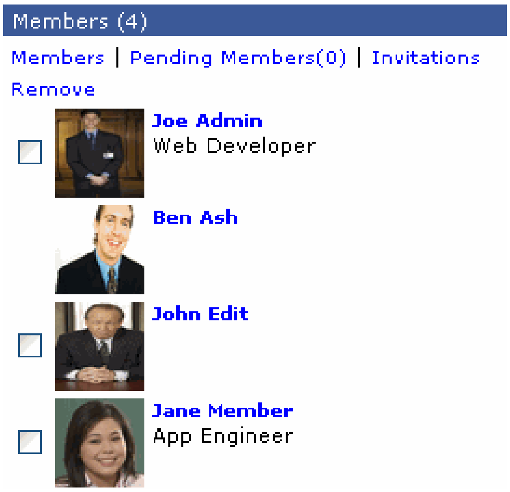
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

CommunityGroupMembers

The CommunityGroupMembers server control allows you display a list of members

- in a community group
- pending approval to join the group
- invited to join the group

In addition, if a logged-in user is the community group's administrator, assigned the Community Group Administrator role, or a site administrator, the user can approve pending members, remove members, and cancel invitations.



The following links appear on the CommunityGroupMembers Server Control when a community group's administrator or Ektron administrator is logged in and viewing the control.

- **Members**—Current members.
- **Pending Members**—Members who have asked to join the group, but have yet to be accepted. This link is used when access to the community group is restricted. See Also: *Accepting/Declining Requests to Join a Community Group* on page 1185
- **Invitations**—Members who were invited to join the group but have not accepted. This link is used when access to the community group is restricted.
- **Remove**—Removes member from community group.

CommunityGroupMembers Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AvatarHeight** (Integer)

  The display height (in pixels) of the avatar in the results box.

- **AvatarWidth** (Integer)

  The display width (in pixels) of the avatar in the results box.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultCommunityGroupID** (Long)

  The default community group ID for this control to use if no matching dynamic parameter value is passed.

- **DisplayMode** (eDisplayMode)
  Select whether this control displays a community group's current members or their pending members. Choices are:
  - **Members**—current group members
  - **PendingMembers**—users who asked or were invited to join the group
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a community group ID dynamically. To use the default community group ID, leave blank.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Link** (String)
  Add a link to the member profile page's Web form. This allows a user to click a link in the community group members list and be taken to a member's profile page. Two 2 variables used within the link represent the user's ID and name.
  - **{0}**—user ID
  - **{1}**— user name

  The link needs both variables. The Web form can be relative or absolute. For example:

  ```
  userprofilepage.aspx?gid={0}&gn={1}
  ```
- **LinkTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)
  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905
- **MaxResults** (Integer)
  The maximum number of items to fetch. 0 (zero) = unlimited.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

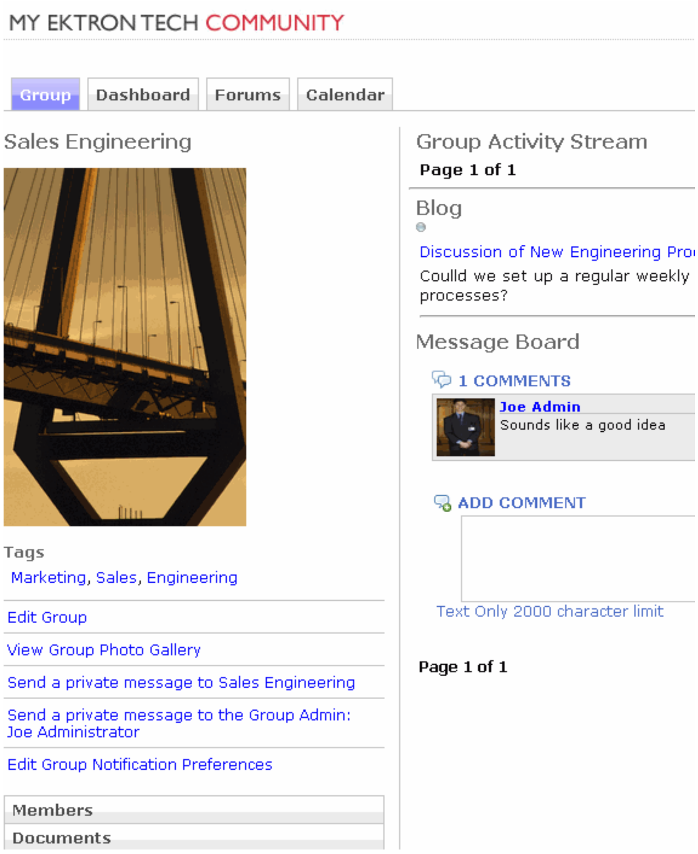
  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

CommunityGroupProfile

The CommunityGroupProfile server control displays the profile of a community group. You can see an example of the CommunityGroupProfile Server Control in the **Ektron Tech** site **> Community > Community Groups >** select any group. The profile includes:

- an image associated with the group
- a description of the group
- tags assigned to the group
- whether the group is Public or Restricted
- the date the group was founded
- location information
- group members
- group administrator

- an **Edit** link that lets you update profile information and group settings



CommunityGroupProfile Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultGroupID** (Long)

  The default community group ID for this control to use when no matching dynamic parameter value is passed.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a community group ID dynamically. To use the default community group ID, leave blank.
- **GroupAdminLink** (String)
  Add a link to the administrator's profile page. This lets a user click a link in the community group page's profile area and be directed to the administrator's profile page. Two variables in the link identify the administrator.
  - **{0}**—administrator's ID
  - **{1}**—administrator's name

  Both variables must be in the link. The Web form can be relative or absolute. Below is an example.

  ```
  adminprofilepage.aspx?aid={0}&an={1}
  ```
- **GroupAdminLinkTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TagTemplate** (String)
  Add a path to another Web form to create links for the tag text. The path can be relative or absolute. By providing the path to CommunitySearch server control, a user viewing the profile can click a tag and search for other groups with the same tag. Five parameters, which are automatically added to the link's QueryString, let you pass information about the tag.
  - **searchgrptag**—the tag's text for community groups
  - **TagId**—the tag's ID
  - **TagLanguage**—the tag's language
  - **TagCount**—the tag's count. That is, the number of times a tag has been used.
  - **TagType**—the tag's type: user or community group

  You can also add your own parameters by defining them in the path. If you do, these parameters will be appended to yours. See Also: *Tagging Content, Library Items, Users, and Groups with Keywords* on page 1245
- **TagTemplateTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ContentBlock

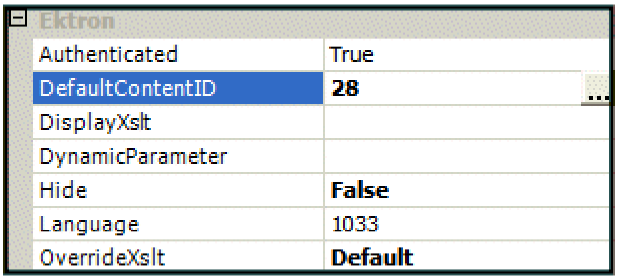
IMPORTANT: Starting from release 8.6, the ContentBlock server control was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the ContentBlock server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The ContentBlock server control displays the following types of content blocks on an Web page.

- **Static**—displays one specified content block
- **Dynamic**—displays the content block of the ID passed through a URL parameter
- **XML**—displays the content from the XML or XHTML code

Using a Static Content Block

A static content block displays one identified content block on a Web page. The following image shows a server control that retrieves content block ID=28 and displays it in the browser.



ContentBlock Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultContentID** (Long)

  The ID of a content block that appears where you insert this server control. If you don't know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

  NOTE: If you identify a content block that displays an Office document which will be published as HTML, make sure the template sets `<span>` tags to display the content as a block.

- **DisplayXslt** (String)

  Ignore for a non-XML content block.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Select **None - Use Default**. This parameter is used for dynamic content blocks.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

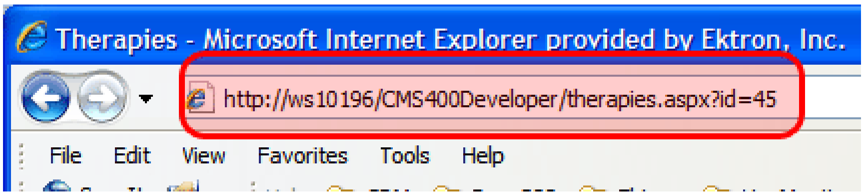
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

IMPORTANT: If you want to let content authors edit this content using Ektron's Edit in Context feature, this must be set to false.

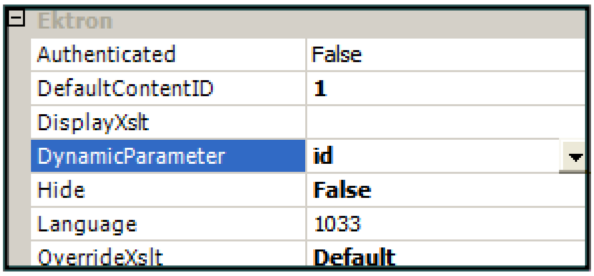
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Using a Dynamic Content Block

Use a dynamic content block to display a content block whose ID is passed through a URL parameter. You would use this server control with a dynamic template.



The following example uses the ContentBlock server control to pass the id as a URL parameter. When a user clicks a link that passes the content block ID as a URL parameter, that content block appears. If that content block is not available, content block 1 appears



The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

Dynamic ContentBlock Properties

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultContentID** (Long)
  The ID of a content block that appears where you insert this server control. If you don’t know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

  NOTE: If you identify a content block that displays an Office document which will be published as HTML, make sure the template sets `<span>` tags to display the content as a block.

- **DisplayXslt** (String)
  Ignore for a non-XML content block.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Select **id**. When you do, this server control uses the content block passed as a URL parameter.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

  IMPORTANT: If you want to let content authors edit this content using Ektron’s Edit in Context feature, this must be set to false.

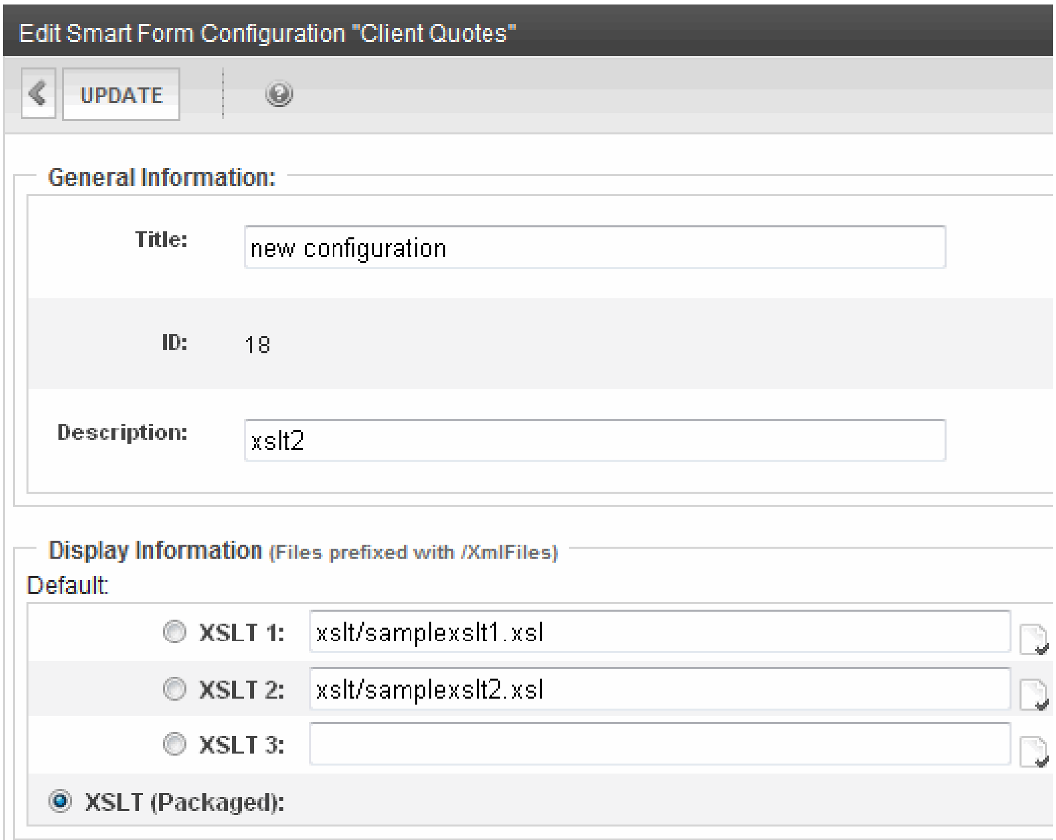
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

XML ContentBlock properties

Use an XML content block to display an XML content block on an Ektron Web page.

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DefaultContentID** (Long)
  The ID of a content block that appears where you inserted this server control if no other content block is identified, or is not available. If you don't know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. If you do not define the `DisplayXslt` property, the `OverrideXslt` property specifies an XSLT identified in the Edit Smart Form Configuration screen. See Also: *Working with Smart Forms* on page 423, Ektron KB article "HOW TO:Add acceptable XSLT files to the system"



WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  To make this content block dynamic, select **id**. When you do, this server control uses the content block passed as a URL parameter.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Retrieving the XML Structure of an XML ContentBlock

Retrieving the XML structure of XML content allows for greater control over developing XSLs. The following example shows how to retrieve the XML structure.

1. Open a new Web form.
2. Drag and drop a Content Block server control onto it.
3. Set the DefaultContentID to an XML content block.

   IMPORTANT: This does not work with HTML content blocks, as there is no XML structure to output.

4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to MultiLine.
6. It is also recommended that you set the width of the text box to at least 400 px.

   NOTE: On the code-behind page, add the following line.
   ```
   TextBox1.Text = ContentBlock1.EkItem.Html
   ```

7. Build the project.

8. View the form in a browser. The XML structure of the content block appears in the text box.

Using ContentBlock Programmatically

The following code displays a content block:

NOTE: Before adding these lines of code, drag and drop a literal box on your Web form.

```
Dim MyContentBlock As New ContentBlock
  MyContentBlock.DefaultContentID = 8
  MyContentBlock.Page = Page
  MyContentBlock.Fill()
  Literal1.Text = MyContentBlock.EkItem.Html
```

To display a content block with the content block title:

NOTE: Before adding these lines of code, drag and drop a 2 literal boxes on your Web form.

```
Dim MyContentBlock As New ContentBlock
  MyContentBlock.DefaultContentID = 8
  MyContentBlock.Page = Page
  MyContentBlock.Fill()
  Literal1.Text = MyContentBlock.EkItem.Title
  Literal2.Text = MyContentBlock.EkItem.Html
```

ContentFlagging

See Also: *Defining Flags for Content* on page 1239

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultContentID** (Long)

  The default content ID for this control to use when there is no matching dynamic parameter value passed.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a content ID dynamically. To use the default content ID, leave blank.
- **FlagImage** (String)
  Enter a path to an image that overrides the text in the `FlagText` property. When the image is clicked, the flag dialog appears.
- **FlagText** (String)
  Text for the link that is shown to allow flagging. For example, you might use "Click here to flag this content." The `FlagImage` property overrides this property. When the text link is clicked, the flag dialog appears.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ContentList

IMPORTANT: Starting from release 8.6, the ContentList server control was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the ContentList server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The ContentList server control displays a list of content blocks on a Web page. In contrast to a List Summary, where content must be in a specified folder, the ContentList server control displays content from any Ektron folder. Depending on the setting you choose for `DisplayXslt`, you can change information displayed for each content block.

When added to a template and visited, a ContentList Summary looks similar to the following.

The ContentList server control has the following options to display a content list.

- Define a content list in a content block's metadata. Then, assign that content block’s ID in the `DefaultContentID` property. See Also: *Server Control Reference* on page 1636

  When using this option, an administrator typically sets up the Workarea portion of the process. Then, a developer adds the server control to a Web form and assigns the content block ID and the metadata name to the appropriate properties. Because the content list is assigned to a content’s metadata, you can pass the content ID dynamically in a Web form and display a list for each content block you defined.

- Assign a comma-delimited list of content blocks to the `ContentIds` property. See Also: *Server Control Reference* on page 1636

  Using the `ContentIds` process, a developer adds the ContentList server control to Web form. Then, the developer defines a list of content IDs in the `ContentIds` property. If the server control or the list in the `ContentIds` property is deleted, it is not available and will have to be created again.

The following describes the ContentList properties.

ContentList Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **ContentIds** (String)

  A comma delimited list of content block IDs. See Also: *Server Control Reference* on page 1636

- **DefaultContentID** (Long)

  Set content ID value. When set, content IDs are generated from the MetaTag value for this content.

- **DisplayXslt** (String)

  Determines how information appears on the page.

- **None**—databind only
- **ecmNavigation**—lists the title of each content block See Also: *ecmNavigation Display Example* on page 1682
- **ecmTeaser**—lists the title of each content block plus the content summary. See Also: *ecmTeaser Display Example* on page 1682
- **ecmUnOrderedList**—sorts the list in no particular order. Shows the title and content summary
- **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Uses the QueryString parameter to read a content ID dynamically.

  - **None - Use Default**—use the default content ID list.
  - **ID**—reads a content block's ID dynamically.
  - **ekfrm**—reads a form block's ID dynamically.
- **GetAnalyticsData** (Boolean)

  Set this property to **True** if you want the following information for each content in the list. Returns **Content View Count**, **Content Rating**, **Content Rating Average**. Create your own XSLT styles to display this data.

IMPORTANT: This property only provides reliable data when the Business Analytics Feature is on. *Analyzing Content* on page 601.

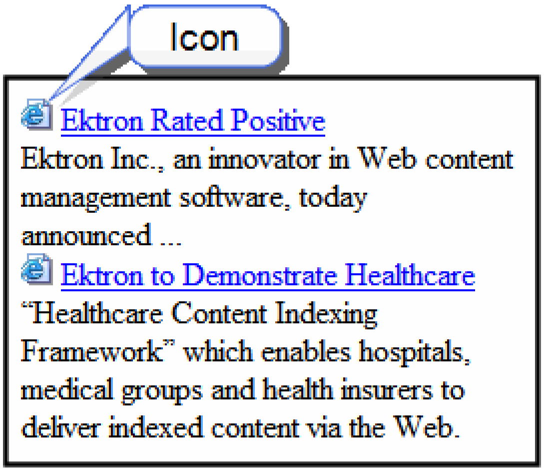
- **GetHtml** (Boolean)
  - **True**—retrieve and display content (html body) for all content blocks in the list summary. For example, to display content inside a Web server control such as a GridView.
  - **False**—Do not get and display HTML.
- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeIcons** (Boolean)

  Choose whether to display icons next to the content list's links.

IMPORTANT: This property works only when ecmSummary or ecmTeaser are used in the `DisplayXslt` property. When the `[$ImageIcon]` variable is used in an EkML file and that file is assigned to the `MarkupLanguage` property, this property acts as True.



- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

  See Also: *contentlist.ekml* on page 1907

  NOTE: If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

- **MetaTag** (String)

  Specify a Metadata definition whose type is Content Selector. When you do, the associated list of content items will appear where you place the server control.

  NOTE: You cannot insert other metadata types.

  This works with the `DefaultContentID` property. For more information about using metadata to assign a list of related content to a content item, see *Creating and Deploying a Related Content Definition* on page 375.

- **OrderByDirection** (Ektron.Cms.Controls.CmsWebService.ContentListOrderByDirection)

  Determines which direction to sort content determined by the `OrderBy` property.

  - **ascending**—items are arranged A, B, C or 1,2,3.
  - **descending**—items are arranged. Z,Y,X or 3,2,1.

  If sorting by date, descending puts the most recent first. When `ascending` is selected and the `OrderBy` property is set to `OrderOfTheIds`, the order of the IDs are preserved. When set to descending, the order is reversed.

- **OrderBy** (Ektron.Cms.Controls.CmsWebService.ContentListOrderBy)

  Sort the list by one of these values:

  - **Title**—alphabetically, by content title
  - **DateModified**—the last date content was modified
  - **DateCreated**—the date content was created
  - **LastEditorFname**—the last editor's first name
  - **LastEditorLname**—the last editor's last name
  - **OrderOfTheIds**—preserves content ID order based on `ContentIds` property
  - **ContentRatingAverage**—Business Analytics Content Rating
  - **ContentViewCount**—Business Analytics Content Views

- **Random** (Boolean)
  - **True**—randomly display one content block link from the content list. The content changes each time a user views the page.
  - **False**—display the content list normally.

NOTE: If you use a custom XSLT or EkML file, the type of content displayed can be manipulated. For example, if you use an EkML file that has the [$Html] variable in it, the actual content appears instead of a link. See Also: *Controlling Output with Ektron Markup Language* on page 1905 and *[$Html]* on page 1937

- **SuppressWrapperTags** (Boolean)

  This property is set to `false` because Ajax uses `<div>` tags to rewrite the region around the tag. You *cannot* change the value to `true`.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ContentReview

The ContentReview server control lets site visitors rate content on your site. Place this control on a template that displays content items or eCommerce products. For example, you place this control on a Master page and set its `DynamicParameter` property to ID. Then, when a Web form containing a content item or product passes its ID to the QueryString, a site visitor can use the control to record a review.

You can use the ContentReview server control as follows:

- Place a star-based scale on a Web page. Site visitors use the scale to rate a content item. Depending on the XSLT, they can also submit review comments.
- Display reviews and comments about a content item, or by a specific site or membership user.

See Also: *User-Ranking of Content* on page 587

NOTE: On a PageBuilder page, you can insert a ContentReview server control using the Calendar widget. See Also: *Widget Reference* on page 714. The eCommerce Product List server control also can display the star-based scale.

The following shows the ContentReview properties.

ContentReview Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (Boolean)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultContentID** (Long)

  The ID of a content block being rated by this server control. If you don't know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DisplayXslt** (String)

  Select the type of review to display, or enter the path to a custom XSLT. For additional information, see *Using the DisplayXSLT Property* on page 1715. Choices are:

  - **Ajax 5 Stars**—a 5 star rating system utilizing Ajax for display.
  - **Ajax 5 Stars Comment—**a 5 star rating system utilizing Ajax for display. When you hover over the stars, a comment box appears. Comments that are added are submitted via an Ajax call.
  - **Ajax 5 Stars with Increments**—a 5 star rating system with half star increments that utilizes Ajax for display.
  - **5 Stars**—a 5 star rating system that allows visitors to add text reviews of content.
  - **5 Stars with Increments**—a 5 star rating system with half star increments that allows visitors to rate and add a text review of the page's content.
  - **Review List—**displays a list of reviews for content or a user. See Also: *Server Control Reference* on page 1636 and *Server Control Reference* on page 1636.
  - **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DynamicParameter** (String)
  To make this content review control dynamic, select **id**. When you do, this server control is attached to the content block passed as a URL parameter.
- **DynamicUserParameter** (String)
  When using this control to retrieve a user's reviews, set this property to **UserId** to make the user's ID dynamic.
- **GetReviews** (ReviewTypes)
  Returns a list of reviews for content or a user.
  - **None**—do not return reviews.
  - **Content**—returns reviews based on the content ID provided in the `DefaultContentID` property.
  - **User**—returns reviews based on the User ID provided in the `UserId` property.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **MaxReviews** (Integer)
  The number of reviews to retrieve if the `GetReview` property is set to Content or User. 0 (zero) = unlimited.
- **Moderate** (Boolean)
  Setting this property to True allows Ektron users to moderate reviews. See Also: *Moderating Reviews* on page 588
- **RatingsMinimum** (Integer)
  Sets a minimum number of reviews before displaying the average rating. When set to 0 (zero), the average rating appears as soon as content is rated.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **UserID** (Long)
  The user ID for which to get reviews. If left blank, reviews from all users are returned. If a user ID is specified, only reviews for that user are returned.

  IMPORTANT: The `GetReviews` property must be set to User for the control to use this property.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.

- **Span** (default)—designate an inline portion of an HTML document as a span element.
- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

Using the DisplayXSLT Property

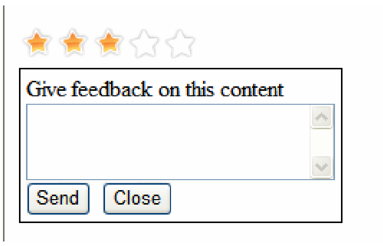
Reviews communicate your site community's feelings about a product or article. They also empower community members by giving them a voice. The ContentReview server control’s `DisplayXSLT` property manages the display of reviews on your site. The control can display reviews for specific content or a specific user.

The following list shows an example of each XSLT as it appears on a Web page with a description and the XSL file being used. The files are located in *`webroot\siteroot`*`\Workarea\Xslt`.

WARNING! If you want to edit an existing file, you are strongly urged to make a copy, change its name and move it outside of your site's Workarea folder. If you make changes to this file and do not move it out of the Workarea, this file and the changes will be lost when you upgrade. The files are copies of files built, transformed and used, internally.

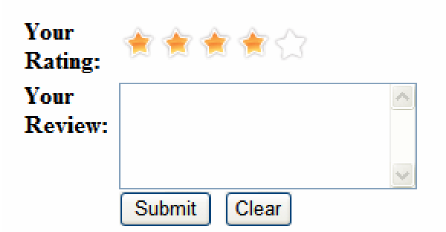
- **Ajax 5 Stars**—`rating5star.xsl`—A 5-star rating system utilizing Ajax for display.

- **Ajax 5 Stars Comment**—`rating5starComment.xsl`—A 5-star rating system utilizing Ajax for display. When you hover over the stars, a review box pops-up. Visitor comments are submitted via an Ajax call.

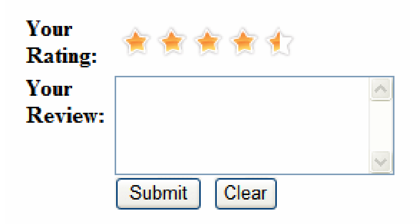


- **Ajax 5 Stars with Increments**—`rating5starinc.xsl`—A 5-star rating system with half-star increments that uses Ajax for display.

- **5 Stars**—`rating5starAddEdit.xsl`—A 5-star rating system that lets visitors add text reviews of content.



- **5 Stars with Increments**—`rating5starincAddEdit.xsl`—A 5-star rating system with half star increments that allows visitors to add text reviews of content.



- **Review List**—`ratinglist.xsl`—Displays a list of reviews for content or a user.

Retrieving the XML Structure of a ContentReview

Retrieving the XML structure of XML content allows for greater control over developing XSLs.

1. Open a new Web form.
2. Drag and drop a ContentReview server control onto it.
3. Set the `DefaultContentID` property.
4. Drag and drop a textbox on the Web form.
5. Set its `TextMode` property to **MultiLine**. You should set the width of the text box to at least 400px.
6. On the code-behind page, add the following line.
7. `Textbox1.Text = ContentReview.XmlDoc.InnerXml`
8. Build the project.
9. View the Web form in a browser. The XML structure of the collection appears in the textbox.

CurrencySelect

The CurrencySelect server control lets a customer select the monetary type he will use to make purchases. When a currency is selected, eCommerce server controls use it for that order. If the customer closes the browser, the currency needs to be selected again the next time the site is visited.

For a currency to appear in the CurrencySelect server control, enable it in the **Workarea > Settings > Commerce > Currencies** screen. See Also: *Configuring Currencies* on page 1307

CurrencySelect Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **CustomXml** (Code-behind Only) (String)
  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

```
<root><customXml>custom-xml-inserted-here</customXml></root>
```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.. By default, the control uses `CurrencySelect.xsl`. This file is located in *siteroot*`\Workarea\Xslt\Commerce`

IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

DesignTimeDiagnostic

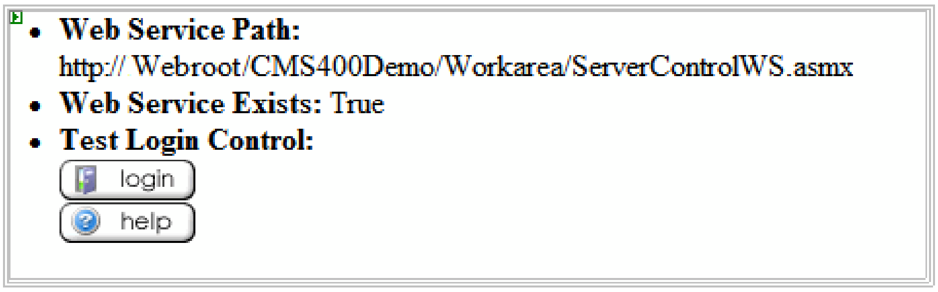
IMPORTANT: This control is for use in design-time only. Nothing is rendered at run-time.

The DesignTimeDiagnostic server control is used to verify the connection to Ektron's server controls Web service. When added to a Web form, this control provides the following information:

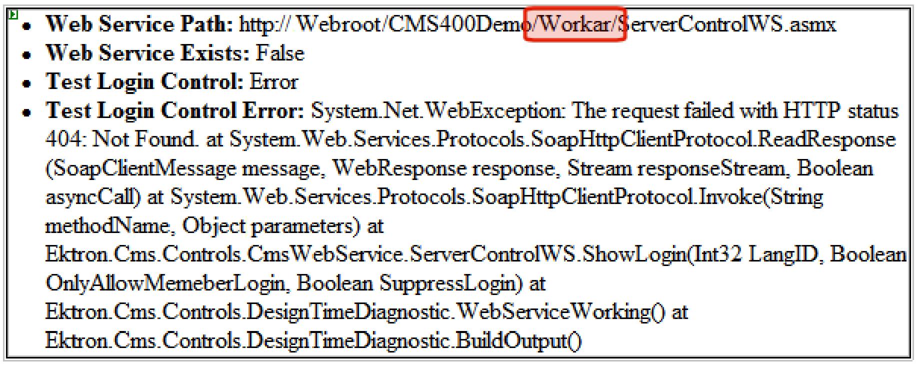
- **Web Service Path**—the server control Web service path in your web.config file.
- **Web Service Exists**—calls a method in the Web service that returns **True** if the Web service exists. If it does not, it returns **False**.
- **Test Login Control**—displays a Login server control to show that the Web service is connected and working properly. When not connecting properly, an error message appears.

The DesignTimeDiagnostic server control has no definable Ektron properties.

The following example shows the control on a page connected to the Web service.



The following example shows the control on a page not connecting to the Web service. Note that the path is not the correct path. It should be:
`http://192.168.0.82/`*`siteroot`*`/Workarea/ServerControlWS.asmx`



Directory

The Directory server control lets you customize the behavior of the taxonomy feature. You place this control on any Web form to display a taxonomy. See Also: *Using Taxonomies* on page 777

NOTE: To display a taxonomy on a PageBuilder page, use the taxonomy summary widget.

Improving Taxonomy Performance

To minimize taxonomy's impact on the performance of your production server, follow these guidelines.

- Use the default page size (50). If you need to customize page size, use Ektron's [Developer Reference Sample SiteAPI](), but do not increase it above 800.
- For large databases, do not increase the value of the `TaxonomyDepth` property above 1. Changing this value dramatically slows down your production server's performance. However, you can increase depth on your staging server for testing purposes.

Directory properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AddItemFolderID** (Long)

  Define the Ektron folder ID where content is stored when an item is added to the taxonomy via the Add Asset link or the Add Content link. To enable adding content items via the Directory server control, you must use an EkML file with the `[$AddAsset]` and `[$AddArticle]` variables. See Also: *taxonomy.ekml* on page 1913

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

  NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a content ID dynamically.

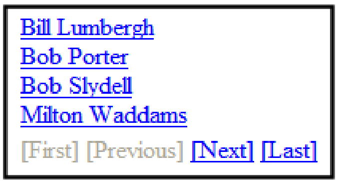
- **EnableAjax** (Boolean)

  Set to true to enable Ajax searches. When enabled, the `MaxResults` property determines the maximum number of results per page.

  - **True**—Enable Ajax Search (default value)
  - **False**—Original HTML Search

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen. See example below.

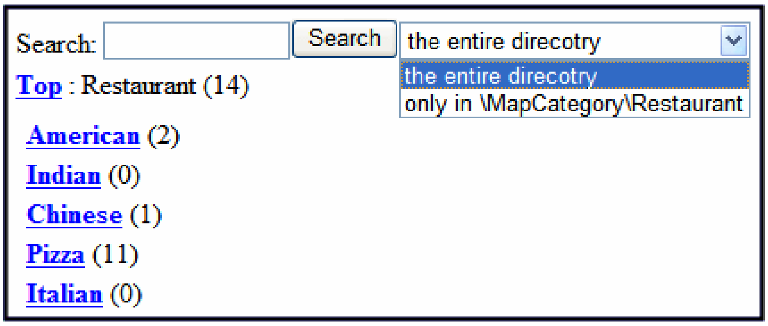
  

  So, for example, if a taxonomy has 9 items and `MaxResults` is set to 3, the screen displays only the first 3 items. When the site visitor clicks **[Next]**, he sees items 4, 5 and 6, and so on.

  IMPORTANT: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **EnableSearch** (Boolean)

  Set to **True** if you want a search box (shown below) to appear above this taxonomy display. A site visitor can use the search to find content within a taxonomy/category that includes terms of interest. To suppress the search box, set to **False**.

- **GetAnalyticsData** (Boolean)

  Set this property to **True** if you want the following information for each content in the list. Returns **Content View Count**, **Content Rating**, **Content Rating Average**. Create your own XSLT styles to display this data.

  IMPORTANT: This property provides reliable data only when the Business Analytics Feature is enabled. *Analyzing Content* on page 601.

- **Hide** (Boolean)

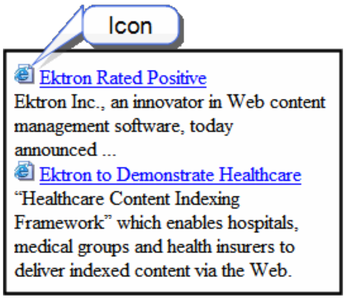
  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **IncludeIcon** (Boolean)

  Choose whether to display icons next to the taxonomy's links.

This property only works when ecmSummary or ecmTeaser are used in the `DisplayXslt` property. When the `[$ImageIcon]` variable is used in an EkML file and that file is assigned to the `MarkupLanguage` property, this property acts as True.



  - **True**—Show icons
  - **False**—Hide icons

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

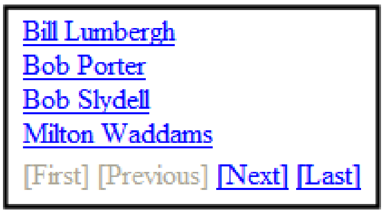
  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

  See Also: *taxonomy.ekml* on page 1913

  NOTE: If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control. If you set this value to zero (0), the maximum is 50. To let site visitors view more than the maximum but limit the amount of space being occupied, enter the maximum number of results per page here. Then, set the `EnablePaging` property to **True**. If you do and more than the number of `MaxResults` are available, navigation aids appear below the last item to help the site visitor view additional items. See following example below.



- **OrderItemsBy**

  Specify the sort order of results. Choices are:

  - **taxonomy_item_display_order**—the order of taxonomy items as set in the Workarea. For additional information, see *Reordering Content Assigned to a Taxonomy Category* on page 806.
  - **content_title**—the content is listed in alphabetical order by title.
  - **date_created**—content is listed in the order by which it was created.
  - **last_edit_date**—content is listed in order, by its last edit date.
  - **content_rating_average**—Business Analytics Content Rating
  - **content_view_count**—Business Analytics Content Views

  Use the the `SortDirection` propertyYou can to specify the direction of the items with the `SortDirection` property.

- **PreserveUrlParameters** (Boolean)

  Set to `true` if this control needs to preserve the URL parameters on the page. For example, if a server control displays a list of content items, the URL parameter passes to the control the template names and `id` values that the template expects. Set to `false` if the server control does not need to pass the URL parameters to the server control. The default value is `false`.

- **Recursive** (Boolean)

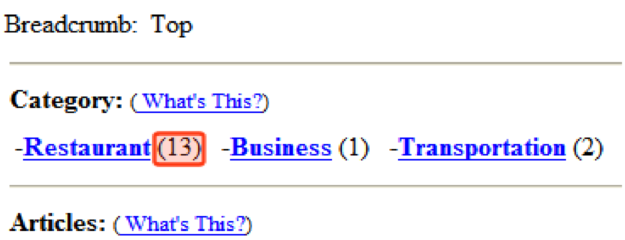
  Set to True to include child folders of the parent folder.

- **ShowAllChecked** (Boolean)

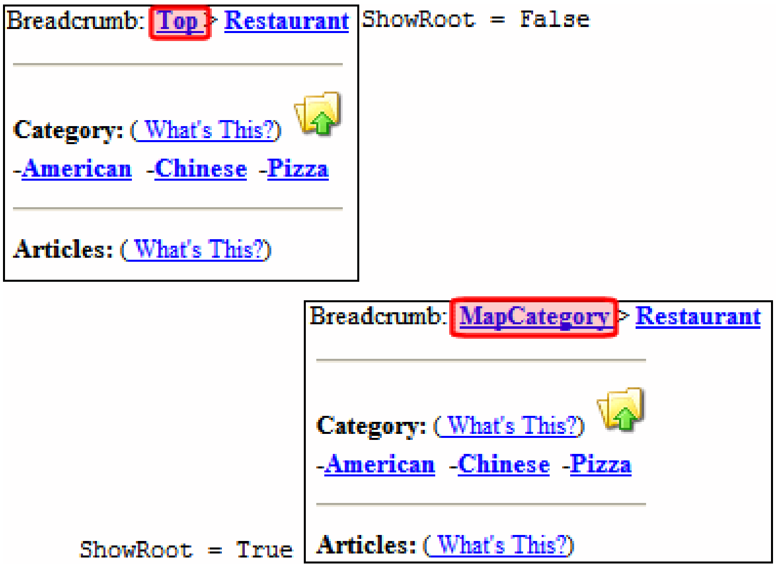
  When set to True, a check box appears in the Show All check box.

- **ShowCount** (Boolean)

  Indicates if the number of taxonomy items appears next to each category when displayed in the website. (See example below.) Default value is false.



- **ShowRoot** (Boolean)
  - **False—Top** represents the first node of the taxonomy path
  - **True**—the *name* of the taxonomy path's first node appears instead of **Top**



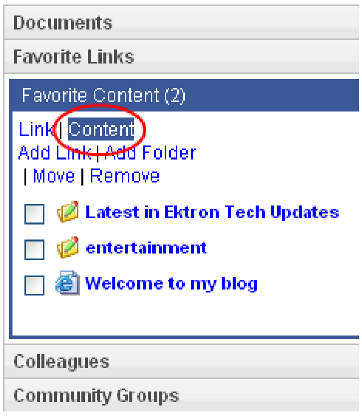
- **SortDirection** (String)
  Select the direction of the `ItemSortOrder` property. Choose Ascending or Descending.
- **TaxonomyCols** (Integer)
  Enter the number of columns in which this taxonomy/category will appear on the page.
- **TaxonomyDepth** (Integer)
  Enter the number of taxonomy levels to retrieve below each taxonomy/category if you are accessing a taxonomy's XML using code-behind. For example, if the taxonomy is **Businesses > Restaurants > Pizza**, and you set **Taxonomy Depth** to **2**, only Business and Restaurants are available in code-behind. This setting has no effect on the display generated by the Directory server control, which always displays only one level below the current. To retrieve all categories for a taxonomy recursively, enter -1. The default value is 1.

  IMPORTANT: For a live site, leave this value at **1**. Increasing this value can slow down your live Web server. However, for testing on a staging server, you can increase the depth.

- **TaxonomyId** (Long)
  Enter the ID number of the taxonomy or category to appear in this server control. If you don't know the number, click the button and navigate to the taxonomy or category.
- **TaxonomyItemCols** (Integer)
  Enter the number of columns in which this taxonomy/category items (articles) will appear on the page.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Favorites

The Favorites server control displays a list of Ektron content and external Web links (URLs) that a user has designated as favorite content. Within the control, Ektron content and URLs appear in separate lists. To view favorite content, click **Content**. To view a list of external URLs, click **Link**.



To learn about designating Ektron *content* as a favorite, see *SocialBar* on page 1845.

Adding a URL to Your Favorites

1. Log in and navigate to the profile page that hosts the Favorites control.
2. Click **Add Link**.
3. In the **Name** field, add a name for the URL link.
4. In the **Link** field, add the URL.
5. In the **Description** text area, add a description for the URL. This is optional.
6. Click **OK**.

After a URL is added, it appears on the control's **Links** list.

You also can add a URL to your Favorites by clicking the **Add to Favorites** link on the Social Bar server control. See *Server Control Reference* on page 1636.

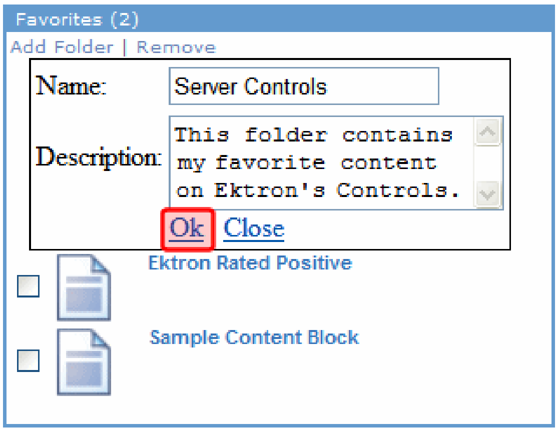
Grouping Favorites by Folder

The `DisplayMode` property controls whether a user’s Favorites are displayed as a basic list, or if they can be organized in folders. For example, a user groups all content created by a certain author in a folder with that author’s name. If you add a folder to a user’s favorites, content in the folder appear in the **Content** list; URLs in the folder appear in the **Links** list.

To move a Favorite to a folder:

1. Make sure the Favorites server control's `DisplayMode` property is set to **Directory**.
2. Log in to the website.
3. Navigate to your profile page or the page the contains the Favorites server control.
4. In the Favorites server control, click **Add Folder**.
5. Enter a **Name** and **Description** for the folder.

6. Optionally check one or more favorite items then click **OK**.



7. Click **Move** on the Favorites server control.

8. Select a folder to which the items will be moved.

9. Click **OK**. A dialog box appears asking you confirm moving the items. You can find the Favorite content in the folder. Click the folder to see all content in that folder.

Deleting a Favorites Folder

WARNING! Deleting a folder also deletes all content links and URL links in the folder. If you want to retain the links, move them out of the folder before deleting it. To remove a link from a folder, click the folder, check the link, and click **MoveUp One Level**. Deleting a folder also deletes all of its subfolders.

1. Navigate to your profile page or a page the contains a Favorites server control.
2. In the **Favorites** section of the screen, click **Edit Folder** ( ) next to the folder's title. A dialog box appears.
3. Click **Delete**. A confirmation box appears.
4. Click **OK**. The folder is deleted.

Favorites Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultUserID** (Long)

  The default user ID for this control to use when there is no matching dynamic parameter value passed.

- **DisplayMode** (eDisplayMode)

  Select the way this control displays community group information. Choices are:

  - **List**—shows a list of Favorites sorted in alphabetical order.
  - **Directory**— groups favorites by folder. If this selection is chosen, the following menu items are added to the control:
  - **Add Folder**—allows a user to add a sub folder.
  - **Move**—allows a user to move content to a folder. This item only appears if at least one folder exists. See Also: *Grouping Favorites by Folder* on page 1724

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

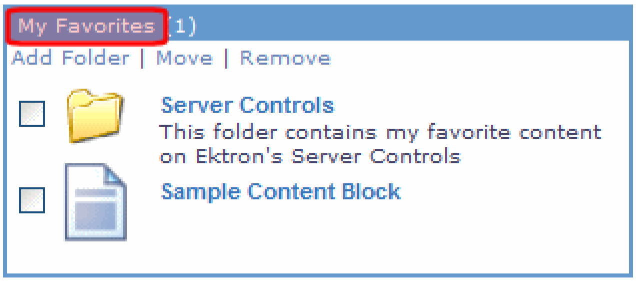
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a user ID dynamically. To use the default user ID, leave blank.

- **FavoritesTitle** (String)

  The title shown at the top of the control.



- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)(missing snippet link)
- **Link** (String)

  Enter a link to the content Web page. This allows a user to click a link in the Favorites control and be taken to the content.

  - **{0}**—content ID
  - **{1}**—content language
  - **{2}**—content title

  The link must have all 3 variables. The Web form can be relative or absolute. Below is an example.

  ```
  contentpage.aspx?cid={0}&lang={1}&title={2}
  ```

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  The Maximum number of items to fetch. 0 (zero) = unlimited.

- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

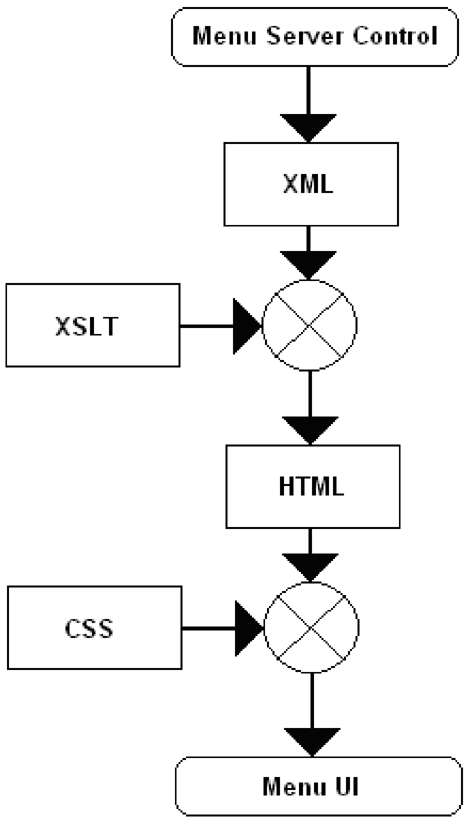
  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Flex Menu

IMPORTANT: Starting from release 8.6, the Flex Menu server control was replaced by the FrameworkUI: <ektron:MenuView> templated server control. If you are already using the Flex Menu server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The Flex Menu server control displays a menu on a Web form. A Flex Menu creates XML, so you can modify its behavior using an XSLT file, and change its appearance using a cascading style sheet (.css) file.



Before you can use this server control, you must create one or more menus in the Workarea. See Also: *Using Menus* on page 753, *Contrasting Menu Server Controls* on page 775

This section also contains the following topics.

Working with the Flex Menu Xslt File

This section explains some non-intuitive elements of the *.xslt file.

- MenuFragment

  ```
  <xsl:when test="/MenuDataResult/Info/menuFragment='false'">
  ```

  A flag that indicates the XML data is not complete. Instead, it’s a fragment that begins deeper than the top level (for example, a submenu fragment).

  Because the data is incomplete, the XSLT processes the fragment differently. For example, don’t generate JavaScript startup code.

- menuConst

  ```
  <xsl:attributename="id"><xsl:value-ofselect="$menuConst"/>0_
  ekflexmenu</xsl:attribute>
  ```

Each menu generates several elements, which the client code (JavaScript) accesses via a unique ID. For example, JavaScript needs to identify the selected submenu or item when a user clicks on an element.

`menuConst` is only used is when creating elements without a corresponding XML block, such as when creating a structure to hold the menu.

- #NoScroll

  ```
  <xsl:attribute name="href">#NoScroll </xsl:attribute>
  ```

  `NoScroll` is sent to the `href` portion of a link when there is nothing to put there (for example, when the link is supposed to run JavaScript).

  `NoScroll` prevents the page from refreshing, going to another page, or scrolling when it should not.

- event

  ```
  <xsl:attribute name="onkeydown">returnekFlexMenu.menuBtnKeyHdlr
  (event);</xsl:attribute>
  ```

  To make the xslt cross-browser compatible, it must support different methods of obtaining/passing the event object. In this example, the global event object is passed to the handling function.

  NOTE: `event` corresponds to `window.event.` `window.` is implied.

How Flex Menu Determines Which Item is Selected

The Flex Menu server control can select (highlight) options in a Flex menu as site visitors navigate around the website. For example, a site visitor arrives at a Web page through a link in an email. If the QueryString matches the an item in a Flex menu, the item is shown as selected.

Below is the logic the Flex menu uses to decide when a menu item should show as selected. The list is presented in the order in which the code checks to see if an item should be highlighted.

If any menu item is selected, its parent menu is marked selected. If any menu is selected, all ancestor menus are selected. When all tests have been performed and no matches are found, the Flex menu is rendered with no items selected.

NOTE: As soon as one condition is satisfied, the item is shown as selected and the testing stops.

NOTE: Steps 2 through 8 are each repeated recursively throughout the menu data hierarchy until either a match is found or the end is reached. If there are no matches for a test, the control continues with the next one.

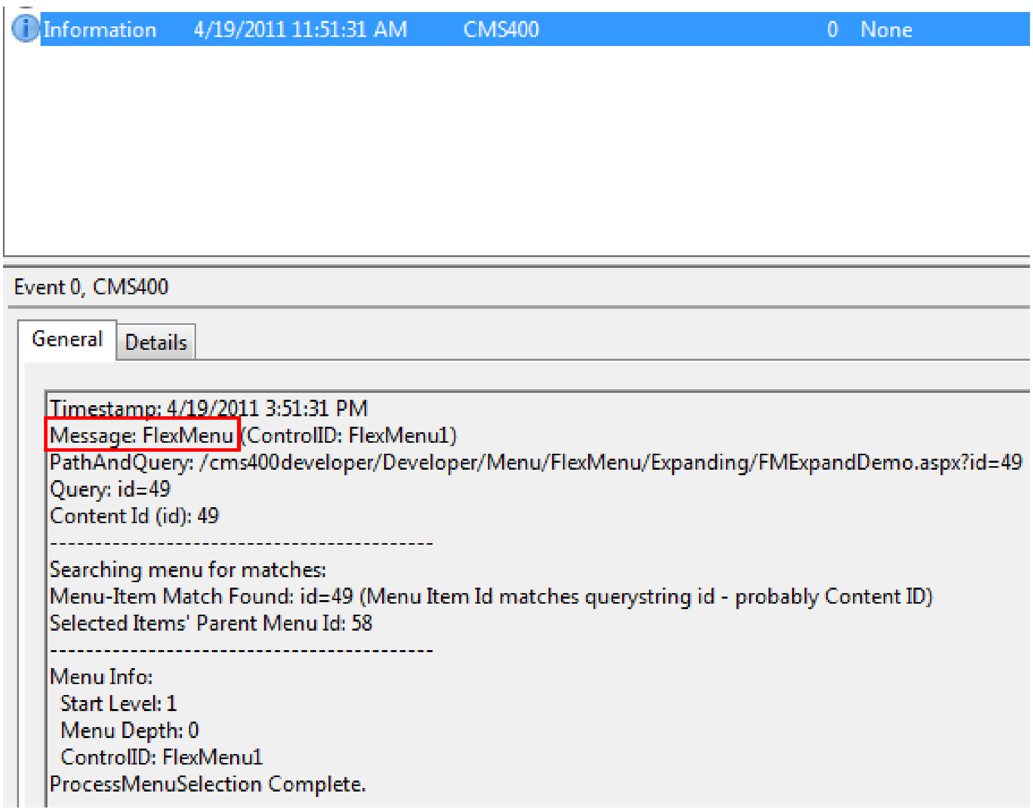
1. Inspects the QueryString to see if the `ekxmensel` parameter is present with a matching menu node ID. This parameter is used to specify the exact node a user clicked. The node, its parent, and ancestor menus are all marked as selected.
2. Inspects the QueryString to see if a Content ID parameter value matches a menu item. If the Content ID in the QueryString matches a menu item, it is highlighted. For example, the QueryString includes `ExamplePage.aspx`**`?id=123`**, and a menu item links to Content ID 123.
3. Inspects the QueryString to see if a Form ID parameter value matches a menu item. If the Form ID passed in the QueryString matches a Flex menu item, it is highlighted. For

example, the QueryString includes `ExamplePage.aspx`**`?ekfrm=456`**, and a menu item links to Form ID of 456.

4. Inspects the QueryString for a direct match with a menu item link. If there is a match, the menu item is selected. For example, if the QueryString has `ExamplePage.aspx` and there is an item on the menu that matches, the menu item is shown as selected.
5. Inspects the QueryString for a `id`, `ekfrm` or `pageid` parameter. If one is found, the control looks for a folder association between submenus and the folder that contains the object with the given ID. If the association exists, the menu item is shown as selected.
6. Inspects the QueryString to see if there is a direct match with a menu button link. If there is a match, the menu button is selected. For example, the QueryString has `ExamplePage.aspx` and there is a button on the menu that matches.
7. Inspects the QueryString to see if there’s a template association with the filename. If there’s a match, the menu item is shown as selected.
8. Inspects the QueryString for the `id` or `ekfrm` parameter and whether a value greater than zero is associated with it. If so, the control checks menu buttons for use of `LinkIt.aspx`. If a button is using `LinkIt.aspx` and either `id` or `ekfrm` parameter matches, the menu button is selected.

Analyzing Flex Menu's Selection of Menu Items

The Flex Menu server control performs a complex sequence of tasks to determine which menu option to select. If you are unsure of a Flex Menu's behavior, you can view a log that lists the reasons for a menu selection. Use the log to troubleshoot issues with a Flex Menu.



Setting Up Log of Flex Menu Information

Follow these steps to set up the ability to view a log of Flex Menu display information.

1. Open your `site root/web.config` file.
2. Under `system.diagnostics`, set `LogLevel` to **4**. Save and close web.config.

```
<system.diagnostics>
  <switches>
    <!-- Determines the level of messages that are logged
      1 = Error:  Only Errors are logged.
      2 = Warning:  Only Warnings and Errors are logged.
      3 = Information:  Only Informationals, Warnings, and Err
      4 = Verbose:  Everything is logged.

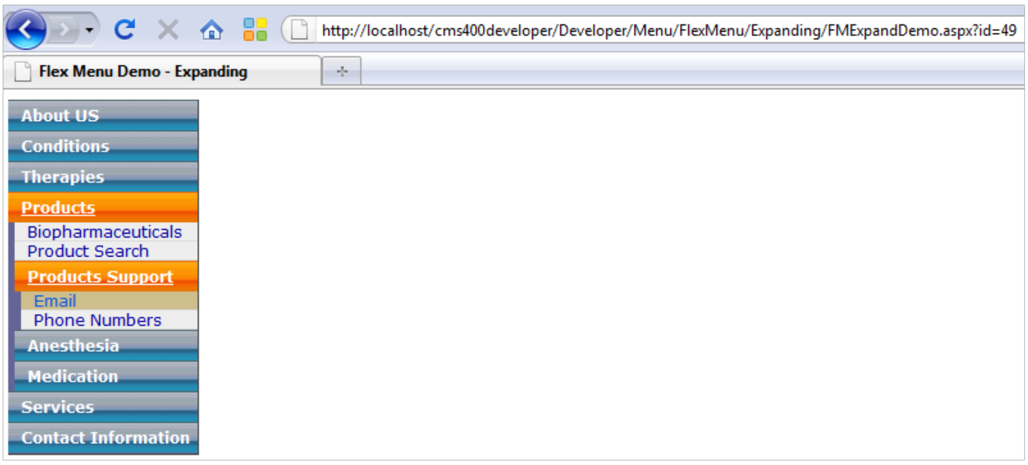
      NOTE: you can configure where each message level is log
    -->
    <add name="LogLevel" value="4" />
  </switches>
</system.diagnostics>
<ektronCommerce>
  <add key="ek_ecom_ComplianceMode" value="false" />
  <!-- This is used only when compliance mode is on, and cann
  <add key="ek_ecom_PasswordHistory" value="4" />
```

3. Edit the .aspx or .ascx page that hosts the Flex Menu control.
4. Set the control's `LogInfo` property to **true** and save the page.

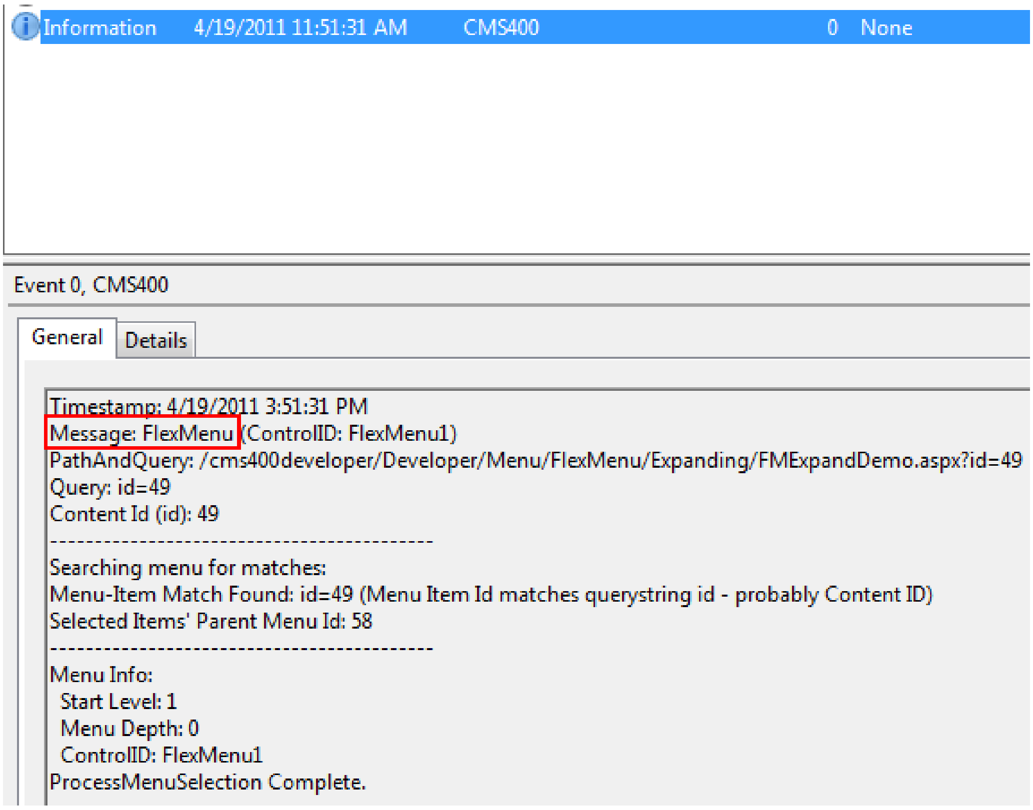
```
<CMS:FlexMenu ID="FlexMenu1" LogInfo="True" runat="server" />
```

NOTE: It may be helpful to temporarily disable the menu's cache by setting `CacheInterval="0"`.

5. Refresh the browser that contains the Flex Menu you edited in the Step 4.



6. Using the Windows Event Viewer, look for the newest information-level event that contains **Message: Flex Menu** (under the timestamp line).



The event message identifies the reason the menu node was selected. Or, if no matches were found, the message indicates that nothing is selected.

Flex Menu Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (Boolean)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AutoCollapseBranches** (Boolean)
  - **True**—whenever a new submenu opens, all other submenus close.
  - **False**—other submenus remain open when a new one opens.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultMenuID** (Long)

  The ID of a menu that appears where you insert this server control if no other menu is identified or available. If you don't know the ID number of the menu, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

NOTE: If you want to change the Default menu's Starting menu, use the StartMenuID property.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. If nothing is specified, the menu is output as raw XML. Flex menus are designed to use the xsl file to control the menu's behavior, and the .css file to control its display. Ektron provides several sample menus, and each has an xslt file. If this is a new menu, you may find it easier to copy and edit an xslt file provided with a sample menu. See Also: *SampleMenu* on page 1783

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **EnableAjax** (Boolean)

  Set to **True** to enable Ajax, which only downloads sub-menus as needed.

- **EnableMouseOverPopup** (Boolean)
  - **True**—submenus appear as soon as the cursor moves over them.
  - **False**—submenus only appear if a site visitor clicks them or a keyboard equivalent.
- **EnableSmartOpen** (Boolean)

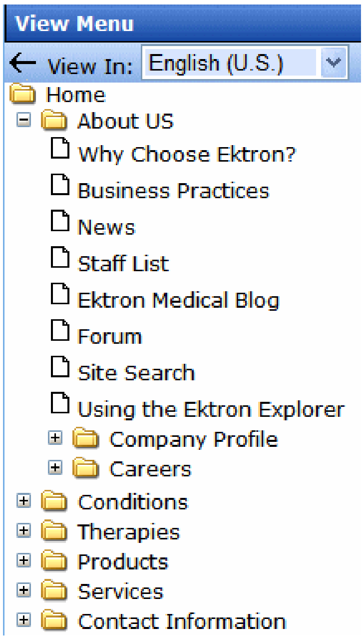
  Lets you prevent submenus from opening by default. Under some circumstances, such submenus look cluttered.

  - **True**—submenu can open automatically. To learn how to do this, see *Assigning Folders or Templates to a Menu* on page 772.
  - **False**—even if all required conditions are present, submenus on a Flex Menu do not automatically open.
- **IncludeJS** (Boolean)
  - **True**—load the menu's JavaScript.
  - **False**—ignore the menu's JavaScript. This would be useful if you redefine the menu's output with an XSLT.
- **MasterControlId** (String)

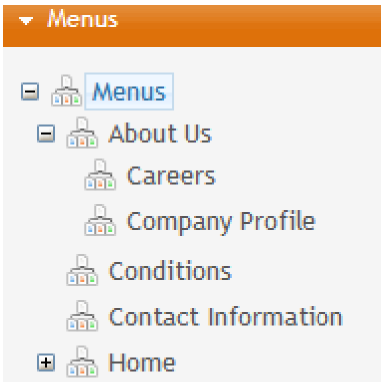
  Only use this property if you are setting up a master/slave menu relationship, and this menu is the slave. If both are true, enter the ID of the master menu.

- **MenuDepth** (Integer)

  To let site visitors browse through all menu levels, enter zero (0). To restrict site visitors to a menu level, enter the number of the lowest level. In the following example, if you set this property to **1**, a site visitor can browse through the **About Us** menu options but would not see the level 2 options (**Company Profile** and **Careers**).



- **StartCollapsed** (Boolean)
  If you set to **True**, when the menu first appears, all submenus are closed.
- **StartLevel** (Integer)
  Enter a number to indicate the level at which you want this menu to display when it first appears. To begin the menu display at the root level, enter zero (0). In the following example, the **Home** folder is level 0. The others are level 1.



  A site visitor can click a menu option to navigate to folders below the displayed level.

  NOTE: If you set a StartMenuID, the StartLevel property is ignored.

- **StartMenuId** (Integer)
  Use this property to have the default menu begin somewhere other than its root. That is, at any submenu under the default menu. For example, menu ID 46 (Products) is the default menu. However when that menu displays, you only want to show its submenus, beginning with Products Support (ID 58). In this case, enter **46** into the `DefaultMenuID` property and **58** into the `StartMenuID` property.

  NOTE: If you set a StartMenuID, the StartLevel property is ignored.

- **Stylesheet** (String)

  Enter the style sheet that will determine the appearance of the menus. Flex menus use an .xsl file to control their behavior, and a .css file to control their display. Ektron provides several sample menus, and each has a .css file. If this is a new menu, you may find it easier to copy and edit a .css file provided with a sample menu. See Also: *SampleMenu* on page 1783

- **SuppressAddEdit** (Boolean)

  When set to **True**, suppress the Add and Edit buttons on the menu when a user is logged in to Ektron. The default is False.

  - **True**—suppress the Add and Edit button when a user is logged in to Ektron.
  - **False**—show the Add and Edit buttons when a user is logged in to Ektron.

- **SuppressWrapperTags** (Boolean)

  This property is set to `false` because Ajax uses `<div>` tags to rewrite the region around the tag. You *cannot* change the value to `true`.

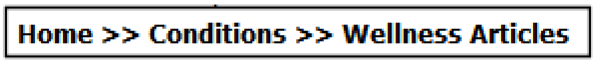
- **WrapTag** (String)

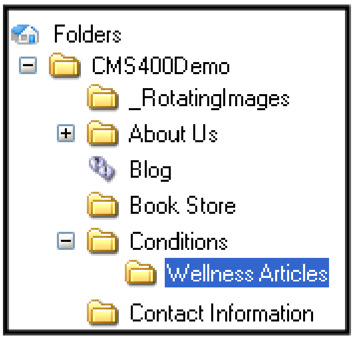
  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

FolderBreadcrumb

Use a FolderBreadcrumb server control to display Sitemap breadcrumbs. This trail typically consists of the current content's folder path. For example, the FolderBreadcrumb below matches the content's folder structure.





The FolderBreadcrumb server control does not read your folder structure and display its path. Instead, administrators define a folder's breadcrumb trail on the Folder properties > **Breadcrumb** tab.

FolderBreadCrumb Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AddContentTitleToBreadcrumb** (Boolean)

  When set to **true**, the content title is added to the end of the breadcrumb path, as shown below.

  Home > Content > Content_Title

  By default, the value is set to **false**. In that case, the breadcrumb path looks like this.

  Home > Content

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DefaultContentID** (Long)

  Display the breadcrumb trail for the folder in which the given content ID resides. To use this property, breadcrumb information for a folder must be defined in the Workarea > [Specified Folder] > Folder properties > Breadcrumb tab.

- **DefaultFolderID** (Long)

  The folder ID for which you want the breadcrumb trail to display. If a DefaultContentID is given, it overrides this property. To use this property, breadcrumb information for a folder must be defined in the Workarea > [Specified Folder] > Folder properties > Breadcrumb tab.

- **DisplayStyle** (DisplayStyles)

  Indicate how to display the breadcrumb trail: horizontally or vertically. The default is Horizontal.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a content ID dynamically.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.

  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **Mode** (Modes)

  Lets you make the breadcrumb trail appear as non-hyperlinked plain text.

  - **Normal** (normal)—breadcrumb trail is hyperlinked
  - **DisplayOnly**—breadcrumb trail is plain text
- **Separator** (String)

  Enter one or more characters to separate the items in a breadcrumb trail on this Web form. The default character is the greater than sign (**>**).
- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

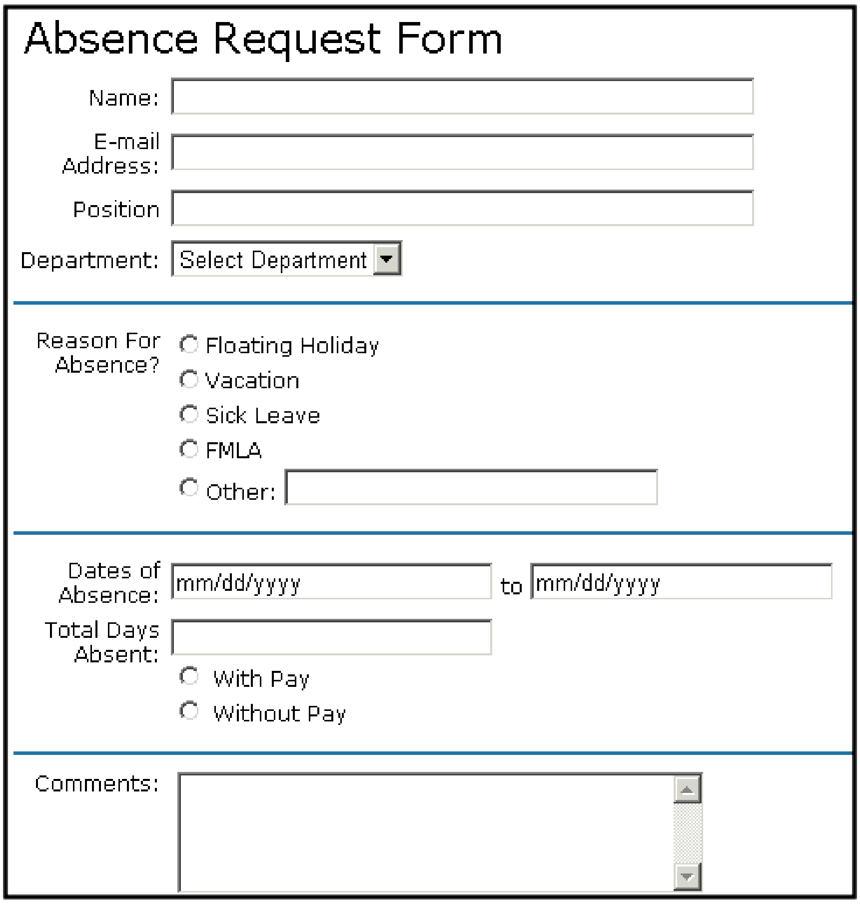
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

FormBlock Server Control

The FormBlock server control displays a content block associated with a form. When added to a template and visited, the form content block might look like the following example. You can change the display to suit your needs by modifying its properties. See Also: *Working with HTML Forms* on page 386



IMPORTANT: If you create a template for an existing form content block, you must manually change its quicklink to point to the new template. This change does not occur automatically. This procedure is described in *Adding a Quicklink or Form to Content* on page 346.

FormBlock Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AddValidation** (Boolean)

  The AddValidation property is obsolete and ignored. It has no effect. It is always true.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultFormID** (Long)

  The ID of a FormBlock that appears where you inserted this server control if no other form block is identified. If you don't know the ID number of the form block, use the CMS

Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  To make this form block dynamic, select **id**. When you do, this server control uses the form block passed as a URL parameter.

- **Fields** (FormFieldCollection)

  Displays a list of fields that are defined in the form. These fields are read only. This is an excellent way of displaying the field names used on the form. With this list of names, you can create events using the fields without having to enter the Workarea to see the names.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeTags** (Boolean)

  Determines if tags are generated automatically of manually.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

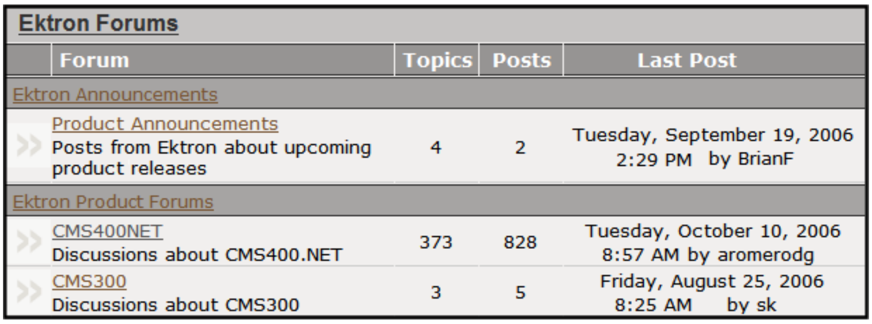
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Forum

After creating at least one hierarchy of discussion board elements, place a Forum server control on a Web page. The Forum server control displays a discussion board on a Web page. You should add text below the Login server control to remind the site visitor to enter an email address at the **User** field. For example, "At the **User** field, enter your email address." See Also: *Working with Discussion Boards* on page 536



If you want to require site visitors to authenticate, the Web page that hosts the forum should also contain

- a Membership server control (or a link to page that has one). This lets site visitors/membership users register for discussion boards.
- a Login server control that lets the site visitor/membership user log in

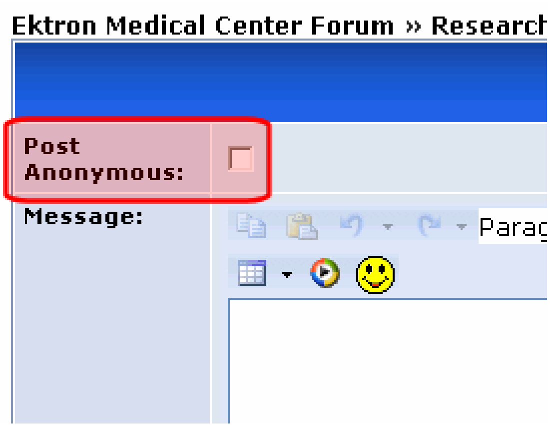
IMPORTANT: After placing a Forum server control on a page, follow the procedure described in *Updating the Page Command* on page 1746. Otherwise, the user may get an error when posting a reply.

Forum Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AllowAnonymousPost** (Boolean)

  Set to True to allow site visitors the option of posting anonymously to the forum. When true, a **Post Anonymous** checkbox appears above the text editor used to create a post.

  If a site visitor adds a check mark to this box, the word Anonymous appears where the Display Name normally appears. The default is **True**.

  - **True**—display **Post Anonymous** checkbox when site visitors create a post.
  - **False**—disable **Post Anonymous** checkbox.

- **Authenticated** (Boolean)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **BoardID** (Long)
  The ID of the discussion board to display on this page if one is not defined in a query string parameter. If you don’t know the ID, click **Ellipses** ( ), then sign in and select a discussion board.
- **CacheInterval** (Double)
  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **CustomOrderBy** (String)
  Provide a property’s Friendly Name to order search results by that property. For example, if you define DocAuthor, results will be sorted by the document’s author. Results can be ascending or descending based on `OrderDirection`. If you enter an invalid property, no search results are returned. If you specify both `CustomOrderBy` and `OrderBy`, the `OrderBy` property is ignored.
- **DefaultObjectID** (Long)
  The Static ID of a community group.
- **DynamicForumParameter** (String)
  Gets or sets the QueryString parameter to read a forum ID dynamically. The default is “**f**”. Note that a Forum resides one level below a discussion board.
- **DynamicGroupParameter** (String)
  Gets or sets the QueryString parameter to read a group’s ID dynamically. The default is “**g**”.
- **DynamicObjectParameter** (String)
  Dynamic Parameter for the community group id. Default is “**id**”.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a discussion board’s ID dynamically. Set to **None - Use Default**—if you want to always display the default discussion board. Note that a discussion board is one level above a Forum.
  - **boardid**—reads a Threaded discussion board’s ID dynamically.
  - **None - Use Default**—use the default discussion board’s ID.
  - **ID**—reads a discussion board’s ID dynamically.
- **DynamicThreadParameter** (String)
  Gets or sets the QueryString parameter to read an individual thread’s ID dynamically. The default is “**t**”. Note that a Thread resides 2 levels below a discussion board and one level below a Forum.
- **EditorCSS** (String)
  Set the style sheet for the Editor when a site visitor creates or edits a post. By default, this property is blank. When a style sheet is not supplied, the style sheet defined in the Theme property is used.
- **EditorToolbar** (String)
  Enter a comma separated list of items that you want to appear on the Editor’s toolbar. The default is **StyleMenu, FontMenu, ParagraphMenu, TextFormatMenu,**

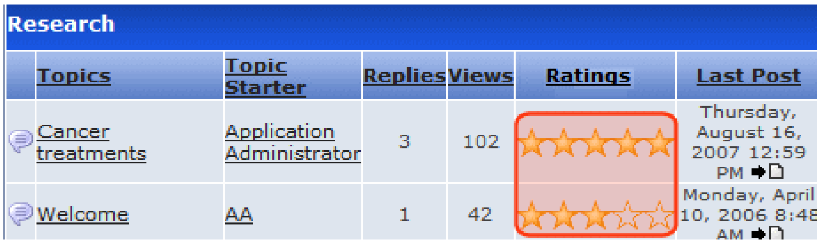
LinkMenu, ClipBoardMenu, SymbolsMenu, EmoticonSelect, WMV, Table. See Also: *Adding and Removing Toolbar Items From the Editor* on page 1747.

- **EnableForumQuickSelect** (Boolean)

  If you set this property to `true`, a drop-down list of all forums appears below the topic list. The site visitor can click a forum and jump immediately to it.

- **EnableThreadRating** (Boolean)

  If you set this property to `true`, a ContentReview server control appears on any topic screen run by this server control. The site visitor can use the control to rate the topic thread. An average rating for the thread appears next to each topic on the forum screen.

- **ExcludeList** (String)

  Enter a comma-separated list of custom user properties to exclude from the Forum's profile page. For example, to suppress the **Subscriptions** field value, enter **subscriptions**.

- **FilterXslt** (String)

  Enter the path to an XSLT file used to filter forum content, such as, HTML Attributes, Tags and unwanted words in a user's forum post. The path can be relative or absolute. The user's post is filtered when the user clicks **Submit**. By default, this property points to `<webroot>/`*`siteroot`*`/Workarea/Xslt/ForumFilter.xslt`. This file removes hrefs with javascript:, vbscript: and "on" events in the link. You can modify this file or create a new one.

  WARNING! If you want to edit this file, make a copy, change its name and move it outside of your website's Workarea folder. If you make changes to this file and do not move it out of the Workarea folder, this file and the changes will be lost when you upgrade.

  For additional sample code used to create a filter XSLT, see the following KB article: XSLT: Gallery of Templates

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **HideUserProfile** (Boolean)
  - **True**—hide user profiles from non-administrator users.
  - **False**—display user profiles for non-administrator users.

  The default is **True**. An administrator can view a profile regardless of how this property is set.

  On the other hand, if the **Private Profile** is set to Private for any user, the profile information is not visible, regardless of this setting. If Private Profile is set to

Colleagues, only colleagues can see profile information. When the profile is visible, only properties and their values not listed in the `ExcludeList` property (above) appear.

- **JavascriptEditorHeight** (Integer)

  Set the height in pixels for the eWebEdit400 editor. The default is **400**. The minimum height is 300.

- **JavascriptEditorWidth** (Integer)

  Set the width in pixels for the eWebEdit400 editor. The default is **625**. The minimum width is 500.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

  Set property to **-1** if you want the Forum server control to display topics from all available languages.

- **ObjectType** (String)

  Describes the type of forum displayed by this server control.

  - **CommunityGroup**—Used for forums inside a Community page.
  - **DiscussionBoard**—Used for forums on templates that are not Community pages.

- **OrderBy** (String)

  The order of search results. For example, you want to sort search results by last modified date.

  - **Title**—Content title (alphabetical).
  - **ID**—Content ID number.
  - **Date Created**—Date the content was created.
  - **Date Modified**—Date the content was most recently modified.
  - **Editor—**User who last edited the content (alphabetical).
  - **Rank**—Rank assigned to the content.

  NOTE: The **OrderDirection** field determines the *direction* of the search results. For example, if you sort by ID and **OrderDirection** is set to **Descending**, the results sort by ContentID number with the highest number at the top of the list.

  IMPORTANT: Specifying a `CustomOrderBy` property overrides this property.

- **OrderDirection** (String)

  The direction in which search results are sorted. The default is **Ascending**.

  - **Ascending**—Alphabetical results from A to Z; numeric values low to high; dates from oldest to most recent
  - **Descending**—Alphabetical results from Z to A; numeric values high to low; dates from most recent to oldest

- **ProfileLink** (ItemLinkTargets)

  Enter a link to the user’s social networking profile page, a part of Ektron’s community platform. This allows a user to click another user’s name link or avatar and be taken to the user’s profile page. The link has 2 variables that represent the user’s ID and display name.

- **{0}**—user ID
- **{1}**—user display name

You need to have both variables in the link. The Web form can be relative or absolute. For example:

```
userprofilepage.aspx?uid={0}&dn={1}
```

The default for this property is `?g=profileu={0}`.

When the default for this property is used, users are forwarded to a user’s profile page that is included with the forum control.

- **ProfileLinkTarget**

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **ShowCategories** (Boolean)

  If set to **True**, when this server control appears, the user see a **Filter by Category** option. This option helps a site visitor zero in on relevant content. If **False**, the **Filter by Category** option does not appear.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TaxonomyCols** (String)

  Use this property to determine the number of columns on the Taxonomy screen available from this discussion board. In the illustration below, taxonomy categories are arranged in 3 columns (the default value).

- **TaxonomyMarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

- **Theme** (String)

  Enter the custom theme's folder name. The theme can be relative to the site root or located in the current folder. For example:
  - Relative—`Theme="/workarea/csslib/themes/winter"`
  - Current Folder—`Theme="mytheme"`

  If you do not specify a theme, the property uses the location defined by the discussion board's CSS theme property in the Workarea. See Also: *Using a Custom Theme* below
- **WrapTag** (String)

  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Updating the Page Command

To prevent an error from appearing when a user posts a reply to the Web page that hosts the Forum server control:

1. Open the Web form onto which you inserted the Forum server control.
2. Access Source view.
3. Go to the top line of the Web form, which begins with `@ Page`.
   ```
   <%@ PageLanguage="VB"AutoEventWireup="false"
   CodeFile="Default2.aspx.vb"Inherits="Default2" %>
   ```
4. Near the end of the line, enter `validaterequest=false`.
5. Build the page.

Using a Custom Theme

This property lets you specify a custom location for your themes. By doing so, you prevent them from being overwritten when you upgrade.

If you do not specify a theme in the server control, Ektron uses what is defined in the discussion board's properties **CSS Theme** field.

To create a custom theme:

1. Create a new subfolder on your site. In this example, we use a winter theme:
   ```
   <web root>/<your site>/Workarea/csslib/winter.
   ```
2. Copy all files in the `/Workarea/Threadeddisc/themes` folder to the `winter` folder.
3. Change the image files to match your theme. To find the name of an image:
   a. Right click on it while viewing it in a browser.
   b. Select Properties. The name appears at the top of the dialog box.
4. Change the discussion board's .css file to match your theme and save it with a custom name. (You do not need to do this if an existing .css file meets your theme's needs.)

IMPORTANT: Make sure the **CSS theme** property in the Workarea is pointing to the proper CSS file.

5. View the discussion board in a browser to see the changes.

Adding and Removing Toolbar Items From the Editor

IMPORTANT: You cannot create new buttons and add them to the Forum Editor. You can only add and remove existing buttons.

You can add and remove toolbar items on the Forum Editor by editing the EditorToolbar property. This property contains a series of string values that represent each item, listed below.

- **StyleMenu**—Display a list of paragraph styles. Users can select from the list to apply a style to selected text.
- **FontMenu**—Display a list of available font styles, sizes and colors.
- **ParagraphMenu**—Controls the display of buttons that affect a paragraph. This includes:
  - Numbered List
  - Bullet List
  - Outdent
  - Indent
  - Align Left
  - Align Center
  - Align Right
  - Justify
  - Horizontal Rule
- **TextFormatMenu**—Controls the display of buttons that format text. This includes:
  - Bold
  - Italics
  - Underline
- **LinkMenu**—Controls the display of buttons that allow a user to add and remove hyperlinks links and work with the library. This includes:
  - Hyperlink Manager
  - Remove Link
  - Library
- **ClipBoardMenu**—Controls clipboard buttons that allow a user to cut, copy, and paste content. This item also controls the Undo and Redo buttons.
- **SymbolsMenu**—Controls the display of the Symbol button, which allows users to insert symbols and special characters.
- **EmoticonSelect**—Controls the display of the Emoticon button.
- **WMV**—Controls the display of the Insert WMV button.
- **Table**—Controls the display of the Insert table button.

Friends (Colleagues)

Part of the Community Platform, the Friends server control typically appears on your profile page and displays your colleagues. If you browse to another user's profile, you see that user's colleagues. See Also: *Using the Friends Server Control* on page 1252

Friends Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AvatarHeight** (Integer)

  The display height in pixels of the avatar in the results box. 0 (zero) = unlimited.

- **AvatarWidth** (Integer)
- The display width in pixels of the avatar in the results box. 0 (zero) = unlimited.
- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultUserID** (Long)

  The default user ID for this control if no matching dynamic parameter value is passed.

- **DisplayMode** (eDisplayMode)

  Select the way this control displays colleagues. Choices are:

  - **Directory**—allows users to group colleagues by folders. In this mode, these menu items appear.
  - **Add Folder**—lets user add a folder.
  - **Move**—lets a user place colleagues in a folder. This option appears only if a folder exists.
  - **List**—lists colleagues in alphabetical order
  - **Pending**—lists users who have sent colleague requests to the logged-in user. The user can approve or decline these requests.
  - **SentInvites**—lists users to whom the logged-in user sent colleague requests. The user can cancel invitations that have not been accepted yet.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a user ID dynamically. To use the default user ID, leave blank.

- **FriendLabel** (String)

  Set the singular text to be used as a title for the Friends server control. The default value is **Colleague**.

- **FriendsLabel** (String)

  Set the plural text to be used as a title for the Friends server control. The default value is **Colleagues**.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **Link** (String)

  Enter a link to the user profile page template. The path can be relative or absolute. This value is referenced when a user clicks another user in the Friends control. Upon clicking the link, the selected user's profile page appears. The link requires these variables.

  - **{0}**—represents user ID
  - **{1}**—represents user display name

  For example: `userprofilepage.aspx?uid={0}&dn={1}`

- **LinkTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  The maximum number of colleagues to display in the control. 0 (zero) = unlimited.

- **RenderOutput** (Boolean)
  Lets you determine whether or not to generate output. If you do not, CSS and JS are not registered.
  - **True** (default)—The control's output is generated.
  - **False**—The control fetches data from the backend but generates no output. You are responsible for generating output using XML or DataClasses
- **ShowSortingOptions** (Boolean)
  Determines if sorting options appear on the control. If set to **True**, the following options appear:
  - **Colleagues**—all current colleagues
  - **Pending**—colleagues who sent you a colleague request that you have not yet accepted
  - **Invited**—colleagues to whom you have sent colleague requests
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ImageControl

The ImageControl server control, when viewed on a Web form, displays an image stored within the Ektron Document Management feature. If you log in and have permission to edit the image, you can right click the image and select **Edit**. This action displays a dialog box with which the user can update the image.

IMPORTANT: Images are stored as assets using the Document Management feature. This control does not use the Ektron Library.

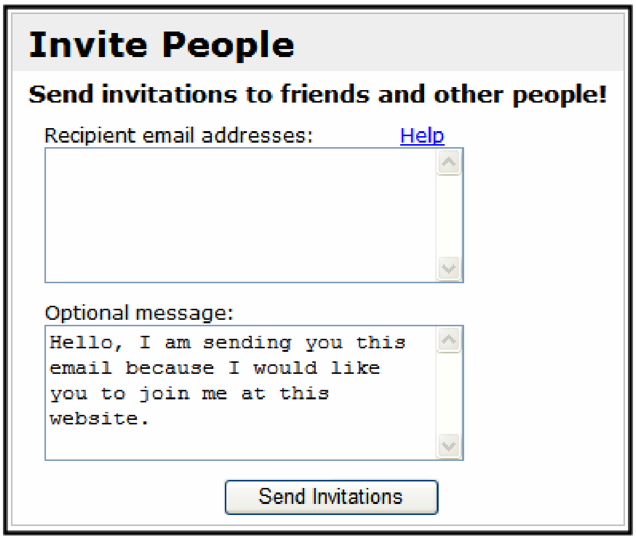
ImageControl Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **DefaultImageID** (Long)
  The image asset's content ID you want to display. If you don't know the ID number of the asset, use the CMS Explorer to browse to it.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read an image asset's ID dynamically. To have the default image ID used, leave blank.
- **FolderID** (Long)
  The ID of the folder where images are added. If you don't know the ID number of the folder, use the CMS Explorer to browse to it.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TaxonomyID** (long)
  The ID of the taxonomy to which assets are added.
- **Title** (String)
  Set the image's alt/title text. By default, the image file name is used.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Invite

The Invite server control lets a site visitor invite people to join a site or become a colleague. The control displays a dialog box that prompts for several email addresses. The dialog includes an optional message, which appears in the body of the email. The site visitor can edit or delete the message.



NOTE: Messages are defined in the Workarea. For more information, see *Generating email Invitations for Community Management* on page 1230.

Invitations have a single "from" email address. Its default value is `invitations@example.com`. Your site administrator should change it to one that is appropriate for your organization. To change the "from" email address for invitations, open your site's `web.config` file and change the value of following key.

```
<add key="ek_InvitationFromEmail" value="invitations@example.com"/>
```

WARNING! The default *From* email address used to send all invitations is invitation@example.com. Ektron, Inc. strongly recommends changing this address.

Invite Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **FriendMessageId** (Long)

  The ID of the message to send in the link section of a FriendInvitation type email. This message is defined in the **Workarea > Settings > Community Management > Messages**. See Also: *Generating email Invitations for Community Management* on page 1230. If set to 0 (zero), the server control uses the default message.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **InviteMessageId** (String)

  The ID of the message to send in the link section of a GroupInvitation or FriendInvitation email. This message is defined in the **Workarea > Settings > Community Management > Messages**. See Also: *Generating email Invitations for Community Management* on page 1230. If set to 0 (zero), the server control uses the default message.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **OptionalMessageText** (String)

  The body text of the email message. The text appears in the Invite server control’s dialog box and can be edited by site visitors when they use the Invite control.

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control’s tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

LanguageAPI

The LanguageAPI server control lets a developer force a particular language for a website. You can do this by dropping the server control on the page and setting a language in the `SiteLanguage` property box. You can also override site language logic by programmatically using the LanguageAPI server control to detect the browser's language, and display the site in that language.

LanguageAPI Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **SiteLanguage** (String)

  Sets the site language. Runs through the IsValid function to verify that the language is an active language in the system.

- **SiteLanguageID** (Integer)

  Numeric value of the site language. This is the property you will use if you are using code-behind to set the sites language ID.

  Example: 1036 = French

  For a list of supported languages, go to **Workarea > Settings > Configuration > Language Settings**.

LanguageAPI Code-Behind Only Properties and Methods

The following is a list can only be used programmatically.

- **CurrentLanguage** (String)

  Read only. Returns the current language.

- **CurrentLanguageID** (Integer)

  Read only. Returns the current language ID.

- **DefaultLanguage** (String)

  Read only. What the default language of the site is set to. For example, the demo site is "English (Standard)".

- **DefaultLanguageID** (Integer)

  Read only. Returns the value that is the default language ID of the site. For example, the demo site is "1033" for English.

- **GetLanguage** (Integer Argument)

  This method returns a string. Pass in a valid language ID and it will return the language name.

- **GetLanguageID** (Sting Argument)

  This method returns an integer. Pass in a valid language name and it will return the language ID.

- **IsValid** (Argument)

  This method returns a boolean. You can pass in a language ID or a string and it will tell you if the system is supporting it.
- **LanguageIdList** (Array of Integers)

  Read only. Lists all the language IDs that are activated in Ektron. For information on how to enable languages, see *Determining Which Languages are Available* on page 1059.
- **LanguageTitleList** (Array of Strings)

  Read only. Lists all the languages that are activated in Ektron.
- **MultiLanguageEnabled** (Boolean)

  Read only. Tells if the site supports multi-language mode.
  - **True** (default)—Multi-language enabled
  - **False**—Multi-language not enabled

Using LanguageAPI Programmatically

This example uses a logo that is not managed through Ektron. It retrieves the current language from the LanguageAPI control, and uses that information to choose the logo version to display. The code-behind looks like this.

```
Select Case LanguageAPI1.CurrentLanguageID
       Case 1031
       Image1.ImageUrl = "germanlogo.png"
       Case 1033
       Image1.ImageUrl = "englishlogo.png"
       Case 1036
       Image1.ImageUrl = "frenchlogo.png"
End Select
```

LanguageSelect

The LanguageSelect server control displays a language selection drop-down list on an Ektron Web page. The control lets a site visitor select a language in which to view the site. Here is what the control looks like when published on a Web page.

It lists all languages selected on the **Settings > Configuration > Language settings** screen. (For more information, see *Working with Multi-Language Content* on page 1057.)

You can place this control in any location of any page on your site.

LanguageSelect Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **LabelName** (String)

  Lets you define the label next to the language select drop-down box.

- **Language** (Integer)

  Set a language for the Language Select Box. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

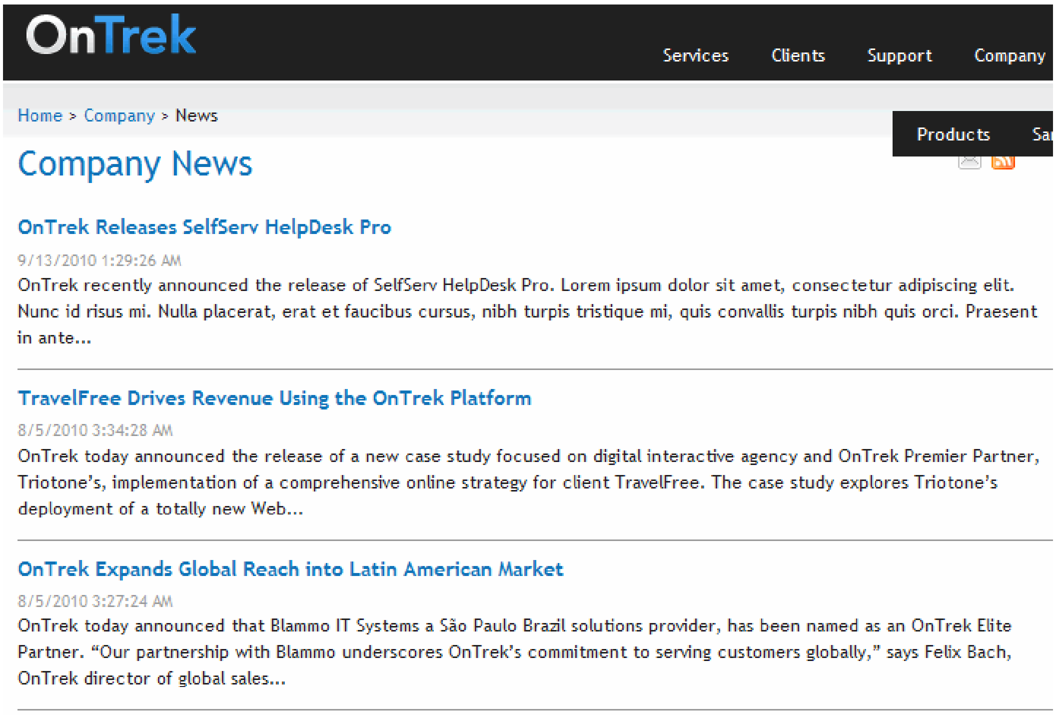
  Lets a developer specify a server control’s tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

ListSummary

IMPORTANT: Starting from release 8.6, the ListSummary server control was replaced by the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the ListSummary server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The ListSummary server control displays a list of content in a selected folder on a Web page. Optionally, the display can include content in all subfolders of the selected folder. When added to a template and visited, a List Summary looks like this.



It displays each content block's title and summary information. You can modify the display to suit your needs by modifying its properties.

NOTE: To display a List Summary on a PageBuilder page, use the ListSummary widget.

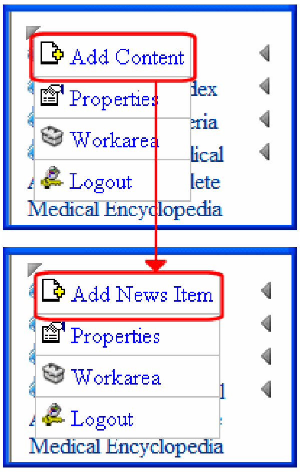
This section also contains the following topics.

NOTE: In contrast to a List Summary, a ContentList server control displays selected content items from any Ektron folder. See Also: *ContentList* on page 1708

ListSummary Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AddText** (String)
  Override the control's default text for the Add Content menu item.
  For example, you have a News website. You could change **Add Content** to **Add News Item**.



- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

  NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **ContentParameter** (String)

  Checks the QueryString for this value and replaces the list summary with a content block when specified. Leave blank to always display the list summary.

- **ContentType** (String)

  Determines the type of content that appears in the list summary. The default is Content. Choices are:

  - **AllTypes**—all content types for the given folder
  - **Content**—a list of content items.
  - **Forms**—forms appear in the list summary
  - **Archive_Content**—archived content blocks appear in the list summary
  - **Archive_Forms**—archived forms appear in the list summary
  - **Assets**—assets, such as offices documents, appear in the list summary
  - **Archive_Assets**—archived assets appear in the list summary
  - **LibraryItem**—library items appear in the list summary
  - **Multimedia**—multimedia items appear in the list summary
  - **Archive_Media**—archived multimedia items appear in the list summary
  - **NonLibraryContent**—all content types except library items.
  - **DiscussionTopic**—forum topics appear in the list summary.
  - **CatalogEntry**—displays all catalog entries (products) for a specified catalog.

- **DisplayXslt** (String)

  Determines how information on the page appears

- **None**—databind only
- **ecmNavigation**—lists the title of every content block in the folder See Also: *Collection* on page 1677
- **ecmTeaser**—lists the title of every content block in the folder plus the content summary See Also: *ecmTeaser Display Example* on page 1682
- **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

NOTE: If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.

  See example below.

  Bill Lumbergh
  Bob Porter
  Bob Slydell
  Milton Waddams
  [First] [Previous] [Next] [Last]

  So, for example, if a List Summary has 9 items and the `MaxResults` property is set to 3, the screen displays only the first 3 items. When the site visitor clicks **[Next]**, he sees items 4, 5 and 6, and so on.

  - **True**—Use paging feature
  - **False**—Ignore paging feature

NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **FolderID** (Long)

  The folder that contains the items which appear in the list summary. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610. The `Recursive` property determines whether content blocks in this folder's child folders also appear.

- **GetHtml** (Boolean)

  Set to **True** to display the HTML body for all content in the list summary. For example, to display content inside a Web server control such as a GridView.

- ◦ **True**—Get and display HTML for each content block in the list summary
- ◦ **False**—Do not get and display HTML.

- **GetAnalyticsData** (Boolean)

  Set this property to **True** if you want the following information for each content in the list. Returns **Content View Count**, **Content Rating**, **Content Rating Average**. Create your own XSLT styles to display this data.

  IMPORTANT: This property only provides reliable data when the Business Analytics Feature is on. *Analyzing Content* on page 601.

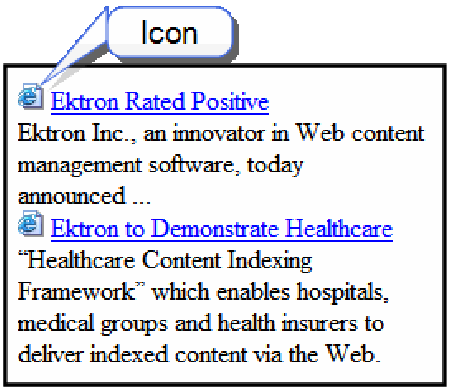
- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.
  - ◦ **True**—Hide the control output.
  - ◦ **False**—Display the control output.

- **IncludeIcons** (Boolean)

  Choose whether to display icons next to the list summary's links.

  IMPORTANT: This property works only when ecmSummary or ecmTeaser are used in the `DisplayXslt` property. When the `[$ImageIcon]` variable is used in an EkML file and that file is assigned to the `MarkupLanguage` property, this property acts as True. See Also: *Controlling Output with Ektron Markup Language* on page 1905



- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (String)

  Determines the type of window that appears when you click a link in the server control.
  - ◦ **_Self** (default)—opens in same window.
  - ◦ **_Top**—opens in parent window.
  - ◦ **_Blank**—opens in new window.
  - ◦ **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

See Also: *listsummary.ekml* on page 1907

If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

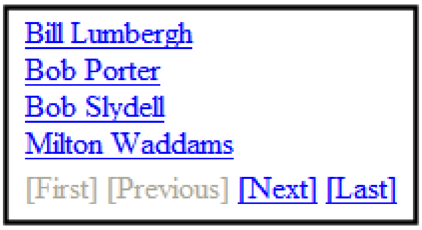
- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control.

  If you enter no value or 0 (zero), the maximum is 50. This is done for performance reasons.

  To let site visitors view more than the maximum but limit the amount of space being occupied, enter the maximum number of results per page here. Then, set the `EnablePaging` property to **True**.

  If you do and more than the number of `MaxResults` are available, navigation aids appear below the last item to help the site visitor view additional items. See example below.



- **OrderbyDirection** (Ektron.Cms.Controls.CmsWebService.OrderByDirection)

  How to order the hyperlinks on the list. The sort field is determined by the `OrderKey` property.

  - **ascending**—hyperlinks are arranged A, B, C or 1,2,3.
  - **descending**—hyperlinks are arranged Z, Y, X or 3,2,1

  If sorting by date, descending puts the most recent first.

- **OrderBy** (Ektron.Cms.Controls.CmsWebService.TeasersOrderBy)

  NOTE: For releases 8.0.1 and later the **OrderKey** property has replaced by this **OrderBy** property.

  Sort the list by one of the values.

  - **Title**—Content Title
  - **DateModified**—Date content last modified
  - **DateCreated**—Date content created
  - **LastEditorFname**—First name of user who last edited content
  - **LastEditorLname**—Last name of user who last edited content
  - **Start Date**—Go Live date of content
  - **Rated**—Business Analytics Content Rating
  - **ContentViewCount**—Business Analytics Content Views

- **Random** (Boolean)

Set to **True** if you want to randomly display one content block in the specified folder. The content changes each time a user views the page.

- **True**—randomly display one content block.
- **False**—display the list summary normally.

If you use a custom XSLT or EkML file, the type of content displayed can be manipulated. For example, if you use an EkML file that has the [$Html] variable in it, the actual content appears instead of a link. See Also: *Controlling Output with Ektron Markup Language* on page 1905 and *[$Html]* on page 1937

- **Recursive** (Boolean)

  Determines if the display includes content in child folders of the selected folder.

  - **True**—include content from child folders.
  - **False**—do not include content from child folders.

- **SelTaxonomyID** (Integer)

  Set the ID of the taxonomy that content will be associated with when a logged in site visitor uses the Silver Access Point's **Add HTML Content** to add content to a list summary server control.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Retrieving the XML Structure of a List Summary

Retrieving the XML structure of XML content allows for greater control over developing XSLs. The following example shows how to retrieve the XML structure.

1. Open a new Web form.
2. Drag and drop a ListSummary server control onto it.
3. Set the `FolderID` property.
4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to MultiLine.

   NOTE: You should set the width of the text box to at least 400px.

6. On the code-behind page, add the following line.

   ```
   Textbox1.Text = ListSummary1.XmlDoc.InnerXml
   ```

7. Build the project.
8. View the Web form in a browser.
9. The ListSummary's XML structure appears in the textbox.

Login

The Login server control paints a login button on the template when displayed in a browser. The Login server control displays the following buttons on a Web page. See Also: *Getting Started with Ektron* on page 5

—When user is not logged in, this button appears. Clicking the button opens the login window, where a user can enter a username and password. Upon authentication, the user is logged in to the Ektron website.

—After a user logs in, this button replaces the login button to let the user log out.

—When logged in, this button appears under the logout button, allowing the user to access the Workarea.

—Lets the user preview the entire website as if all checked-in content were published.

—Turns off site preview mode.

—Launches online help for Ektron.

Placing a Login Button

You can add any number of login buttons to a template. You can insert a login button on each template, or set up a special Web page, called login.aspx, from which users can log into the Ektron site without the public being able to access the page.

Login Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AutoAddType** (Common.EkEnumeration.AutoAddUserType)

  When using Single Signon, the Login Server Control can be used to add users to Ektron. In this scenario, when a user signs on with Active Directory credentials, that user is created within the Ektron database. Use this property to define the type of user that is automatically added to Ektron. See Also: *Single Sign On* on page 1144

  - **Author—**Ektron user
  - **Member—** membership user

- **AutoLogin** (Boolean)

  If this property is set to true and Active Directory Integration is enabled, users are automatically logged in using Active Directory authentication. They do not need to enter a username or password. See Also: *Single Sign On* on page 1144

- **True**—Use Active Directory authentication when logging in.
- **False** (default)—Do not use Active Directory authentication when logging in.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for the Login server control. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

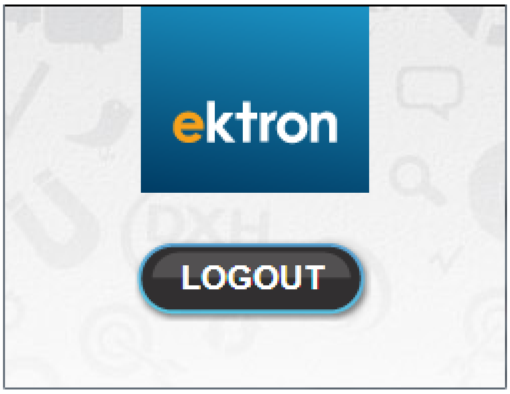
- **OnlyAllowMemberLogin** (Boolean)

  Allows only membership users to log in. This property prevent users from logging as an Ektron user and accessing the Workarea. If an Ektron user tries to log in using this control, this message appears: "Only members are allowed to login here." The default is **False**.

  - **True**—Only membership users can log in
  - **False**—Ektron users and membership users can log in

- **PromptLogout** (Boolean)

  When set to False, the logout process omits the Logout window (shown below).

  - **True**—Users must click **Logout** to log out.
  - **False**—The Logout window does not appear

- **SuppressHelpButton** (Boolean)

  Hides the Help button that appears below the Login button when set to true.

  - **True**—Do not display the Help button.

- False (default)—Display Help button.

If you are editing this server control from a text file and want to suppress the Help button, add the following code to the login tag source:

```
<CMS:Login ID="Login1" runat="server" SuppressHelpButton="True" />
```

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Map

The Map server control displays a map that flags locations of interest. Each location is an Ektron content item to which map information was added. For example, if your site hosts a school district, each location could represent one school. See Also: *Using the Map Server Control* on page 590

Map Properties

Within Visual Studio, you cannot see the map in design mode. However, you can right mouse click the mouse and select **View in Browser** to see the effect of changing the properties.

You cannot place more than one map server control on a form.

Troubleshooting

- If Map does not render on Web page, change the VirtualEarthMap `web.config` element as follows:

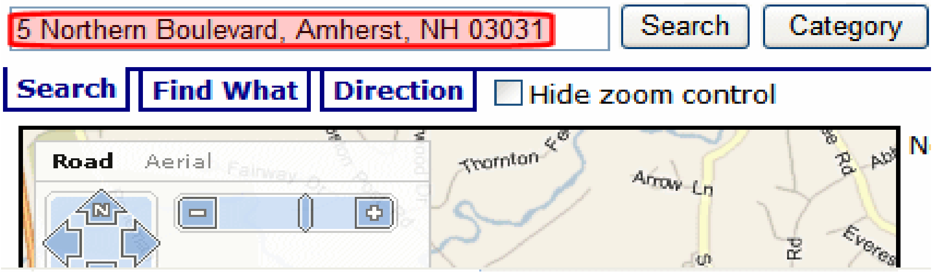
```
<add key="VirtualEarthMap"
  value="https://dev.virtualearth.net/mapcontrol/
  mapcontrol.ashx?v=6.1&amp;s=1" />
```

- If a user must click a warning away before users can see map on page, upgrade Google Maps to a premier subscription. For more information, see Google Maps for Business.
- Do not use a percentage value to set the native .NET properties `Height` and `Width`. Percentages do not work with these properties.

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Address** (String)

  To set a default map center, enter its address. The address appears in the **Search** field when the map first displays. If you only enter a zip code, the map centers on its post office. If you enter an address, the `latitude` and `longitude` properties are ignored.



- **Authenticated** (Boolean)

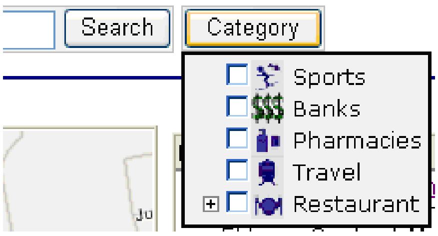
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **ContentId** (Long)

  Use this field in conjunction with the **EnableSearchResult** field to limit the map to a single content item. Here, you identify the content item to be mapped. Content *must* have latitude and longitude values to appear on a map.

- **CustomIcon** (Boolean)

  Use this field if you want the Category popup box to display an icon to the left of each category, as shown below.

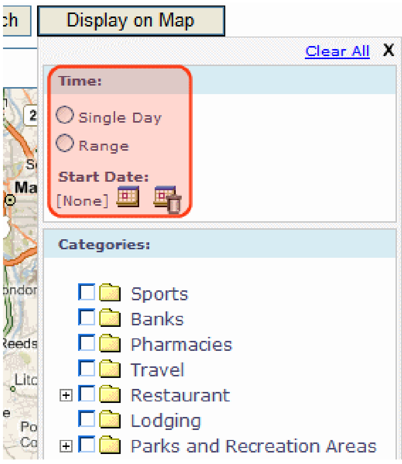


PREREQUISITE

To use this value, open the `webroot/Workarea/images/application/maps/tree` folder. In that folder, create a new folder whose name is the same as the Taxonomy category assigned to the Map server control at the `MapCategory` property. (In the sample site, this Taxonomy's name is `MapCategory`.) Then, place the icons in that folder by category title name with a .png extension. Use an underscore (_) to separate taxonomy levels. For example, the image for the category Restaurant > American must be named `Restaurant_American.png`.

- **DateSearch** (Boolean)

  Set to **True** to assign a date to content. This feature is helpful for date-related content, such as concerts, meetings, or sporting events. You can filter what appears on the map by date. If you set this property to true, assign a date to date-related content using the **MapDate** standard metadata field. Then, publish the content. When you click a map's **Display on Map** button, the popup screen includes date criteria, as shown below. You can select map items by a single date or a range of dates.



- **DisplayTextResult** (Boolean)

  If you want to display a box of information about each map item to the right of a map, enter **True**. To suppress the text box, enter **False**.

- **DistanceUnit** (Unit)

  Enter the map's units of distance. Choices are miles and kilometers. The default value is miles.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **EnableSearchResult** (Boolean)

  Use to determine if the Map server control accesses the Ektron search to return results. **True** is the default value. You would change it to **False** if you want to display a map with only one content item, that is, a single location. Specify this item at the `ContentID` property. In this case, the map does not find other Ektron content whose longitude and latitude are within the map’s boundaries. Site visitors viewing the map can still use the **Search** and **Directions** tabs to get directions to the location. For example, your site features homes for sale, and you want a map to show a featured home of the week. To do so, set this property to **False**, and enter the content that describes that home in the **ContentID** field.

- **FolderId** (Long)

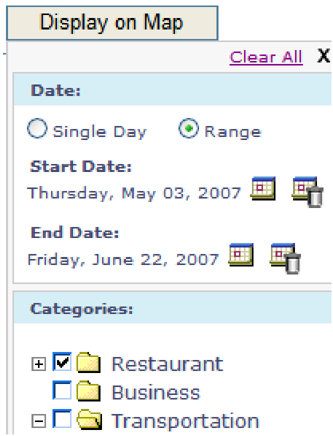
  Enter the ID number of the folder whose content is searched on this map. If the `recursive` property is true, folders below this folder are also searched.

- **ForceCategory** (Boolean)

  When set to true, this property causes the map to only show content associated with the taxonomy category defined in the `MapCategory` property. When set to false, the map shows all content within the map’s boundaries. For example, if 5 content blocks appear on a map and 3 are assigned to a taxonomy, set this property to True and the `MapCategory` property to the ID of the taxonomy. When a user views the map, it displays the 3 content items associated with the taxonomy.

- **GeoControl** (Boolean)
  If you want to see a search box with tabs above a map, enter **True**. To suppress the text box, enter **False**. See Also: *Server Control Reference* on page 1636
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **Latitude** (Decimal)
  To set a default map center via latitude and longitude (as opposed to an address), enter the latitude here.
- **Longitude** (Decimal)
  To set a default map center via latitude and longitude (as opposed to an address), enter the longitude here.
- **MapCategory** (Long)
  Enter the ID number of the taxonomy whose categories appear when up click this map's **Display on Map** button. When a map first appears, all eligible content appears. If you click **Display on Map**, you can choose categories and limit the map to items assigned to them. For example, you could view restaurants only. As another example, a map could initially display all campuses in your state college system. Use the **Display on Map** popup window to limit the map to community colleges.

  While an OR relationship among categories is the most intuitive and common, you can set up an AND or NOT logical relationship among selected categories.



- **MapProvider** (Provider)
  Select the service that provides the map, either Google or Bing Maps for Enterprise.
- **MapStyle** (Style)
  Enter the map's display mode: Road, Satellite or Hybrid. This setting only affects Bing Maps for Enterprise maps.

- **MarkupLanguage** (String)

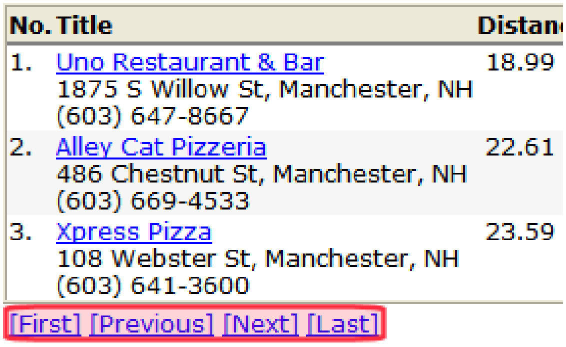
  Enter the template markup file that controls the map page display. For example, `mymapmarkup.ekml`. If you enter no EkML file, the default one at `Workarea\Template\map\map.ekml` is used. If the *.ekml file is located in the `\workarea\template\map` folder, just enter its name. If the file is in another folder, enter the path relative to site root. For example, `\workarea\customfiles\markup\mymapmarkup.ekml` See Also: *Controlling Output with Ektron Markup Language* on page 1905 and *map.ekml* on page 1909

- **MinZoomLevel** (Integer)

  If you want to set a map zoom level below which map locations will not appear, enter that value. The default value is 4. Possible values are between 1 (most detailed) and 19.

- **PageSize** (Integer)

  Enter the number of locations that can appear on one page of the text box after a search is executed. See Also: *Server Control Reference* on page 1636. If more than this number of locations are available, use **[First] [Previous] [Next] [Last]** at the bottom of the page to view additional locations.

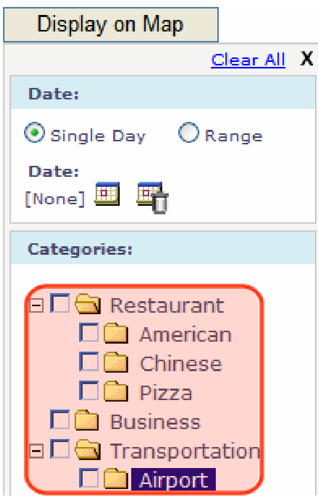


- **Recursive** (Boolean)

  In the `FolderID` property, you specify a folder whose content is searched on this map. To extend the search to all folders below this folder, set this property to **true**.

- **SelectedCategoryLogicalType** (LogicalType)

  Use this property to determine the logical relationship among several categories on the Display on Map tab. (See *Server Control Reference* on page 1636). There are 3 choices: OR, AND, and NOT.

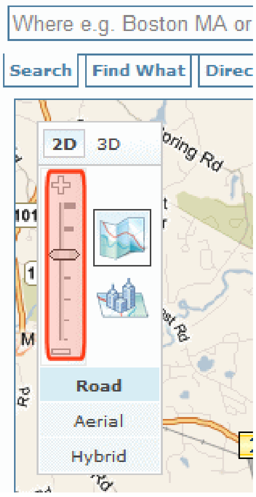


By default, an OR relationship exists among your selections. So, for example, if all 3 Restaurant categories are checked, then any restaurant that is defined as American, Chinese or Pizza appears on the map. If you change this property's value to AND, only content to which *all* selected categories apply appear on the map. In the above example, only restaurants defined as American *and* Chinese *and* Pizza appear on the map.

Alternatively, you can set the property's value to NOT. In this case, only content to which the selected categories are not applied appear on the map. To continue the above example, if you select **Chinese**, only restaurants that are not assigned the Chinese category appear on the map.

- **StartZoomLevel** (Integer)

  Enter the zoom level at which the map initially appears. See Also: *Server Control Reference* on page 1636. Zoom level 1 is the least detailed, showing the entire world. Zoom level 19 is the most detailed, showing the smallest streets. By default, maps in the sample site have a zoom level of 12, which shows an area of about 10 miles (16 kilometers). A site visitor can adjust the level using the zoom control (circled below).



- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

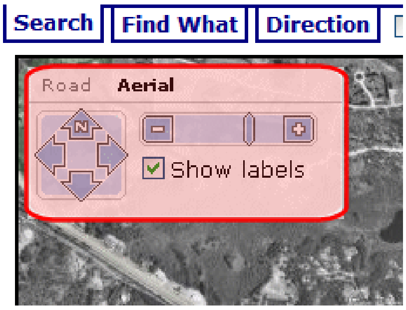
- **TemplateParamName** (String)

  Sets a QueryString parameter for the ID of users that are returned in the search results. This parameter is passed to the template page defined in the `TemplateUserProfile` property when a user clicks the Location (map) icon associated with a user.

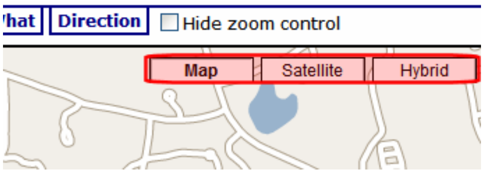
- **TemplateUserProfile** (String)

  The URL path of the user profile template. The path can be relative or absolute.

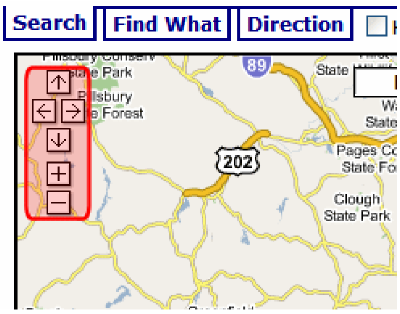
- **TypeControl** (Boolean)
  If this map uses Bing Maps for Enterprise maps, this property enables or disables the zoom/direction/type control (highlighted below). It lets you zoom the map in and out, move the center in any direction, and change the display style (Road or Aerial).

  If this map uses Google Earth maps, this property enables or disables the type control (highlighted below). It lets you change the display style (Map, Satellite, or Hybrid). Use the `ZoomControl` property to display or suppress Google Earth's zoom and direction controls.

- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.
- **ZoomControl** (Boolean)
  Use this property to display or suppress the Google map zoom control (highlighted below). For Bing Maps for Enterprise maps, the `TypeControl` property determines the zoom control display.

Membership

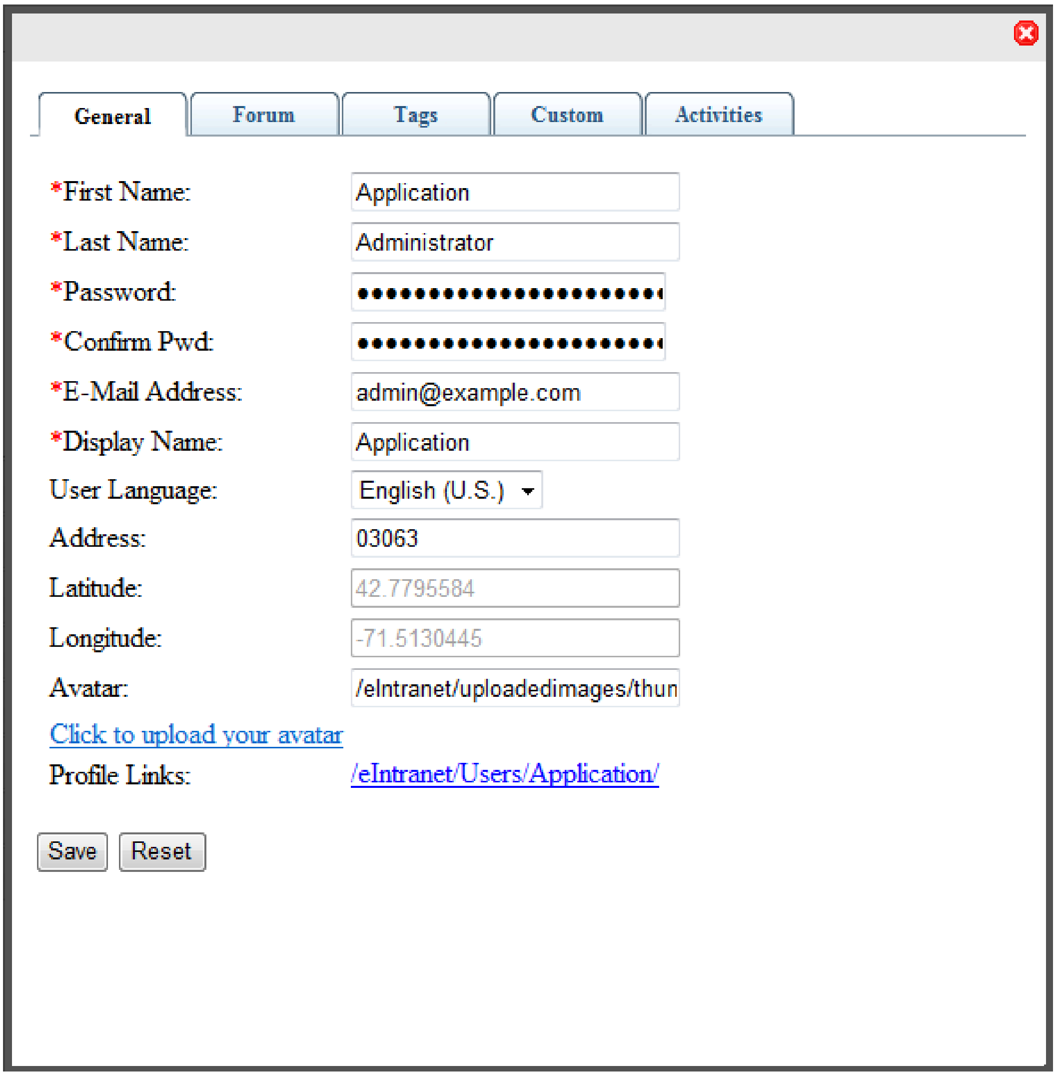
The Membership server control has a tabbed form that lets a site visitor create or update a profile. The control also can present new membership users with terms and conditions for using Discussion Boards when needed. *Membership Users and Groups* on page 1161

NOTE: You can view the Membership server control on the OnTrek starter site when you edit your profile.

You can specify the following information in the Membership server control tabs.

General Tab

Fields with a red asterisk (*) are required fields.



- **First name**—Enter your first name.
- **Last Name**—Enter your last name.
- **Password**—Enter a password.
- **Confirm Password**—Re-enter the password.
- **E-Mail Address**—Enter your email address. Notification email is sent to this address unless the **Disable E-mail Notification** field is checked. Also, this address identifies the user sending Instant email. See Also: *Installing Ektron* on page 9
- **Display Name**—Enter the name you want to display to others, which can be a nickname or title.
- **User Language**—Select from available languages.

- **Address**—Enter the address (or just the zip code) of where you are located.
- **Latitude**—This field is automatically determined by the address.
- **Longitude**—This field is automatically determined by the address.
- **Avatar**—Click **Click to upload your Avatar** and choose an image file that you want to associate with your profile. By default, the maximum file size of an avatar is 200 kilobytes. Also, the avatar's height and width cannot exceed 125 pixels preserving the aspect ratio.

  Changing the Default File Size

  To change the file size limit, edit `Siteroot\Workarea\Upload.aspx.vb`. In this file, change the line below to the maximum file size you want to allow.

  ```
  If (numFileSize > 200) Then
  ```

  For example, to allow 500 kb files, change 200 to 500.

  NOTE: Remember, this number is in kilobytes.

  Changing the Default Height and Width

  To change the default height and width, edit `YourSite\App_Code\VBCode\Utilities.vb`. In this file, change the following lines to the size you wish to allow.

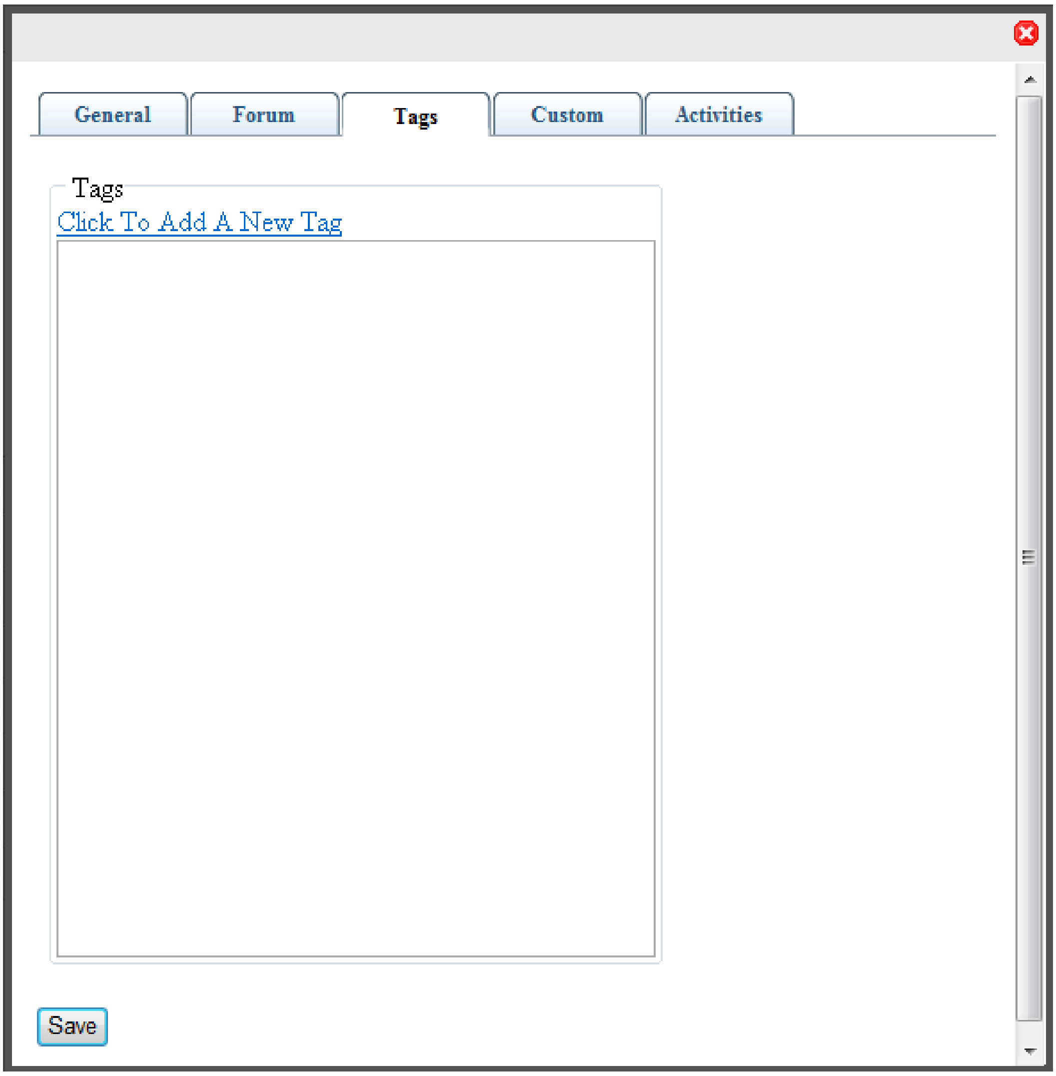
  ```
  Dim Width As Integer = 125
  Dim Height As Integer = 125
  ```

  For example, to set avatar's height and width to 166 pixels, change 125 to 166 in both lines.

Forum Tab

- **Content and Forum Editor**—Choose **eWebEdit400**, **Provider**, or **eWebEditPro**. Choose **Provider** to use a third-party editor (if installed).
- **Topics per Page**—Select a number of topics to display on a page. If the number of topics exceeds the number you select, a scroll bar lets you see the additional topics. For example, if you select 10, and there are 25 topics, only 10 are displayed at one time, but you can scroll down to see all topics.
- **Forum Signature**—Click **Edit** to enter or modify a signature that appears below each post you make to a forum topic.

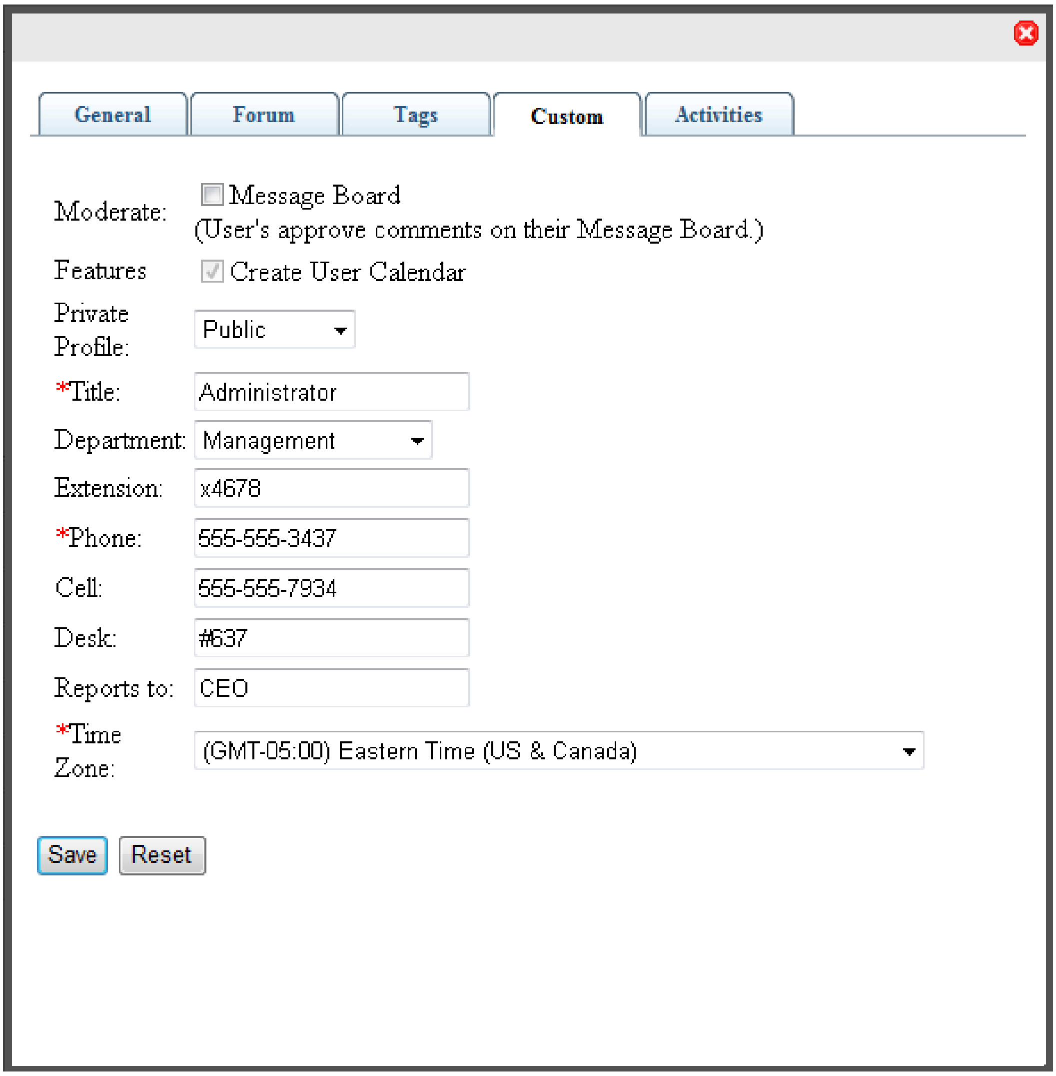
Tags Tab



- **Tags**—Keywords that you can assign to content and library items, which allows for tag-based searching. For example, you can add the tag **EAC** (Employee Activity Committee), and tag users related to the EAC. In this way, you can search for the users to which the **EAC** tag is applied. A tag cannot exceed 25 characters, and can include only alphabetical or numeric characters, a hyphen, or an underscore.

Custom Tab

Fields with a red asterisk (*) are required fields.

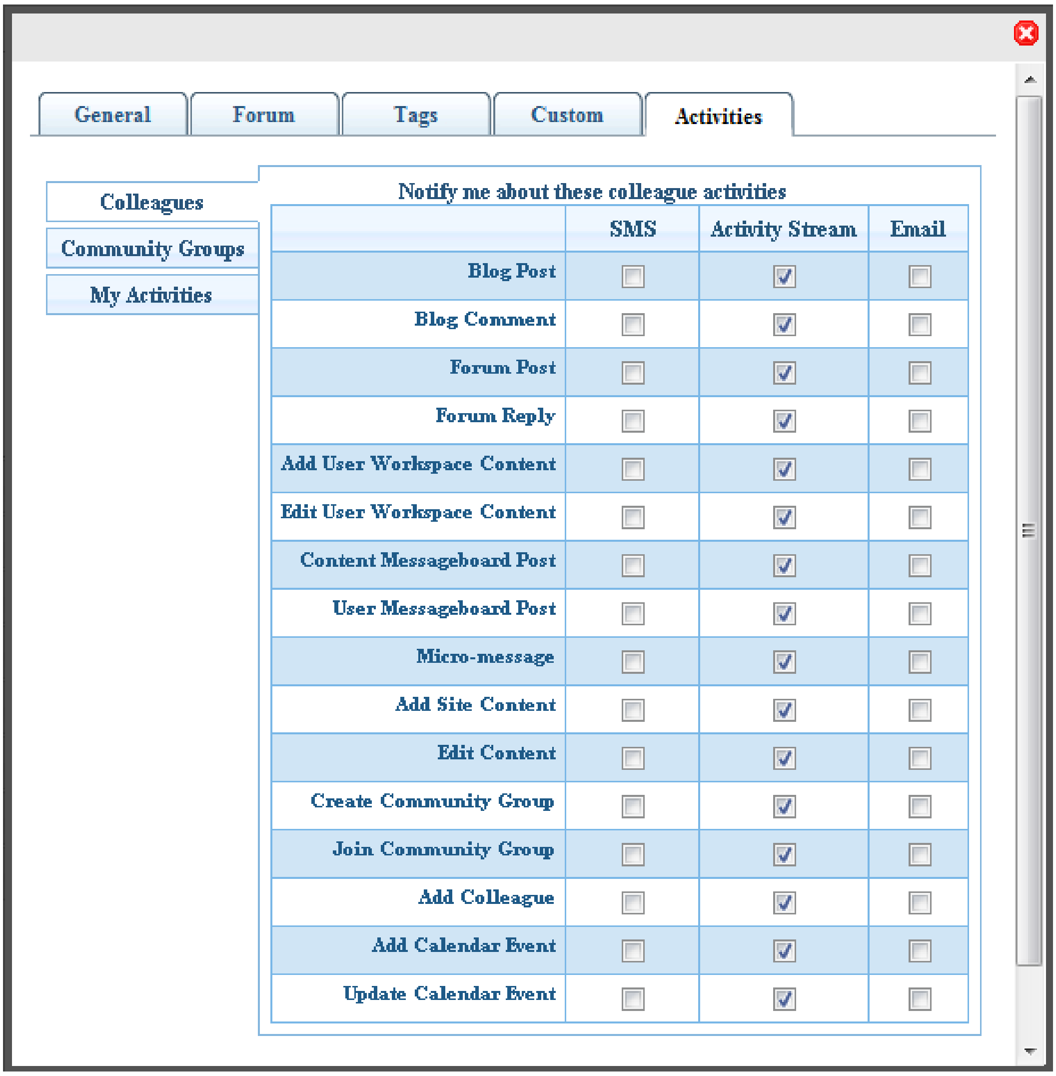


- **Moderate**—Check this box to give this user privileges on a message board to approve and delete posts. Regular users in a group message board can create and delete only their own posts.
- **Features**—Check this box to give the user an individual calendar. (There may be other features to grant also.)
- **Private Profile**—Choose one of these options:
    - Public—User information is accessible by others.
    - Private—User information is not accessible by others.
    - Colleagues—User information is accessible only by colleagues of the user.
- **Title**—Enter the title of the user.
- **Department**—Select the department to which this user belongs. The list contains any departments that you have created.
- **Extension**—Enter the user's telephone extension.
- **Phone**—Enter the user's company telephone number.
- **Cell**—Enter the user's cell phone number.

- **Desk**—Enter the value that identifies the location of the desk (or cubicle, or office), if your office identifies such things. This can be valuable in locating an employee on an office map.
- **Reports to**—Enter the person to whom the user reports. This can be valuable for developing organizational charts.
- **Time Zone**—Select the time zone where the user works.

Activities Tab

By default, all activity is checked to display in the Activity Stream widget. By checking the boxes, you can select criteria for the types of content you want to see when colleagues or community groups create the content. You can also select (publish) the types of content that you want colleagues to see under the **My Activities** category. See Also: *Sending Notifications to a Community* on page 1194



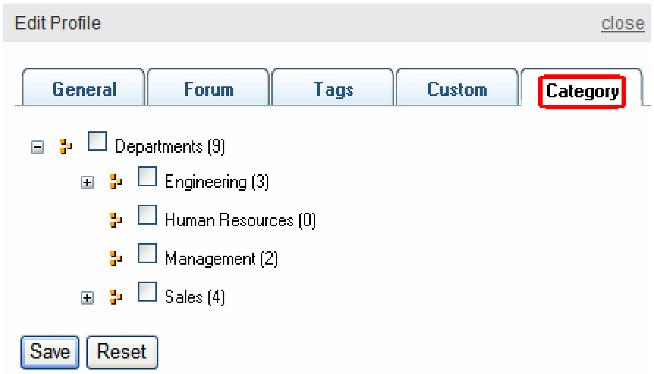
- **SMS**—A checked box indicates that the type of content will be sent to your cell phone Short Message Service (SMS).
- **Activity Stream**—A checked box indicates the type of content that will appear in the Activity Stream widget.

- **Email**—A checked box indicates that the type of content will be sent to your Email address, which is specified in the General tab of your profile.

Category Tab

The Category tab lets you select from a list of taxonomy categories with which you want to be associated. You determine which taxonomy appears on the tab by setting the `TaxonomyID` property.

IMPORTANT: The Category tab appears only when an ID is assigned to the `TaxonomyID` property.



Membership Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AllowAvatarUpload** (String)
  When set to **Active**, **Click to upload your avatar** appears on the **General** tab. This allows site visitors to upload an avatar when registering for the site. When set to **Disable**, the link is hidden. To force site visitors to choose from a gallery of avatars, enter a path to the template containing them. The predefined gallery appears in a pop-up window. To adjust this window's properties, edit the `*siteroot*\workarea\java\membershiptabs.js file.`
- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **BoardID** (Long)
  The ID of the Discussion Board for which to show the Terms and Conditions. If you don't know the ID, click **Ellipses**, then sign in, browse to and select the Discussion Board.
- **DisplayMode** (Mode)
  Lets a developer decide what type of membership form is added to the Web form. The following describes possible settings.
  - **User Registration**—Lets a site visitor register as a membership user. Also allows membership users to update their information and preferences when logged in.
  - **Reset Password**—Lets a membership user reset a password.
  - **Unsubscribe Secured**—Lets membership user unsubscribe by entering a username and password.

- **Unsubscribe Unsecured**—Lets membership user unsubscribe by entering a username.
- **Account Activate**—Let a site visitor activate a membership by entering the ID number sent in the account verification email.

- **DoInitFill** (Boolean)

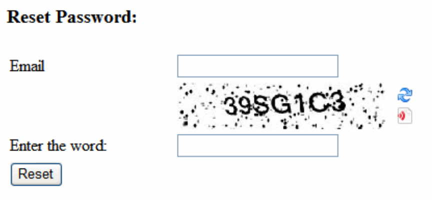
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter**

  To make this control dynamic, select id. When you do, this server control is attached to the user passed as a URL parameter.

- **EnableCaptcha** (Boolean)

  Use to add Captcha interface for more security. It looks like this.



  - **True**—Show Captcha
  - **False**—Hide Captcha

  If this property is set to **true**, Captcha appears while the control is in **User Registration**, **Account Activate**, or **Reset Password** mode. See www.captcha.net for more information about Captcha.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for the server control. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **RedirectFailedURL** (String)

  The URL to which a membership user is sent if the registration fails.

  - If the page resides in the same folder as the registration page, enter the page name. For example, **RegFailed.aspx**.
  - If the page resides in a subfolder, enter its path. For example, **members\RegFailed.aspx**.

- **RedirectSucessURL** (String)

  The URL to which a membership user is sent when the registration succeeds.

  - If the page resides in the same folder as the registration page, enter the page name. For example, **RegSucceed.aspx**.

- If the page resides in a subfolder, add its path. For example, **members\RegSucceed.aspx**.

- **RegisterButtonImg** (String)

  Lets you replace text on the register button with an image. Enter a path to the image. For example:

  `http://www.example.com/buttons/registerbutton.gif`

  If the image is located in the site root, enter only the subfolder path and image name. For example: `/buttons/registerbutton.gif`

- **RegisterButtonText** (String)

  Text that appears on the Register button. The default is **Register**. If you use a register button image, you do not see this text.

- **ResetButtonImg** (String)

  Lets you replace text on the reset button with an image. Enter a path to the image. For example:

  `http://www.example.com/buttons/resetbutton.gif`

  If the image is located in the site root, enter only the subfolder path and image name. For example: `/buttons/resetbutton.gif`

- **ResetButtonText** (String)

  Text that appears on the reset button. The default is **Reset**. If you use a reset button image, you do not see this text.

- **SaveButtonImg** (String)

  Lets you replace text on the Save button with an image. Enter a path to the image. For example:

  `http://www.example.com/buttons/savebutton.gif`

  If the image is located in the site root, enter only the subfolder path and image name. For example: `/buttons/savebutton.gif`

- **SaveButtonText** (String)

  Text that appears on the save button. The default is **Save**. If you use a save button image, you do not see this text.

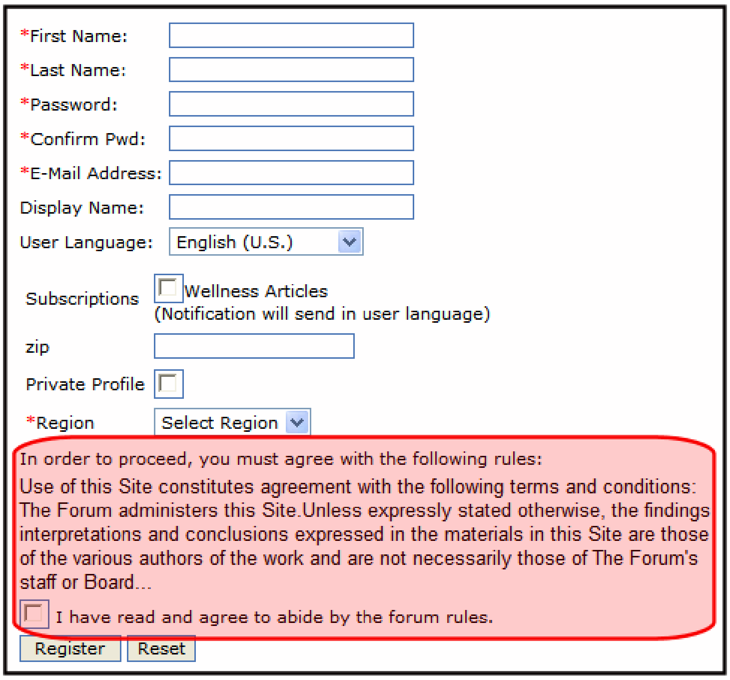
- **ShowExtended** (String)

  Decide if the Custom User Properties Tab is available when using this control. The default setting is **True**.

  - **True**—Show Custom User Properties tab.
  - **False**—Hide Custom User Properties tab. For more information, see *Creating Custom User Properties* on page 1108.

- **ShowTerms** (Boolean)

  Terms and Conditions are defined for the Discussion Forum specified in the Membership server control's `BoardID` property. If you set the `ShowTerms` property to `True`, the Terms and Conditions for the forum identified in the control's `BoardID` property appear near the bottom of the Membership Server Control. A membership user must check the box to complete a registration.



If Terms and Conditions are defined for the specified Discussion Board and `ShowTerms` property is set to `False`, you must accept the Terms and Conditions the first time you create a post or a reply.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TaxonomyID** (Long)

  The ID of a taxonomy available to users. A user editing or creating a profile can select which categories from this taxonomy to associate with their profiles.

- **UserExistsMessage** (String)

  The message that appears when a membership user already exists. The default message is: **Username(email) already exists!**

- **UserSuccessMessage** (String)

  The message that appears when a membership user successfully registers. The default message is: **You have registered successfully**. You can also use this property to set the message that appears when users successfully unsubscribe or reset their password. To do this, enter the success message in this property and set the `DisplayMode` property to the proper usage.

- **UserUpdateSuccessMessage** (String)

  The message that appears when a membership user successfully updates their information. The default message is: **You have successfully updated your information.**

- **WrapTag** (String)

  Lets a developer specify a server control’s tag.

- **Span** (default)—designate an inline portion of an HTML document as a span element.
- **Div**—apply attributes to a block of code.
- **Custom**—Lets you use a custom tag.

Menu

IMPORTANT: Starting from release 8.6, the Menu server control was replaced by the FrameworkUI: <ektron:MenuView> templated server control. If you are already using the Menu server control, you can continue to do so, but Ektron recommends using current versions of functionality.

The Menu server control calls a menu to be displayed on a page. Using the Menu server control, you can manipulate a menu by using the `DisplayXslt` property. Below is a menu display with the SampleMenu XSLT.

Before you can use the Menu server control, you must create a menu in the Workarea. See Also: *Using Menus* on page 753

This section also contains the following topics.

Menu Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultMenuID** (Long)

  The ID of a menu that appears where you insert this server control if no other menu is identified or available. If you don’t know the ID number of the menu, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **DisplayXslt** (String)

  The XSLT to use to render the menu.

  - **None**—databind only
  - **SampleMenu**—A sample display, formatted as a bulleted menu list
  - **TreeMenu**—A sample display, formatted as a folder tree. You can expand the tree by clicking on the folder icon.
  - **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  For more information on using the SampleMenu and TreeMenu DisplayXslt, see *Using DisplayXslt Samples* on the facing page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Select **menu_id**. When you do, this server control uses the menu passed as a URL parameter.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

  For more information, see *Working with Menus in a Multi-Language System* on page 770.

- **Stylesheet** (String)

  Specify the location and style sheet for the menu. For example: `\Workarea\csslib\mytest.css`. Leave blank to use the default. `global.css` is the default style sheet. It is located in `\`*`webroot`*`\`*`siteroot`*`\Workarea\csslib`.

- **SuppressAddEdit** (Boolean)

  - **True**—suppress the Add and Edit buttons when a user is logged in.
  - **False**—show the Add and Edit buttons when a user is logged in.

  The default is False.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

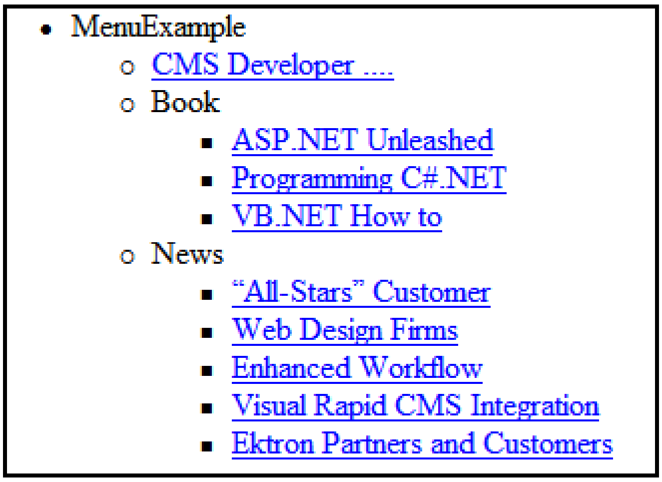
Using DisplayXslt Samples

Two DisplayXslt samples are provided with the Menu server control, SampleMenu and TreeMenu. This section explains how to use them.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

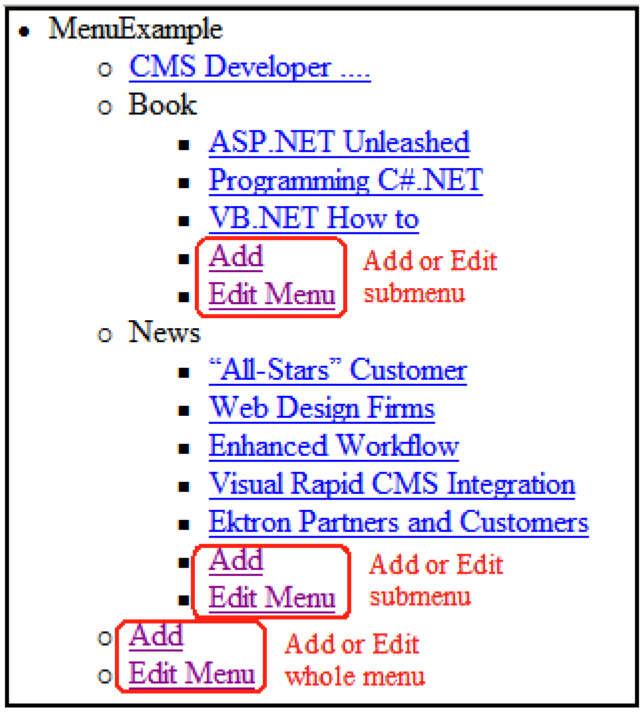
SampleMenu

The SampleMenu DisplayXslt lets you display an Ektron menu as a bulleted item list. See below for an example.



When you are logged in to your Ektron site, 2 menu items are added to each section of the menu: Add and Edit Menu. The user can use these to add a new menu item or edit an existing one. See example below.

For information on a adding or editing a menu item, see *Adding a Menu Item via Navigation Link on a Web Page* on page 761.



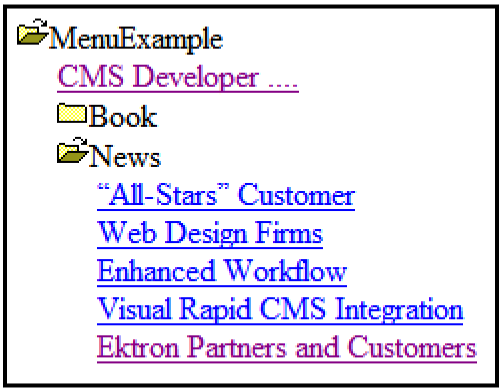
SampleMenu XSL code

For an example of the XSL code used in the SampleMenu, click the following link and choose the appropriate version.

Built-in CMS400 XSLs

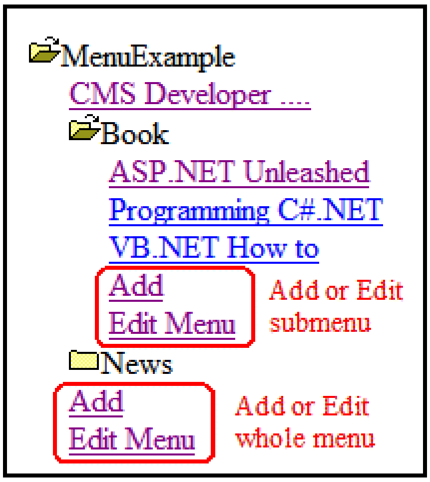
TreeMenu

The TreeMenu DisplayXslt lets you display an Ektron menu as a clickable folder list. You can expand and collapse the menu by clicking on the folder icons.



When you are logged in to your Ektron site, 2 menu items are added to each section of the menu: Add and Edit Menu. The user can use these to add a new menu item, or edit an existing menu item. See example below.

For information on a adding or editing a menu item, see *Adding a Menu Item via Navigation Link on a Web Page* on page 761.



NOTE: When using the TreeMenu server control with Visual Studio and Windows 2003, the folder images do not display during design-time. They do, however, display correctly during run-time.

TreeMenu XSL Code

For an example of the XSL code used in the MenuTree, click the following link and choose the appropriate version.

Built-in CMS400 XSLs

Retrieving the XML Structure of a Menu

Retrieving a menu's XML structure provides greater control over developing XSLs. The following is an example of how to retrieve the XML structure:

1. Open a new Web form.
2. Drag and drop a Menu server control onto it.
3. Set the `DefaultMenuID` properties.

4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to MultiLine.
6. Set the width of the text box to at least 400px.
7. On the code-behind page, add the following line.

```
Textbox1.Text = Menu1.XmlDoc.InnerXml
```

8. Build the project.
9. View the Web form in a browser.
10. The XML structure of the menu appears in the textbox.

MessageBoard

The Message Board server control allows a user to submit comments on a Web page about a

- user
- community group
- content item

Comments are presented in a “wall” type format, which means that the newest one appears at the top, and older comments are pushed down as new ones arrive.

Other users can reply to comments. Replying to Message Board comments facilitates community building by allowing members to share information and, thereby, feel they have a personal stake in the discussion.

Comments are posted to the Message Board immediately unless the board is moderated. See Also: *Moderating a Message Board* on page 1175

On a PageBuilder page, you can insert a Message Board using the Message Board widget.

MessageBoard Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **CommentBoxLocation**

  Defines the location of the comment box. By default, bottom is selected. Choices are:

  - **Bottom**—comment box appears below the comments
  - **Top**—comment box appears above the comments
  - **Data Type:** EkEnumeration.MessageBoardCommentBoxLocation

- **DefaultObjectID** (Long)

  The default object ID for this control to use when there is no matching dynamic parameter value passed.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

  If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicObjectParameter** (String)

  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to

True, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space, enter the maximum number of results per page here. Then, set the **EnablePaging** property to **True**. If you do and more than the number of **MaxResults** are available, navigation aids help the site visitor view additional items.

- **Moderate** (Boolean)

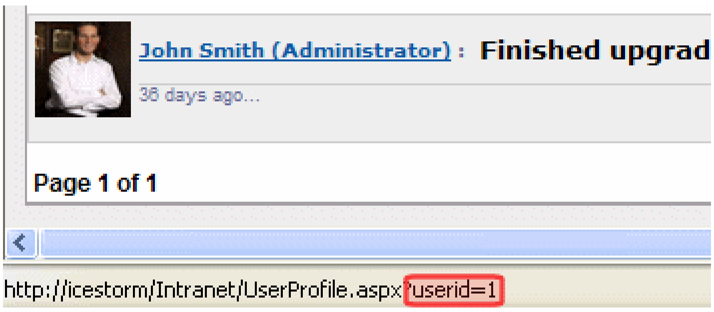
  Set to `True` to force moderation of the Message Board. If set to `false`, moderation is controlled by the user or community group with which the Message Board is associated. See Also: *Moderating a Message Board* on page 1175

- **ObjectType** (EkEnumeration.MessageBoardObjectType)

  The type of object to which the Message Board is assigned. Choices are:

  - **Content**—a content item
  - **User**—an individual
  - **CommunityGroup**—a community group
- **ProfileParamName** (String)

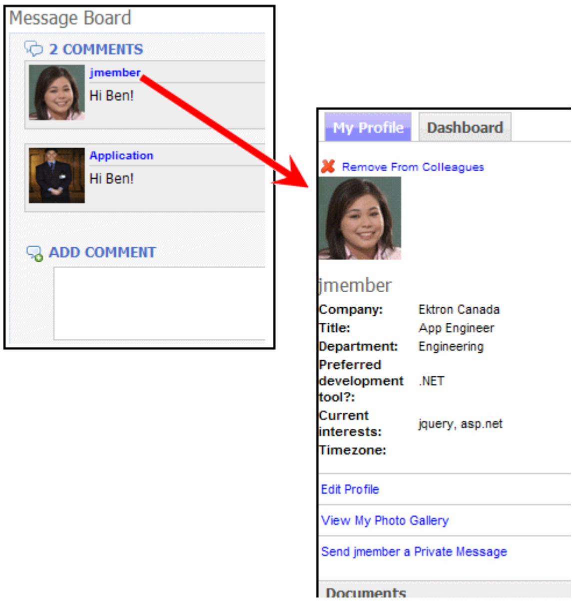
  The parameter name to pass in the QueryString to the TemplateUserProfile page, if you want it to be anything other than id. For example, you may prefer `userid`, because it is more descriptive, as shown in the following example.



- **ShowMaxCharacter** (Integer)
  The maximum number of characters to display in the comment. If the number of characters in a comment exceeds this, a **... more >>** link appears. Users click the link to see the full text.
- **SpamControlType** (EkEnumeration.MessageBoardSpamControlType)
  Assigns a spam filter to the Message Board. Ektron provides 3 spam filters, and the ability to define your own. Spam control is turned off by default. Filter choices are:
  - **SameUserMessageDay**—a user cannot post the same comment to a board more than once per day
  - **SameUserTimeDelay**—prevents user from posting another comment for period of time, specified in the `SpamTimeSpan` property.
  - **SameMessageTimeDelay**—prevents user from posting an identical comment for a period of time, specified in the `SpamTimeSpan` property.
  - **Custom**—Message Board uses your custom spam filter code. See *Filtering Spam* on page 1180.
- **SpamTimeSpan** (Integer)
  The number of seconds for which the `SameUserTimeDelay` or `SameMessageTimeDelay` spam filters delay a user from posting a second time. See Also: *Filtering Spam* on page 1180
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TemplateUserProfile** (String)
  The URL path to a page that contains a UserProfile server control. The path can be relative or absolute. If you enter a path, a user can click any user’s name or avatar from the Message Board server control and be forwarded to that profile page. See illustration below.



Note that user templates can be defined in the **Workarea > Settings > Community Management > Templates** screen. However, if you assign a template in this field, this setting takes precedence over the setting on the Workarea Template screen.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Messaging

The Messaging server control lets a site user send and receive messages. You can limit message recipients to a user's colleagues or expand it to all Ektron users. The Messages control can appear on a site or also in the Workarea. Typical messaging functions apply, such as compose (in the Workarea), reply (in the Workarea), forward (in the Workarea), print (in the Workarea), delete (in a sample site, in the Workarea).

Populating the To: Field of a Message

You can populate a message's **To:** field with user names by setting the `RecipientParamName` property to a QueryString parameter. This feature lets you create a link on a page, such as **Send a Message to this user** or **Send a message to all users in this group**. For example, you create a Web page link to a template containing the Messaging server control, pass a user's ID in the QueryString as UID, and populate the `RecipientParamName` property with **UID**. As a result, the server control reads the user's ID and completes the **To:** field with the user's name.

Here is how the link might look: `messaging.aspx?g=pmessage&uid=1`

You can pass multiple user IDs. For example:
`messaging.aspx?g=pmessage&uid=1&uid=20&uid=12&uid=18`

IMPORTANT: You must include the `g=pmessage` parameter in the QueryString to open the Messaging server control to its editor. Otherwise, the server control opens to the Inbox.

The VB example below creates a dynamic hyperlink that populates a message's **To**: field with a logged in user's colleagues. For this example to work, add a Literal control to a Web form and name it **Lit1**. Notes are included as comment text.

```
Protected Sub Page_Load(ByVal sender As Object,
  ByVal e As System.EventArgs) Handles Me.Load

    Dim frnds As New Ektron.Cms.API.Community.Friends()
    Dim apicontent As New Ektron.Cms.ContentAPI
    Dim dirUsrData() As Ektron.Cms.DirectoryUserData

    If (apicontent.UserId > 0) Then
      dirUsrData = frnds.GetFriends(apicontent.UserId)
      If ((Not IsNothing(dirUsrData)) AndAlso (dirUsrData.Length > 0))
      Then
        Dim idx As Integer
        Dim friendsList As String = String.Empty
        For idx = 0 To dirUsrData.Length - 1
          'friendsList += "&uid=" + dirUsrData(idx).Id.ToString()
            friendsList = friendsList + "&uid="
            + dirUsrData(idx).Id.ToString()
        Next
          Lit1.Text = "<a href=""MsgSample.aspx?g=pmessage" + friendsList
            + """>Send a message to my friends</a>"
'
'Replace MsgSample.aspx with the Web form that contains
'the messaging server control.
'Set the RecipientParamName property to "uid" for this example.
'
        Else
            Lit1.Text = "The logged in user currently has no friends"
        End If
        Else
            Lit1.Text = "You must be logged in to run this demo"
        End If
        apicontent = Nothing
        frnds = Nothing
 End Sub
```

Messaging Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **EnablePreSearch** (Boolean)

  When set to True, all users are pre-loaded and displayed in the search results when browsing for users (an empty string search). If the `FriendsOnly` property is set to True, only colleagues are pre-loaded and displayed.

- **FriendsOnly** (Boolean)

  When set to True, users can only send messages to their colleagues.

  - **True** (default)—send messages to colleagues only
  - **False**—send messages to all Ektron users

- **GroupParamName** (String)

  Enter the QueryString parameter used to pass the ID of a community group. The default is **gid**. Use this property to email all members of a group.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **ProfileParamName** (String)

  The QueryString parameter used to pass the ID of a user to a profile page or location template when a user name is clicked in the Browse User screen. The default is ID. The parameter defined in this property is appended to the QueryString of the path defined in the `ProfileUrl` property. The default is ID.

  IMPORTANT: This parameter must match the parameter set in the UserProfile server control's `DynamicParameter` property on the page defined in the `ProfileUrl` property.

- **ProfileUrl** (String)

  The URL of the profile page template. This page opens in a new window when a user clicks a display name on the Browse Users screen. This provides additional profile information about the potential message recipient.

- **RecipientParamName** (String)

  Enter the QueryString parameter used to pass a user ID. For example, if the QueryString is `?uid=1`, enter `uid` in this property. To pass several users, enter a comma -separated list of user IDs. For example: `?uid=1,20,12,18`. This property is typically used when you want to populate a message's **To:** field. See Also: *Populating the To: Field of a Message* on page 1790

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **UserSearchDisplayXslt** (String)

  The XSLT used to display the user search control inside the Messaging server control. The default is `MsgUserSelect.xsl`.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Metadata

The Metadata server control lets you add the metadata from content blocks to a Web page. This lets developers add metadata quickly without having to type it in. You can add metadata from a single content block, multiple content blocks, or dynamically pass a content ID from a URL.

In contrast, the MetaDataList server control lets you create a list of content blocks to display on your site, based on metadata assigned to the content. See Also: *MetadataList* on page 1796.

The Metadata properties are described below.

Metadata Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultContentID** (Long)

  Enter the ID of the content block whose metadata is added to the page. If you don't know the ID number of the content block, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610. If you want to add metadata from several content blocks, set this property to 0 (zero) and use the `DefaultItemList` property to identify them.

- **DefaultItemList** (String)

  A bracket-separated list of content block IDs whose metadata added to the page. This list is used only if the `DefaultContentID` property is set to 0 (zero). For example:

DefaultItemList	[92][12][4][7]

  In the ID list, you can specify metadata definitions to *exclude* for each content block. To exclude a metadata definition, insert a semicolon after the ID and enter the metadata definition. For example,

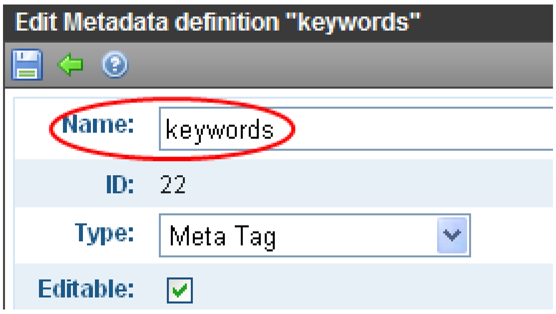
DefaultItemList	[30][10;Title][23;Title;Description]

  In the above example, the control will:

  - add all metadata definitions for content block 30
  - exclude the `Title` metadata definition for content block 10
  - exclude the `Title` and `Description` metadata definitions for content block 23

  Note the following criteria for metadata definitions that may be excluded:

  - the definition is case-sensitive, so must exactly match how the **Name** field of the Metadata Definitions screen.

  - The metadata definition type must be **Meta Tag**

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  Gets or sets the QueryString parameter to read a content ID dynamically.

- **GenerateDublinCore** (Boolean)
  When enabled, this property automatically creates 7 of the Simple Dublin Core metadata fields from standard Ektron system properties. The default is false.
  - **True**—Generate Simple Dublin Core metadata fields
  - **False**—Do not generate Simple Dublin Core metadata fields

  The 7 fields and how they are associated with the Ektron properties is explained in *Applying Simple Dublin Core Metadata* on page 380
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

These steps show how to use the MetaData server control.

1. Drag a MetaData server control onto a template.
2. Set the properties of the Metadata server control. This will create the following HTML in the HTML body.
   ```
   <cms:MetaData id="MetaData1" runat="server"
   DefaultContentID="12"></cms:MetaData>
   ```
   Or, if you are using multiple content block IDs in the `DefaultItemList`, the following HTML is created.
   ```
   <cms:metadata id="MetaData1" runat="server" DefaultItemList="[12,7,4]">
     </cms:metadata>
   ```

3. Click the **HTML** tab and copy that line from the `<body>` tag to the `<head>` tag.

```
<HEAD>
    <title>WebForm5</title>
    <cms:MetaData id="Metadata2" runat="server" DefaultContentID="12"></cms:MetaData>
    <meta name="GENERATOR" content="Microsoft Visual Studio .NET 7.1">
    <meta name="CODE_LANGUAGE" content="Visual Basic .NET 7.1">
    <meta name="vs_defaultClientScript" content="JavaScript">
    <meta name="vs_targetSchema" content="http://schemas.microsoft.com/intellisense/i
</HEAD>
<body>
    <form id="Form1" method="post" runat="server">
    </form>
</body>
```

4. Save the Web form and rebuild the solution.
5. Open the Web page in the browser.
6. Right click the Web page and click **View Source**.
7. In the `<head>` tag, you see meta tags from the content block added to the page, as shown in the following image.

```
WebForm5[1] - Notepad
File Edit Format View Help

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
  <HEAD>
    <title>WebForm5</title>
    <title>CMS Developer</title>

    <meta name="keywords" content="CMS400; .NET; CMS">
    <meta name="description" content="CMS400 developer section">

    <meta content="Microsoft Visual Studio .NET 7.1" name="GENERATOR">
    <meta content="Visual Basic .NET 7.1" name="CODE_LANGUAGE">
    <meta content="JavaScript" name="vs_defaultClientScript">
    <meta content="http://schemas.microsoft.com/intellisense/ie5"
name="vs_targetSchema">
  </HEAD>
```

MetadataList

IMPORTANT: Starting from release 8.6, the MetadataList server control was replaced by the MetadataFilters of the FrameworkUI: <ektron:ContentView> templated server control. If you are already using the MetadataList server control, you can continue to do so, but Ektron recommends using current versions of functionality.

Use the MetadataList server control to create lists based on Keyword Names and Keyword Values contained within content metadata. The list can display the information as a list of hyperlinks. You can choose, based on properties you set, to display the summary and how to order the display. See Also: *Working with Metadata* on page 369

NOTE: On a PageBuilder page, you can insert a metadata list using the MetaDataList widget. See Also: *Widget Reference* on page 714

The MetadataList properties are described below.

MetadataList Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

IMPORTANT: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **ContentType** (Ektron.Cms.Controls.CmsWebService.CMSContentType)
  Select a type of content for this control. Choices are:
  - All Types
  - Content
  - Forms
  - Archive_Content
  - Archive_Forms
  - Assets
  - Archive_Assets
  - LibraryItem
  - Multimedia
  - Archive_Media
  - NonLibraryContent
  - DiscussionTopic
- **DisplayXslt** (String)
  Determines how the information on the page appears
  - **None—**databind only
  - **ecmNavigation**—lists the title of every content block in the folder. See Also: *ecmNavigation Display Example* on page 1682
  - **ecmTeaser**—lists the title of every content block in the folder plus the content summary. See Also: *ecmTeaser Display Example* on page 1682
  - **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

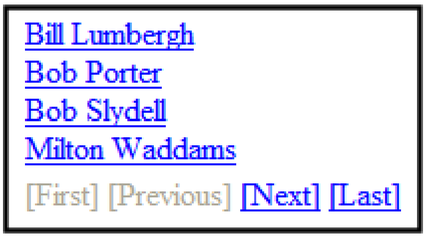
If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render

event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen. See example below.

  So, for example, if specified metadata is found in 9 items and the `MaxResults` property is set to 3, the screen displays only the first 3 items. When the site visitor clicks **[Next]**, the visitor sees items 4, 5 and 6, and so on.

  NOTE: If the `EnablePaging` property is set to True, the `CacheInterval` property is disabled.

- **ExactPhrase** (Boolean)

  Determines whether the KeyWordValue needs to match the metadata value exactly. For example, if "site" is the KeyWordValue, the title of a content block is "Welcome to the site" and ExactPhrase is set to **True**, you would not see the content block in the metadata list. This is because "site" does not equal "Welcome to the site".

  - **True**—Match the exact phrase
  - **False**—Doesn't need to match exact phrase

- **FolderID**

  The folder ID from which content is retrieved. At the `Recursive` property, you determine if content in this folder's subfolders are also retrieved.

- **GetAnalyticsData** (Boolean)

  Set this property to **True** if you want the following information for each content in the list. Returns **Content View Count**, **Content Rating**, **Content Rating Average**. Create your own XSLT styles to display this data. This property only provides reliable data when the Business Analytics Feature is on. *Analyzing Content* on page 601.

- **GetHtml** (Boolean)

  Set to **True** if you want to display the content (html body) for all content to appear on this metadata list. For example, you want to display content inside a Web server control such as a GridView.

- **Hide** (Boolean)

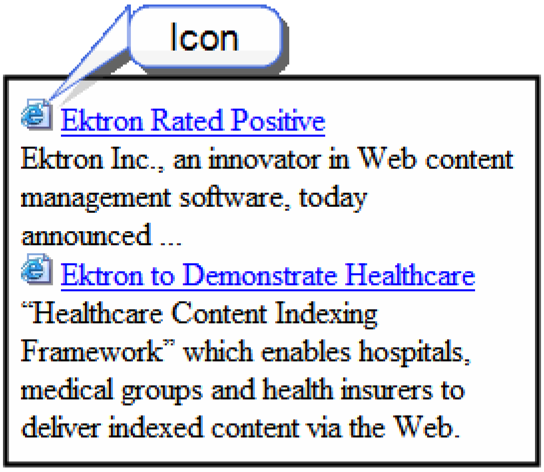
  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **IncludeIcons** (Boolean)

  Choose whether to display icons next to the metadata list's links.

NOTE: This property only works when ecmSummary or ecmTeaser are used in the `DisplayXslt` property. When the `[$ImageIcon]` variable is used in an EkML file and that file is assigned to the `MarkupLanguage` property, this property acts as True.



- **KeyWordName** (String)

  KeyWordName represents a metadata definition, that is, the container for the KeyWordValues. Examples of a KeyWordName are **Keywords** and **Title**. If you are authenticated, you can click the ellipsis button and select from a list of existing metadata definitions. For information on creating metadata definitions, see *Adding a Metadata Definition* on page 370.

- **KeyWordValue** (String)

  Enter the values associated with the KeyWordName. Only content whose metadata (defined at the `KeyWordName` property) matches this value appears on the metadata list. Examples of a KeyWordValue are "home; page; company." To view an illustration of the relationship between KeyWordName and KeyWordValues, see *MetadataList* on page 1796.

  NOTE: The character that separates multiple items is defined at the `KeyWordValueSeparator` property. At the `KeyWordValueMatchAll` property, you determine if all metadata definition values must match or any one of them.

- **KeyWordValue MatchAll** (Boolean)

  This property is only used if you enter more than one keyword value. If you do, and only want content to appear on the metadata list if *all* values entered at the KeyWordValue field match its metadata values, enter **True**. If metadata can appear on the list as long as *any value* defined at the KeyWordValue field matches the selected metadata value for a content item, enter **False**.

  Example:

  KeyWordValue for **Title** (assigned for this server control): home; page; company. Metadata values for a content item's **Title** metadata definition field: software; ektron; company.

  - If `KeyWordValueMatchAll =true`, content does not appear on metadata list because some items do not match.
  - If `KeyWordValueMatchAll = false`, content item appears on metadata list because one item (company) matches.

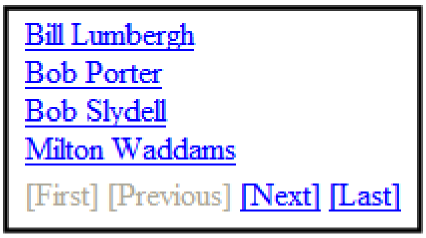
- **KeyWordValueSeparator** (String)
  Enter the character used to separate the list of keyword values. An example is a semicolon(;).
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LinkTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.
  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.
- **MarkupLanguage** (String)
  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

  See Also: *metadatalist.ekml* on page 1912

  NOTE: If you enter a valid EkML file at the **MarkupLanguage** property, the **Displayxslt** property value is ignored. If the EkML file contains the `[$ImageIcon]` variable, the `IncludeIcons` property acts as True.

- **MaxNumber** (Integer)
  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space being occupied, enter the maximum number of results per page here. Then, set the `EnablePaging` property to **true**.

  If you do and more than the number of `MaxResults` are available, navigation aids appear below the last item to help the site visitor view additional items. See example below.



- **OrderBy** (Ektron.Cms.Controls.CmsWebService.ContentOrderBy)
  The order of the list to be returned.
  - **Title**—The title of the content block
  - **ID**—The content block ID number
  - **Date Created**—The date the content block was created
  - **Date Modified**—The date the content block was last modified
  - **LastEditorLname**—The last editor's last name

   - **LastEditorFname**—The last editor's first name
   - **ContentRatingAverage**—Business Analytics Content Rating
   - **ContentViewCount**—Business Analytics Content Views

- **Recursive** (Boolean)

  Whether to search sub-folders of the identified root folder. The starting folder is identified in the `FolderID` property.

- **SortOrder** (String)

  Choose the order direction of the list, Ascending or Descending.

- **SuppressWrapperTags** (Boolean)

  This property is set to `false` because Ajax uses `<div>` tags to rewrite the region around the tag. You *cannot* change the value to `true`.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

   - **Span** (default)—designate an inline portion of an HTML document as a span element.
   - **Div**—apply attributes to a block of code.
   - **Custom**—Lets you use a custom tag.

Retrieving the XML Structure of a MetadataList

Retrieving the XML structure of XML content allows for greater control over developing XSLs. The following is an example of how to retrieve the XML structure:

1. Open a new Web form.
2. Drag and drop a MetadataList server control onto it.
3. Set the `KeyWordName` and `KeyWordValue` properties.
4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to **MultiLine**.

   NOTE: You should set the width of the text box to at least 400px.

6. On the code-behind page, add the following line.

```
Textbox1.Text = Metadata1.XmlDoc.InnerXml
```

7. Build the project.
8. View the Web form in a browser.
9. The XML structure of the MetadataList appears in the textbox.

Micro-messaging

The Micro-messaging server control lets users post brief messages. It resembles micro-blogging services like Twitter. See Also: *Using the Micro-messaging Server Control* on page 1256.

Micro-messaging Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultObjectID** (Long)

  The default object ID for this control to use when there is no matching dynamic parameter value passed.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicObjectParameter** (String)

  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank. For example, if you are passing the ID value of a user, you might enter 'uid' for this property. So, if you passed `http://~yoursite~/UPpage.aspx?uid=21` on the QueryStrings to a page containing this control, you would see the list of Micro-messages for the user with an ID of 21.

- **EnablePaging** (Boolean)

  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space, enter the maximum number of results per page here. Then, set the **EnablePaging** property to **True**. If you do and more than the number of **MaxResults** are available, navigation aids help the site visitor view additional items.

- **MaxSearchResults** (Integer)

  The maximum number of messages to return when performing a micro-message search. 0 (zero) = unlimited.

- **Mode** (ActivityFeedType)

  Specify the type of micro-messages you want to display. Choices are:

  - **User**—micro-messages for logged-in user with search option
  - **Colleagues**—micro-messages for logged-in user and colleagues of a specified user with search option
  - **TimeLine**—micro-messages from all site users whose Private Profile setting is set to Public; includes search option
  - **Message**—a single message

  See Also: *Server Control Reference* on page 1636

- **ProfileParamName** (String)

  The parameter name to pass in the QueryString to the TemplateUserProfile page, if you want it to be anything other than id. For example, you may prefer `messageid`, because it is more descriptive.

- **SpamControlType**

  Assigns a spam filter to the micro-messages. The control supplies 3 predefined spam filters, and the ability to define your own. Spam control is turned off by default. Filter choices are:

  - **SameUserMessageDay**—prevents a user from posting the same message to the board more than once per day
  - **SameUserTimeDelay**—prevents a user from posting another message for specified period of time. The amount of time is specified, in seconds, in the `SpamTimeSpan` property.
  - **SameMessageTimeDelay**—prevents a user from posting an identical message for a specified period of time. The amount of time is specified, in seconds, in the `SpamTimeSpan` property.
  - **Custom**—control uses custom spam filter code. See *Server Control Reference* on page 1636.

  See Also: *Server Control Reference* on page 1636

- **SpamTimeSpan** (Integer)

  Sets the amount of time, in seconds, for which the `SameUserTimeDelay` or `SameMessageTimeDelay` spam filter delays a user from posting. These values can be selected in the `SpamControlType` property.See Also: *Server Control Reference* on page 1636

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

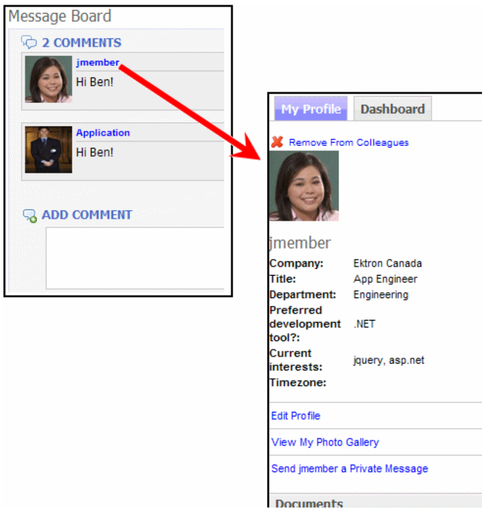
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TemplateMessage** (String)

  The URL path to a page that contains another Micro-messaging server control. When this property contains such a path, and the destination page has a Micro-messaging control whose `Mode` property is set to `Message`, a user can click a micro-message’s time span on the first page to open a second page that contains just that message.See Also: *Server Control Reference* on page 1636

- **TemplateUserProfile** (String)

  The URL path to the page that contains the UserProfile server control. The path can be relative or absolute. If you enter a path, a user can click any user’s name or avatar from the Micro-message server control and be forwarded to that profile page.



  Note that user templates can be defined in the **Workarea > Settings > Community Management > Templates** screen. However, if you assign a template in this field, this setting takes precedence over the setting on the Workarea Template screen.

- **WrapTag** (String)

  Lets a developer specify a server control’s tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

MyAccount

The MyAccount server control lets logged-in customers (site visitors) view and edit their Personal Information, Billing Address and Shipping Address. See Also: *Using the MyAccount*

Server Control on page 1420.

MyAccount Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **CustomerPropertyID** (String)

  An ID or comma separated list of IDs for a Custom User Property (or properties) to expose in the UI. These properties are used to define information about a user beyond the standard Ektron user properties; such as Username, First Name, Password and email Address. See Also: *Editing Personal Information* on page 1422.

  IDs for these properties can be found in the Workarea > Settings > Configuration > Custom Properties screen. See Also: *Creating Custom User Properties* on page 1108.

- **CustomXml** (Code-behind Only) (String)

  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

  ```
  <root><customXml>custom-xml-inserted-here</customXml></root>
  ```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.

- **DefaultCountryID** (Integer)

  The ID of the default country that appears in the Billing Address and Shipping Address. Set this ID to the country from which the majority of your customers will be making purchases. If the customer is from a different country, the customer can it change when editing the Billing or Shipping Address.

  NOTE: If a customer enters information in the Billing Address area, the Billing Country seeds the Shipping Country when adding a new Shipping Address.

  To find a country's numeric ID, sign into the Workarea. Then go to **Settings > Commerce > Configuration > Countries**. The Numeric ID is in the left column of that screen.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `MyAccount.xsl`. This file is located in `siteroot\Workarea\Xslt\Commerce`

  IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LoadingImage** (String)
  The image to display while the control is fetching data. The default is `siteroot\Workarea\images\application\ajax-loader_circle_lg.gif`.
- **RedirectUrl** (String)
  Enter the path of a template that contains the Login server control. When a customer arrives at this control and is not logged in, the control checks this property for a path to template containing a Login server control. If one exists, the customer is sent to that template. When the customer logs in, the template containing the MyAccount server control appears. If no path exists, the control checks the `web.config` file's <addkey=”ek_RedirectToLoginURL”value=””/> value for a path.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

OrderList

The OrderList server control lets customers view a list of processed orders. Customers typically reach this server control by clicking a link on your site, such as the **View Order History** link.

For information about how to use the OrderList server control, see *Using the OrderList Server Control* on page 1423.

OrderList Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **CustomXml** (Code-behind Only) (String)
  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

```
<root><customXml>custom-xml-inserted-here</customXml></root>
```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.

- **DefaultUserId** (Long)
  The default ID of the user for which to display a list of orders.

- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `OrderList.xsl`. This file is located in `*siteroot*\Workarea\Xslt\Commerce`

IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

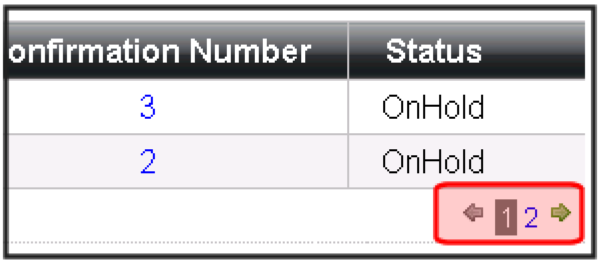
- **DynamicProductParameter** (String)
  The QueryString parameter name which is used to pass the product ID to the product details page. For example, if your QueryString parameter for products is ID, enter that in this property. Then, when customers click a product in their order list, this parameter is passed with the product's ID to the product details page.

- **DynamicOrderParameter** (String)
  Sets the QueryString parameter name which is used to pass an order ID dynamically. By default, this parameter is OID.

- **GuestOrderView** (Boolean)
  Set to **true** to allow guest account visitors to view their orders. If you do, a visitor can go to the View Orders screen, enter an order number and an email address, then view all submitted orders. See Also: *Server Control Reference* on page 1636

- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **MaxResults** (Integer)
  Specify the number of orders to show per page when a customer views their order history. If the number of orders exceeds the quantity defined in this property, the list is paged and the customer uses the paging navigation to move through the list.



- **PageSize** (Integer)
  The maximum number of orders to show per page.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TemplateProduct** (String)
  The URL path of the template that allows a customer to view the details of a product in an order. When a path is entered, the product's title becomes a link that lets customers navigate to the template containing details of the product; for example, the template containing a Product server control.

PhotoGallery

The PhotoGallery server control helps users and community groups track and manage images. See Also: *Using the PhotoGallery Server Control* on page 1267.

PhotoGallery Properties

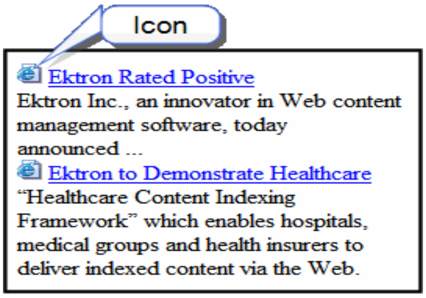
The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **DefaultObjectID** (Long)
  The default object ID for this control to use when there is no matching dynamic parameter value passed.
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicContentBoxHeight** (Integer)
  The height of the dynamic content box in pixels.
- **DynamicContentBoxWidth** (Integer)
  The Width of the dynamic content box in pixels.
- **DynamicContentTemplate** (String)
  The template to use when displaying dynamic content. Leave blank to use the dynamic box.
- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank.
- **EnablePaging** (Boolean)
  This property, in conjunction with the **MaxNumber** property, lets site visitors view an unlimited number of items while controlling the amount of screen space. The **MaxNumber** property limits the number of items displayed. If you set this property to **True**, and the number of items exceeds **MaxNumber**, navigation aids appear below the last item, allowing the visitor to go to the next screen.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeIcon** (Boolean)
  Choose whether to display icons next to the navigation list's links.



- **True**—Show icons
- **False**—Hide icons

- **ItemSortOrder**

  Specify the sort order of results. Choices are:

  - **taxonomy_item_display_order**—the order of taxonomy items as set in the Workarea. For additional information, see *Reordering Content Assigned to a Taxonomy Category* on page 806.
  - **content_title**—alphabetical order by title
  - **date_created**—chronological order by date created
  - **last_edit_date**—chronological order by date edited

  To specify the direction of the items, use the `SortDirection` property.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (String)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905

- **MaxResults** (Integer)

  Enter the maximum number of items to appear in the initial display of this server control. To set no maximum, enter zero (0). To let site visitors view more than the maximum but limit the amount of space, enter the maximum number of results per page here. Then, set the **EnablePaging** property to **True**. If you do and more than the number of **MaxResults** are available, navigation aids help the site visitor view additional items.

- **ObjectType** (String)

  The type of object to which this control is assigned. Choices are:

   - User
   - Group
- **ShowCount** (Boolean)

  Indicates if an integer representing the number of taxonomy items in the category appears next to each category when displayed on the website. The default is False.

   - **True**—Show taxonomy items number
   - **False**—Do not show taxonomy items number
- **SortDirection** (String)

  Select the direction of the `itemSortOrder` property. Choose Ascending or Descending.
- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.
- **TaxonomyCols** (Integer)

  Enter the number of columns in which this taxonomy/category appear on the page.
- **TaxonomyItemCols** (Integer)

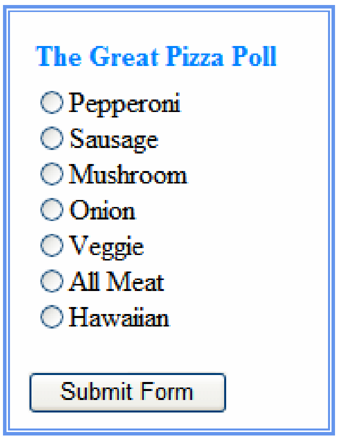
  Enter the number of columns in which the taxonomy items appear on the page.
- **WrapTag** (String)

  Lets a developer specify a server control’s tag.

   - **Span** (default)—designate an inline portion of an HTML document as a span element.
   - **Div**—apply attributes to a block of code.
   - **Custom**—Lets you use a custom tag.

Poll

The Poll server control displays a poll or survey created from an Ektron form on a Web page. When added to a template and visited, the poll might look like this. You can change a poll's appearance by modifying its properties.



You should display a poll or survey with a Poll server control, because it provides great flexibility with the poll's appearance. Typically, developers want a poll or survey in a small section of a Web page, not the main content. By using the `EnableAjax` property, you can display the results in the same area as the poll or survey without refreshing the entire page.

However, if you want the form/poll/survey’s response to be either **Redirect to a file or page** or **Redirect form data to an action page**, you must use a Form Block server control to display the form on a Web page. See Also: *FormBlock Server Control* on page 1738

Poll Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **{Poll ID}** (Long)

  The ID of the poll that appears where you inserted this server control. If you don’t know the ID number of the pol, use the CMS Explorer to browse to it.See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610

- **AddValidation** (Boolean)

  The AddValidation property is obsolete and ignored. It has no effect. It is always true.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  To make this form block dynamic, select **ekfrm**. When you do, this server control uses the form block passed as a URL parameter.

- **EnableAjax** (Boolean)

  Can display the poll or results using an iFrame in the area of the page that contains the poll. As a result, the surrounding contents are not disturbed. The default is true.

  - **True**—Polls and results are shown in an iFrame without modifying or refreshing the surrounding contents.
  - **False**—Poll and the results replace the Web page’s content.

- **Fields** (FormFieldCollection)

  Displays a list of fields that are defined in the form. These fields are read only. This is an excellent way of displaying the field names used on the form. With this list of names, you can create events using the fields without having to enter the Workarea to see the names.

- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeTags** (Boolean)
  Determines if tags are generated automatically or manually.
  - Let Ektron generate form tags automatically if you are developing a pure .aspx page script. To enable this option, set `IncludeTags` property to **True**.
  - Modify HTML form tags in the .aspx file if you are developing an .aspx page and associated code-behind Web form. To enable this option, set `IncludeTags` property to **False**. Here is the default .NET generated form tag:

    ```
    <form id="Form1" method="post" runat="server">
    ```

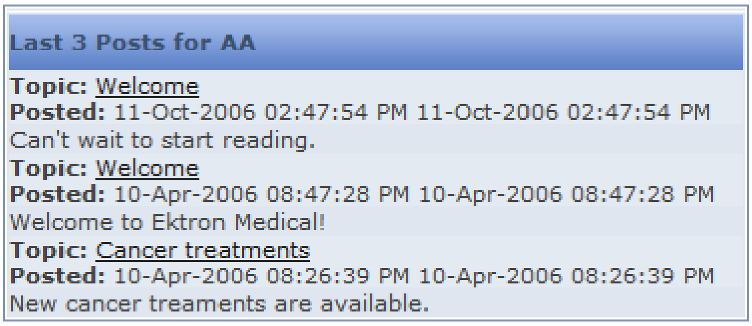
    Modify the form tag as indicated in red:

    ```
    <form id="Form1" method="post" runat="server"
      OnSubmit="return EkFmValidate(this);">
    ```
- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

PostHistory

The PostHistory server control displays a list of forum posts for a given user. The posts are displayed in order, by date, and contain the following:

- **Topic—**the topic that contains the post
- **Posted**—the date the post was created
- **Content—**the post's content



PostHistory Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (Boolean)

  Indicates if you are logged in to the CMS Explorer and can use it to browse to Content, collections, and so on.

- **BoardID** (Long)

  The ID of the discussion board from which to get a user's posts. If you don’t know the ID, click **Ellipses** (...), then sign in, browse to and select the discussion board.

- **CacheInterval** (Double)

  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MaxNumber** (Integer)

  The maximum number of posts listed. The default is **10**.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **URLPath** (String)
  The URL path to the page that hosts the Forum server control.
- **UserID** (Long)
  The ID of the user for whom to get the post history.
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Product

The Product server control lets customers view the details of a product and add it to their cart. To display a product on a Web page, drag and drop a Product server control on a template and enter a product ID in the `DefaultProductID` property. You could also dynamically pass a product's ID to the control by setting `DynamicProductParameter` property to the QueryString parameter used for product IDs.

See Also: *Using the Product Server Control* on page 1426

Product Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **CacheInterval** (Double)
  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **CustomXml** (Code-behind Only) (String)
  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

  ```
  <root><customXml>custom-xml-inserted-here</customXml></root>
  ```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.
- **DefaultProductID** (Integer)
  Enter a default product's ID. This is the default product that's displayed when the template containing this control is viewed by a customer and a product ID is not dynamically passed. To make this server control dynamic, enter zero (0) for this property and set the `DynamicProductParameter` to the QueryString parameter used to pass the product ID.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `product.xsl`. This file is located in `*siteroot*\Workarea\Xslt\Commerce`. See Also: *Using the eCommerce Server Controls* on page 1404.

  IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  The QueryString parameter name, which is used to read the product ID. For example, if your QueryString parameter for products is ID, enter that. Then, when customers view a product's details, the product's ID is passed to this control.

- **EkItems** (String)

  This property gets EntryData for a product and can be called only during the PreProcessXml or PostProcessXml event. If used outside of these events, it returns empty values for the entry data.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **ImageGallery** (ImageGalleryType)

  Determine if the image gallery appears along with a product's information. Images that appear in the gallery are set in the product's Media tab when creating or editing a product. The Gallery Display property for each image on the Media tab must be set to Yes. Choices:

  - **List—**display gallery images
  - **None—**hide gallery images

  In the Image Gallery, images are displayed at their smallest size. If a customer clicks an image, a full size version appears.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **OverrideXslt** (Integer)

  Specifies an XSLT identified in the Edit Product Type Configuration screen.

- **ShowAddToCart** (Boolean)

  Set to true if you want to the **Add to Cart** button to appear. The default is True. Setting this property to false lets you show details of a product, but not offer it for sale. For example, a product is no longer for sale, but you want to allow people who purchased it to view details. Also, by using code-behind to dynamically set the property, you could create code that checks your inventory system and hides the button if a product is out of stock. You could also accomplish this for a product by removing the check from the **Buyable** property when creating or editing a product in the Workarea.

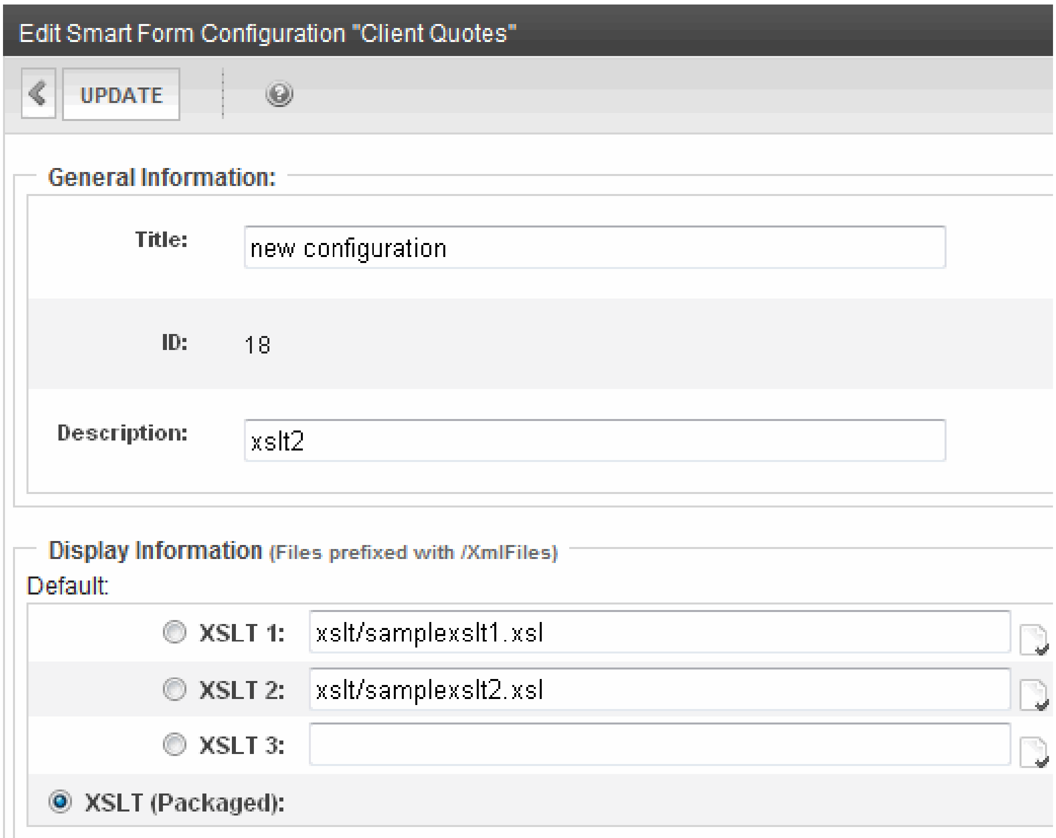
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.
- **TemplateCart** (String)
  Enter the URL path of the template that contains the Cart server control. The path can be relative or absolute.See Also: *Using the eCommerce Server Controls* on page 1404 and *Using the Add to Cart Button with Aliasing* on page 1428

The OverrideXslt and DisplayXslt Properties

The `DisplayXslt` property is optional. If used, it specifies an external XSLT file. If the `DisplayXslt` property is not defined, the `OverrideXslt` property specifies an XSLT identified in the Edit Product Type screen. The following list provides more information about these properties.

- The default XSLT is specified in the Edit Smart Form Configuration screen. To use this display XSLT, enter 0 for OverrideXslt.

  NOTE: In this example, the XSLT Packaged option is the default XSLT, since it is selected. XSLT Packaged is the XSLT from the Edit Smart Form Configuration screen (that is, the XSLT created in the Data Designer).



- **XSLT 1** from the Edit Smart Form Configuration screen; to use this display XSLT, enter 1 for OverrideXslt.
- **XSLT 2** from the Edit Smart Form Configuration screen; to use this display XSLT, enter 2 for OverrideXslt.
- **XSLT 3** from the Edit Smart Form Configuration screen; to use this display XSLT, enter 3 for OverrideXslt.
- An absolute or relative path to an XSLT file. For DisplayXslt, enter an external XSLT file not specified in the Edit Product Type Configuration screen. For example: `sample.xslt`. No value is required for OverrideXslt. If an XSLT value exists, **OverrideXSLT** is ignored.

ProductList

The ProductList server control displays a list of products on a Web page.

NOTE: Private catalog entries appear in the display of the Product List server control only if the user is logged in and has at least Read-Only permissions for its catalog folder. See Also: *Making Content Private* on page 294

See Also: *Using the ProductList Server Control* on page 1430.

ProductList Properties

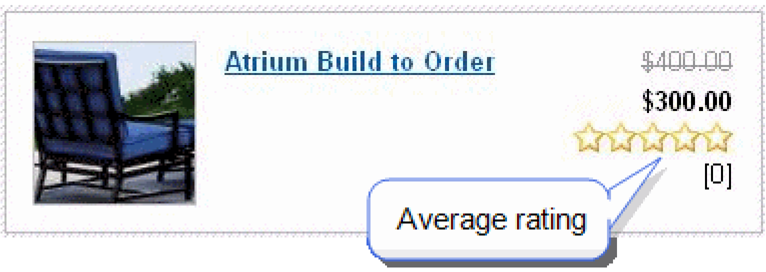
The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)
  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.
- **CacheInterval** (Double)
  The number of seconds that a server control’s data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.
- **CustomXml** (Code-behind Only) (String)
  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

```
<root><customXml>custom-xml-inserted-here</customXml></root>
```

  See Also: *Displaying Custom XML in Ektron’s Server Controls* on page 1632.
- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `ProductList.xsl`. This file is located in `*siteroot*\Workarea\Xslt\Commerce`

  IMPORTANT: If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.
- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.
- **DynamicParameter** (String)
  Sets the QueryString parameter to read a source’s ID dynamically. For example, if your QueryString parameter for a source ID is SID, enter that.
- **EkItems** (String)
  This property gets EntryData for a product and can be called only during the PreProcessXml or PostProcessXml event. If used outside of these events, it returns empty values for the entry data.
- **GetAnalyticsData** (Boolean)
  Set to `true` if you want the average rating for this product to appear with the product display, as shown below.



Below the rating, a number indicates how many customers have rated the product. For more information on letting customers rate your products, see *User-Ranking of Content* on page 587.

IMPORTANT: This property only provides reliable data when the Business Analytics Feature is on. *Business Analytics* on page 602

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IdList** (String)

  Enter a comma-separated list of IDs if the `SourceType` property is set to IdList, TaxonomyList or CatalogList.
- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **LoadingImage** (String)

  The image to display while the Product List is loading.

  The default is *`siteroot`*`\Workarea\images\application\ajaxloader_circle_lg.gif`.
- **OrderBy**

  (*SortMode* property must be set to **None**)

  For further definition of the values shown here, see the **entryPropertyenumeration** in the **API documentation**.

  - **AverageRating**
  - **CatalogId**
  - **CollItemsDisplayOrder** (only available if `SourceType` property = Collection)
  - **ContentStatus**
  - **CurrencyId**
  - **EndDate**
  - **EntryType**
  - **GoLIve**
  - **Html**
  - **Id**
  - **IsArchived**
  - **IsBuyable**
  - **IsPublished**
  - **LanguageId**
  - **LastEditDate**
  - **LastEditorFirstName**
  - **LastEditorLastName**
  - **ListPrice**

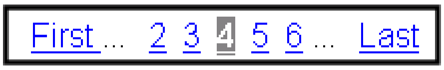
- ◦ **Media**
- ◦ **NumberRated**
- ◦ **ProductTypeId**
- ◦ **SalesPrice**
- ◦ **Sku**
- ◦ **Status**
- ◦ **Summary**
- ◦ **TaxClassId**
- ◦ **TaxItemsDisplayOrder** (only available if `SourceType` property = Taxonomy)
- ◦ **Title**
- ◦ **ViewCount**

- **PageSize** (Integer)

  Specify the number of items to show per page when a customer views the product list. If the number of items exceeds the quantity defined in this property, the list is paged and the customer can use the paging navigation system to move through the list.

- **PageSpan** (Integer)

  The number of pages to show before and after the current page. Enter zero to show all pages. For example, if you set this property to 2 and you are on page four of the product list, you see:

- **SortMode** (SortModes)

  Select the default way the product list is sorted when a customer first views the page. When the page is loaded, a customer can change the sort via a drop-down list. Choices are:

  - ◦ **Title**—sorts in alphabetical order.

  - ◦ **SKU**—sorts by the product number. This number is typically a unique number supplied by the producer of the product.
  - ◦ **Price Descending**—sorts by price from highest to lowest.
  - ◦ **Price Ascending**—sorts by price from lowest to highest.
  - ◦ **Highest Rated**—sorts by rating from highest to lowest.
  - ◦ **Lowest Rated**—sorts by rating from lowest to highest.
  - ◦ **Most Rated**—sorts by products that have most ratings from highest to lowest.
  - ◦ **None**—Use this setting to use *OrderBy* property.

See Also: *Sorting the Product List* on page 1432

- **SourceId** (Integer)

  The ID of the catalog, collection or taxonomy that is being used as a product list. This property is used when the `SourceType` property is set to **Catalog**, **Collection** or **Taxonomy**.

- **SourceType** (SourceObjectType)

  The type of source being used to create the list. Choices are:

  - **Catalog**—use the `SourceId` property to specify the ID of a single catalog when this source type is selected.
  - **CatalogList**—use the `IdList` property to specify a list of catalog IDs when this source type is selected.
  - **Taxonomy**—use the `SourceId` property to specify the ID of the single taxonomy when this source type is selected.
  - **TaxonomyList**—Use `IdList` property to specify a list of taxonomy IDs when this type is selected.
  - **IdList**—Use the `IdList` property to specify a list of product IDs when this source type is selected.
  - **Collection**—use the `SourceId` property to specify the ID of a collection when this source type is selected.

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TaxonomyDepth** (Integer)

  Enter the number of taxonomy levels to retrieve below each taxonomy/category. Only the top level appears in the control. The rest of the levels are available through XML in Code-behind. For example, if the taxonomy is **DVDs > Movies > Comedies**, and you set **Taxonomy Depth** to **2**, only DVDs and Movies are available in Code-behind.

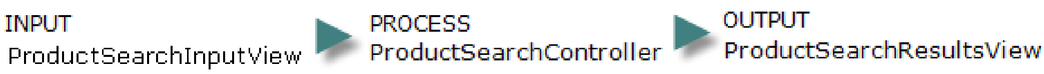
  To retrieve all categories for a taxonomy recursively, enter -1. A depth greater than 1 or using -1 is only useful if you create a custom output using the Taxonomy's XML. The default value is 1.

  For a live site, Ektron strongly recommends leaving this value at **1**. Increasing this value can slow down your live Web server. However, for testing on a staging server, you can increase the depth.

- **TemplateProduct** (String)

  Specify the URL that contains the Product server control. This allows a customer to see the details of the product when the product link is clicked.

Product Search Server Controls

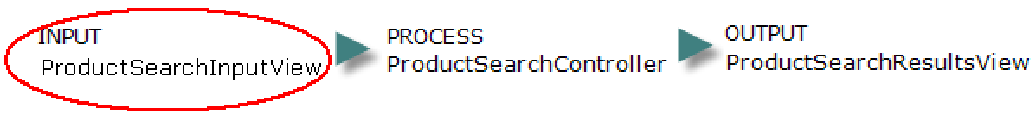


Use the Product Search server controls to let site visitors search your website.

- **ProductSearchInputView**—accepts user input of search terms
- **ProductSearchController**—takes input from ProductSearchInputView control and returns search results
- **ProductSearchResultsView**—shows search results; you can modify the results' display, paging, and so on.

See Also: *Using Search Server Controls* on page 971 and *Server Control Reference* on page 1636

ProductSearchInputView



Use the ProductSearchInputView server control to search eCommerce Products. It provides a Basic and an Advanced search. The query string from the ProductSearchInputView control is passed to the ProductSearchController, which sends results to the ProductSearchResultsView.

You can place the ProductSearchInputView server control anywhere on a page, and it can be separated from the results display.

More than one ProductSearchInputView server control can reside on a page.

The following image shows the default template for this control.

Click the Advanced link to show these product search filters.

- With all words
- Without words
- Exact Phrase
- With any word

Required Properties for ProductSearchInputView

ControllerID—the *ID* of the ProductSearchController that provides the data.

```
<CMS:ProductSearchInputView ID="ProductSearchView1"
  ControllerID="ProductSearchController1" runat="server">
</CMS:ProductSearchInputView>
<CMS:ProductSearchController ID="ProductSearchController1"
  runat="server" />
```

Customizing the ProductSearchInputView Control

This process is the same as *Customizing the SiteSearchInputView Control* on page 1839. Refer to *ProductSearch Model Properties* on page 1825 to learn which properties may be referenced.

ProductSearchController

The ProductSearchController server control takes input from a ProductSearchInputView control, and returns results to a ProductSearchResultsView control. It provides an interface to the search API, thereby giving SearchView controls access to search data.

You can modify Ektron's ProductSearchController or write your own.

The ProductSearchController executes a search using a query string from the ProductSearchInputView control's `Text` property, as specified in the code-behind's `Onclick` event.

Unlike the other search controls, ProductSearchController has no UI functionality. So, there is no corresponding .ascx file.

Use only one ProductSearchController per page.

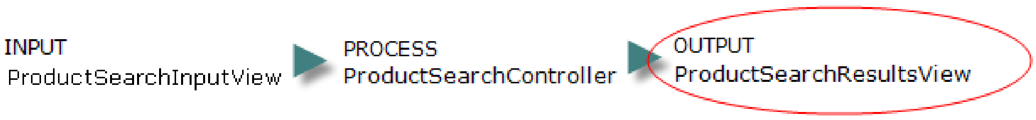
Properties

- **ID** (Required)—provides the association for the SiteSearchInputView and SiteSearchResultsView server controls. here is an example of the ID property with the SiteSearchController.

```
<ektron:SiteSearchController ID="SiteSearchController1"
  runat="server" />
```

- **AdvancedQueryText** (Optional)—see *Displaying Search Results Using a ListView Control* on page 1842

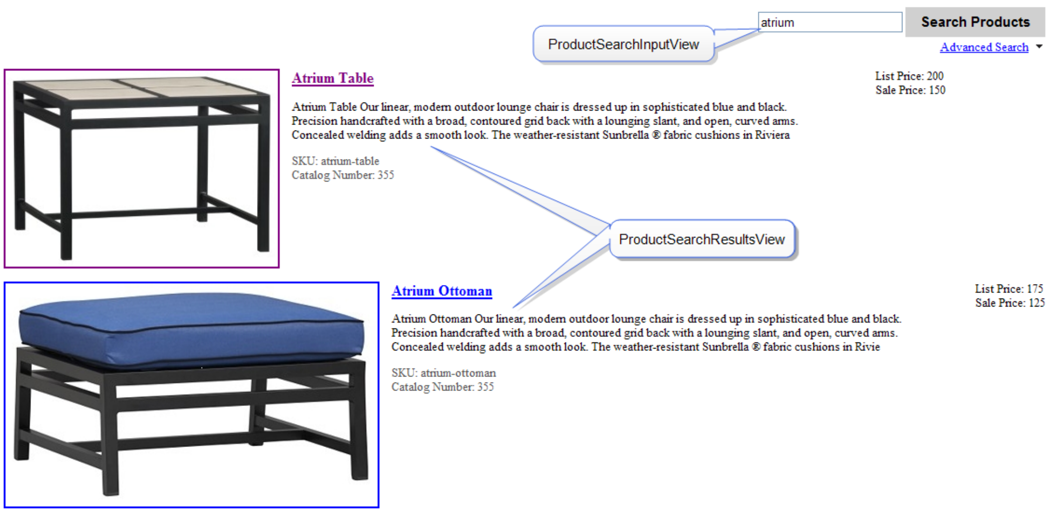
ProductSearchResultsView



Use the SearchResultsView server control to show search results sent from a ProductSearchController.

The ProductSearchResultsView is tied to the ProductSearchController by setting the property ControllerID.

The following image shows the *ProductSearchView*'s search field and button and search results using the *ProductSearchResultsView* server control's default template.



Required Properties for ProductSearchResultsView

ControllerID—the *ID* of the UserSearchController that provides the data.

```
<CMS:ProductSearchResultsView ID="ProductSearchView1"
  ControllerID="ProductSearchController1" runat="server">
</CMS:ProductSearchResultsView>
<CMS:ProductSearchController ID="ProductSearchController1"
  runat="server" />
```

Modifying the Default Product Search Results View

To learn about displaying search results, see *Displaying Search Results* on page 1858. To see an example of displaying user search results, see `[siteroot]\workarea\FrameworkUI\Templates\Search\ProductSearchResultsView.ascx`.

ProductSearch Model Properties

This information is provided for each product returned with search results.

- **AdvancedQueryText**—Use with ProductSearchController, see *Displaying Search Results Using a ListView Control* on page 1842.
- **ExactPhrase**—Use with ProductSearchInputView, this sets an EXACT ORDER relationship among search terms.
- **PageInfo**—Use with ProductSearchResultsView, this displays information about search result numbers, such as **Displaying results 11 through 20 of 35**.
  - **CurrentPageIndex**—current page
  - **EndCount**—number of results found
  - **NumberOfPages**—number of results divided by results per page
  - **PageCount**—number of the page being viewed currently
  - **ResultCount**—number of the results returned for the search terms

  IMPORTANT: The result count is only an estimate. The count becomes more accurate you get closer to the final page.

  - **ResultsPerPage**— number of results displayed per page
  - **StartCount**—one
- **QueryText**—Use with ProductSearchInputView or ProductSearchResultsView, this is the string used for searching.
- **Results**—Use with ProductSearchResultsView, these are the fields returned of ProductSearchResultsData. Display these inside a ListView or Repeater.
  - Catalog Number
  - ImageUrl
  - ListPrice
  - ProductID
  - SalePrice
  - SKU
  - Summary
  - Title
  - URL
- **SearchType**—Use with ProductSearchInputView or ProductSearchResultsView.
  - Advanced
  - Basic
  - None
  - XmlSearch
- **State**—Use with ProductSearchResultsView.
  - initialized— search has not been run yet
  - no results—no search results were returned
  - search results—search results were returned
- **WithAllWords**—Use with ProductSearchInputView, this sets an AND relationship among search terms.
- **WithAnyWord**—Use with ProductSearchInputView, this sets an OR relationship among search terms.
- **WithoutWords**—Use with ProductSearchInputView, this sets a NOT relationship among search terms.

Recommendation

PREREQUISITE

Cross sell or upsell products are already assigned to a catalog entry.

The Recommendation server control lets you cross-sell or up-sell products to a customer based on another product’s ID. After you create a product in the Workarea, you can define a list of other products that you want to associate with the new product.While viewing a product in the Workarea, choose **View > Cross Sell** or **Up sell**. Then, by adding the Recommendation server control to a Web form that contains a Product server control, the customer sees the recommendations when viewing the product details.

Recommendation Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **CustomXml** (Code-behind Only) (String)

  Lets you inject custom XML into the generated XML before being processed by the XSLT. Enter a string of XML that you want to make available to the XSLT as follows:

  ```
  <root><customXml>custom-xml-inserted-here</customXml></root>
  ```

  See Also: *Displaying Custom XML in Ektron's Server Controls* on page 1632.

- **DefaultProductID** (Integer)

  Enter a default product ID that contains either cross sell or up sell products. To make the server control dynamic, enter zero (0) in this property and set the `DynamicProductParameter` to QueryString parameter used to pass the product's ID.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page. By default, the control uses `Recommendation.xsl`. This file is located in *siteroot*`\Workarea\Xslt\Commerce`

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicCartParameter** (String)

  The QueryString parameter name which is used to pass the product ID to the Cart server control. For example, if your QueryString parameter for products is Product, enter that in this property. Then, when customers click **Add to Cart**, this parameter is passed with the product's ID Web form containing the Cart server control. See Also: *Using the eCommerce Server Controls* on page 1404

- **DynamicProductParameter** (String)

  The QueryString parameter name which is used to pass the product ID to the product details page. For example, if your QueryString parameter for products is ID, enter that in this property. Then, when customers click a product's title, this parameter is passed with the product's ID to the product details page.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.
- **Language** (Integer)
  If the template on which this server control resides includes a language selection control, and you want to let the customer select the language, enter zero (0). Otherwise, click the field, then the **ellipsis** button (...) and a popup box appears. Select a language from the list. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).
- **PageSize** (Integer)
  Specify the number of items to show per page when a customer views recommendations. If the number of items exceeds the quantity defined in this property, the list is paged and the customer can use the paging navigation system to move through the list.
- **RecommendationType** (EkEnumeration.RecommendationType)
  The type of recommendation to show. Choices are:
  - **CrossSell—**related products that a customer might be interested in. For example, if you are selling Denim Jackets, you might want to cross sell them pants or shirts.
  - **UpSell—**products that improve on the product being purchased. For example, if you are selling 7 megapixel digital cameras, you show a 10 megapixel digital camera.

  See Also: *Recommending Related Products to a Customer* on page 1371
- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet. For example: `Workarea\csslib\mytest.css`.
- **SuppressWrapperTags** (Boolean)
- Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **TemplateCart** (String)
  The URL to navigate to when a customer clicks **Add to Cart**. The path can be relative or absolute. When a path is entered, the **Add to Cart** button appears next to the product and allows a customer to add the product directly to their cart. See Also: *Enabling the Add to Cart Button* on page 1433 and *Using the eCommerce Server Controls* on page 1404.
- **TemplateProduct** (String)
  Specify the URL that contains the Product server control. This allows a customer to see the details of the product when the product link is clicked. The path can be relative or absolute.

RssAggregator

An RSS aggregator consumes an RSS feed and displays its information in a readable format. The RssAggregator server control lets you do the same by processing and displaying an RSS feed from any website. This lets you create an information Web page for news, stories, images, lists of music, and so on.

You can create a multi-level information Web page by placing several RssAggregator server controls on a page. For example, create a world news Web page by adding RSS feeds from the NY Times, BBC, and AFP (Agence France-Presse). To add an RSS Aggregator to your website:

1. Drag and drop the RssAggregator server control a Web form.
2. Set the `URL` property to point at the RSS feed. For example, `http://msdn.example.com/rss.xml`

When a site visitor views the Web form, the RSS feed displays properly. If the visitor refreshes the page, information updated by the RSS feed provider appears.

To change an RSS feed's appearance, create a custom XSLT.

RSS Aggregator Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **DisplayXslt** (String)

  Determines how the information on the page appears.

  - **None**—databind only
  - **ecmNavigation**—lists the title of every RSS feed item

    ecmNavigation Display Example on page 1682

  - **ecmTeaser**—lists a title and a description of every RSS feed item

    ecmTeaser Display Example on page 1682

  - **Path to Custom Xslt**—If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing the RssAggregator. This property shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **LinkTarget** (ItemLinkTarget)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **MaxResults** (Integer)

  The Maximum number of items from an RSS feed that are returned. 0 (zero) = unlimited.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **URL** (String)

  The RSS feed path for the server control. For example:
  `http://msdn.example.com/rss.xml`

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Retrieving the XML Structure of an RssAggregator

Retrieving the XML structure of XML content allows for greater control over developing XSLs. To retrieve the XML structure:

1. Open a new Web form.
2. Drag and drop a RssAggregator server control onto it.
3. Set the `URL` property.
4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to **MultiLine**.

   NOTE: You should set the text box width to at least 400px.

6. Add the following line on the code-behind page.

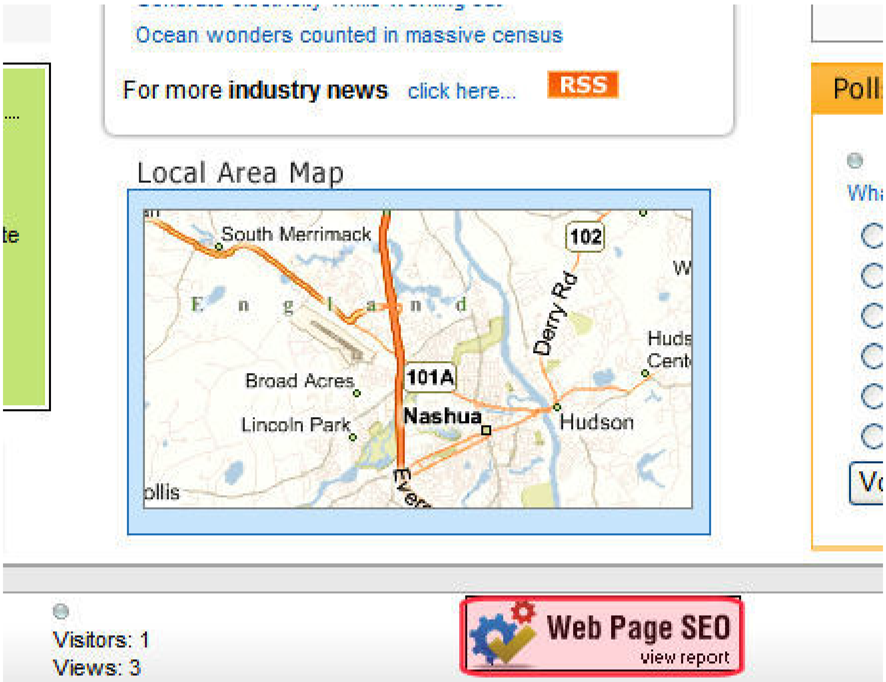
```
Textbox1.Text—RssAggregator1.XmlDoc.InnerXml
```

7. Build the project.
8. View the Web form in a browser. The XML structure of the RssAggregator Menu appears in the textbox.

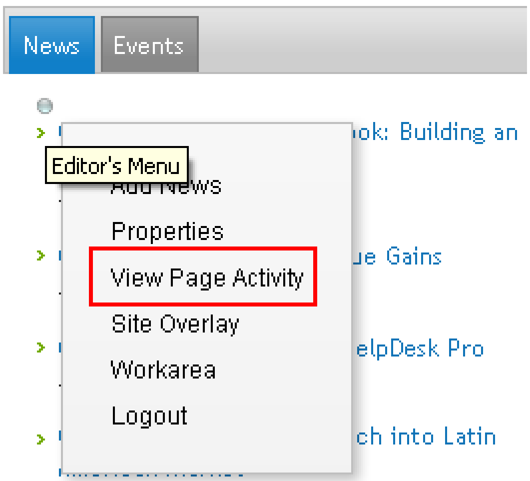
SEO (Search Engine Optimization)

The SEO server control analyzes your website for W3C compliance, what information Google has about the page, Alexa rankings, image alt text, keyword density, and metadata. SEO lets you know how (and if) you've set these values.

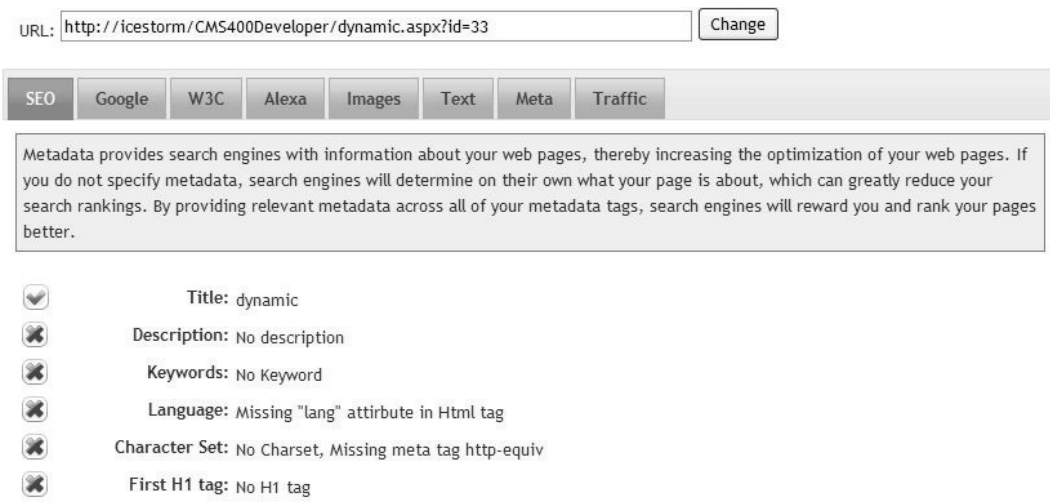
The Search Engine Optimization (SEO) control appears as an image on any template or master page on which you drop it.



You also can access the SEO report by clicking the Web Site Content menu then choosing **View Page Activity**.

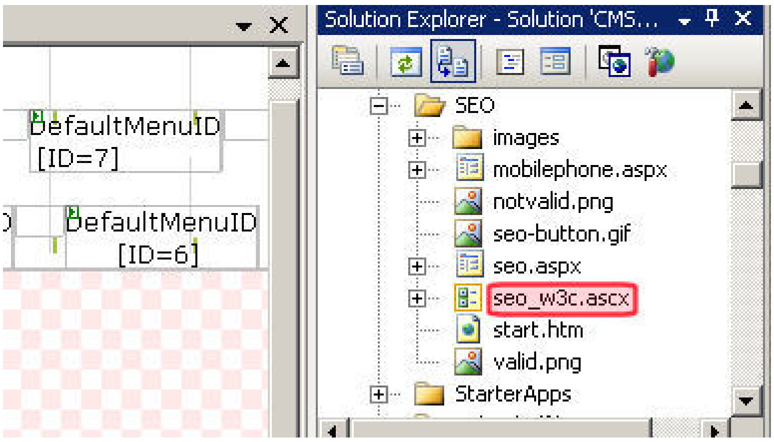


When you are logged in and click the image, you see a detailed report of how search engines evaluate the page. For example, the report runs the page through a W3C validation site, or displays how search engines evaluate the page's text.



Inserting SEO in a Website

1. Within Visual Studio, open your website.
2. Open a master page or template on which to place the SEO control.
3. Open Solution Explorer, and your website within it.
4. Open the Workarea then the SEO folder.
5. Drag the SEO control (`seo_w3c.ascx`) onto an area of the page.



6. Save the page.

Viewing a Web Page's SEO Report

Only logged-in Ektron or Membership users can see the SEO control.The following list summarizes the information on the SEO Report.

- **SEO**—Compares viewed page against a basic SEO checklist, such as if keywords are included, language and charset values, and so on.
- **Google**—Information that search engines have about your page, including pages that link to it, indexed pages on the site and what the page looks like on a mobile device.
- **W3C**—Validates Web page for markup and CSS compliance, and also checks for broken links and the ability of the page to be displayed on mobile devices. By having correct markup that conforms to HTML or XHTML standards, search engines will detect words

and phrases correctly, a key element in SEO. Correct markup also ensures that search engine spiders can easily understand the content and navigation on the page. Proper code will make it easier for spiders to parse as expected and digest the content for organic search engines.

- **Alexa**—Alexa is a leader in providing insight on the overall ranking of your website on the Internet. Alexa overview, traffic, related and linked-to sites.
- **Images**—To ensure SEO and compliance, all images on your pages should contain alt tags. This enables searching of the images (since engines cannot read the contents of an image). In addition, alt tags must be used for 508 compliance. This tab identifies all images and their alt tags.
- **Text**—A keyword density analysis report displays text graphically in much the same way that organic search engines see your page. Web pages that are content rich typically yield higher search engine rankings than pages that are mainly images or multimedia based. This report displays words, two-word phrases and 3-word phrases in a cloud format, revealing words and phrases that show up most often on the page. This information helps you to optimize your content and reach your target audience.

- **Meta**—The page's metadata
- **Misc**—Additional search information

SiteMap

The Sitemap server control utilizes the folder breadcrumb information in the Workarea to display a sitemap of your site. By choosing the starting point of the sitemap, the max levels to display and applying a style class, you can customize the sitemap. The sitemap appears as indented list when viewed on a Web page.

The contents of the sitemap are defined on the **Breadcrumb** tab, located in the Workarea folder properties. See Also: *Using Breadcrumbs* on page 819

This section also contains the following topics.

Sitemap properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **ClassName** (String)

  The style sheet class name used to format the HTML. Leave blank to use the default. To use a new class, add it to the following file:

  ```
  webroot\siteroot\Workarea\csslib\sitemap.css
  ```

  Then, add the class name to the property.

- **DisplayXslt** (String) (Code-behind only)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **FlatTopLevel** (Boolean)

  When set to **True**, include site nodes from the parent folder but not their items. Set to **False** to include all nodes and items.

- **FolderID** (Long)

  The folder ID for the starting point of the site map. To choose the root folder, enter 0 (zero).

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MaxLevel** (Integer)
  Set the maximum amount of levels to show. 0 (zero) = unlimited.
- **StartingLevel** (Integer)
  Set to the starting level of the site map. If set to 0 (zero), starts from the root.
- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

Using Sitemap

NOTE: Make sure you have added the sitemap information to your folders’ Breadcrumb tab in the Workarea.

To use the Sitemap server control:

1. Open a Web form for which you want to create a sitemap.
2. Drag and drop the Sitemap server control onto an appropriate location of the Web form.
3. Add the starting folder’s ID to the `FolderID` property.
4. Set other properties. See Also: *Sitemap properties* on the previous page.
5. Save the Web form.
6. Open a browser.
7. View a Web page with the Sitemap server control in it. The sitemap now appears on your site.

Retrieving the XML Structure of a Site Map

Retrieving the XML structure of XML content allows for greater control over developing XSLs. The following is an example of how to retrieve the XML structure:

1. Open a new Web form.
2. Drag and drop a SiteMap server control onto it.
3. Set the `FolderID` property.
4. Drag and drop a textbox on the Web form.
5. Set the `TextMode` property to **MultiLine**.

   NOTE: It is also recommended that you set the width of the text box to at least 400px.

6. On the code-behind page, add the following line.
7. `Textbox1.Text = SiteMap1.XmlDoc.InnerXml`
8. Build the project.
9. View the Web form in a browser. The XML structure of the Site Map appears in the textbox.

Site Search Server Controls

INPUT
SiteSearchInputView ▶ PROCESS
SiteSearchController ▶ OUTPUT
SiteSearchResultsView

Use the Site Search server controls to let site visitors search your website.

- **SiteSearchInputView**—accepts user input of search terms
- **SiteSearchController**—takes input from SiteSearchInputView control and returns search results
- **SiteSearchResultsView**—shows search results; you can modify the results' display, paging, and so on.

See Also: *Using Search Server Controls* on page 971

Inserting Site Search Server Controls

To provide search capabilities to your website content, insert all 3 controls onto an .aspx template. Because the search functions are managed by separate controls, you can place a search field and button in a one section of a page, and the results in another.

Also, unless you want to use the default paging properties (which show only 10 results), insert an EktronUI Pager control on the page to manage the paging of the search results.

PREREQUISITE

Search server controls were added to the Visual Studio Toolbox. See *Adding Search Server Controls to Visual Studio* on page 975.

If you drag and drop controls from the Visual Studio Toolbox, the necessary `register` statements are copied from the `web.config` file and added to the page.

```
<add tagPrefix="ektron" namespace="Ektron.Cms.Framework.UI.Controls"
  assembly="Ektron.Cms.Framework.UI.Controls, Version=8.5.0.356,
  Culture=neutral, PublicKeyToken=559a2c4fa21e63be" />
<add tagPrefix="ektronUI"
  namespace="Ektron.Cms.Framework.UI.Controls.EktronUI"
```

```
  assembly="Ektron.Cms.Framework.UI.Controls.EktronUI,
  Version=8.5.0.356, Culture=neutral, PublicKeyToken=559a2c4fa21e63be" />
```

If you copy and paste the sample code, add the following `register` statement for templated controls:

```
<%@ Register assembly="Ektron.Cms.Framework.UI.Controls"
  namespace="Ektron.Cms.Framework.UI.Controls"
  tagprefix="ektron" %>
```

For Ektron UI controls, use this `register` statement:

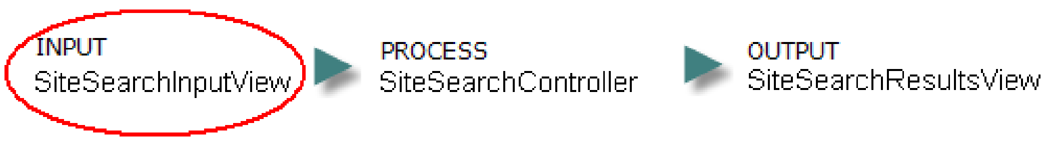
```
<%@ Register assembly="Ektron.Cms.Framework.UI.Controls.EktronUI"
  namespace="Ektron.Cms.Framework.UI.Controls.EktronUI"
  tagprefix="ektronUI" %>
```

The tag prefix can be anything as long as it matches the control's prefix.

Here is a basic template showing the 3 controls.

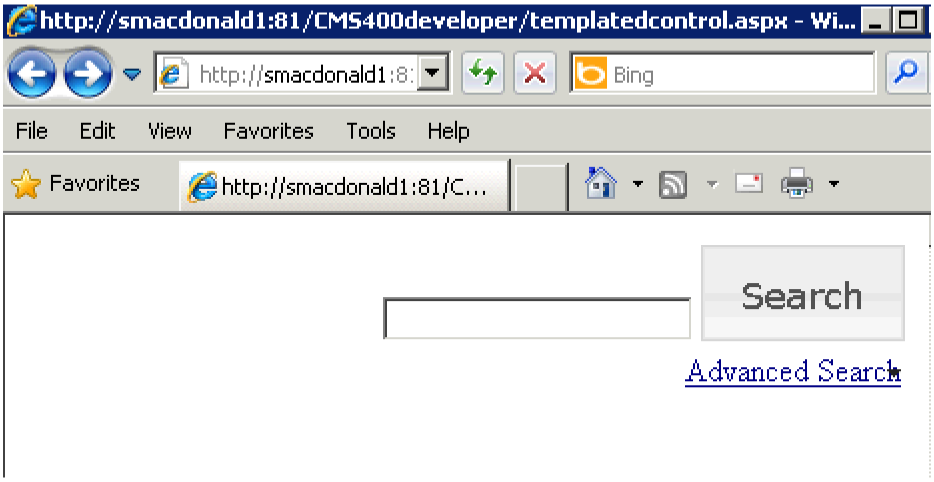
```
<%@ Page Language="C#" AutoEventWireup="true"
  CodeFile="TemplatedControl.aspx.cs"
  Inherits="TemplatedControl" ValidateRequest="false" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
      "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head runat="server">
    <title></title>
  </head>
  <body>
    <form id="form1" runat="server">
      <div>
        <ektron:SiteSearchInputView ID="SiteSearchInputView1"
          ControllerID="SiteSearchController1" runat="server">
        </ektron:SiteSearchInputView>
        <ektron:SiteSearchController ID="SiteSearchController1"
          runat="server" />
        <ektron:SiteSearchResultsView ControllerID="SiteSearchController1"
          ID="SiteSearchResultsView1" runat="server">
        </ektron:SiteSearchResultsView>
        <ektronUI:Pager ID="pager1" runat="server"
          PageableControlID="SiteSearchController1"
          ResultsPerPage="10"></ektronUI:Pager>
      </div>
    </form>
  </body>
</html>
```

SiteSearchInputView



The SiteSearchInputView server control provides a text box and submit button, which visitors use to search content. The control contains no business logic. It merely accepts a search term and passes it to the SiteSearchController, which retrieves and sends results to the SiteSearchResultsView control.

The SiteSearchInputView control's main purpose is a placeholder for markup, which you use to modify its appearance. The control's default markup is very simple: it inserts a text box, a Search button, and an **Advanced Search** link.



This section also contains the following topics.

Placing a SiteSearchInputView Server Control on a Page

PREREQUISITE

You added search server controls to the Visual Studio Toolbox. See *Server Control Reference* on page 1636.

To place a SiteSearchInputView control on a page:

1. Open the page in Visual Studio.
2. Drag and drop the SiteSearchInputView control.

You can place the SiteSearchInputView control anywhere on a page -- it does not need to be next to the results.

Also, you can place several SiteSearchInputView controls on a page.

Connecting a SiteSearchController to a SiteSearchInputView Control

To enable search functionality, connect a SiteSearchController to a SiteSearchInputView control. Use the control's `controllerID` property to do this.

As a `value` for the ControllerID property, enter the ID of the SiteSearchController that you place within the <form> tags. For example:

```
<ektron:SiteSearchInputView ID="SiteSearchInputView1"
  ControllerID="SiteSearchController1" runat="server">
</ektron:SiteSearchInputView>
```

Customizing the SiteSearchInputView Control

See Also: *Server Control Reference* on page 1636

1. Add a set of `<ItemTemplate>` tags between the SiteSearchInputView control's opening and closing tags. Then, insert an asp text box or an `EktronUI:TextField` to accept the user's input. Here is an example.

   ```
   <ektron:SiteSearchInputView ID="SiteSearchInputView1"
     ControllerID="SiteSearchController1" runat="server">
     <ItemTemplate>
       <ektronUI:TextField ID="queryText" Text='<%# Eval("QueryText") %>'
         runat="server"></ektronUI:TextField>
     </ItemTemplate>
   </ektron:SiteSearchInputView>
   ```

   NOTE: As an alternative, you can copy the line that inserts a text box from *siteroot* \Workarea\FrameworkUI\Templates\Search\SiteSearchInputview.ascx.

   Note that the Eval statement (`<%# Eval("QueryText") %>`) databinds the search term to the textbox. As a result, the term remains in the box after the user clicks the search button.

2. Insert an asp search or `EktronUI:Button`, like this.

   ```
   <ektron:SiteSearchInputView ID="SiteSearchInputView1"
   ControllerID="SiteSearchController1" runat="server"> <ItemTemplate>
   <ektronUI:TextField ID="queryText" Text='<%# Eval("QueryText") %>'
   runat="server"></ektronUI:TextField> <ektronUI:Button ID="Button1"
   DisplayMode="button" Text="Button 1" runat="server" OnClick="Button1_Click">
   </ektronUI:Button> </ItemTemplate>
   </ektron:SiteSearchInputView>
   ```

   NOTE: As an alternative, you can copy the line that inserts a search button from *siteroot* \Workarea\FrameworkUI\Templates\Search\SiteSearchInputview.ascx.

3. Assign to the button an `onclick` event that executes a search. To accomplish this, open the page’s code-behind file and add the following code.

   ```
   protected void searchButton_Click(object sender, EventArgs e)
     { SiteSearchController1.Search (queryText.Text); }
   ```

Now you can customize the control's markup as needed.

See Also: MSDN Button class, MSDN Textbox class

Separating the Search Field from the Results Display

You can place the search field and button on different parts of the page. To do that, insert 2 SiteSearchInputView controls. In one control, place the search field, like this.

```
<ektron:SiteSearchInputView ID="SiteSearchInputView1"
  ControllerID="Scontroller" Visible="true" runat="server">
```

```
  <ItemTemplate>
       <ektronUI:TextField ID="queryText" Text='<%# Eval("QueryText") %>'
          runat="server"></ektronUI:TextField>
  </ItemTemplate>
</ektron:SiteSearchInputView>
```

In the second control, in another section of the page, place the button, like this.

```
<ektron:SiteSearchInputView ID="SiteSearchInputView2"
  ControllerID="Scontroller" Visible="true" runat="server">
  <ItemTemplate>
       <ektronUI:Button ID="Button1" DisplayMode="button" Text="Button 1"
         runat="server" OnClick="Button1_Click">
       </ektronUI:Button>
  </ItemTemplate>
</ektron:SiteSearchInputView>
```

Then, assign an onclick event to the button that executes a search. To accomplish this, open the page's code-behind file and add the following code.

```
protected void searchButton_Click(object sender, EventArgs e)
  {
   SiteSearchController1.Search (queryText.Text);
```

SiteSearchController

The SiteSearchController server control takes input from a SiteSearchInputView control, and returns results to a SiteSearchResultsView control. It provides an interface to the search API, thereby giving SearchView controls access to search data.

You can modify Ektron's SiteSearchController or write your own.

The SiteSearchController executes a search using a query string from the SiteSearchInputView control's `Text` property, as specified in the code-behind's `Onclick` event.

Unlike the other search controls, SiteSearchController has no UI functionality. So, there is no corresponding .ascx file.

Use only one SiteSearchController per page.

Properties

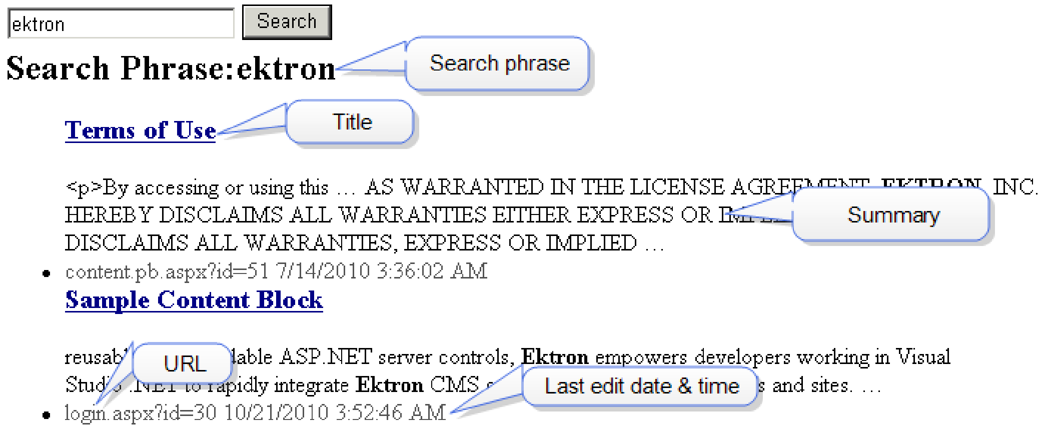
- **ID** (Required)—provides the association for the SiteSearchInputView and SiteSearchResultsView server controls. here is an example of the ID property with the SiteSearchController.

  ```
  <ektron:SiteSearchController ID="SiteSearchController1"
    runat="server" />
  ```

- **AdvancedQueryText** (Optional)—see *Displaying Search Results Using a ListView Control* on page 1842

SearchResultsView

The SiteSearchResultsView Control receives search results from the SiteSearchController and displays them on a page. By default, the control's display looks like this.



NOTE: To manage the paging display at the bottom of the page, use an `EktronUI:Pagercontrol`.

Connecting a SiteSearchController to the SiteSearchResultsView Control

To enable search functionality, connect a SiteSearchController to a SiteSearchResultsView control. Use the control's `controllerID` property to do this. See Also: *Server Control Reference* on page 1636

For the controllerID property value, enter the ID of the SiteSearchController that takes input from SiteSearchInputView control and returns search results to this control. For example:

```
<ektron:SiteSearchResultsView ID="SiteSearchResultsView1"
    ControllerID="SiteSearchController1" runat="server">
</ektron:SiteSearchResultsView>
```

Customizing the SiteSearchResultsView Control

To customize the SiteSearchResultsView Control, first add a set of `<ItemTemplate>` tags between the SiteSearchResultsView control's opening and closing tags (as explained in *Modifying Templated Server Controls* on page 972). Then, modify the search results in the following ways.

NOTE: As an alternative, you can copy the line that inserts a text box from `*siteroot*\Workarea\FrameworkUI\Templates\Search\SiteSearchResultsView.ascx`.

Displaying the Search Phrase with Results

Use `<%# Eval("QueryText") %>` to databind the search term to the SiteSearchResultsView control. This code sample below displays an example of this **Search Phrase:** followed by the search term.

```
<ektron:SiteSearchResultsView ID="SiteSearchInputView1"
  ControllerID="SiteSearchController1" runat="server">
  <ItemTemplate>
       <p>Search Phrase:<%# Eval("QueryText") %> </p>
  </ItemTemplate>
</ektron:SiteSearchResultsView>
```

Displaying Search Results Using a ListView Control

Use a ListView control to display search results from a SiteSearchController.

1. Within a ListView control, use an `<%# Eval("Results") %>` statement to databind search results to the ListView control.

   ```
   <asp:ListView ID="aspResults" runat="server"
     DataSource='<%# Eval("Results") %>'
     ItemPlaceholderID="aspPlaceholder">
   ```

2. To define the main (root) layout of a ListView control, insert a LayoutTemplate. Within that template, insert a placeholder to store the server controls on the page.

   ```
   <asp:ListView ID="aspResults" runat="server"
     DataSource='<%# Eval("Results") %>'
     ItemPlaceholderID="aspPlaceholder">
   <layouttemplate>
     <ul class="results">
       <asp:PlaceHolder ID="aspPlaceholder" runat="server">
       </asp:PlaceHolder>
     </ul>
   </layouttemplate>
   ```

3. Use an ItemTemplate to specify the markup used to generate each record bound to the ListView. Here is an example that displays search results' title, summary, URL and date.

   ```
   <itemtemplate>
     <li>
       <h3><a href="<%# Eval("Url") %>"><%# Eval("Title") %></a></h3>
       <p><%# Eval("Summary") %></p>
       <p><%# Eval("Url") %> <%# Eval("Date") %></p>
     </li>
   </itemtemplate>
   ```

Here is the entire sample.

```
<itemtemplate>
  <asp:ListView ID="aspResults" runat="server"
    DataSource='<%# Eval("Results") %>'
    ItemPlaceholderID="aspPlaceholder">
    <layouttemplate>
       <ul class="results">
         <asp:PlaceHolder ID="aspPlaceholder" runat="server">
         </asp:PlaceHolder></ul>
    </layouttemplate>
    <itemtemplate>
      <li>
         <h3><a href="<%# Eval("Url") %>"><%# Eval("Title") %></a></h3>
         <p><%# Eval("Summary") %></p>
         <p><%# Eval("Url") %> <%# Eval("Date") %></p>
      </li>
    </itemtemplate>
```

```
  </asp:ListView>
</itemTemplate>
```

Displaying Search Results Using a GridView Control

You can use an asp:Gridview control to make search results look like the following.

Search results for: cms

Title	Url	Summary	Date
Controles para Servidor de Ektron CMS400.NET	http://smacdonald1/CMS400Developer/dynamic.aspx?id=30	<ddd/> robust, Ektron <c0>CMS</c0>-powered Web sites and Web applications more rapidly than with other content mana <ddd/> de los datos del <c0>CMS</c0>, expuestos con los controles del servidor va co'digo-behinds. <ddd/> contentos, el <c0>CMS</c0> de Ektron provee de un "ambiente virtual del desarrollo," en contacto en tiempo r <ddd/>	3/24/2006 12:14:05 PM
Sample Content Block	http://smacdonald1/CMS400Developer/dynamic.aspx?id=30	<ddd/> robust, Ektron <c0>CMS</c0>-powered Web sites and Web applications more rapidly than with other content mana <ddd/> can access <c0>CMS</c0> data objects, exposed through the server controls via code-behinds. <ddd/> the Ektron <c0>CMS</c0> provides a "virtual development environment," in real-time contact with the producti <ddd/>	4/14/2006 5:26:42 AM
example_home	http://smacdonald1/CMS400Developer/dynamic.aspx?id=148	<p> Welcome to the Ektron CMS400.NET Developer Section. Ektron has compiled a list of several different examples of developing your Web site with Ektron CMS400.NET. The <ddd/>	1/30/2007 5:26:43 AM

To modify the UI for SearchResultsView:

1. Within the <ektron:SearchResultsView> tags, insert <ItemTemplate></ItemTemplate>.
2. Between the <ItemTemplate> tags, insert the following code, shown in bold.

```
<ektron:SearchResultsView ControllerID="SiteSearchController1"
  runat="server">
  <ItemTemplate>
    <h2>Search results for: <%# Eval("QueryText") %></h2>
    <asp:Gridview ID="Gridview1" DataSource='<%# Eval("Results") %>'
      runat="server">
    </asp:Gridview>
  </ItemTemplate>
</ektron:SearchResultsView>
```

3. Modify the appearance of the results using Gridview properties and styles. See Also: GridView Class

SiteSearch Model Properties

You can use the properties with Eval statements to display aspects of content search results. For example, <%# Eval("Summary") %> displays the summary for content being returned by the search. See Also: *Displaying Search Results* on page 1858, *Server Control Reference* on page 1636

- **AdvancedQueryText**—Use with SiteSearchController. See *Displaying Search Results Using a ListView Control* on the previous page.
- **ElapsedTime**—Use with SiteSearchResultsView, this is the time required to execute a search.

- **ExactPhrase**—Use with SiteSearchInputView, sets an EXACT ORDER relationship among search terms.
- **Fields**—Label, Name, Xpath: Retrieve information from XML Smart Forms. See *XMLSearch Server Controls* on page 1861.
- **PageInfo**—Use with SiteSearchResultsView
  - Display information about search result numbers, such as **Displaying results 11 through 20 of 35**.
  - CurrentPageIndex—current page
  - EndCount—number of results found
  - NumberOfPages—number of results divided by results per page
  - PageCount—The number of the page being viewed currently
  - ResultCount—The number of the results returned for the search terms

    IMPORTANT: The result count is only an estimate. The count becomes more accurate you get closer to the final page.

  - ResultsPerPage— number of results displayed per page
  - StartCount—one
- **QueryText**—Use with SiteSearchInputView or SiteSearchResultsView, this is the string that the site visitor entered to begin search.
- **Results**—Use with SiteSearchResultsView, these are fields returned of type SearchResultsData. Display these inside a ListView or Repeater.
  - Date—last edit date
  - Summary—content summary, up to a maximum of 400 characters
  - Title
  - Url
  - Type: Content, forms, managed assets, and so on.
    For a full list, enter `SiteSearchResultType` into the Object Browser.
- **SearchType**—Use with SiteSearchResultsView
  - Advanced
  - Basic
  - None—no search yet
  - XmlSearch
- **State**—Use with SiteSearchResultsView
  - initialized— search has not been run yet
  - no results—no search results were returned
  - search results—search results were returned
- **Suggested Results**—Use with SiteSearchResultsView, these fields returned of type SearchResultsData for Suggested Results. Display inside a ListView or Repeater. See Also: *Displaying Suggested Results* on page 958
  - Summary—content summary, a maximum of 400 characters
  - Title
  - Url
- **Suggested Spellings**—Use with SiteSearchResultsView, displays a list of words that are similar to the entered search phrase. For a sample of using this, open

siteroot\workarea\FrameworkUI\Templates \Search\SiteSearchResultsView.ascx and find Eval("SuggestedSpellings").

- **WithAllWords**—Use with SiteSearchInputView, sets an AND relationship among search terms.
- **WithAnyWord**—Use with SiteSearchInputView, sets an OR relationship among search terms.
- **WithoutWords**—Use with SiteSearchInputView, sets a NOT relationship among search terms.
- **XmlConfigId**—Long Integer: If content is an XML Smart Form, the ID of its configuration. See Also: *Copying a Smart Form Configuration* on page 427

SocialBar

The SocialBar server control lets users of a community website bookmark colleagues, community groups, and content. See Also: *Using the SocialBar Server Control* on page 1273.

SocialBar Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultObjectID** (Long)

  The default object ID for this control to use when there is no matching dynamic parameter value passed. If you set this property set to 0 (zero) and leave the DynamicObjectParameter blank, the social bar can be used to add Web pages to your favorites.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicObjectParameter** (String)
  Gets or sets the QueryString parameter to read a object ID dynamically. To use the default object ID, leave blank.
- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.
- **IncludeIcons** (Boolean)
  Select whether icons are displayed next to each item.
  - **True**—Display icons next to each item.
  - **False**—Do not display icons next to each item.
- **InviteURL** (String)
  The URL to the Invite server control's Web page. Two variables used within the URL.
  - **{0}**—object ID
  - **{1}**—object type

  The link must have both variables. The Web form can be relative or absolute. Below is an example.

  ```
  invitepage.aspx?id={0}&type={1}
  ```
- **Items**(String)
  A comma-separated list of items that you want to appear on the Social Bar.
  - Add to—
    - If this control is associated with a *user*, the Addto item appears as:
      - **Add a Colleague**—if you are viewing another user's profile page and can add them as a colleague.
      - **CancelColleague Request**—if you are viewing another user's profile page who you asked to be a colleague but the user has not yet accepted.
      - **Remove From Colleagues**—if you are viewing a current colleague's profile page.
    - If the control is associated with a *community group*, the Addto item appears as:
      - **Join Group**—if you visit a community group that you have not joined.
      - **Leave Group**—if you already belong to a community group.
      - **CancelRequest to Join**—if you have tried join a restricted group and have not yet been accepted.
    - If the control is associated with *content*, the Addto item appears as:
      - **Add to Favorites**—if you view content that is not in your Favorites.
      - **Remove Favorites**—if you view content that is in your Favorites.
  - **Invite**—A link to the Web page that contains the Invite server control. This control lets you invite people to register on the site and become a colleague.

    IMPORTANT: For the Invite item to be active, you must enter a link to the page hosting the Invite control into the `InviteURL` property.

- **GroupInvite**—Opens a dialog that invites colleagues or people who are not registered on the site to join the group.
- **Email**—Email this Web page. Clicking this item launches your email with the subject and body loaded with the information about the content, user or community group.
- **Digg**—Appears as **Digg It**. Launches `Digg.com`, a social bookmarking service.
- **Delicious**—Appears as **Bookmark It**. Launches `del.icio.us`, a social bookmarking service.
- **Facebook**—Appears as **Facebook**. Launches Facebook, a social network service.
- **Google**—Appears as **Google It**. Launches Google's social bookmarking service.
- **Furl**—Appears as **Furl It**. Launches Furl, a social bookmarking service.
- **Technorati**—Appears as **Technorati**. Launches Technorati, a social bookmarking service.
- **Twitter**—Launches Twitter, a social network service, which lets you communicate with other Twitter users. If the Twitter link is clicked, and you log into a Twitter account, a link to the current page is inserted into the Status box. See Also: *Server Control Reference* on page 1636
- **Yahoo**—Appears as **Yahoo! It**. Launches Yahoo's social bookmarking service.
- **Print**—Print the Web page.
- **PrivateMessageUser**—Creates a link that lets you send a Private Message to a user. See Also: *Server Control Reference* on page 1636
- **PrivateMessageAdmin**—Creates a link that lets you send a Private Message to a community group's administrator. See Also: *Server Control Reference* on page 1636

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MessagingUrl** (String)

  The Web page that hosts the Messaging server control. This property is used when either `PrivateMessageUser` or `PrivateMessageAdmin` appears in the **Items** property.

  If a value appears in the `ek_RedirectFromLoginKeyName` key in the `web.config` file, the user is returned to the original URL after sending the message. By default, this value is `RedirectUrl`. If you remove this value and do not add another, the person sending a message sees a note stating "Your message has been sent."

- **ObjectType**

  The type of object to which this control is assigned. Choices are:

  - Content
  - User

- Group
- **Data Type**—Ektron.Cms.Common.EkEnumeration.CMSSocialBarTypes

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  WARNING! If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control's tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

TagCloud

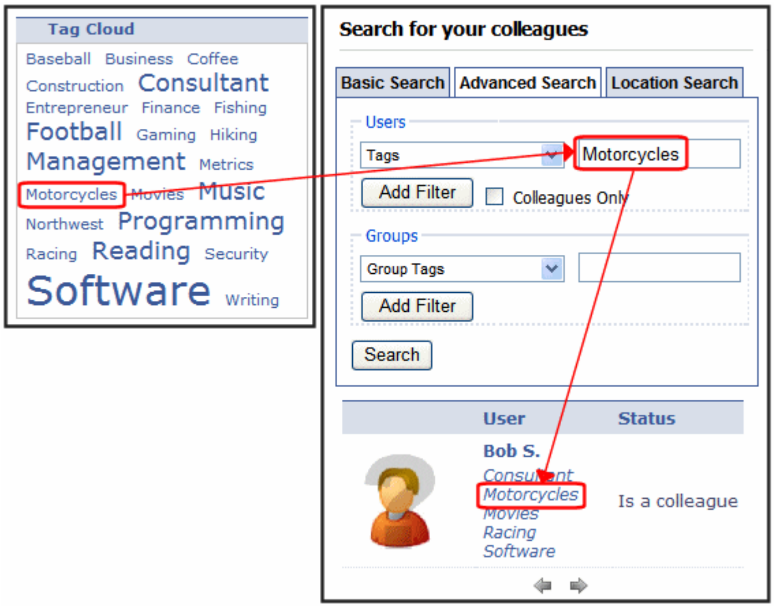
The TagCloud server control shows a weighted list of tags assigned to users, community groups, content, or library items. Tag sizes are proportional to the number of times they are assigned. For example, there are 2 tags, *Software* and *Programming*. If the *Software* tag is used 5 times and the *Programming* tag is used 2 times, the *Software* tag is approximately twice as large.

Use the `TagType` property to determine which types of tags appear in the cloud. For example, set `TagType` to `User` to display user tags.

You can set a maximum number of tags to display via the MaxTagsDisplayed property. This property makes sense if the Orderby property is set to Taggedcount. In this case, the cloud only displays items with the highest number of tags.

Use the OrderBy property to sort tags within a cloud. Your choices are alphabetical or by Taggedcount (the number of times an item is tagged). Then, use the OrderByDirection property to determine if items are sorted in ascending or descending order.

Within a tag cloud, you can link tags to their source items. If you do, site visitors can click a tag to launch a search of all users, community groups, content, or library items to which the tag is assigned. For example, if someone views a user-based tag cloud and clicks **Motorcycles**, the community search page appears, showing all users tagged with Motorcycles.



To make a tag cloud's items searchable, add a path to the Web form containing the Search server control in the TagTemplate property.

TagCloud Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DisplayXslt** (String)

  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  By default, the `TagTemplate` property passes a `TagId` parameter, whose value is the tag that a site visitor clicked in the tag cloud. Use this property to manually override that parameter and set the TagID value by hand.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)(missing snippet link)
- **MarkupLanguage** (String)

  Identify the template markup file that controls the display of the server control. For example, `mymarkup.ekml`. If the EkML file is located in the same folder as the Web form containing the server control, just enter its name. Otherwise, the path to the file can be relative or absolute. See also: *Controlling Output with Ektron Markup Language* on page 1905*Controlling Output with Ektron Markup Language* on page 1905

- **MaxTagsDisplayed** (Integer)

  The maximum number of tags to display. 0 (zero) = unlimited. If you set a maximum, and more than that number of tags are applied, then only the most frequently-used tags appear. For example, if you enter ten, the ten tags applied the most number of times appear.

- **OrderBy** (String)

  The criteria by which tags are ordered in the tag cloud. Choices are:

  - **TaggedCount**—sort by how many times a tag is assigned
  - **Text**—sort alphabetically by tag name

- **OrderByDirection** (String)

  Select the direction of the `OrderBy` property. Choose Ascending or Descending.

- **Stylesheet** (String)

  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

  NOTE: If you enter a valid EkML file at the `MarkupLanguage` property, the `Stylesheet` property is ignored.

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **TagTemplate** (String)

  If you want a tag cloud's items to link to a page that shows *all* items with that tag, add a path to a Web form page that hosts the appropriate search control. The path can be relative or absolute.

  - If the `TagType` is `User` or `Community Group`, enter a page hosting a Community Search server control.
  - If the `TagType` is `Content` or `Library`, enter a page hosting a Web Search server control.

  For example, in the Ektron Intranet starter site's `tagcloud.aspx` page, the first 2 TagCloud controls link to users and community groups. So, this property is set to `CommunitySearch.aspx`, a Web form that hosts the CommunitySearch server control.

  When a site visitor clicks a tag cloud item, the Community Search page displays, populated with search results for the clicked tag. The visitor can click any result to see more about it.

  The following 5 parameters are added to the link's QueryString, and pass tag information to the destination Web form. Its search server control uses the parameters to populate the search.

  - **searchtag** or **searchgrptag**—searchtag represents the tag's text for users; searchgrptag represent the tag's text for community groups
  - **TagId**—the clicked tag's ID
  - **TagLanguage**—the clicked tag's language; only search results in this language appear
  - **TagCount**—the number of times the tag has been assigned
  - **TagType**—the tag's type: user, community group, content or library item. This value is obtained from the `TagType` property (described below).

  In addition to these parameters, you can add your own by defining them in the path. If you do, the above 5 parameters are appended to yours.

- **TagTemplateTarget** (ItemLinkTargets)

  Determines the type of window that appears when you click a link in the server control.

  - **_Self** (default)—opens in same window.
  - **_Top**—opens in parent window.
  - **_Blank**—opens in new window.
  - **_Parent**—opens in the parent frame.

- **TagType** (String)
  Select the type of tags that appear in the tag cloud. Choices are:
  - User
  - CommunityGroup
  - Content
  - Library
- **WrapTag** (String)
  Lets a developer specify a server control’s tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

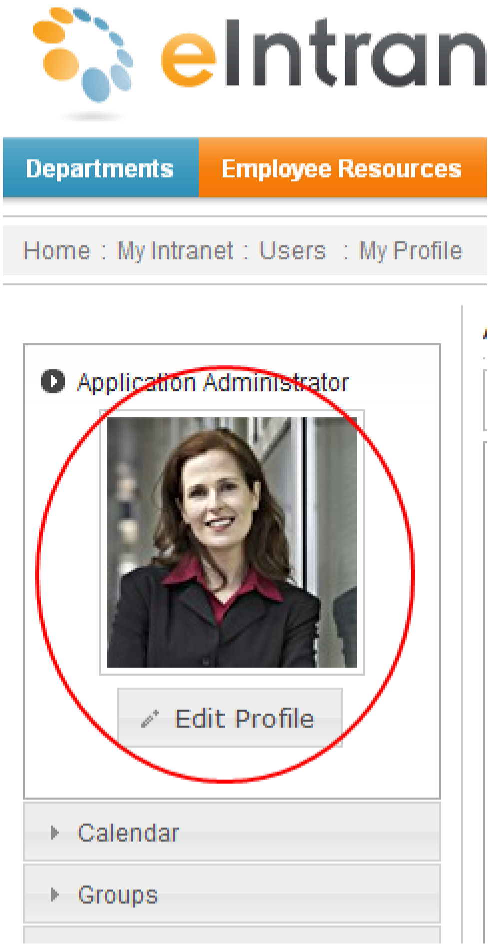
UserProfile

A user’s profile page is the person's home on the website. The UserProfile control displays following information about a user.

- Avatar
- Personal tags
- Screen name
- Custom properties
- If community aliasing for users is enabled, the user's alias (following **Profile Links**)

Logged-in users can edit their profile by clicking **Edit Profile** in the top right corner. This dialog box is the same dialog that a membership user uses to create an account on the site. See *Membership Users and Groups* on page 1161 for a description of this dialog. To automatically create a friendly URL for a user profile, you can use Community Aliasing for Users. See Also: *Creating User-Friendly URLs with Aliasing* on page 835

You can see a sample profile on the eIntranet My Profile page's top left corner.



UserProfile Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **Authenticated** (String)

  Indicates if you are logged into the CMS Explorer and can use it to browse to content, collections, and so on. See Also: *Browsing Your Ektron Site Using CMS Explorer* on page 1610.

- **AvatarHeight** (Integer)

  The display height in pixels of the avatar in the profile area.

- **AvatarWidth** (Integer)

  The display width in pixels of the avatar in the profile area.

- **CacheInterval** (Double)

  The number of seconds that a server control's data is cached. The default is 0 (zero). For example, if you want to cache the data for 5 minutes, set to 300. See Also: *Caching with Server Controls* on page 1629.

- **DefaultUserID** (Long)

  The default user ID for this control to use when there is no matching dynamic parameter value passed.

- **DisplayXslt** (String)
  If desired, enter a relative or absolute path to an Xslt that determines the display of the page.

  WARNING! If you specify an external file, do not store this file in the Workarea folder. If you store this file in the Workarea folder, the file will be lost when you upgrade.

- **DoInitFill** (Boolean)
  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)
  Gets or sets the QueryString parameter to read a user ID dynamically. To use the default object ID, leave blank.

- **EnableEmailDisplay** (Boolean)
  Set to True to display a user's email address in the profile. If a user's **Private Profile** setting is set to Private, the profile information is not visible, regardless of this property's setting. If Private Profile is set to Colleagues, only a user's colleagues can see email information.
  - **True**—display a user's email address in the profile.
  - **False**—do not display a user's email address in the profile.

- **Hide** (Boolean)
  Hides or displays the output of the control in design time and run time.
  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)
  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **Stylesheet** (String)
  Specify the path to a style sheet for use with this server control. The location can be relative or absolute. Leave blank to use the default style sheet.

- **SuppressWrapperTags** (Boolean)
  Suppresses the output of the span/div tags around the control.
  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

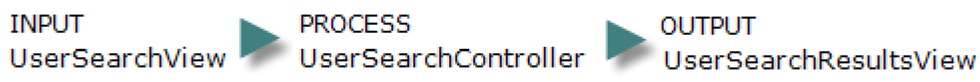
- **TagTemplate** (String)
  The Web page template that contains the CommunitySearch server control. This allows users to search for others users with the same tags. If a template is entered, Personal Tags in the Profile appear as links. Clicking a tag forwards the user to a User Search page that displays search results for the matching tag.

- **TagTemplateTarget** (ItemLinkTargets)
  Determines the type of window that appears when you click a link in the server control.

- **_Self** (default)—opens in same window.
- **_Top**—opens in parent window.
- **_Blank**—opens in new window.
- **_Parent**—opens in the parent frame.

- **TaxonomyId** (Long)
  The numeric ID of the taxonomy that is available to users. A user editing a profile can select which categories to associate with their profiles. See Also: *Using Taxonomies* on page 777
- **WrapTag** (String)
  Lets a developer specify a server control's tag.
  - **Span** (default)—designate an inline portion of an HTML document as a span element.
  - **Div**—apply attributes to a block of code.
  - **Custom**—Lets you use a custom tag.

User Search Server Controls



Use UserSearch server controls to let site visitors search for users and membership users of your website.

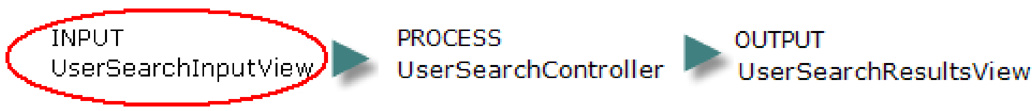
- **UserSearchInputView**—accepts user input of search terms
- **UserSearchController**—takes input from UserSearchInputView control and returns search results
- **UserSearchResultsView**—shows search results; you can modify the results' display

See Also: *Using Search Server Controls* on page 971

Inserting Search Server Controls

See *Inserting Site Search Server Controls* on page 1836

UserSearchInputView



The UserSearchInputView server control lets site visitors search for Ektron users and members. See Also: *Membership Users and Groups* on page 1161 and *Managing Users and User Groups* on page 1099

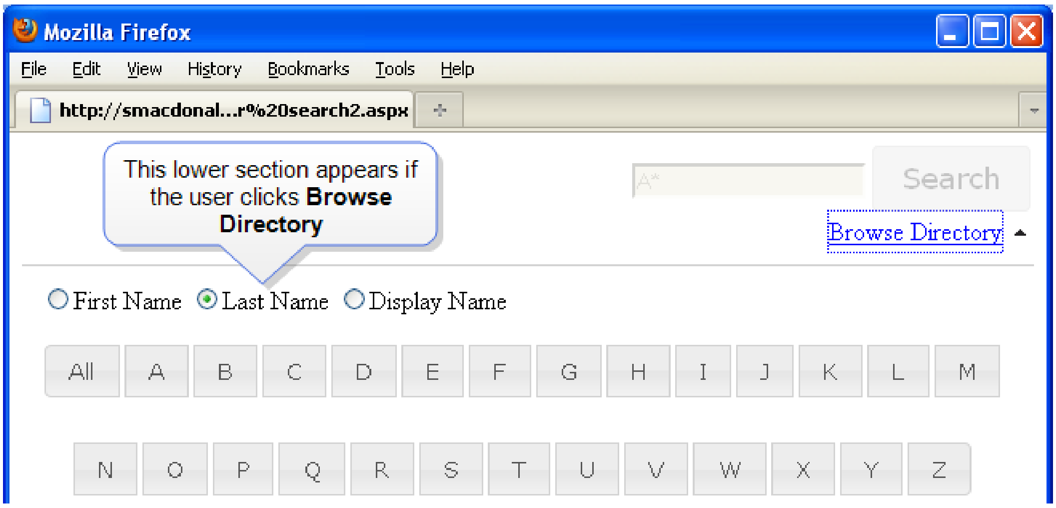
Site visitors can find users using any of these properties:

- first name
- last name

- username
- email address
- display name
- tag

Site visitors can use the wildcard character (*) to find all users that fit a certain pattern. For example, to find all users with any property that begins with **adm**, enter **adm***.

The following image shows the default template's search options.



A site visitor's query string is collected by the UserSearchInputView server control and passed to the *XMLSearchController* on page 1862 which, in turn, sends results to the *UserSearchResultsView* on the facing page.

You can place the UserSearchInputView server control anywhere on a page—it does not need to be next to its results control. Also, you can place more than one UserSearchInputView control on a page.

Required Properties for UserSearchInputView Control

ControllerID—the *ID* of the SearchController that provides the data.

```
<ektron:Serena ID="UserSearchInputView1"
  ControllerID="SearchController1" runat="server">
</ektron:UserSearchInputView>
```

Customizing the UserSearchInputView Control

This process is the same as *Customizing the SiteSearchInputView Control* on page 1839. Refer to *UserSearch Model Properties* on page 1858 to learn which properties may be referenced.

UserSearchController

The UserSearchController server control takes input from a UserSearchInputView control, and returns results to a UserSearchResultsView control. It provides an interface to the search API, thereby giving SearchView controls access to search data.

You can modify Ektron's UserSearchController or write your own.

The UserSearchController executes a search using a query string from the UserSearchInputView control's `Text` property, as specified in the code-behind's `Onclick` event.

Unlike the other search controls, UserSearchController has no UI functionality. So, there is no corresponding .ascx file.

Use only one UserSearchController per page.

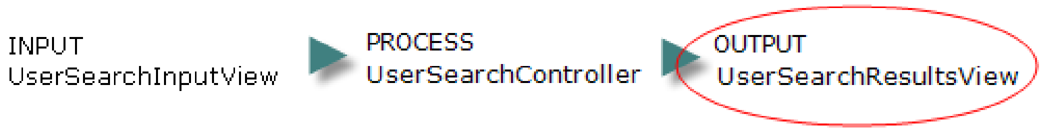
Properties

- **ID** (Required)—provides the association for the SiteSearchInputView and SiteSearchResultsView server controls. here is an example of the ID property with the SiteSearchController.

```
<ektron:SiteSearchController ID="SiteSearchController1"
  runat="server" />
```

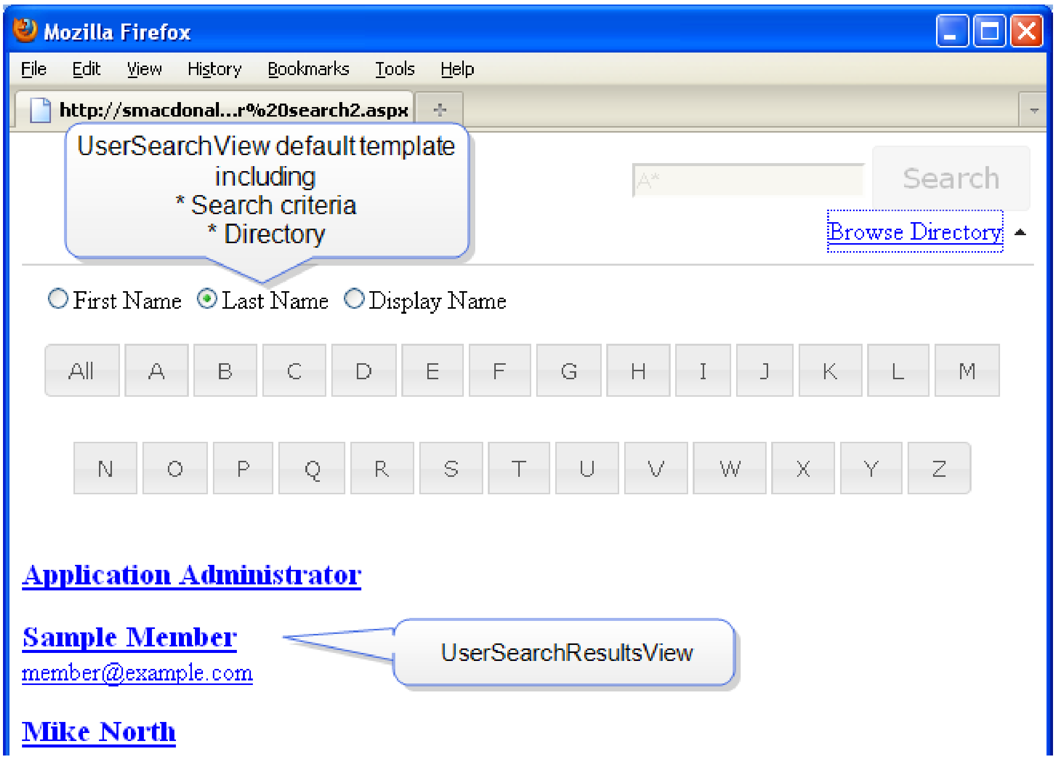
- **AdvancedQueryText** (Optional)—see *Displaying Search Results Using a ListView Control* on page 1842

UserSearchResultsView



The UserSearchResultsView server control displays the results of a user and member search. The control gets its results from a *XMLSearchController* on page 1862.

The following image shows the UserSearchInputView control's filters, as well as search results that use the UserSearchResultsView control's default template.



Connecting a SearchController to the UserSearchResultsView Control

To enable the display of user search results, use the UserSearchResultsView control's `controllerID` property to connect it to a SearchController. See Also: *XMLSearchController* on page 1862

For the controllerID property value, enter the ID of the UserSearchController that takes input from UserSearchInputView control and returns results to this control. For example:

```
<CMS:UserSearchResultsView ID="UserSearchView1"
  ControllerID="UserSearchController1" runat="server">
</CMS:UserSearchResultsView>
<CMS:UserSearchController ID="UserSearchController1" runat="server" />
```

Displaying Search Results

To learn about displaying search results, see *Displaying Search Results* above. To see an example of displaying user search results, see `siteroot\workarea\FrameworkUI\Templates\Search\UserSearchResultsView.ascx`.

UserSearch Model Properties

- **Advanced QueryText**—Use with *XMLSearchController* on page 1862, see *Displaying Search Results Using a ListView Control* on page 1842.
- **AvailableFilters**—Label, Name, Value.
- **DirectorySearchLetter**—Use with UserSearchResultsView, this is the letter the site visitor clicks to initiate the search after clicking **Browse Directory**.

- **DirectorySearchType**—Use with UserSearchResultsView, this is First name, last name, or display name.
- **PageInfo**—Use with UserSearchResultsView, display information about search result numbers, such as **Displaying results 11 through 20 of 35**.
  - **CurrentPageIndex**—current page
  - **EndCount**—number of results found
  - **NumberOfPages**—number of results divided by results per page
  - **PageCount**—number of the page being viewed currently
  - **ResultCount**—number of the results returned for the search terms

    IMPORTANT: The result count is only an estimate. The count becomes more accurate you get closer to the final page.

  - **ResultsPerPage**— number of results displayed per page
  - **StartCount**—one
- **QueryText**—Use with UserSearchInputView or UserSearchResultsView, this is the string that the site visitor entered to begin search.
- **Results**—Use with UserSearchResultsView, these are the fields returned of UserSearchResults. Display these inside a ListView or Repeater, for example.
  - Avatar
  - DisplayName
  - email
  - FirstName
  - LastName
  - ProfileURL
  - Tags
- **SearchType**—Use with UserSearchInputView, this is Basic or Advanced search (site visitor clicks **Browse Directory** to access advanced search).
- **State**—Use with UserSearchResultsView, this is...
  - initialized— search has not been run yet
  - no results—no search results were returned
  - search results—search results were returned

WebCalendar

The WebCalendar server control displays Ektron calendars. See Also: *Working with Calendars on page 514*

NOTE: On a PageBuilder page, use the Calendar widget to insert a calendar.

The following code example shows the WebCalendar server control.

```
<cms:WebCalendar ID="webcalendar" runat="server"
  DynamicParameter="calendar_id" DisplayType="Day">
  <DataSource>
    <cms:CalendarDataSource defaultId="724"sourceType="SystemCalendar"/>
  </DataSource>
</cms:WebCalendar>
```

WebCalendar Properties

The following are Ektron-specific server control properties. You can find information about native .NET properties such as font, height, width and border style in Visual Studio® help.

- **AllowEventEditing** (Boolean)

  Determines whether users can add or edit calendar events. Default is **True**.

- **DefaultDisplayType** (String)

  Specify the default calendar display. The default is **Month**, which means that the month view appears on the Web page. The site visitor can change the view.

- **DisplayTemplatePath** (String)

  Specify the path to the code that controls how events are displayed. Default is blank. See Also: *Customizing the Web Calendar Tooltip* on page 525

- **DisplayType** (String)

  Determines which time periods appear on the calendar. Choices are **All**, **Day**, **Month**, **Week**. Default is **All**.

- **DoInitFill** (Boolean)

  By default, Fill occurs during the Page_Init event. Set to **false** if you want to postpone the fill-action until later. In this case, Fill is automatically called during the Page Render event. You might do this if you need to set or change a property on the control in code-behind and have it render with your changes shown.

- **DynamicParameter** (String)

  To make this calendar dynamic, select **calendar_id**. When you do, this server control uses the calendar passed as a URL parameter. To exclude this function, choose **None-Use Default**. Only Calendars with `sourcetype=SystemCalendar` may be used in the querystring for this value. For example, where `DyanamicParameter=”calendar_id”`, the URL may read `http://mysite.com/calendar.aspx?calendar_id=”55”`. In this case, calendar 55 must be of the SystemCalendar type.

- **Hide** (Boolean)

  Hides or displays the output of the control in design time and run time.

  - **True**—Hide the control output.
  - **False**—Display the control output.

- **Language** (Integer)

  Set a language for viewing content; shows results in design-time (in Visual Studio) and at run-time (in a browser).

- **SuppressWrapperTags** (Boolean)

  Suppresses the output of the span/div tags around the control.

  - **True**—Suppress wrap tags.
  - **False** (default)—Allow wrap tags.

- **WrapTag** (String)

  Lets a developer specify a server control’s tag.

  - **Span** (default)—designate an inline portion of an HTML document as a span element.

- ◦ **Div**—apply attributes to a block of code.
- ◦ **Custom**—Lets you use a custom tag.

The following list shows properties set inside the `<DataSource> <CalendarDataSource>` tag.

- **backColor** (String)

  The background color of the calendar event. If you set this value to `AutoSelect`, the next available color in the list is chosen automatically.

- **defaultId** (String)

  The Id of the SystemCalendar, GroupCalendar or UserCalendar to display on the Web page. For more information about using this property, see *Combining Web Calendars (Mashups)* on page 530.

- **queryParam** (String)

  The parameter that may be in the query string to mash-up additional calendars. This can be any Calendar SourceType. For example, if the value is set to **uid,** then the querystring can be:

  ```
  .../calendar.aspx?calendar_id=”55”&uid=”440”
  ```

  For more information about using this property, see *Combining Web Calendars (Mashups)* on page 530.

- **sourceType** (String)

  Choices are **SystemCalendar, GroupCalendar, UserCalendar**. See Also: *Combining Web Calendars (Mashups)* on page 530

  NOTE: The CategoryID property set inside the `<DataSource> <CategoryID>` tag is used to identify taxonomy categories to filter calendar events. See Also: *Server Control Reference* on page 1636

Web Search

The Web Search server control is deprecated from the Visual Studio tools in Ektron versions 8.5 and higher. Ektron changed this server control to maintain backwards compatibility. So, pages created in previous releases that use the Web Search server control will work without modification.

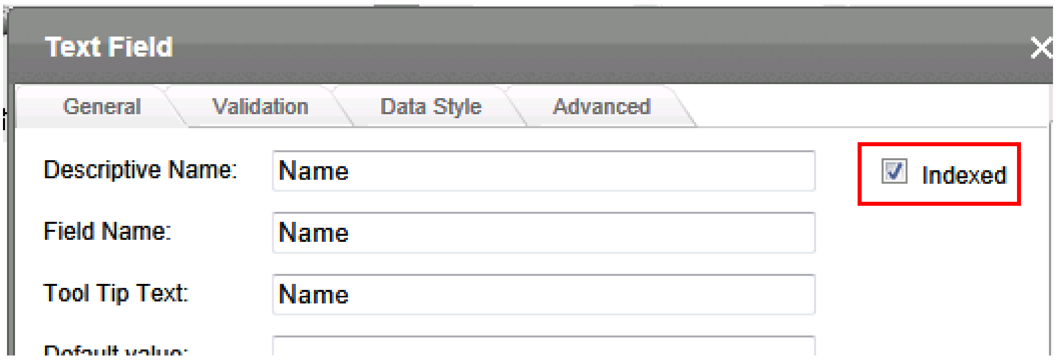
For new pages, developers are encouraged to replace the Web Search server control Search templated server controls. See Also: *Using Search Server Controls* on page 971

XMLSearch Server Controls

XMLSearch server controls display a Smart Form's fields on a search page. A site visitor can use the fields to search for Smart Form content. See Also: *Using Search Server Controls* on page 971

IMPORTANT: Only fields marked **Indexed** appear on the form (see image below).
Also, you cannot search a Smart Form field if its entire xpath exceeds 64 characters. See Also: *Specifying Which XML Elements are Indexed* on page 442

—Image—



Inserting Search Server Controls

See *Inserting Site Search Server Controls* on page 1836

XMLSearchController

The XMLSearchController server control takes input from a XMLSearchInputView control, and returns results to a XMLSearchResultsView control. It provides an interface to the search API, thereby giving SearchView controls access to search data.

You can modify Ektron's XMLSearchController or write your own.

The XMLSearchController executes a search using a query string from the XMLSearchInputView control's `Text` property, as specified in the code-behind's `Onclick` event.

Unlike the other search controls, XMLSearchController has no UI functionality. So, there is no corresponding .ascx file.

Use only one XMLSearchController per page.

Properties

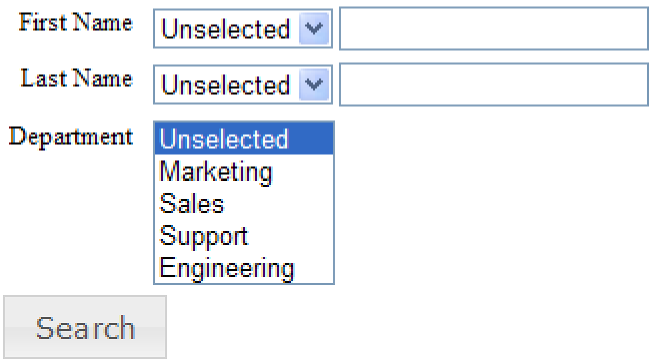
- **ID** (Required)—provides the association for the SiteSearchInputView and SiteSearchResultsView server controls. Here is an example of the ID property with the SiteSearchController.

```
<ektron:SiteSearchController ID="SiteSearchController1"
  runat="server" />
```

- **AdvancedQueryText** (Optional)—see *Displaying Search Results Using a ListView Control* on page 1842

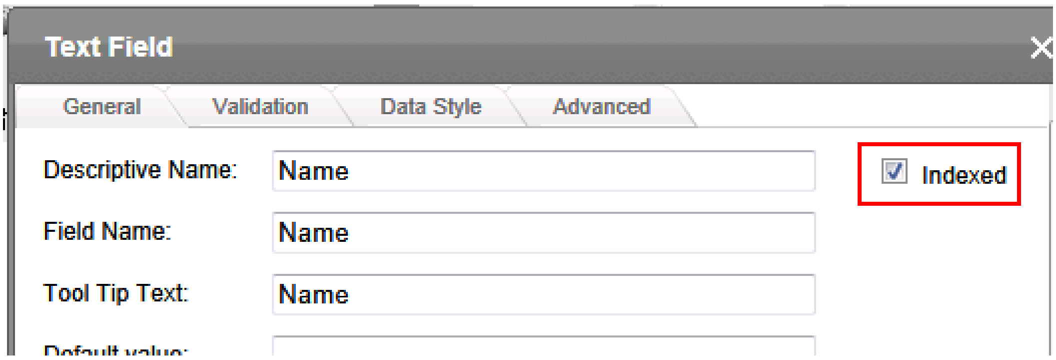
XMLSearchInputView

The XMLSearchInputView server control displays a Smart Form's fields and lets users search on them.



IMPORTANT: Only fields marked **Indexed** appear on the form (see image below). Also, you cannot search a Smart Form field if its entire xpath exceeds 64 characters. See Also: *Specifying Which XML Elements are Indexed* on page 442

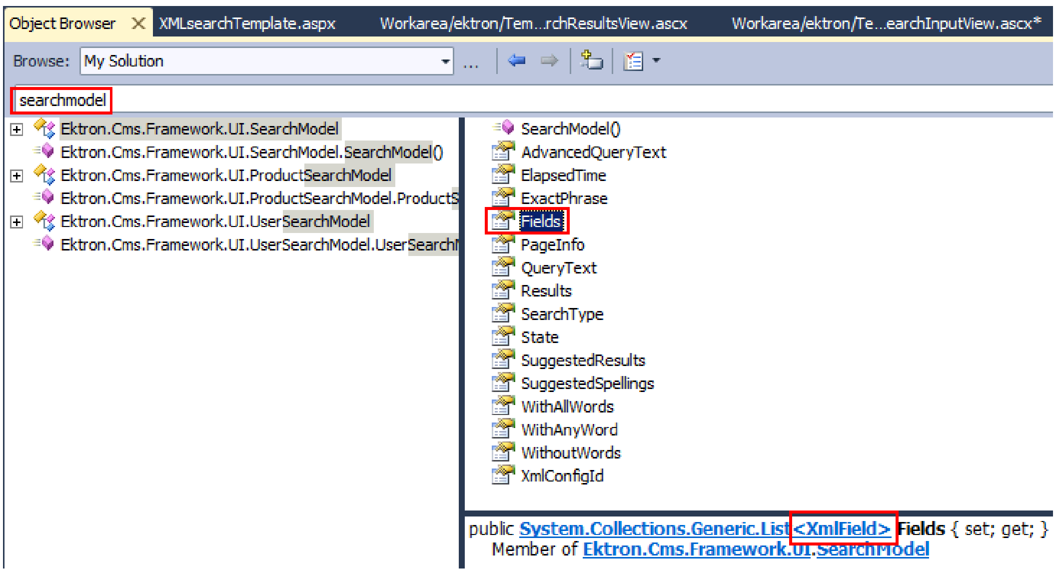
—Image—



Because XML fields have a type (for example, string, date, choice, integer, boolean), the template is dynamic and connected to a Smart Form's data structure.

The Search Model for XML Smart Forms

The Search Model gets bound to (that is, determines) the view. When viewing the Search Model in the object browser, you see a property named *Fields*, which is a list of each XML Smart Form field.



To view the Search Model for XML Smart Forms, insert **XMLField** into the Object Browser. The class consists of a...

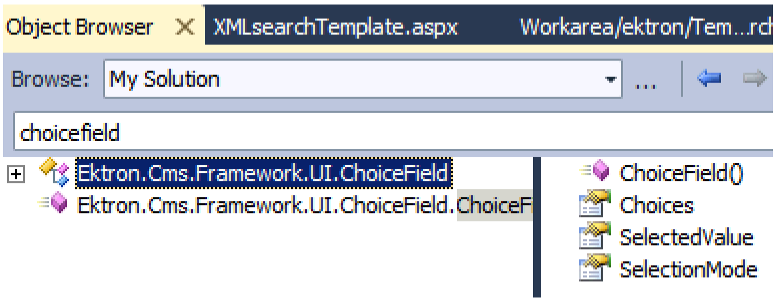
- **Label**—friendly name
- **Name**—internal smart form name
- **Xpath**—path to field in Smart Form

XML Smart Form search controls use these fields to retrieve and display Smart Form content.

As explained in *Using Data Field Types* on page 442, there are many types of Smart Form fields. Each type has a subclass, which has a corresponding user control, an .ascx template file. User controls are located in `C:\Program Files (x86)\Ektron\CMS400v`*`version`*`\workarea\FrameworkUI\Templates\Search\Fields`. As explained in *Modifying the Default Markup* on page 973, to change a control's default markup, modify its template.

Smart Form field controls receive an XML field and cast it into the specified field type. For example, the Object Browser shows that the ChoiceField template (`ChoiceField.ascx`) contains a

- List of possible choices
- Selected value—the current selection
- Selection Mode—select one or many



The ChoiceField template receives an XML field and casts it into a choice field.

Creating your own XML Search Template

PREREQUISITE

You have an understanding of the structure of XML field types, as explained in *The Search Model for XML Smart Forms* on the previous page.

1. Bind fields to a list view.

```
<ektron:XmlSearchInputView ID=”xmlSearchView” runat=”server”
  ControllerID=”SearchController” XMLConfigId=”10”>
<ItemTemplate>
  <asp:ListView ID=”fields” DataSource=’<%# Eval(“Fields”) %>’
    runat=”server”>
```

NOTE: The DataSource is the field's array returned from the SearchModel.

2. Insert a set of `<ItemTemplate>` tags.

```
<ektron:XmlSearchInputView ID=”xmlSearchView” runat=”server”
  ControllerID=”SearchController” XMLConfigId=”10”>
<ItemTemplate>
```

```
  <asp:ListView ID="fields" DataSource='<%# Eval("Fields") %>'
    runat="server"> </ItemTemplate>
```

3. Get an XML field and display its corresponding template. Because it does not specify which type of XML Smart Form field is being retrieved, use an XMLSearchField control to determine that.

   The XMLSearchField control has a `Field` property, which maps the control to the correct template in the `\workarea\FrameworkUI\Templates\Search\Fields` folder. For example, a boolean Smart Form field is mapped to `booleanfield.ascx`.

```
<ektron:XmlSearchInputView ID="xmlSearchView" runat="server"
  ControllerID="SearchController" XMLConfigId="10">
<ItemTemplate>
  <asp:ListView ID="fields" DataSource='<%# Eval("Fields") %>'
  runat="server">
</ItemTemplate>
<ItemTemplate>
  <ektron:XmlSearchField ID="uxField" runat="server" Field='<%#
    Container.DataItem %>'>
  </ektron:XmlSearchField>
</ItemTemplate>
```

   The XMLSearchField control lets you manage the display of XML Smart Form fields displayed in the ListView. So, you can modify the search input form with effects like the `<ItemSeparatorTemplate>`, which lets you place text, images, and so on, between each field.

Customizing the Rendering of a Field

You can customize the behavior of an XML Smart Form field on the input form.

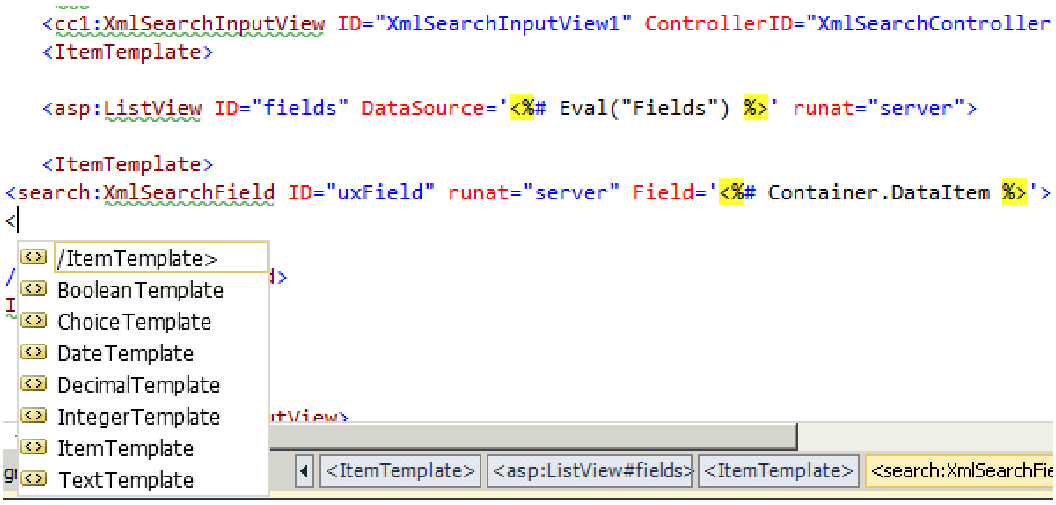
This is a complex procedure because, when a user clicks **Search**, your template must retrieve the modified fields, pass that data to the containing template which, in turn, passes the modified fields to the Search API. Use 2-way data binding to perform this procedure.

PREREQUISITE

You followed the steps in *Creating your own XML Search Template* on the previous page.

1. Inside your XML Smart Form template, press **Enter** after `Field='<%# Container.DataItem %>'>`.

2. Insert a less than symbol (**<**). A drop-down list of Smart Form field types appears.



3. To replace the value of any field type, insert the corresponding Template field. For example, to replace a text element, click **TextTemplate** to insert a set of `<TextTemplate>` tags. Whatever you enter between the tags replaces the text template on the Smart Form input form.

   For example, to replace a text template field with a text box, use the following syntax.

```
<TextTemplate>
  <asp:TextBox ID="aspValue" Text='<%# Bind("Value") %>'
   runat="server" </asp:TextBox></TextTemplate>
```

Notice that this example uses `Bind`, which is a two-way statement. If the user changes the value in the text box, then posts back, the Bind command pushes the data into the template. The child template then takes the modified data from the template and pushes it back to the data object.

36

Customizing Behavior with Extensions

Extensions are developer-defined software modules that modify the behavior of Ektron. In versions previous to 8.0, developers used the Plug-in Extension Wizard to extend the system. In versions 8.0 and higher, Extensions are preferred over the Plug-in system.

The benefits of Extensions include:

- You have full access to the Web application context, the HTTP context, the session information, data stored in cache, and APIs.
- API access means more functionality is available, such as the Notification system.
- Easy to debug because you can attach and set breakpoints in the same way you debug Web applications.
- Enhanced performance because no Web Services are required.
- No Windows Services are required, because Extensions run in the context of your Web application.

This section also contains the following topics.

Event Handlers

An event is an activity that occurs within Ektron and is exposed through the Extension Framework. An *event handler* is a method that executes when an event occurs.

Extensibility strategies and events

NOTE: `onBefore` lets you manipulate the current data *before* it is updated. In contrast, `onAfter` events do not let you change a value in the contentData object for the content being affected. `onAfter` events only update data somewhere else (such as within Ektron or a third party database).

Class and Events
Ektron.Cms.Extensibility.CommunityGroupStrategy

Class and Events
• **OnAdd**(Ektron.Cms.CommunityGroupData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a new Community Group is added. • **OnAfterUserAdd**(long, long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a user is added to a Community Group. • **OnAfterUserDelete**(long, long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a user is removed from a Community Group • **OnDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Community Group is deleted. • **OnUpdate**(Ektron.Cms.CommunityGroupData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Community Group is updated.
Ektron.Cms.Extensibility.ContentStrategy
• **OnAfterAddContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called after new content is added. • **OnAfterDeleteContent**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after content is deleted. • **OnAfterPublishContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called after content is published. • **OnAfterUpdateContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called after content is saved. • **OnBeforeAddContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called before content is added. • **OnBeforeDeleteContent**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before content is deleted. • **OnBeforePublishContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called before content is published. • **OnBeforeUpdateContent**(Ektron.Cms.ContentData, Ektron.Cms.Extensibility.CmsEventArgs)—called before content is saved.
Ektron.Cms.Extensibility.FolderStrategy

Class and Events
• **OnAfterAddFolder**(Ektron.Cms.FolderData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a new folder is added. • **OnAfterDeleteFolder**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a folder is deleted. • **OnAfterUpdateFolder**(Ektron.Cms.FolderData, Ektron.Cms.Extensibility.CmsEventArgs)—called after folder is updated. • **OnBeforeAddFolder**(Ektron.Cms.FolderData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a folder is added. • **OnBeforeDeleteFolder**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before a folder is deleted. • **OnBeforeUpdateFolder**(Ektron.Cms.FolderData, Ektron.Cms.Extensibility.CmsEventArgs)—called before changes to a folder are saved.
Ektron.Cms.Extensibility.MessageBoardStrategy
• **OnAdd**(Ektron.Cms.MessageBoardData, Ektron.Cms.Extensibility.CmsEventArgs)—called after new Message Board item/post is added. • **OnAfterReplyAdd**(Ektron.Cms.MessageBoardData, Ektron.Cms.Extensibility.CmsEventArgs)—called after someone replies to Message Board post. • **OnDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Message Board post is deleted. • **OnMessageApprove**(Ektron.Cms.MessageBoardData, Ektron.Cms.Extensibility.CmsEventArgs)—called before Message Board post is approved. • **OnUpdate**(Ektron.Cms.MessageBoardData, Ektron.Cms.Extensibility.CmsEventArgs)—called after Message Board post is updated.
Ektron.Cms.Extensibility.MicroMessageStrategy
• **OnAfterAdd**(Ektron.Cms.MicroMessageData, Ektron.Cms.Extensibility.CmsEventArgs)—called after new Micro Message post is added. • **OnAfterDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Micro Message post is deleted. • **OnBeforeAdd**(Ektron.Cms.MicroMessageData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Micro Message post is added. • **OnBeforeDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Micro Message post is deleted.
Ektron.Cms.Extensibility.TagStrategy

Class and Events
• **OnAdd**(Ektron.Cms.TagData, Ektron.Cms.Extensibility.CmsEventArgs)—called after Tag is added. • **OnDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Tag is deleted. • **OnUpdate**(Ektron.Cms.TagData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Tag is updated.
Ektron.Cms.Extensibility.TaxonomyStrategy
• **OnAfterAdd**(Ektron.Cms.TaxonomyData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a new Taxonomy is added. • **OnAfterAssignItem**(Ektron.Cms.TaxonomyRequest, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Taxonomy Item is added/assigned to Taxonomy. • **OnAfterDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after Taxonomy is deleted. • **OnAfterUpdate**(Ektron.Cms.TaxonomyData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Taxonomy is updated. • **OnBeforeAdd**(Ektron.Cms.TaxonomyData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a new Taxonomy is added. • **OnBeforeAssignItem**(Ektron.Cms.TaxonomyRequest, Ektron.Cms.Extensibility.CmsEventArgs)—called before Taxonomy item is added/assigned to Taxonomy. • **OnBeforeDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Taxonomy is deleted. • **OnBeforeUpdate**(Ektron.Cms.TaxonomyData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Taxonomy is updated.
Ektron.Cms.Extensibility.UserStrategy

Class and Events
• **OnAfterAddColleague**(long, long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a colleague/friend is added. • **OnAfterAddUser**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a new user is added. • **OnAfterColleagueRequest**(Ektron.Cms.Community.ActionRequestData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a colleague/friend request is sent. • **OnAfterDeleteUser**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a user is deleted. • **OnAfterLogin**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a user logs in. • **OnAfterUpdateUser**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a user is updated. • **OnBeforeAddUser**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a new user is added to CMS. • **OnBeforeDeleteUser**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before a user is deleted from CMS. • **OnBeforeLogin**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a user logs in. • **OnBeforeUpdateUser**(Ektron.Cms.UserData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a user is updated.
Ektron.Cms.Extensibility.WebEventStrategy

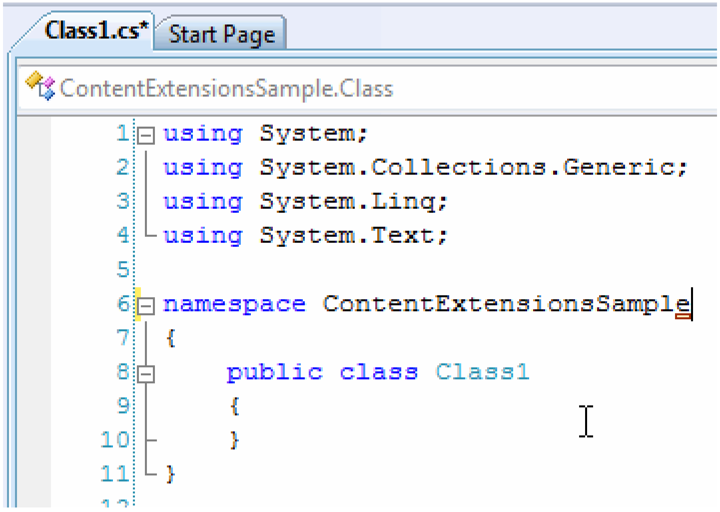
Class and Events

- **OnAfterAdd**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a new Web calendar event is added
- **OnAfterAddVariance**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Web calendar event variance is added.
- **OnAfterCancelOccurrence**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a single occurrence of Web calendar event (recursive event) is cancelled.
- **OnAfterDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Web calendar event is deleted.
  OnAfterPublish(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Web calendar event is published.
- **OnAfterUpdate**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called after a Web calendar event is updated.
- **OnBeforeAdd**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a new Web calendar event is added.
- **OnBeforeAddVariance**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Web calendar event variance is added.
- **OnBeforeCancelOccurrence**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a single occurrence of a Web calendar event (recursive event) is canceled.
- **OnBeforeDelete**(long, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Web calendar event is deleted.
- **OnBeforePublish**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Web calendar event is published.
- **OnBeforeUpdate**(Ektron.Cms.Common.Calendar.WebEventData, Ektron.Cms.Extensibility.CmsEventArgs)—called before a Web calendar event is updated.

Using Visual Studio to Create a New Extension

1. In Visual Studio, open your website.
2. Add a new C# class to the App_Code directory.

3. The Class1.cs code page appears in the editor.



4. Add references to the following assemblies if they are not already added.

```
Ektron.CMS.Common
Ektron.CMS.Contracts
Ektron.CMS.ObjectFactory
```

   If the assemblies are not installed in Visual Studio, you can find them in the `siteroot/bin` directory.

5. Add the following `using` statements to the top of the class.

```
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Extensibility;
using Ektron.Cms.Extensibility.Content;
```

6. Update the class to extend `Ektron.Cms.Extensibility.ContentStrategy`.

```
namespace Cms.Extensions.Samples { public class ContentExtensionsSample :
ContentStrategy { } }
```

NOTE: The namespace in the code above is Cms.Extensions.Samples. This information is needed for Step 8.

7. Override the method for the event you wish to catch. In this example, `override OnBeforeAddContent()`. The code to modify the Title looks like this.

```
public override void
  OnBeforeAddContent(ContentData contentData, CmsEventArgs eventArgs)
  { contentData.Title += " modified"; }
```

8. This is what the final code looks like.

```
using System;
using System.Collections.Generic;
using System.Text;
using Ektron.Cms;
using Ektron.Cms.Common;
using Ektron.Cms.Extensibility;
using Ektron.Cms.Extensibility.Content;
namespace Cms.Extensions.Samples
{
public class ContentExtensionsSample : ContentStrategy
```

```
  { public override void
    OnBeforeAddContent(ContentData contentData, CmsEventArgs eventArgs)
    { contentData.Title += " modified"; }
  }
}
```

Register the New Extension in the ObjectFactory

After creating the extension in the steps above, register it in the `<webroot>/ObjectFactory.config` file.

This file already contains GoogleGeoCoder objectStrategies, so you need to add a new Name in the Content area. In this example, the code looks like this.

```
<objectFactory>
  <objectStrategies>
    <add name="Content">
      <strategies>
        <add name="MyFirstExample"
          type="Cms.Extensions.Samples.ContentExtensionsSample"/>
        <add name="GoogleGeoCoder"
          type="Cms.Extensions.GoogleGeoCoder.ContentStrategy"/>
      </strategies>
    </add>
    <add name="User">
      <strategies>
        <add name="GoogleGeoCoder"
          type="Cms.Extensions.GoogleGeoCoder.UserStrategy"/>
      </strategies>
    </add>
  </objectStrategies>
</objectFactory>
```

More Information about ObjectFactory objectStrategies

- Register extensions in the `<objectStrategies>` element of the *siteroot*`/ObjectFactory.config` file.
- For the element directly below `<objectStrategies>`, `<addname>`, enter a `name` to identify extension type. A list of valid `name`s is in the following table.

List of Valid Names

- Inventory
- Coupon
- BasketCalculator
- CouponCalculator
- ShippingCalculator
- TaxCalculator
- Country
- Region
- Basket
- Blog
- Order
- Customer
- CatalogEntry
- CommunityGroup
- Tag
- MessageBoard
- MicroMessage
- Content
- Folder
- User
- Forum
- WebEvent
- Taxonomy

- Within a `<strategies>` element, add one or more content extensions. For each extension, insert a `name` and `type`. For example:

```
<strategies>
  <add name="MyFirstExample"
    type="Cms.Extensions.Samples.ContentExtensionsSample"/>
</strategies>
```

  - `name` is free-text.
  - `Type` is a fully-qualified name of the extension you are registering. It consists of namespace + "." + name of the class.

Test the New Extension

The new extension (created in the examples above) adds "modified" to the end of a new content item's title. To test this, create new content in the Workarea; "modified" will be appended to the end of the title.

More Examples of Extensions

More examples of Extensions are found in the Ektron SDK folder. The default location for this folder is `Program Files\Ektron\CMS400SDK\CMS Extensions`. Also, sample eCommerce extensions are found in `Program Files\Ektron\CMS400SDK\Commerce\Events`.

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Ektron Windows Service

Ektron provides a Windows Service to handle background processing functions. This section explains the service, including

- functions it performs
- how it propagates updates to the connection string and site path
- where it resides in IIS and the file system
- its activity log

This section also contains the following topics.

Functions Performed by the Ektron Windows Service

The Ektron Windows Service performs the following processes.

- *Balancing the Load on Your Servers* on page 89
- *Working with Assets in the Document Management System* on page 310
- *Bad Link Report* on page 584
- Publication of content scheduled to go live at a future time, and removal of content scheduled to expire. See *Scheduling Content* on page 296.
- When a new metadata definition is created, the Windows service applies it to all content in the Ektron database. However, the metadata definition is only activated for the content when it is enabled for the content's folder. See Also: *Working with Metadata* on page 369

In addition, the Ektron Windows Service propagates updates made to the database connection string or the site path in the `web.config` file. The service copies the new value to the data.config and sitedb.config files (respectively). These are located in `C:\Program Files\Ektron\EktronWindowsservice40`. Any Ektron components that reference these values can retrieve the current information from these files.

WARNING! Do not edit the data.config and sitedb.config files. They are dynamically generated by Ektron. If these files have incorrect values, edit the `web.config` file, which is used to generate them.

Changing the Update Time

The update of the data.config and sitedb.config files occurs once a day at a time prescribed in the `C:\Program Files\Ektron\EktronWindowsservice30\Ektron.ASM.EktronServices.exe.config` file's `updateTime` value. If desired, you can change this time.

Disabling PDF Generation

By default, PDF generation is enabled. To disable it within the Ektron Windows Services configuration file:

1. On the server to which you installed Ektron, open `C:\Program Files\Ektron\EktronWindowsService40`.
2. Open Ektron.ASM.EktronServices40.exe.config.
3. Find this line:
```
<add name="PdfFileRead"
type="Ektron.ASM.EktronServices.PdfFileManagerRead.PdfFileManagerReadServ
ice, Ektron.ASM.EktronServices40" IntervalSeconds="101" Enabled="true" />
```
4. Set `enabled` to `false`.

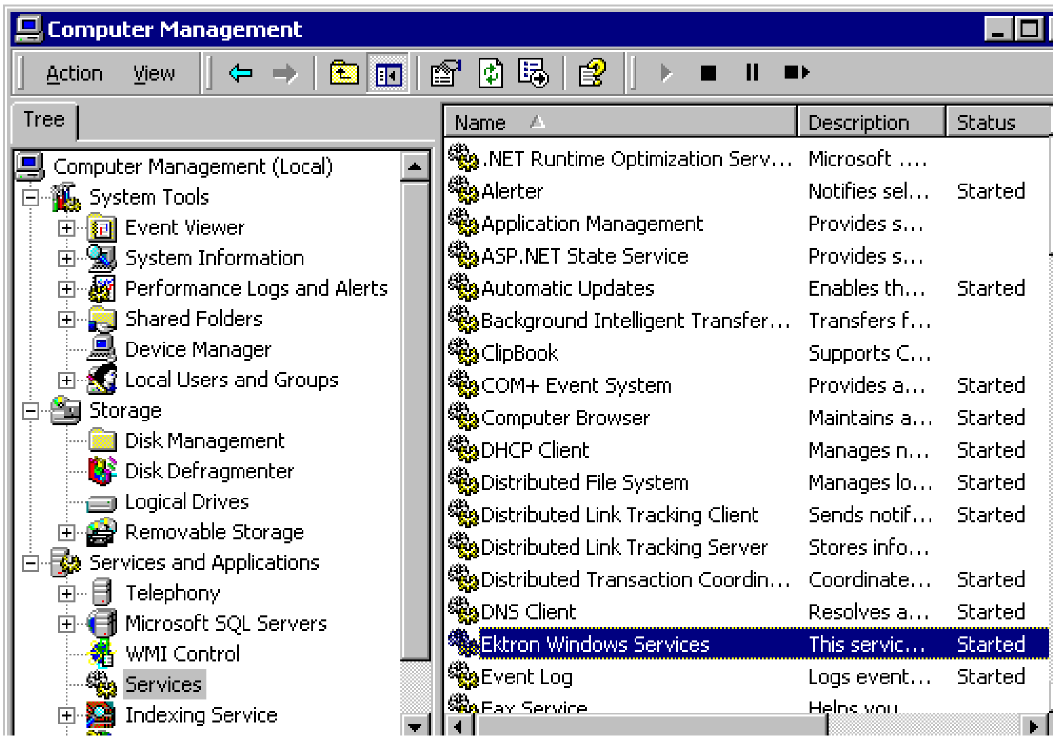
Viewing the Ektron Windows Service

This section also contains the following topics.

Viewing in IIS

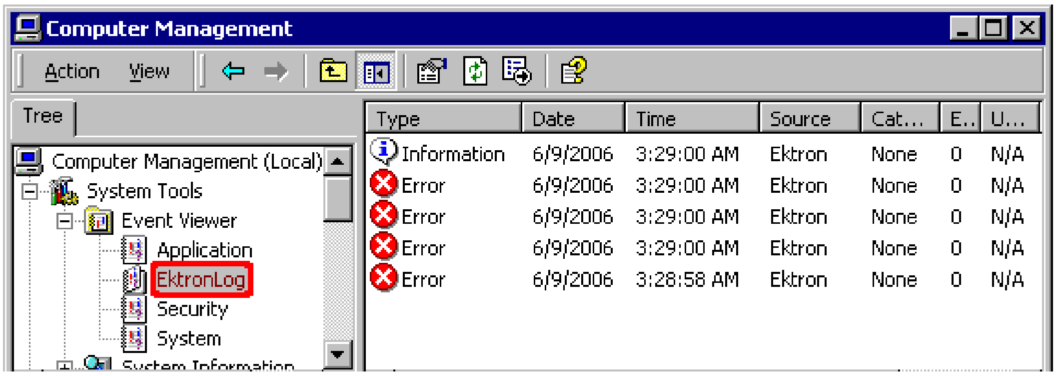
The Windows Service starts automatically when Ektron is installed, and again whenever the server is restarted.

1. To see the status of the service, go to **Computer Management > Services and Applications > Services**.
2. Look for **Ektron Windows Services**. You can see its status in the **Status** column.



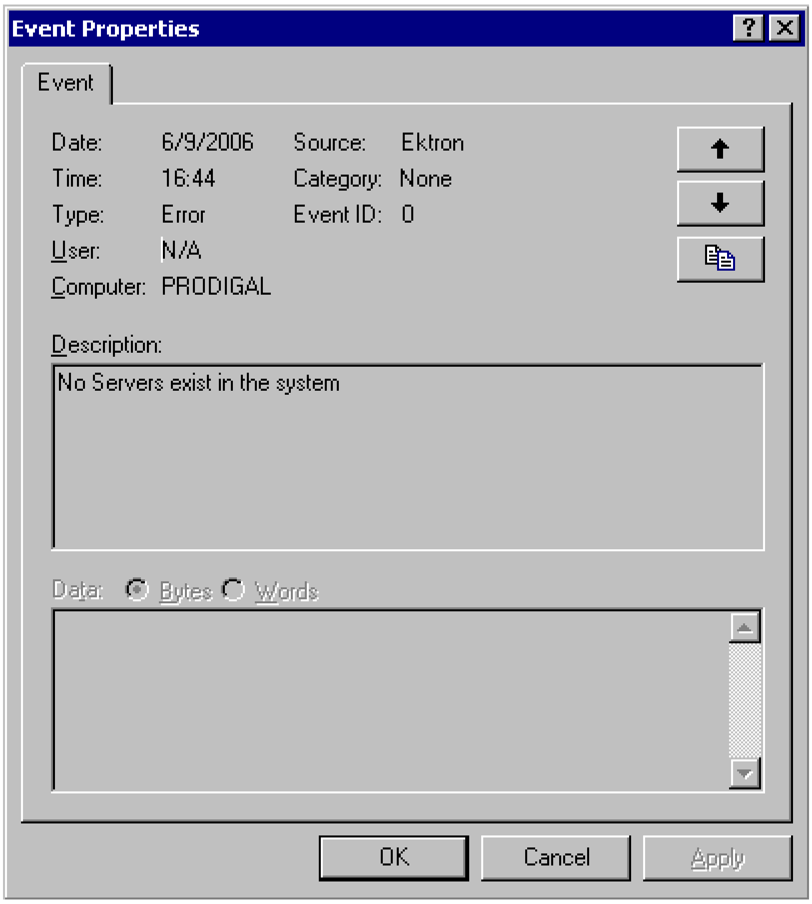
The Activity Log

The service has an Activity Log, which tracks all related events. To see it, go to **Computer Management > System Tools > Event Viewer > Ektron Log**.



To view detail for any event, double click it.

A common source of errors is that the service cannot find Ektron sites, because they have not been created yet, as shown in the sample below.



Viewing in the File System

On your file system, the Ektron Windows Service is located in `C:\Program Files\Ektron\EktronWindowsservice40`. Within that folder, the

Ektron.ASM.EktronServices.exe.config file runs the Ektron Windows service.

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Diagnostics Utility

This section also contains the following topics.

Ektron's Diagnostics Utility provides comprehensive information about you network's servers that are related to the website to which you are logged on. (An Ektron network consists of your Ektron server, connected database servers, and other servers with which your website has an *Synchronizing Servers Using eSync* on page 1473 or Load Balance relationship.)

The utility gives you and Ektron's support staff a real-time snapshot of all servers in the network, and includes the following for each node.

- status of all services
- version information for Windows, SQL, IIS, Visual Studio, and so on
- event log
- database connection status, test query, server, and so on
- for each server: drive capacity and available space; available memory, and so on
- eSync information, such as remote certificates for this server

NOTE: Most Diagnostics fields are read-only. The utility lets you perform only a few actions.

The following video provides additional information about the Diagnostics Utility: The Making of Ektron eSync Diagnostics

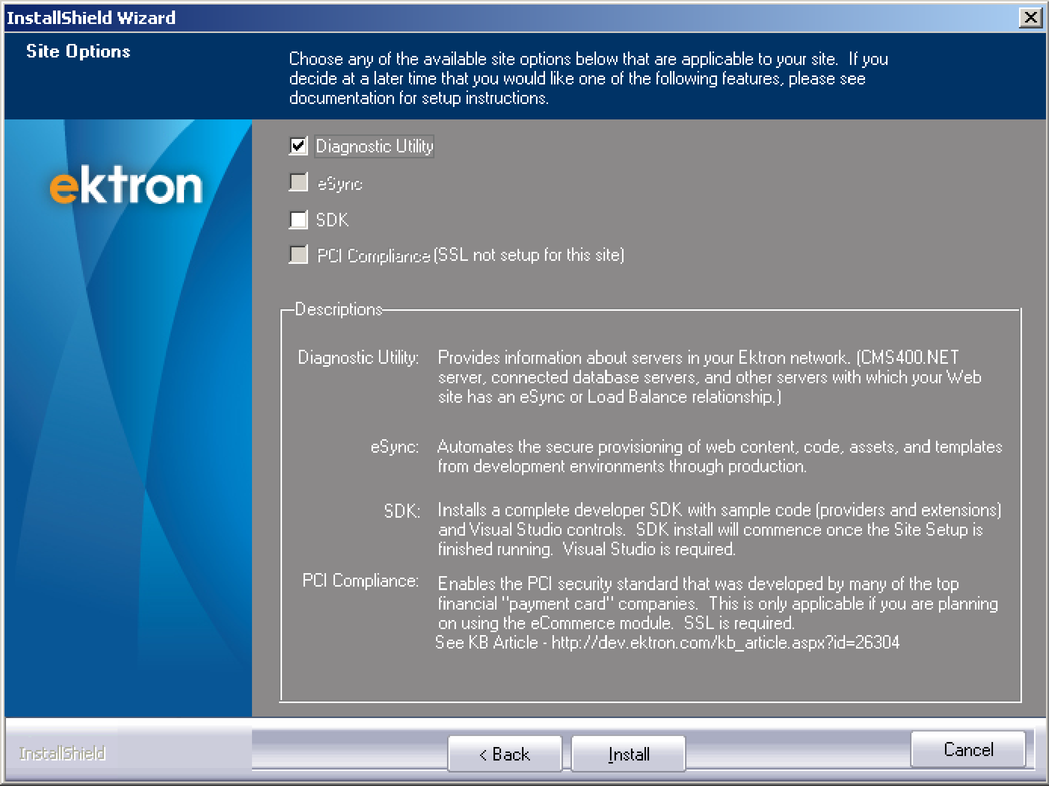
This section explains what you need to know about the Diagnostics Utility: how to install it, the information it provides, and how to "capture" its current state. You can save the captured files for comparison with previous and future versions, and send them to Ektron's support staff for diagnosis.

How the Diagnostics Utility Works

1. The Diagnostics Utility uses a Workarea Web service that is installed to the Ektron server. This service runs independently of the Ektron Windows Service and your Ektron website.
2. That Web service routes requests to the Ektron Diagnostics Service.
3. The Ektron Diagnostics Service collects diagnostic information from the database, website files, and other locations like the event log. It also scans for other known Web servers (eSync servers, load balance servers, and multi-site servers).
4. If any other servers are found, the Diagnostics Windows Service opens a connection to the destination server's Diagnostics service. The Diagnostics Service uses the same port as the Ektron Windows service.
5. The Ektron Diagnostics Service returns the collected data to the Silverlight viewer, which dynamically builds the network that appears on the screen.

Installing the Diagnostics Utility

An opportunity to install the Diagnostics Utility appears during the installation or upgrade of Ektron(see **Diagnostic Utility** checkbox).



If **Diagnostic Utility** is not checked during installation, you can install it by going to Windows **Start** button **> All Programs > Ektron > CMS400vxx > Utilities > Ektron Diagnostic Utility**.

Install the utility to every website and server in your Ektron network. This includes Ektron Web servers, as well as servers used in Load Balance and eSync configurations.

You do *not* need to install the utility on client workstations.

The Diagnostics Utility installs the following files on each server.

- `web.config` file additions
- the Ektron Diagnostics Windows service

NOTE: If the Diagnostics Utility is *not* installed on a server, a node for that server appears, but information about it is not available in the lower section of the screen, and additional relationships are not visible.
For example, you have an eSync relationship between development and staging servers, and between staging and production servers. If the Diagnostics Utility is installed on the development server but not on staging, and you view the network from the development Workarea, you see nodes for development and staging, but not production. You can view details for development, but not staging.

Accessing the Diagnostics Utility

PREREQUISITES

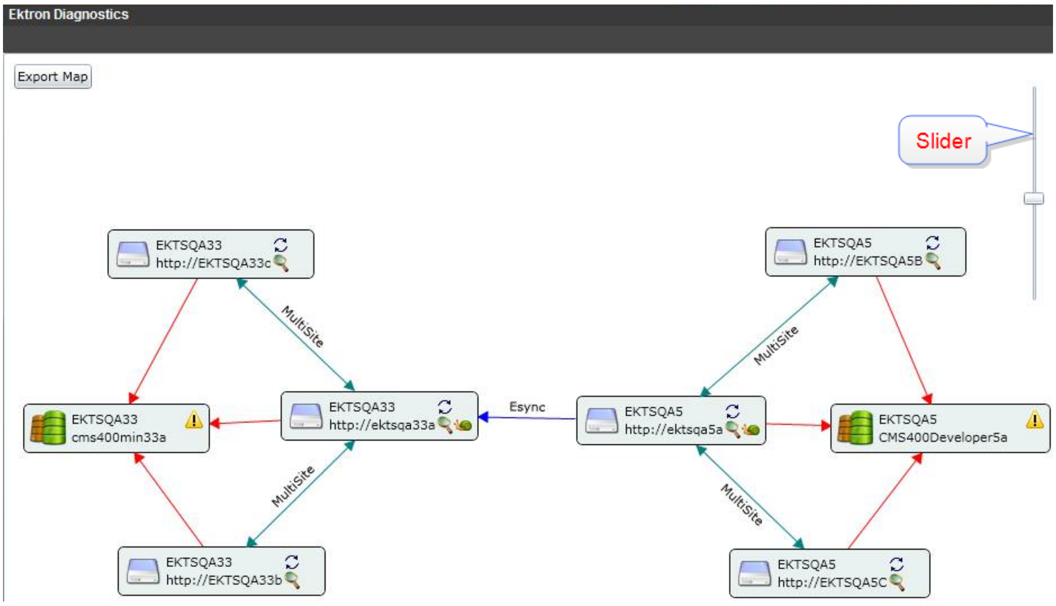
- You are a member of the Ektron Administrator's group

- The Diagnostics Utility was installed on every server with which your website has an eSync or Load Balance relationship
- The Diagnostics Utility requires Silverlight 4. If a client does not have it, you are prompted to install it before you can view the screen.

Access the Diagnostics Utility from the Workarea, by going to **Settings > Configuration > Diagnostics**.

Information Provided by the Diagnostics Utility

The Diagnostics screen consists Ektron network nodes connected by lines that indicate relationships. Use the slider on the right side to adjust the zoom level.



You may drag the nodes around for easier viewing.

This section also contains the following topics.

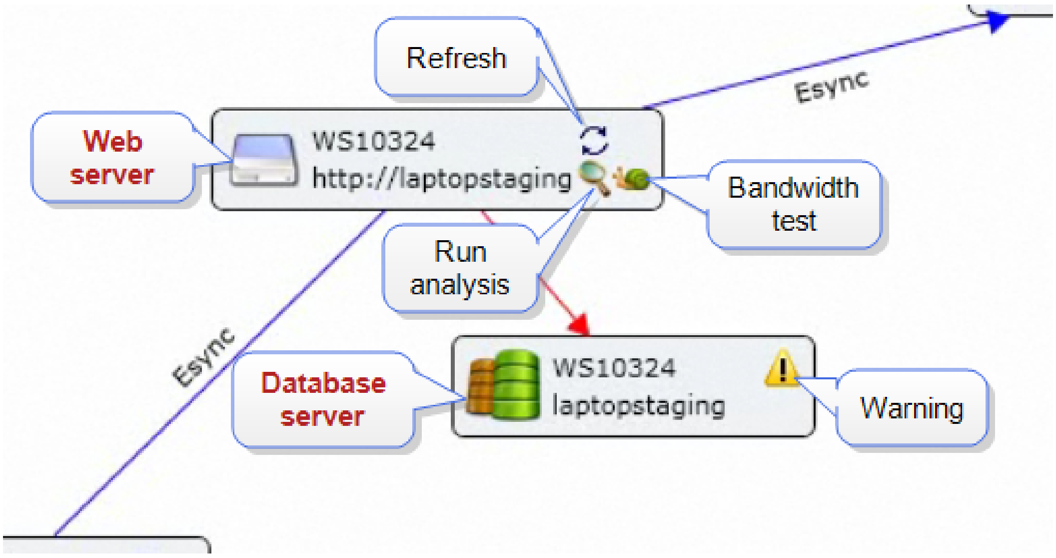
Connecting Lines on the Diagnostics Screen

A connecting line's color indicates the type of relationship that exists between nodes.

- **Blue—eSync**
  The arrowhead direction indicates the direction of the profiles. For example:
  - no arrowheads—no profiles
  - 2 arrowheads—one upload and one download profile exists between servers
- **Red—Database server**
  Appears even if the database resides on the same server with Ektron.
- **Green—Load balance**
- **Teal—Multi-site**

Network Node Icons

This section describes icons that may appear within a network node.

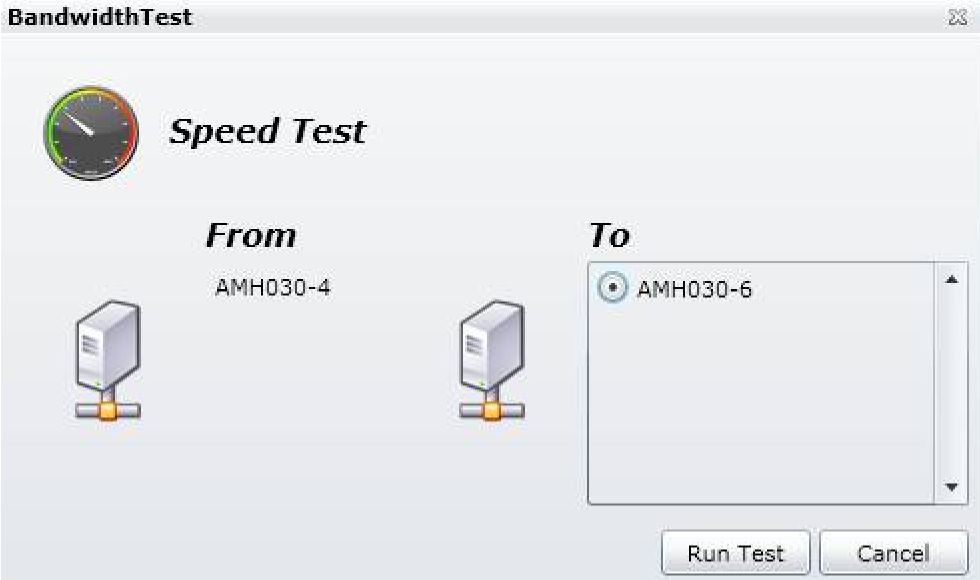


-  **Analysis**— Reports server's installed memory, available memory, and available disk space. Click the icon for more information. See Also: *Analysis* on the next page
-  **Bandwidth test**—Reports speed of server's connections. Click the icon for more information. *Bandwidth Test* below
-  **Refresh**—For selected node, load or reload *Details in the Lower Section of the Diagnostics Utility* on page 1889. Click the icon for more information.
-  **Warning**—When hovered over, displays a warning about the node. For example, if your database resides on an Ektron server, you are advised to move the database to its own server.
-  **Web server**—Hosts Ektron.
-  **Database**—Hosts MS SQL Server.

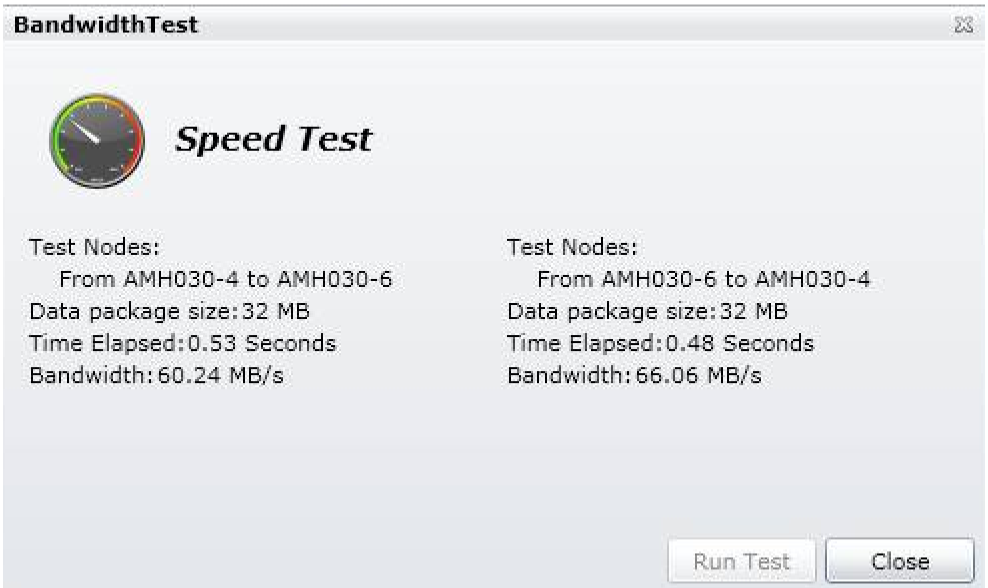
Bandwidth Test

You can run a bandwidth test between any 2 network nodes. The test checks the speed of the selected server's connections. To accomplish this, the test sends a 32 MB file in both directions then reports the transfer time.

Before



After

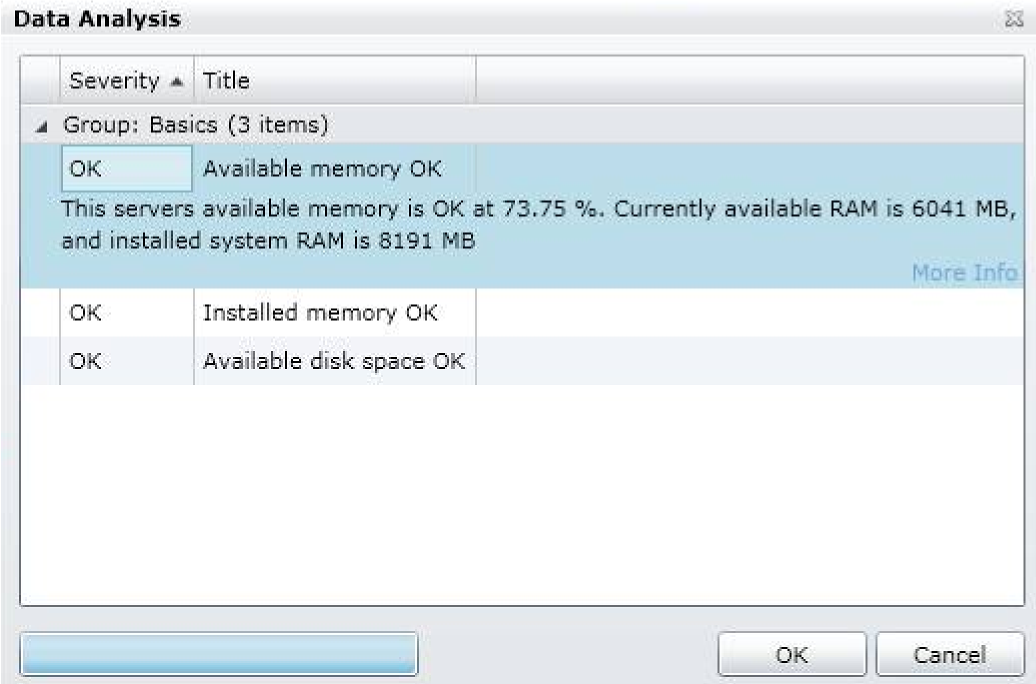


As an example of when you would conduct a bandwidth test, assume it takes a long time to sync a production server with a staging server. Use a bandwidth test to diagnose the problem.

Analysis

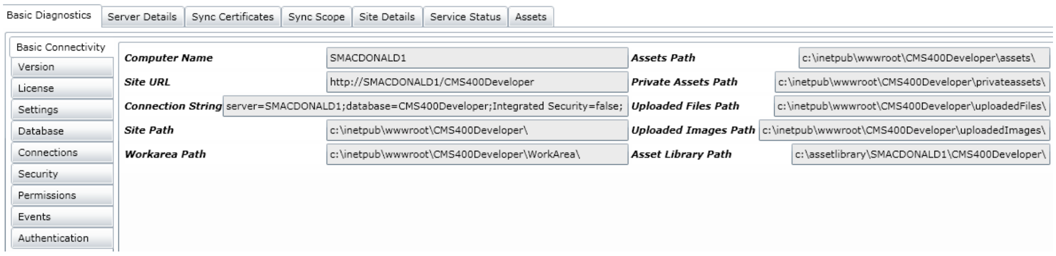
The Analysis function reports a selected server's installed memory, available memory, and available disk space.

Each item is assigned a status of critical, warning, and OK. By default, the items are sorted in that order. To change the sort order, click the **Severity** column header.



Details in the Lower Section of the Diagnostics Utility

The lower section of the Diagnostics Utility screen provides a wealth of information about your Ektron network.



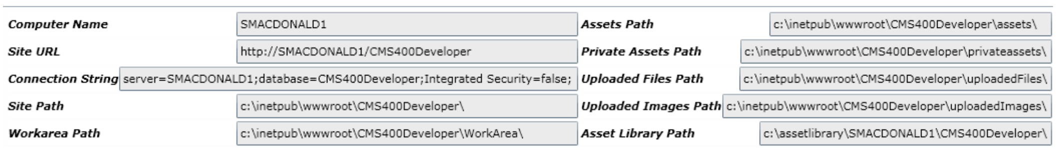
The tabs across the top indicate main areas of interest.

Basic Diagnostics

IMPORTANT: The Diagnostics screen runs as a Windows Service. So, that service must have administrator access to perform the tests and retrieve the necessary information.

The basic diagnostics screen has several subtabs:

- **Basic Connectivity**—Displays server name, site URL, connection string, paths to site, workarea, assets, private assets, uploaded files and images, asset library



- **Version**—Installed version of Ektron, Windows service, IIS, Visual Studio

CMS Version	8.5.0.273	*Ektron Windows Service 4.0*	4.0.0.0
Ektron Windows Service 2.0	Not installed	*IIS Version*	7.5
Ektron Windows Service 3.0	Not installed	*Visual Studio Version*	Visual Studio Not installed on this server

- **License**—License key, status, expiration date, enabled features, maximum users

License Key	smacdonald1(exp-2011-07-03)(EN)(E)(XML)(users-unlimited)?1281072441123725254603027174-8		
License Key Status	OK	*Enabled Features*	eWebEditPro+XML
Expiration Date	7/3/2011 12:00:00 AM	*Maximum Users*	unlimited

- **Settings**—Active Directory, SMTP port, and DMS settings

SMTP Server	localhost	*Active Directory User*	
SMTP Port	25	*Active Directory Pass*	
SMTP User		*DMS Storage Location*	c:\assetlibrary\SMACDONALD1\CMS400Developer\
SMTP Pass		*DMS Catalog Location*	
Active Directory Enabled	true	*DMS Catalog Name*	
Active Directory Advanced Config	false	*DMS User*	
Active Directory Authentication Protocol	None	*DMS User Domain*	SMACDONALD1

- **Database**—Connection status, Test query, SQL version, Database server, Database name, Integrated Security (true/false).

Connection	OK	*Database Server*	SMACDONALD1
Test Query	OK, 1 rows returned from Settings table	*Database Name*	CMS400Developer
SQL Version	Microsoft SQL Server 2008 R2 (RTM) - 10.50.1600.1 (X64) Apr 2 2010 15:48:46 Copyright (c) Microsoft Corporation Developer Edition (64-bit) on Windows NT 6.1 <X64> (Build 7600:)	*Integrated Security*	false

- **Connections**—Status of the following services:
  - server controls Web service
  - content Web service
  - content service
  - indexing service
  - Windows services 2.0, 3.0, and 4.0

Server Controls Web Service	Connected	*Windows Services 2.0*	Service not found
Content Web Service	Error, unexpected return from service	*Windows Services 3.0*	Service not found
Content Service	Error, unexpected return from service	*Windows Services 4.0*	Service status: Running
Indexing Service	Service status: Running		

- **Security**—Information for the 10 default accounts installed with an Ektron sample site.
  - if user exists
  - if default password was changed

  See Also: *Securing Ektron* on page 51

Admin	User exists with default password.	*explorer*	User exists with default password.
Admin2	User does not exist.	*spanish*	User does not exist.
Admin3	User does not exist.	*jedit*	User exists with default password.
jadmin	User does not exist.	*jmember*	User exists with default password.
vs	User exists with default password.	*supermember*	User exists with default password.

- **Permissions**—User permission settings for these DMS folders:
  - asset library*servername**site name*
  - *siteroot*\\assetmanagement\\dmdata
  - *siteroot*\\assets

  See Also: *Checking Document Management Permissions* on page 326

Permissions for Key Directories

Account	Full Control	Modify	Create Files	Create Folders	Delete	Read	Read Data	Read Attributes	Read Extended Attributes	Write	Write Attributes	Write E
Folder: c:\assetlibrary\SMACDONALD1\CMS400Developer\ (5 items)												
NT AUTHORITY\NETWORK SERVICE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BUILTIN\Administrators	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CREATOR OWNER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
NT AUTHORITY\SYSTEM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
BUILTIN\Users						✓	✓	✓	✓			
Folder: c:\inetpub\wwwroot\CMS400Developer\AssetManagement\dmdata (7 items)												
Folder: c:\inetpub\wwwroot\CMS400Developer\assets (7 items)												

- **Events**—The Windows Event Log
  - each event includes: event, event type, time of occurrence, description, source
  - sorted by log name

Event Log Entries

Type	Time Generated	Description (Click for more)	Source
LogName: Application (50 items)			
Warning	6/8/2011 12:51:56 AM	Failed to connect to server. Error: 0x80070005	MsiInstaller
Information	6/8/2011 12:51:56 AM	Windows Installer reconfigured the product. Product Name: Mi	MsiInstaller
Warning	6/8/2011 12:51:56 AM	Failed to connect to server. Error: 0x80070005	MsiInstaller
Information	6/8/2011 12:51:56 AM	Windows Installer reconfigured the product. Product Name: Mi	MsiInstaller
Warning	6/8/2011 12:51:56 AM	Failed to connect to server. Error: 0x80070005	MsiInstaller
Information	6/8/2011 12:51:56 AM	Windows Installer reconfigured the product. Product Name: Mi	MsiInstaller

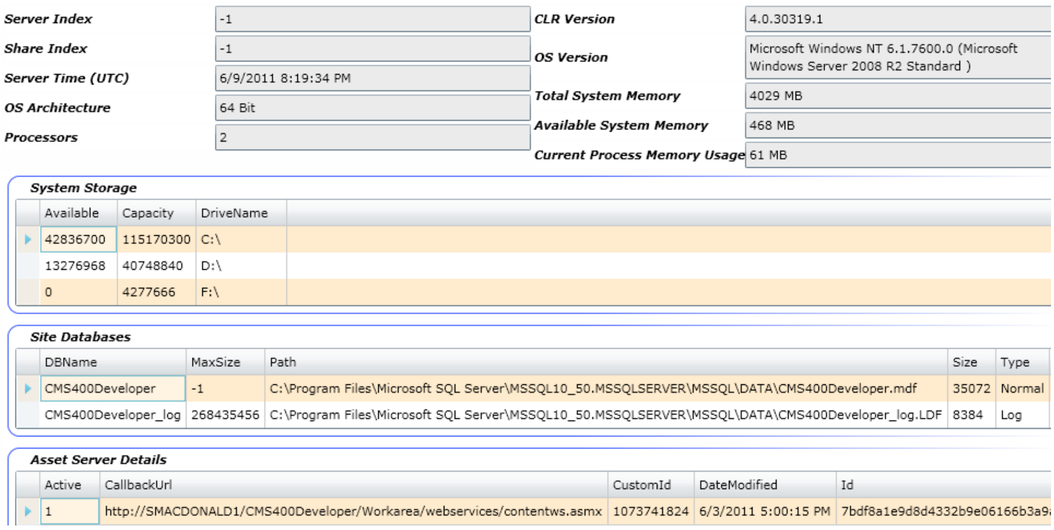
- **Authentication**—Active Directory and LDAP settings

  See Also: *Using Active Directory with Ektron* on page 1127, *Using LDAP with Ektron* on page 1151

Active Directory		**LDAP**	
Enabled	true	*Enabled*	true
Integration	False	*Authentication*	False
Advanced Enabled	false		
Authentication	False		

Server Details

The **Server Details** tab provides information about the selected server.

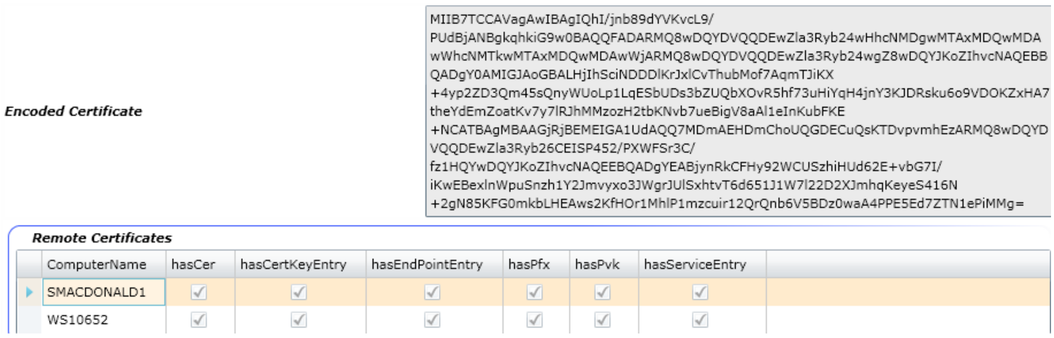


The tab displays the following information.

- Server index
- Share index
- Server time (UTC)
- OS architecture (32 or 64 bit)
- Number of Processors
- CLR Version
- OS version
- Memory: total, available, current process usage
- System storage: for each drive, the capacity and available space in megabytes
- Site databases: name, Maximum size, location, size and type
- Your website's asset server: callback URL, ID, date modified, and so on.

Sync Certificates

Use this tab to view the site's encoded eSync certificate, copied from the `web.config` file.

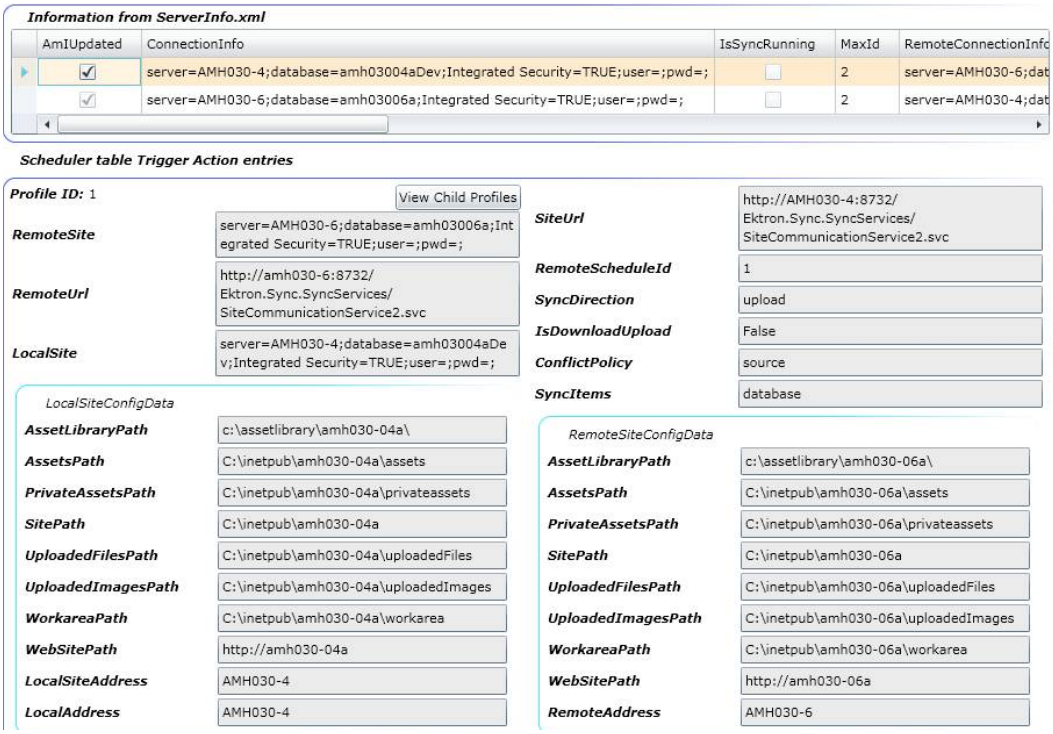


The tab also displays all remote certificates for this server. Checks in the lower section indicate the presence of certificate files on all servers. See Also: *Managing eSync Security Certificates* on page 1521

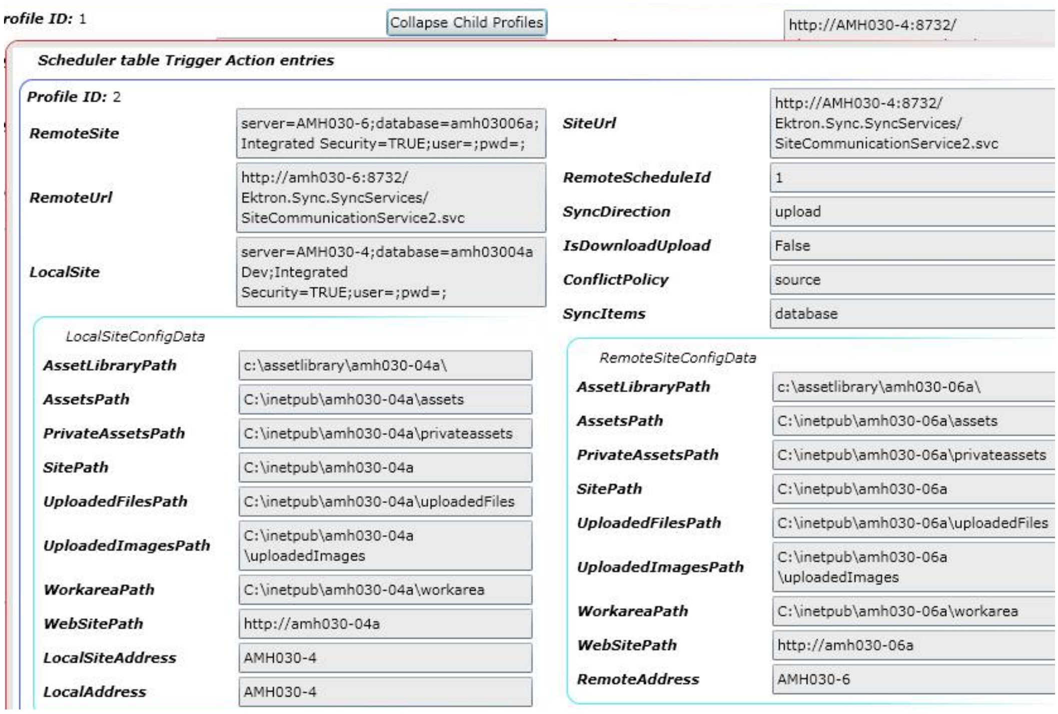
NOTE: The tab does not indicate if the certificates on the servers in the sync relationship match.

Sync Scope

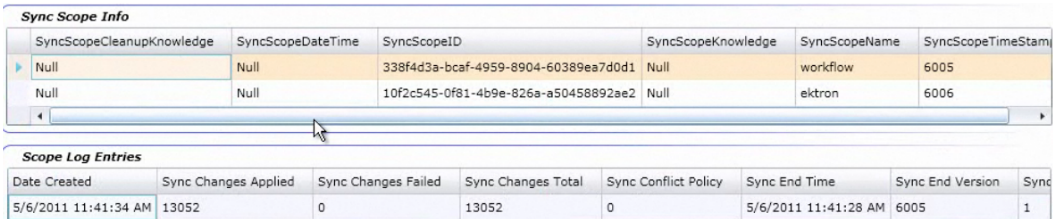
The Sync Scope tab retrieves details from the serverinfo.xml file. The tab also shows information about saved eSync profiles. See Also: *Setting up eSync Profiles* on page 1512



Here is an example of what appears when you click **View Child Profiles**.

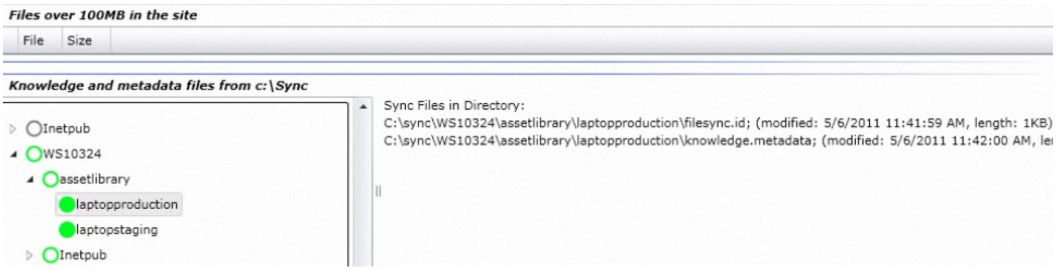


The bottom section of the **Sync Scope** tab shows information for the eSync Logs. See Also: *Viewing eSync Activity* on page 1546



Site Details

The Site Details tab shows *Files over 100 MB in the site* below and the *Knowledge and Metadata Files Screen* below.



Files over 100 MB in the site

This tab highlights website files that exceed 100 MB. Files of this size may cause problems when synching or Load Balancing. This tab makes it easy to locate such files.

Knowledge and Metadata Files Screen

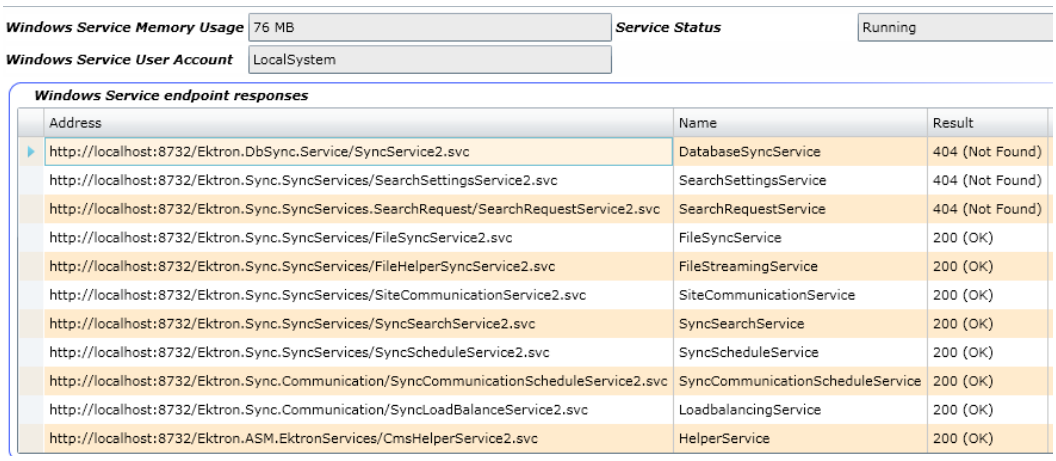
Use this section to view eSync Knowledge and Metadata files, which can be used to troubleshoot problems with eSync relationships.

Legend for the Knowledge and Metadata Files Screen

- Gray circle—no files to view
- Green circle—you can view files under that server and its folders

Service Status

The Service Status tab provides information about EWS (Ektron Windows Service). It also lets you stop and start the service. See Also: *Ektron Windows Service* on page 1877



This screen tells you

- how much memory the service is using
- the user account under which it runs
- its status
- the name, address, and status of each internal Web service that EWS is running

Assets

The Assets tab display a recursive list of assets under each folder.

Recursive file count in root folders:

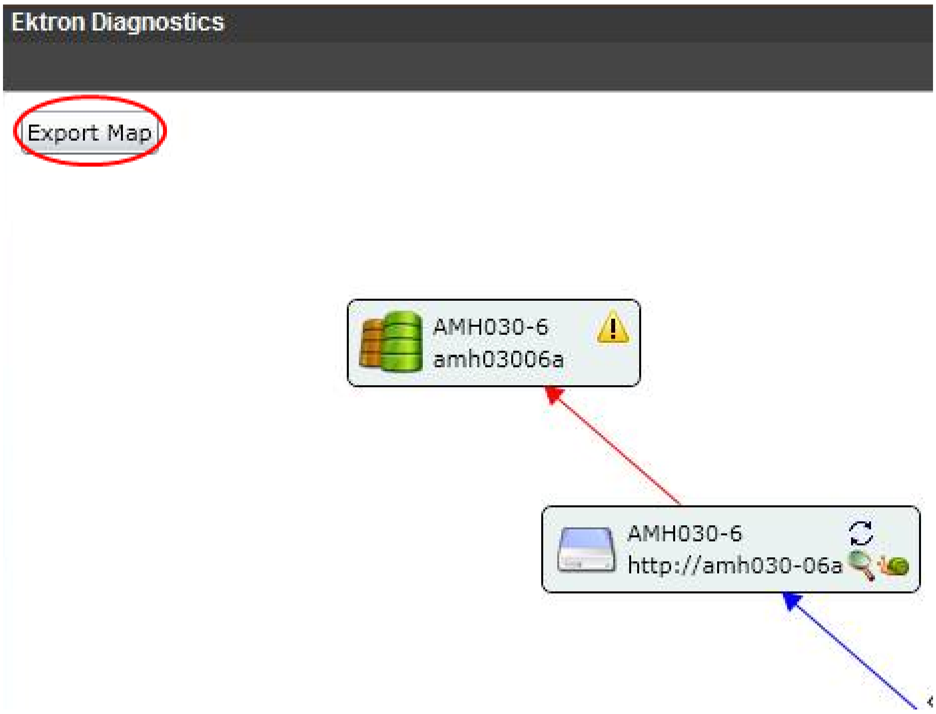
Folder	RecursiveFileCount
c:\inetpub\wwwroot\CMS400Developer\widgets	837
c:\inetpub\wwwroot\CMS400Developer\Developer	763
c:\inetpub\wwwroot\CMS400Developer\StarterApps	476
c:\inetpub\wwwroot\CMS400Developer\uploadedimages	165
c:\inetpub\wwwroot\CMS400Developer\bin	162
c:\inetpub\wwwroot\CMS400Developer\images	137
c:\assetlibrary\SMACDONALD1\CMS400Developer\	65
c:\inetpub\wwwroot\CMS400Developer\assets	64
c:\inetpub\wwwroot\CMS400Developer\App_Code	61
c:\inetpub\wwwroot\CMS400Developer\AssetManagement	61
c:\inetpub\wwwroot\CMS400Developer\App_WebReferences	47
c:\inetpub\wwwroot\CMS400Developer\ImageGallery	37
c:\inetpub\wwwroot\CMS400Developer\PrivateAssets	7
c:\inetpub\wwwroot\CMS400Developer\App_Data	4

Exporting and Viewing Saved Diagnostic Information

You can easily "capture" the current Diagnostic information. The captured files can be saved for comparison with previous and future versions, and sent to Ektron's Support staff for diagnosis.

The export file collects all information described in *Details in the Lower Section of the Diagnostics Utility* on page 1889 from each server. The file also includes a copy all configuration files and logs for all servers in your website's network. This information is packed into a .zip file for easy storage and transfer.

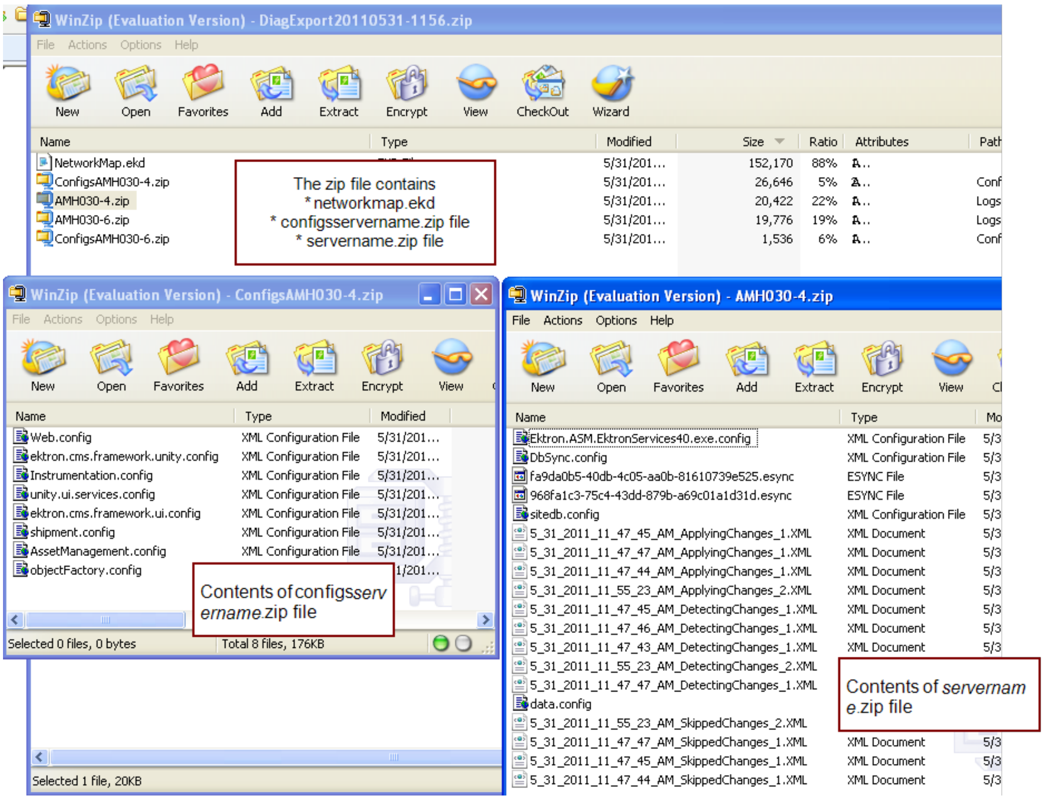
To capture Diagnostics information, click **Export Map**.



Contents of the .Zip File

Inside the .zip file are

- other zipped files, which contain the captured config files and log files.
- a `NetworkMap.ekd` file. This file may be loaded in the Diagnostic utiilty, in the Silverlight viewer, or in a text editor, such as Notepad (the saved data is XML.) See Also: *View an Exported Map* on the facing page



The values of all files are those that existed when you clicked the **Export Map** button.

View an Exported Map

PREREQUISITE

The location of the exported map file on your computer. The file's name is DiagExport*date-time*.zip.

1. From the Workarea, go to**Settings > Configuration > Diagnostics > Load Save** button.
2. Navigate to the saved `DiagExportdate-time.zip` file.
3. Click **Open**.
4. Click any node to view its information.

NOTE: You can also use the C:\Program Files\Ektron\EktronDiagnosticsService\Tools\EktronDiagnosticsWPF.exe to view a networkmap.ekd file.

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Targeting Content with GeoIP Information

GeoIP support lets you target your messaging to specific audiences based on current geographical location. Ektron uses a site visitor’s IP address to detect the location.

Ektron maintains GeoIP information in a cookie while visitors use the site. When they exit, Ektron deletes the cookie.

For example, your eCommerce website is having a special on snow blowers. That information is relevant to people in Northern climates but of no interest to those living in the tropics. As another example, a site visitor uses a cell phone to find the nearest store location. In this case, Ektron Map server control displays a map of nearby stores based on the user's current latitude and longitude.

This section also contains the following topics.

IP Address Location Information

Ektron obtains the following information from the IP address of your site visitors. (Values are examples.)

- IP Address—208.32.120.10
- Country code and name—United States
- Region—NH (New Hampshire)
- US area code—603
- US metro code—506
- City—506
- US zip code—Nashua
- Latitude and longitude—42.7551/-71.4853
- Organization—Sprint
- Domain name—www.example.com

Retrieving IP Address Information

Ektron retrieves the IP address information from a site visitor's IP address via 3 databases. The databases are installed to your site root's `App_data` folder and listed in your site's `web.config` file.

- ```
  <!-- GeoIP City Database -->
  <add key="GeoIpCityDatabase" value="~/App_Data/GeoLiteCity.dat"/>
  ```

  Returns the following information, based on IP address:

  - Area code
  - City
  - US State
  - Country code and name
  - Latitude and Longitude
  ```

    - MetroCode
    - PostalCode
    - Telephone area code
- `<!-- GeoIP Organization Database -->`

  `<add key="GeoIpOrgDatabase" value="~/App_Data/GeoIPOrg.dat"/>`

  Returns the organization name, based on IP address.
- `<!-- GeoIP Domain Database -->`
  `<add key="GeoIpDomainDatabase" value="~/App_Data/GeoIPDomain.dat"/>`

  Returns the domain name, based on IP address.

If you want to move the databases to another folder, you must update their `web.config value` elements to the new location.

NOTE: The tilde character (~) in the `value` element represents the site root folder.

BEST PRACTICE

You should keep the GeoIP databases in the App_data folder, since this folder prevents unauthorized copying of the database.

Choosing a GeoIP Database

Ektron includes GeoLite data created by MaxMind. You can purchase more accurate GeoIP databases from MaxMind.

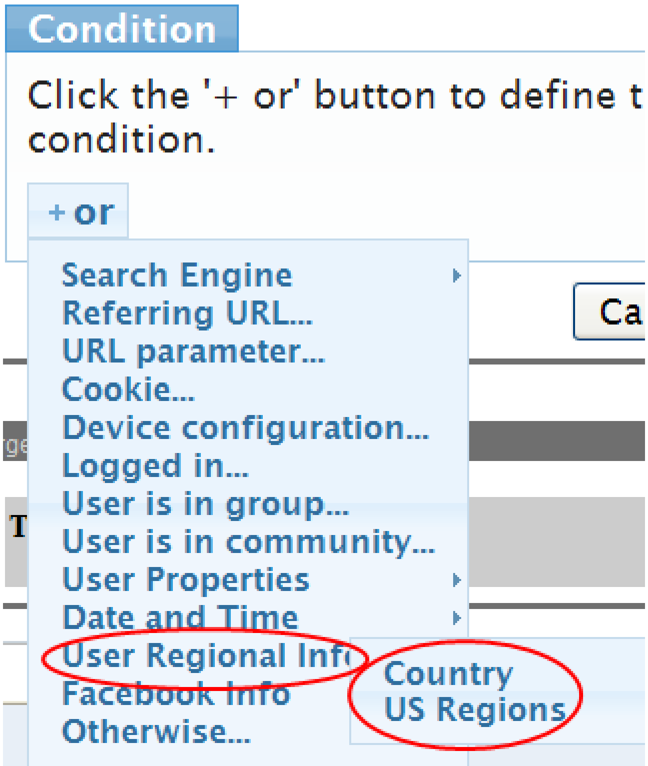
Using GeoIP Information in Ektron

The following Ektron components provide access to GeoIP information.

- *Using GeoIP Information in the Targeted Content Widget* below
- *Using GeoIP Information in the Map Server Control* on the next page
- *Accessing GeoIP Information via API* on the next page

Using GeoIP Information in the Targeted Content Widget

Among the Targeted Content widget's criteria is **User Regional Info**, which has 2 options: **Country** and **US Regions**.



If you choose **US Regions**, you can select from states in the United States.

User Regional Info data uses GeoIP information. See Also: *Using Widgets* on page 711

Using GeoIP Information in the Map Server Control

You can center a map on a specific location by using the Map server control's `latitude` and `longitude` properties. You also can use GeoIP information to obtain a user's latitude and longitude, based on IP address. For example, if a site visitor searches for a chain restaurant, the map can indicate restaurants near the user.

The following code shows how to set up the Map server control to populate latitude and longitude with GeoIP information.

Sample .aspx page, showing the placement of the Map server control.

```
<cms:Map ID="uxMap" runat="server" />
```

Code-behind page in C#

```
Ektron.Cms.UserLocationData userLocationData =
  Ektron.Cms.UserContext.GetCurrentUserLocationInfo();
        if(userLocationData != null)
        {
                uxMap.Latitude = userLocationData.Latitude;
                uxMap.Longitude = userLocationData.Longitude;
        }
```

See Also: *Server Control Reference* on page 1636

Accessing GeoIP Information via API

The following API code demonstrates the retrieval of a user's GeoIP information. Note that `Ektron.Cms.UserContext.GetCurrentUserLocationInfo()` returns the `Ektron.Cms.UserLocationInfo()` object, which provides access to all elements listed in *Retrieving IP Address Information* on page 1900 except IP address.

To obtain IP address, use `Ektron.Cms.UserContext.IP`.

```
Ektron.Cms.UserLocationData userLocationInfo =
  Ektron.Cms.UserContext.GetCurrentUserLocationInfo();
   //If GeoIpCity.dat/GeoIpLiteCity.dat file is present in webconfig
     int AreaCode = userLocationInfo.AreaCode;
     string City = userLocationInfo.City;
     string CountryCode = userLocationInfo.CountryCode;
     string CountryName = userLocationInfo.CountryName;
     double Distance = userLocationInfo.Distance(userLocationInfo);
     int DMACode = userLocationInfo.DMACode;
     double Latitude = userLocationInfo.Latitude;
     double Longitude = userLocationInfo.Longitude;
     int MetroCode = userLocationInfo.MetroCode;
     string PostalCode = userLocationInfo.PostalCode;
     string Region = userLocationInfo.Region;
     string RegionName = userLocationInfo.RegionName;
  // If GeoIpOrg.dat file and GeoIpCity.dat/GeoIpLiteCity.dat file
  // is provided in web config
     string Organization = userLocationInfo.Organization;
  // If GeoIpDomain.dat and GeoIpCity.dat/GeoIpLiteCity.dat file
  // is provided in web config
     string Domain = userLocationInfo.Domain;
```

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Controlling Output with Ektron Markup Language

The Ektron Markup Language (EkML) makes it easy for Web developers to manage the output presentation of server controls. EkML uses a simple markup that resembles HTML in syntax. The EkML is cached and .NET watches for file changes.

The `MarkupLanguage` property in the Ektron server controls and Ektron Dreamweaver functions is used to select the template file that contains the Ektron Markup Language. This language is made up of tags and variables that assign formatting information to a control or function when displayed on a Web page.

IMPORTANT: If the markup template file is located in the same folder as the form that contains the server control, just type the file's name in the server control's MarkupLanguage property. For example, `mycollectionmarkup.ekml`. If the file is in another folder, enter the path relative to site root. For example,
`\CMS400Developer\workarea\customfiles\markup\mycollectionmarkup.ekml`.

EkML Templates

Ektron, Inc. provides an EkML basic template for each control. These templates are located in `[webroot]/Workarea/Templates`. At the top of each template is a list of variables that can be used with that control.

WARNING! You should save the template under another name and use that template. This prevents your file from being overwritten when upgrades occur.

NOTE: If you install the Developer site, .ekml template files reside in various project folders. These files exemplify using the .ekml with a specific server control.

collection.ekml

This file defines which items and information are included when displaying content item information in a collection using the *Collection* on page 1677 server control.

collection.ekml Variables

- *[$CollectionDescription]* on page 1928—Display the collection's description.
- *[$CollectionTitle]* on page 1928—Display the collection's title.
- *[$Comment]* on page 1929—Displays the content's comment information.
- *[$ContentId]* on page 1930—Displays the content item's ID.
- *[$DateCreated]* on page 1930—Display the date the content was created.
- *[$DateModified]* on page 1931—Display the date the content was last modified.
- *[$EditorFirstName]* on page 1933—Display the last editor's first name for a content item.
- *[$EditorLastName]* on page 1933—Display the last editor's last name for a content item.
- *[$FolderId]* on page 1936—Display the folder ID of a content item.
- *[$Html]* on page 1937—Display the HTML contained in the content item.
- *[$HyperLink]* on page 1937—Adds a hyperlink using the title of the content block as the text.
- *[$Image]* on page 1938—Displays the path for the image defined in a content item's Metadata. When wrapped in `<img src=""/>` tag, the image appears. For example: `<img src="[$Image]"/>`

- *[$ImageIcon]* on page 1938—Displays an image icon for the content item. For example, if the content item is HTML, the () icon appears.
- *[$ImageThumbnail]* on page 1938—Displays the path for the image's thumbnail defined in a content item's Metadata. When wrapped in `<img src=""/>` tag, a thumbnail version of the image appears. For example: `<img src="[$ImageThumbnail]"/>`. See:
- *[$Index]* on page 1938—Serialize the content items in a numbered list.
- *[$ItemCount]* on page 1939—The total number of items in a list.
- *[$Language]* on page 1939—Display the language ID for the content item.
- *[$LinkTarget]* on page 1940—When added to an `<a href="">` tag's `target=""` attribute, this variable reads the server control's `LinkTarget` property and uses its setting.
- *[$QuickLink]* on page 1943—This property displays the Quicklink information for the content item. When wrapped in an `<a href="">` tag, you can create a Hyperlink.
- *[$SERVER_NAME]* on page 1945—Displays the server name. For example, If this variable is applied to `http://www.example.com/demo.aspx`, the return is `www.example.com`.
- *[$ShowBubble(width,height)]* on page 1947—This is similar to `[$ShowBubble]`. It calls the `<ekbubbleinfo>` tags and lets you set the width of the bubble.
- *[$ShowBubble]* on page 1946—Calls the `<ekbubbleinfo>` tags and places the information contained within those tags in a pop-up bubble.
- *[$ShowContent('htmltagid')]* on page 1948—Calls the <ekcontentinfo> tags an places the information in those tags within the specified HTML tag ID. Replace the 'htmltagid' with the ID of the tag.
- *[$Status]* on page 1948—Displays the status of a content item.
- *[$Teaser]* on page 1949—Display the content item's summary information. If the item is an HTML form, this variable is *not* supported with this ekml file.
- *[$Title]* on page 1949—Displays the content item's title.
- *[$UrlEncode('str')]* on page 1950—Encodes the string information. This variable can be used to encode another EkML variable and place it in an email.
- *[$UrlParam('paramname')]* on page 1951—Displays the value of a query string's parameter. For example, if the query string is `?id=27` and the variable is `[$UrlParam ('id')]`, 27 appears.

contentlist.ekml

This file defines which items and information are included when displaying content item information in a content list using the ContentList server control.

listsummary.ekml

This file defines which items and information are included when displaying content item information in a list summary using the *ListSummary* on page 1756server control. For an example of using this file with a ListSummary server control, see the Ektron demo example: `http://<your site>/CMS400Developer/Developer/ListSummary/TemplateMarkup.aspx`.

ListSummary.ekml Variables

- *[$Comment]* on page 1929—Displays the content's comment information.
- *[$ContentId]* on page 1930—Displays the content item's ID.
- *[$DateCreated]* on page 1930—Display the date the content was created.
- *[$DateModified]* on page 1931—Display the date the content was last modified.
- *[$EditorFirstName]* on page 1933—Display the last editor's first name for a content item.
- *[$EditorLastName]* on page 1933—Display the last editor's last name for a content item.
- *[$FolderDescription]* on page 1935—Displays the folder's description.
- *[$FolderId]* on page 1936—Display the folder ID of a content item.
- *[$FolderName]* on page 1936—Displays the folder's name.
- *[$Html]* on page 1937—Display the HTML contained in the content item.
- *[$HyperLink]* on page 1937—Adds a hyperlink using the title of the content block as the text.
- *[$Image]* on page 1938—Displays the path for the image defined in a content item's Metadata. When wrapped in tag, the image appears. For example:
- *[$ImageIcon]* on page 1938—Displays an image icon for the content item. For example, if the content item is HTML, the ( ) icon appears.
- *[$ImageThumbnail]* on page 1938—Displays the path for the image's thumbnail defined in a content item's Metadata. When wrapped in tag, a thumbnail version of the image appears. For example:
- *[$Index]* on page 1938—Serialize the content items in a numbered list.
- *[$ItemCount]* on page 1939—The total number of items in a list.
- *[$Language]* on page 1939—Display the language ID for the content item.
- *[$LinkTarget]* on page 1940—When added to an <a href=""> tag's target="" attribute, this variable reads the server control's LinkTarget property and uses its setting.
- *[$QuickLink]* on page 1943—This property displays the Quicklink information for the content item. When wrapped in an <a href=""> tag, you can create a Hyperlink.
- *[$SERVER_NAME]* on page 1945—Displays the server name. For example, If this variable is applied to http://www.example.com/demo.aspx, the return is www.example.com.
- *[$ShowBubble(width,height)]* on page 1947—This is similar to [$ShowBubble]. It calls the <ekbubbleinfo> tags and lets you set the width of the bubble.
- *[$ShowBubble]* on page 1946—Calls the <ekbubbleinfo> tags and places the information contained within those tags in a pop-up bubble.
- *[$ShowContent('htmltagid')]* on page 1948—Calls the <ekcontentinfo> tags an places the information in those tags within the specified HTML tag ID. Replace the 'htmltagid' with the ID of the tag.
- *[$Status]* on page 1948—Displays the status of a content item.
- *[$Teaser]* on page 1949—Displays the content item's summary information. If the item is an HTML form, this variable is *not* supported with this ekml file.
- *[$Title]* on page 1949Displays the content item's title.
- *[$UrlEncode('str')]* on page 1950—Encodes the string information. This variable can be used to encode another EkML variable and place it in an email.

- *[$UrlParam('paramname')]* on page 1951—Displays the value of a QueryString's parameter. For example, if the QueryString is `?id=27` and the variable is `[$UrlParam('id')]`, 27 appears.

map.ekml

The `map.ekml` file defines which items and information are included when using the Map server control. Unlike most other .ekml files, the `map.emkl` has some variables that cannot be changed or moved around.

The file's variables appear in 3 <tr></tr> table rows. These rows are located below the main table. In the first 2 table rows, you can modify a tag's style information only. In the third, you can change the style information and the order of the variables to create different layouts for your page. It is recommended you hide the first 2 table rows if you are not changing their style information. For example:

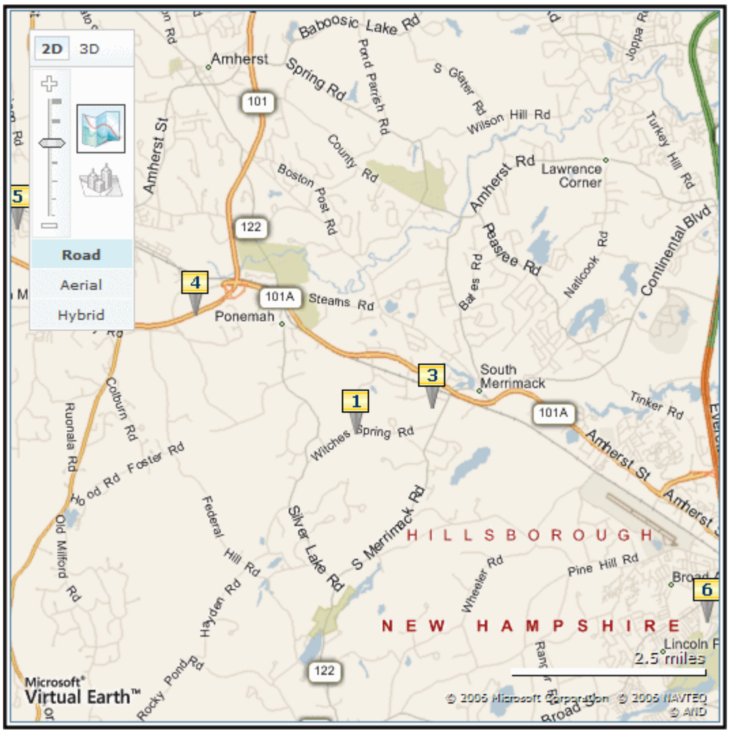
```
<ekmarkup>
  <ekoutput>
    <div>
      <table>
        <tr>...
        <tr>...
        <tr>
          <td>
            <table>
              <tr>
                <td>
                  <div id="__RouteInfoPane" style="display:
                </td>
                <td>
                  <div id="__Map" style="position:relative;
                </td>
                <td>
                  <div id="__SearchTxtResultPane" style="ov
                </td>
              </tr>
            </table>
          </td>
        </tr >
      </table>
    </div>
  </ekoutput>
</ekmarkup>
```

When using the map.ekml file remember these 3 rules.

1. Do not change any of the IDs.
2. You can change any tag's style information.
3. You can move the variables in the third table row around to create different layouts. For example, you can display these sections horizontally or vertically.

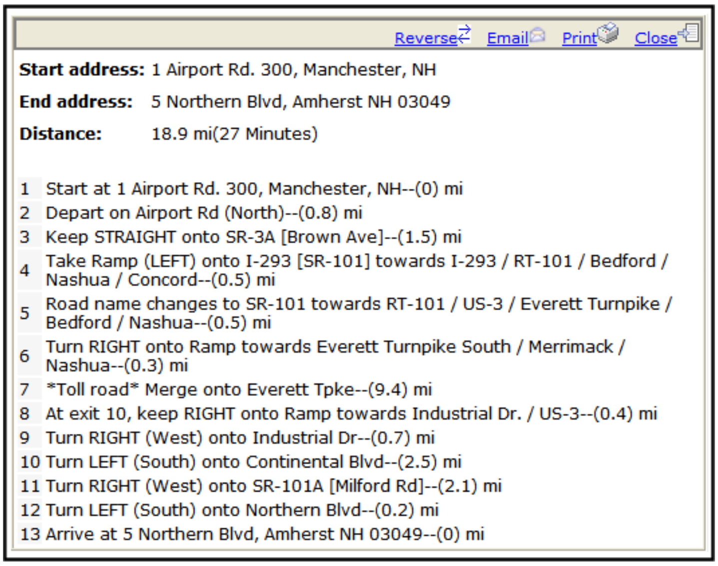
__Map

Displays the map section of the Map server control.



__RouteInfoPane

The panel that displays driving directions from the starting address to the arrival address.



Start address: 1 Airport Rd. 300, Manchester, NH

End address: 5 Northern Blvd, Amherst NH 03049

Distance: 18.9 mi(27 Minutes)

1	Start at 1 Airport Rd. 300, Manchester, NH--(0) mi
2	Depart on Airport Rd (North)--(0.8) mi
3	Keep STRAIGHT onto SR-3A [Brown Ave]--(1.5) mi
4	Take Ramp (LEFT) onto I-293 [SR-101] towards I-293 / RT-101 / Bedford / Nashua / Concord--(0.5) mi
5	Road name changes to SR-101 towards RT-101 / US-3 / Everett Turnpike / Bedford / Nashua--(0.5) mi
6	Turn RIGHT onto Ramp towards Everett Turnpike South / Merrimack / Nashua--(0.3) mi
7	*Toll road* Merge onto Everett Tpke--(9.4) mi
8	At exit 10, keep RIGHT onto Ramp towards Industrial Dr. / US-3--(0.4) mi
9	Turn RIGHT (West) onto Industrial Dr--(0.7) mi
10	Turn LEFT (South) onto Continental Blvd--(2.5) mi
11	Turn RIGHT (West) onto SR-101A [Milford Rd]--(2.1) mi
12	Turn LEFT (South) onto Northern Blvd--(0.2) mi
13	Arrive at 5 Northern Blvd, Amherst NH 03049--(0) mi

Search Txt Result Pane

Displays the results pane from the search.

Results 1 - 6 of 6

No.	Title	Distance	Map	Direction
1.	Ektron Corporation 5 Northern Blvd, Amherst NH 03049 Ektron, Content Management Software	0.82		
2.	Amherst House of Pizza 131 State Route 101A # 6, Amherst, NH 603) 886-5543	1.45		
3.	Big a Pizza LLC 131 State Route 101A # 6, Amherst, NH	1.45		
4.	Domino's Pizza 556 Nashua St, Milford, NH (603) 673-2700	3.83		
5.	Pizza Top 183 Elm St, Milford, NH (603) 673-0037	7.89		
6.	You You Japanese Bistro 150 Broad St #4, Nashua, NH 03063 Japanese, Korean, EurAsian Bistro	8.5		

messageboard.ekml

This file defines which items and information are included when displaying message information for a message board using the *MessageBoard* on page 1786 server control.

messageboard.ekml Variables

- *[$AddCommentBox]* on page 1925—Displays the Add Comment text box and button for a message board.
- *[$ApproveMessageLink]* on page 1926—Display an Approve link to approve comments when message board moderation is active.
- *[$Avatar]* on page 1926—Display the profile image of the member who entered the comments on the message board.
- *[$DateCreated]* on page 1930—Display the date the content was created.
- *[$DateModified]* on page 1931—Display the date the content was last modified.
- *[$DeleteMessageLink]* on page 1931—Displays the Delete link for a comment on the message board. Only Administrators, the person who left the message or the person who owns the board.
- *[$DisplayName]* on page 1932—Displays the display name of the member who left the message.
- *[$EmailAddress]* on page 1934—Displays the email address of the member who left the message on the board.
- *[$FirstName]* on page 1935—Display the first name of the person who left the comment on the message board.
- *[$LastName]* on page 1939—Display the last name of the person who left the comment on the message board.
- *[$MessageText]* on page 1941—Displays the message on a message board.
- *[$NumberComments]* on page 1941—Displays the number of comments posted to a message board.
- *[$UserName]* on page 1951—Display the Username of a user who left a comment on a message board.

metadatalist.ekml

This file defines which items and information are included when displaying content item information for a metadata list using the MetadataList server control.

metadatlist.ekml Variables

- *[$Comment]* on page 1929—Displays the content's comment information.
- *[$ContentId]* on page 1930—Displays the content item's ID.
- *[$DateCreated]* on page 1930—Display the date the content was created.
- *[$DateModified]* on page 1931—Display the date the content was last modified.
- *[$EditorFirstName]* on page 1933—Display the last editor's first name for a content item.
- *[$EditorLastName]* on page 1933—Display the last editor's last name for a content item.
- *[$FolderId]* on page 1936—Display the folder ID of a content item.
- *[$Html]* on page 1937—Display the HTML contained in the content item.
- *[$HyperLink]* on page 1937—Adds a hyperlink using the title of the content block as the text.
- *[$Image]* on page 1938—Displays the path for the image defined in a content item's Metadata. When wrapped in `<img src=""/>` tag, the image appears.
- *[$ImageIcon]* on page 1938—Displays an image icon for the content item. For example, if the content item is HTML, the () icon appears.
- *[$ImageThumbnail]* on page 1938—Displays the path for the image's thumbnail defined in a content item's Metadata.
- *[$Index]* on page 1938—Serialize the content items in a numbered list.
- *[$ItemCount]* on page 1939—The total number of items in a list.
- *[$Language]* on page 1939—Display the language ID for the content item.
- *[$LinkTarget]* on page 1940—When added to an `<a href="">` tag's `target=""` attribute, this variable reads the server control's `LinkTarget` property and uses its setting.
- *[$QuickLink]* on page 1943—This property displays the Quicklink information for the content item. When wrapped in an `<a href="">` tag, you can create a Hyperlink.
- *[$SERVER_NAME]* on page 1945—Displays the server name. For example, If this variable is applied to `http://www.example.com/demo.aspx`, the return is `www.example.com`.
- *[$ShowBubble(width,height)]* on page 1947—This is similar to `[$ShowBubble]`. It calls the `<ekbubbleinfo>` tags and lets you set the width of the bubble.
- *[$ShowBubble]* on page 1946—Calls the `<ekbubbleinfo>` tags and places the information contained within those tags in a pop-up bubble.
- *[$ShowContent('htmltagid')]* on page 1948—Calls the <ekcontentinfo> tags an places the information in those tags within the specified HTML tag ID. Replace the 'htmltagid' with the ID of the tag.
- *[$Status]* on page 1948—Displays the status of a content item.
- *[$Teaser]* on page 1949—Display the content item's summary information. If the item is an HTML form, this variable is *not* supported with this ekml file.
- *[$Title]* on page 1949—Displays the content item's title.

- *[$UrlEncode('str')]* on page 1950—Encodes the string information. This variable can be used to encode another EkML variable and place it in an email.
- *[$UrlParam('paramname')]* on page 1951—Displays the value of a QueryString's parameter. For example, if the QueryString is `?id=27` and the variable is `[$UrlParam('id')]`, 27 appears.

taxonomy.ekml

This file defines which items and information are included when displaying taxonomy item information using the Directory server control. Similar to maps.ekml, the taxonomy.ekml works differently than other .ekml files.

The Directory server control produces multiple areas where content or functionality is defined. To specify these areas in a template, you would call the `<ekoutput>` tag with the mode attribute equaling the area you want to define. For example, in the Directory server control, you can define information in the breadcrumb area of the server control by using `<ekoutput mode="breadcrumb">`.

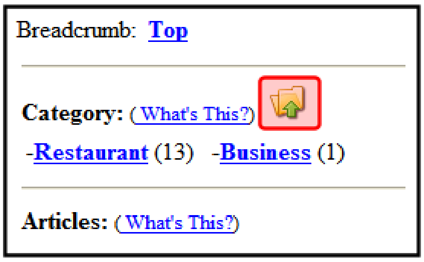
Additional descriptions and commenting in the taxonomy.ekml file will assist you with learning about EkML with taxonomy. This file is located in `<web root>/CMS400Developer/Workarea/template/taxonomy/taxonomy.ekml`.

Taxonomy <ekoutput> modes

The following <ekoutput modes=""> are used with the `taxonomy.ekml` template.

- `<ekoutput mode="`**`breadcrumb`**`">`—Defines the display of the breadcrumb portion of the taxonomy. Within these tags you can define:
  - `<bctitle>`—title for the breadcrumbs
  - `<bcrootlink>`—root link text
  - `<bcseparator>`—separator used to between breadcrumbs in the breadcrumb trail
  - `<bchyperlink>`—hyperlinks in the breadcrumb trail
  - `<bcactivelink>`—the current active breadcrumb item
- `<ekoutput mode="`**`category`**`">`—Defines how the category information appears. Within these tags you can define:
- `<ekcolrepeat>` takes the category links and spreads them over the amount of columns that are defined in the Directory server control's `TaxonomyCol` property. This tag must appear within `<ekrepeat>` tags.
- `<ekoutput mode="`**`categorybacklink`**`">`—Defines information about the link that moves the category up one level. This can be a text link or an image link. In this mode, you need to define the following tags:
  - <ekactivebacklink> </ekactivebacklink>—between these tags, define what appears when a user is in a sub category. Add the [$categorybacklink] variable between these tags and an clickable image appears that lets a user navigate one level up.
  - <ekdisablebacklink> </ekdisablebacklink>—between these tags, define what happens when a user is at the top level category. Add the [$categorybacklink] variable between these tags with an <a> tag have users navigate to another location. For example:

```
<a href="http://www.example.com" target="_blank">
[$categorybacklink]</a>
```



See Also: *[$CategoryBackLink]* on page 1927

- `<ekoutput mode="article_search">`—Defines how the search results from the taxonomy are displayed.
- `<ekoutput mode="article">`—Defines the display of an individual content item in your taxonomy.
- `<ekoutput mode="view">`—This section defines the overall output view of the Taxonomy. It denotes the locations of the Search box, Breadcrumb, Category and Articles.

taxonomy.ekml Variables

- *[$AddArticle]* on page 1924—Adds a link that allows a logged in user to add HTML content to Ektron.
- *[$AddAsset]* on page 1925—Adds a link that allows a logged in user to add assets to Ektron.
- *[$CategoryBackLink]* on page 1927—When placed between `<ekactivebacklink>` tags, this variable adds a clickable image that allows a user to navigate up one category level. When placed between `<ekdisablebacklink>` tags and in the text area of an `<a>` tag, this variable adds a clickable image that allows a user to navigate to another URL once they reach the top level category.
- [$CategoryID]—The ID of a taxonomy’s category.
- *[$ContentByteSize]* on page 1929—Displays the content item’s size in KB. Works only with taxonomy search. `<ekoutput mode="article_search">`
- *[$ContentId]* on page 1930—Displays the content item’s ID.
- *[$DateCreated]* on page 1930—Display the date the content was created.
- *[$DateModified]* on page 1931—Display the date the content was last modified.
- *[$EditorFirstName]* on page 1933—Display the last editor’s first name for a content item.
- *[$EditorLastName]* on page 1933—Display the last editor’s last name for a content item.
- *[$FolderId]* on page 1936—Display the folder ID of a content item.
- *[$Html]* on page 1937—Display the HTML contained in the content item.
- *[$HyperLink]* on page 1937—Adds a hyperlink using the title of the content block as the text.
- *[$ImageIcon]* on page 1938—Displays an image icon for the content item type. For example, if the content item is HTML, the ( ) icon appears.
- *[$Index]* on page 1938—Serialize the content items in a numbered list.
- *[$ItemCount]* on page 1939—The total number of items in a list.
- *[$Language]* on page 1939—Display the language ID for the content item.

- [$LinkTarget] on page 1940—When added to an <a href=””> tag’s target=”” attribute, this variable reads the server control’s LinkTarget property and uses its setting.
- [$PagingCurrentEndIndex] on page 1942—The end count number of the items on the page. For example, if you are displaying items 11—20 on a page, this variable represents the number 20. Works only with taxonomy search. <ekoutput mode=”article_search”>
- [$PagingCurrentStartIndex] on page 1943—The numerical record of the first item on a page. For example, if you are displaying items 1 through 10 out of 50 total items on a page, this variable represents the number 1. Works only with taxonomy search. <ekoutput mode=”article_search”>
- [$QuickLink] on page 1943—This property displays the Quicklink information for the content item. When wrapped in an <a href=””> tag, you can create a Hyperlink.
- [$SearchDuration] on page 1944—Displays the amount of time, in seconds, it has taken to execute the search. Works only with taxonomy search. <ekoutput mode=”article_search”>
- [$SearchSummary] on page 1944—Creates a summary from information stored in the indexing service for each item in the search results. Works only with taxonomy search. <ekoutput mode=”article_search”>
- [$SearchText] on page 1945—Displays the text for which a user is searching. This information is same as what a user entered in the search text box. Works only with taxonomy search. <ekoutput mode=”article_search”>
- [$SERVER_NAME] on page 1945—Displays the server name. For example, If this variable is applied to http://www.example.com/demo.aspx, the return is www.example.com.
- [$ShowAllcategory] on page 1946—Adds to the Taxonomy search screen a checkbox that lets the user decide whether to display categories that have no items.
- [$ShowBubble] on page 1946—Calls the <ekbubbleinfo> tags and places the information contained within those tags in a pop-up bubble.
- [$ShowBubble(width,height)] on page 1947—This is similar to [$ShowBubble]. It calls the <ekbubbleinfo> tags and lets you set the width of the bubble.
- [$ShowContent(‘htmltagid’)] on page 1948—Calls the <ekcontentinfo> tags an places the information in those tags within the specified HTML tag ID. Replace the 'htmltagid' with the ID of the tag.
- [$Status] on page 1948—Displays the status of a content item.
- [$Teaser] on page 1949—Display the content item’s summary information. If the item is an HTML form, this variable is *not* supported with this ekml file.
- [$TemplateQuickLink] on page 1949—This property displays the Template Quicklink information assigned to the taxonomy item in the Workarea. When wrapped in an <a href=””> tag, you can create a Hyperlink.
- [$Title] on page 1949—Displays the content item’s title.
- [$UrlEncode(‘str’)] on page 1950—Encodes the string information. This variable can be used to encode another EkML variable and place it in an email.
- [$UrlParam(‘paramname’)] on page 1951—Displays the value of a QueryString’s parameter. For example, if the QueryString is ?id=27 and the variable is [$UrlParam(‘id’)]code, 27 appears.

websearch.ekml

This file defines which items and information are included when displaying search results using the WebSearch server control.

NOTE: The WebSearch server control is deprecated as of Release 8.5. Instead of the Web search control, you should convert to templated search. If you are already using the WebSearch server control, you can continue to do so with one important exception: the Solr search provider is incompatible with the Web Search server control.

The `websearch.ekml` template needs 2 `<ekoutput>` nodes.

- The first `<ekoutput>` node formats the results of non-image searches
- The second `<ekoutput>` node formats results that include images

websearch.ekml Variables

- *[$ContentByteSize]* on page 1929—the size of the content item.
- *[$ContentId]* on page 1930—the content ID number assigned to the content.
- *[$DateModified]* on page 1931—the date the content was last modified.
- *[$EditorFirstName]* on page 1933—the last editor's first name for a content item.
- *[$EditorLastName]* on page 1933—the last editor's last name for a content item.
- *[$Image]* on page 1938—the path for the image defined in a content item's Metadata. When wrapped in `<img src=""/>` tag, the image appears.
- *[$ImageIcon]* on page 1938—used in non-image searches to display an image icon for the content item. For example, if the content item is HTML, the ( ) icon appears.
- *[$ImageThumbnail]* on page 1938—the path for the image's thumbnail defined in a content item's Metadata.
- *[$ItemCount]* on page 1939—the total number of results produced by the search.
- *[$LinkTarget]* on page 1940—when added to an `<a href="">` tag's `target=""` attribute, this variable reads the server control's `LinkTarget` property and uses its setting.
- *[$PagingCurrentEndIndex]* on page 1942—The end count number of the items on the page. For example, if you are displaying items 11—20 on a page, this variable represents the number 20.
- *[$PagingCurrentStartIndex]* on page 1943—the numerical record of the first item on a page. For example, if you are displaying items 1 through 10 out of 50 total items on a page, this variable represents the number 1.
- *[$QuickLink]* on page 1943—the Quicklink information for the content item. When wrapped in an `<a href="">` tag, you can create a Hyperlink.
- *[$SearchDuration]* on page 1944—the amount of time, in seconds, it has taken to execute the search.
- *[$SearchSummary]* on page 1944—creates an abstract for each item in the search results.

  NOTE: The Adobe IFilter, which is used to generate the abstract, is only supported in Tier 1 languages (English, French, German, and Japanese). If your website uses other languages, the abstract may not be legible. In such a case, you should suppress the abstract from the search results.

- *[$SearchText]* on page 1945—the text for which a user is searching. This information is same as what a user entered in the search text box.
- *[$ShortDateModified]* on page 1945—the date the content was modified. To display the date and time a content item was modified, use *[$DateModified]* on page 1931.
- *[$Title]* on page 1949—the content item's title.

EkML Example

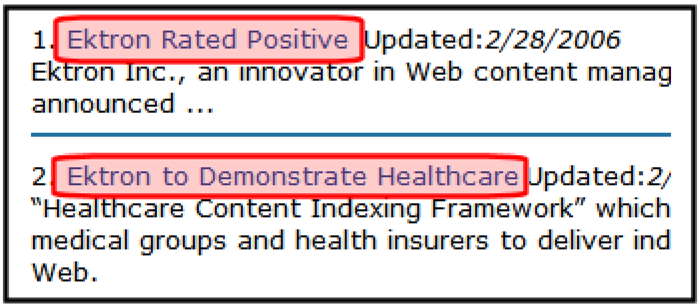
By customizing the provided EkML templates, you can create a custom layout for the content you are displaying. For example, if you have a collection and you want to display it as a numbered list containing a content's hyperlink, the date it was last updated and its summary, you would create the following .ekml file and assign that file to a Collection server control's `MarkupLanguage` property.

```
<ekmarkup>
  <ekoutput>
  <table width="100%"  border="0">
  <ekrepeat>
  <tr>
  <td> [$Index]. [$HyperLink] Updated:<i>[$DateModified]</i><br/>[$Teaser]
<hr/>
  </td>
  </tr>
  </ekrepeat>
  </table>
  </ekoutput>
</ekmarkup>
```

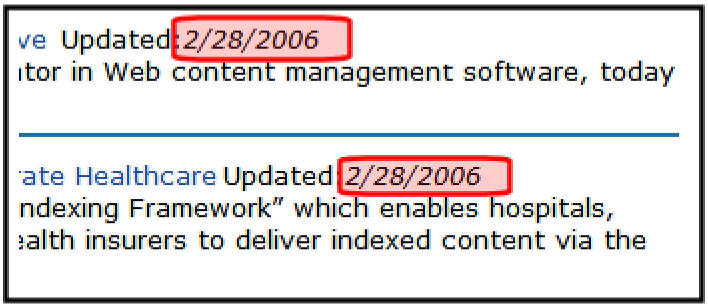
- The `<ekmarkup>` tags open and close the markup language. Everything to do with the EkML needs to be between these tags.
- The specific information you want displayed and any HTML formatting are added between the `<ekoutput>` tags.
- `<table width="100%" border="0"></table>` sets up a table. This is HTML formatting.
- The `<ekrepeat>` tags contain formatting information and variables for items in the Collection. It repeats this information for each item in the list.
- The `[$Index]` variable creates a numbered list for each content item in the Collection. Note, you can add a period (.) or other separator depending on how you want the list to look.

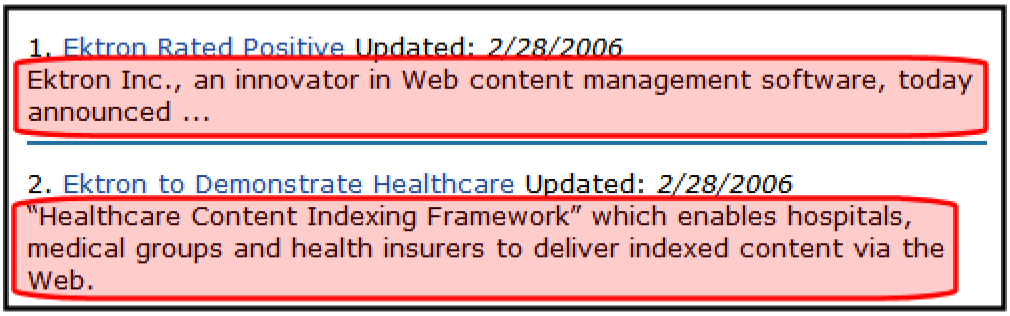
- The `[$HyperLink]` variable adds a hyperlink for each content item in the collection. The hyperlink use the content's title as the text for the link. There is no need for anchor tags, the variable creates them for you. If you want to use anchor tags for formatting you own links, you can use the `[$QuickLink]` variable.



- `Updated:` is plain text.
- The `<i></i>` tags are HTML that cause the `[$DateModified]` variable to appear in italics.
- The `[$DateModified]` variable displays the date and time each content item in the Collection was last modified.

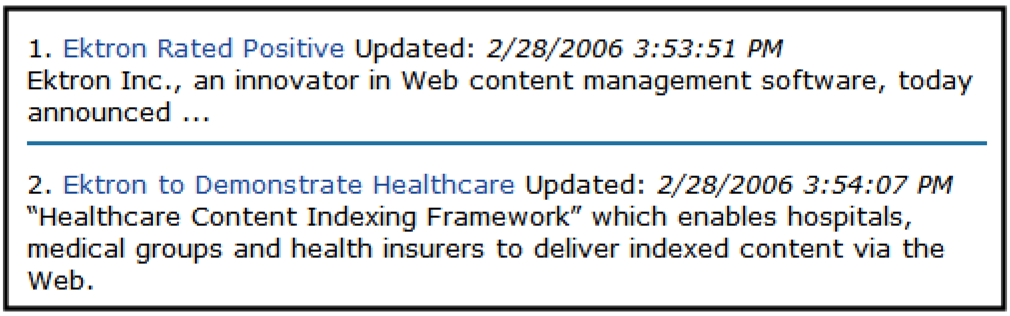


- `<br/>` is HTML. It adds a line break.
- The `[$Teaser]` variable displays the summary for each content item in the Collection.



- `<hr/>` is HTML. It adds a horizontal rule line.

When the Collection appears, it is formatted as follows.



Because you can use HTML in the Ektron Markup Language, you can format the variables using common HTML tags.

EkML Tags

The EkML tags define functions that occur when using the language to display content.

- **<ekmarkup>**—Use these tags to open and close the Ektron Markup Language.
- **<ekoutput>**—Define what information is output from the server control between these tags.
- **<ekrepeat>**—These tags cause what ever formatting information that appears between them to be applied to each item in the list. They always appear between the `<ekoutput>` tags.
- **<ekbubbleinfo>**—Creates a pop-up bubble. This tag is invoked when you use the `[$ShowBubble]` or `[$ShowBubble(width)]` variables. By adding different variables between the `<ekbubbleinfo>` tags, you define what information appears in the bubble. These tags are placed outside the `<ekoutput>` tags but within the `<ekmarkup>` tags.
- **<ekcontentinfo>**—Places the information defined between the tags in the specified HTML tag ID. This tag is invoked when you use the `[$ShowContent('htmltagid')]` variable.

EkML Variables

The Ektron Markup Language uses variables that appear between the tags in a template file to define the information that appears in a control's display. Some variable are used in more than one template. These are known as common EkML variables.

Another type of variable is a server control specific variable, these variables can only be used with a specific server control. For example, `[$SearchSummary]` can only be used in WebSearch.

EkML Variable List

The following list shows EkML variables and whether the variable is common or specific.

Variable	Description	Common or Control Specific
[$AddCommentBox] on page 1925	Displays the Add Comment text box and button for a message board.	MessageBoard
[$AddArticle] on page 1924	Adds a link that allows a logged in user to add HTML content to Ektron.	Directory
[$AddAsset] on page 1925	Adds a link that allows a logged in user to add assets to Ektron.	Directory
[$ApproveMessageLink] on page 1926	Displays an Approve link to approve comments when message board moderation is active.	MessageBoard

Variable	Description	Common or Control Specific
[$Avatar] on page 1926	Displays the profile image of the member who entered comments on a message board.	MessageBoard
[$CollectionDescription] on page 1928	Displays the collection’s description.	Collection
[$CollectionTitle] on page 1928	Displays the collection’s title.	Collection
[$Comment] on page 1929	The content’s comment information appears.	Common Except: Map, WebSearch and taxonomy
[$ContentByteSize] on page 1929	Displays the content item’s size in KB. Works only with taxonomy search. `<ekoutput mode=”article_search”>`. More information	Directory WebSearch
[$ContentId] on page 1930	Displays the content item’s ID.	Common Except: Map
[$DateCreated] on page 1930	Displays the date the content was created.	Common Except: Map and WebSearch
[$DateModified] on page 1931	Displays the date and time the content was last modified.	Common Except: Map
[$DeleteMessageLink] on page 1931	Displays the Delete link for the comment on a message board.	MessageBoard
[$DisplayName] on page 1932	Displays the display name of the member who left the message on the board.	MessageBoard
[$EditorFirstName] on page 1933	Displays the last editor’s first name for a content item.	Common Except: Map
[$EditorLastName] on page 1933	Displays the last editor’s last name for a content item. 1	Common Except: Map

Variable	Description	Common or Control Specific
[$EmailAddress] on page 1934	Displays the email address of the member.	MessageBoard
[$FirstName] on page 1935	Displays the first name of the person who left the comment on a message board.	MessageBoard
[$FolderDescription] on page 1935	Displays the folder’s description.	ListSummary
[$FolderId] on page 1936	Displays the folder ID of a content item.	Common Except: Map and WebSearch
[$FolderName] on page 1936	Displays the folder’s name.	ListSummary
[$Html] on page 1937	Displays the HTML contained in the content item. ”	Common Except: Map and WebSearch
[$HyperLink] on page 1937	Adds a hyperlink using the title of the content block as the text. More information:	Common Except: Map and WebSearch
[$Image] on page 1938	Displays the path for the image defined in a content item’s Metadata. When wrapped in `<img src=””/>` tag, the image appears. For example: `<img src=”[$Image]”/>`.	Common Except: Map
[$ImageIcon] on page 1938	Displays an image icon for the content item. For example, if the content item is HTML, the () icon appears.	Common Except: Map
[$ImageThumbnail] on page 1938	Displays the path for the image’s thumbnail defined in a content item’s Metadata. When wrapped in `<img src=””/>` tag, a thumbnail version of the image appears. For example: `<img src=”[$ImageThumbnail]”/>`.	Common Except: Map

Variable	Description	Common or Control Specific
[$Index] on page 1938	Serialize the content items in a numbered list.	Common Except: Map and WebSearch
[$ItemCount] on page 1939	The total number of items in a list.	Common Except: Map
[$Language] on page 1939	Displays the language ID for the content item.	Common Except: Map and WebSearch
[$LastName] on page 1939	Displays the last name of the person who left the comment on a message board.]	MessageBoard
[$LinkTarget] on page 1940	When added to an `<a href="">` tag's `target=""` attribute, this variable reads the server control's `LinkTarget` property and uses its setting.	Common Except: Map
[$MessageText] on page 1941	Displays the text of a message on a message board.	MessageBoard
[$NumberComments] on page 1941	Displays the number of comments posted to a message board.	MessageBoard
[$PagingCurrentEndIndex] on page 1942	The end count number of the items on the page. For example, if you are displaying items 11—20 on a page, this variable represents the number 20. Works only with taxonomy search. `<ekoutput mode="article_search">`.	Directory and WebSearch
[$PagingCurrentStartIndex] on page 1943	The numerical record of the first item on a page. For example, if you are displaying items 1 through 10 out of 50 total items on a page, this variable represents the number 1. Works only with taxonomy search. `<ekoutput mode="article_search">`.	Directory and WebSearch
[$QuickLink] on page 1943	This property displays the Quicklink information for the content item. When wrapped in an `<a href="">` tag, you can create a Hyperlink.	Common Except: Map

Variable	Description	Common or Control Specific
[$SearchDuration] on page 1944	Displays the amount of time, in seconds, it has taken to execute the search. Works only with taxonomy search. `<ekoutput mode="article_search">`. More information:	Directory and WebSearch
[$SearchSummary] on page 1944	Creates a summary for each item in the search results. Works only with taxonomy search. `<ekoutput mode="article_search">`. More information:	Directory and WebSearch
[$SearchText] on page 1945	Displays the text for which a user is searching. This information is same as what a user entered in the search text box. Works only with taxonomy search. `<ekoutput mode="article_search">`.	Directory and WebSearch
[$SERVER_NAME] on page 1945	Displays the server name. For example, If this variable is applied to `http://www.example.com/demo.aspx`, the return is `www.example.com`.	Common Except: Map and WebSearch
[$ShortDateModified] on page 1945	Displays the date the content was modified. To display the date and time a content item was updated, use *[$DateModified]* on page 1931	WebSearch
[$ShowAllcategory] on page 1946	Adds to the Taxonomy search screen a checkbox that lets the user decide whether to display categories that have no items.	Directory
[$ShowBubble (width,height)] on page 1947	This is similar to `[$ShowBubble]`. It calls the `<ekbubbleinfo>` tags and lets you set the width and height of the bubble. For example, [$ShowBubble (300,400)]. The first number represents the width. The second number represents the height.	Common Except: Map and WebSearch
[$ShowBubble] on page 1946	Calls the `<ekbubbleinfo>` tags and places the information contained within those tags in a pop-up bubble.	Common Except: Map and WebSearch
[$ShowContent ('htmltagid')] on page 1948	Calls the `<ekcontentinfo>` tags an places the information in those tags within the specified HTML tag ID. Replace the htmltagid with the ID of the tag.	Common Except: Map and WebSearch

Variable	Description	Common or Control Specific
[$Status] on page 1948	Displays the status of a content item.	Common Except: Map and WebSearch
[$Teaser] on page 1949	Displays the content item's summary information. **NOTE:** If the item is an HTML form, this variable is *not* supported with this ekml file.	Common Except: Map and WebSearch
[$TemplateQuickLink] on page 1949	This property displays the Template Quicklink information assigned to the taxonomy item in the Workarea. When wrapped in an `<a href="">` tag, you can create a Hyperlink. See Also: *Applying a Template to a Taxonomy or Category* on page 784. More information :	Directory
[$Title] on page 1949	Displays the content item's title.	Common Except: Map
[$UrlEncode('str')] on page 1950	Encodes the string information. Replace **str** with the string you want to encode. This variable can be used to encode another EkML variable and place it in an email.	Common Except: Map and WebSearch
[$UrlParam('paramname')] on page 1951	Displays the value of a query string's given parameter. For example, if the query string is `?id=27` and the variable is `[$UrlParam('id')], 27 appears.`	Common Except: Map and WebSearch
[$UserName] on page 1951	Displays the Username of user who left a comment on a message board.	MessageBoard

[$AddArticle]

This variable adds a link that allows a user to add HTML content to Ektron. Clicking the link opens an editor. When the content is added, it's automatically added to the taxonomy category associated with the Directory server control. When you allow users to add content using this variable, you should set the `AddItemFolderID` property in the Directory server control to the folder ID where the content will be stored. This variable should not be added between the <ekrepeat></ekrepeat> tags.

```
<tr>
  <td>
    [$AddArticle]
```

```
  </td>
</tr>
```

[$AddAsset]

This variable adds a link that allows a user to add assets to Ektron via a drag and drop box. When the asset is added, it's automatically added to the taxonomy category associated with the Directory server control. When you allow users to add assets using this variable, you should set the `AddItemFolderID` property in the Directory server control to the folder ID where the asset will be stored. This variable should not be added between the <ekrepeat></ekrepeat> tags.

```
<tr>
  <td>
    [$AddAsset]
  </td>
</tr>
```

[$AddCommentBox]

Displays the Add Comment text box and button for a message board.

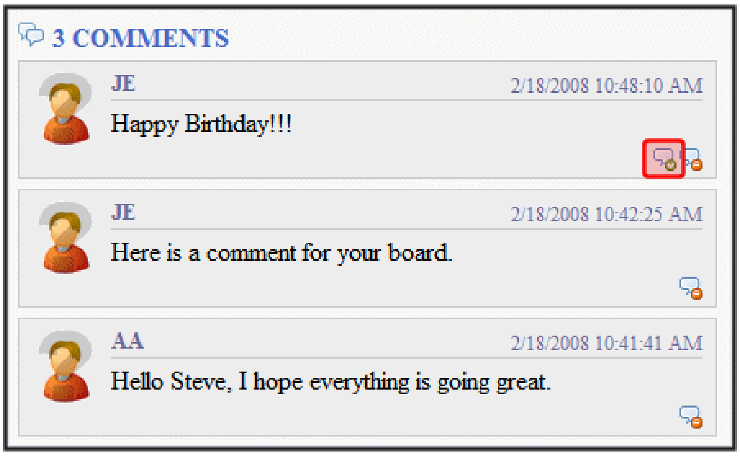

```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
```

```
        </li>
      </ekrepeat>
    </ul>
[$AddCommentBox]

  </div>
</ekoutput>
```

[$ApproveMessageLink]

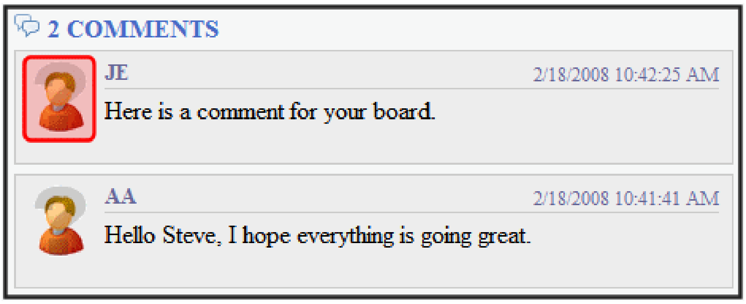
Displays the Approve link for the message. This link is used to approve the message for display when the `Moderate` property is set to true. Only Administrators, the person who left the message, or the person who owns the board can see this link.




```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
  </div>
</ekoutput>
```

[$Avatar]

Display the profile image of the member who entered the comments on the message board.



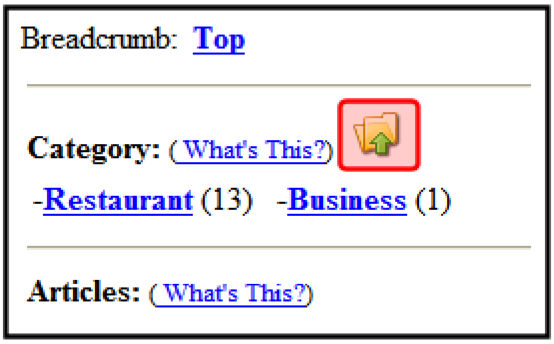

```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
  </div>
</ekoutput>
```

[$CategoryBackLink]

When placed between <ekactivebacklink> tags, this variable adds a clickable image that allows a user to navigate up one category level.

When placed between <ekdisablebacklink> tags and in the text area of an <a> tag, this variable adds a clickable image that lets a user navigate to another URL once they reach the top level category.

```
<ekoutput mode="categorybacklink">
  <ekactivebacklink>
    [$categorybacklink]
  </ekactivebacklink>
    <ekdisablebacklink>
    <a href="http://www.example.com" target="_blank">[$categorybacklink]</a>
    </ekdisablebacklink>
</ekoutput>
```



[$CollectionDescription]

Display the collection’s description.


```
<ekmarkup>
<ekoutput>
<h3><b>[$CollectionTitle]</b></h3>
  <p/>[$CollectionDescription]<br/>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
            [$Index]. [$HyperLink]
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

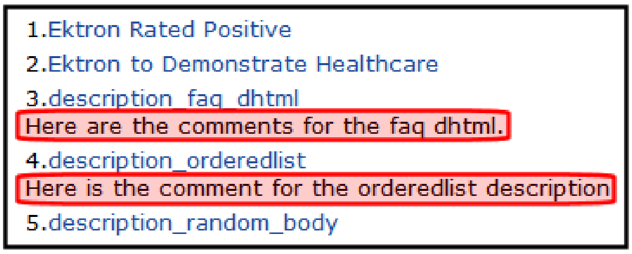
[$CollectionTitle]

Display the collection’s title.

```
<ekmarkup>
  <ekoutput>
    <h3><b>[$CollectionTitle]</b></h3>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
            [$Index]. [$HyperLink]
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$Comment]

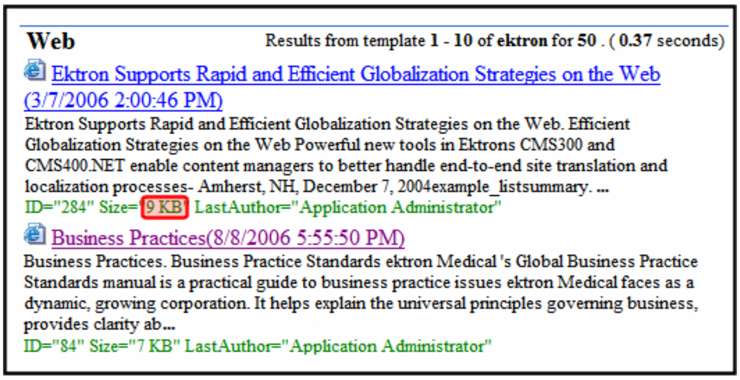
The content's comment information appears. Comment information can be added in the Workarea via the content item's Comment tab.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] <br/> [$Comment]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$ContentByteSize]

Display the size of the content item in the results list.



Web Results from template **1** - **10** of **ektron** for **50** . (**0.37** seconds)

Ektron Supports Rapid and Efficient Globalization Strategies on the Web (3/7/2006 2:00:46 PM)

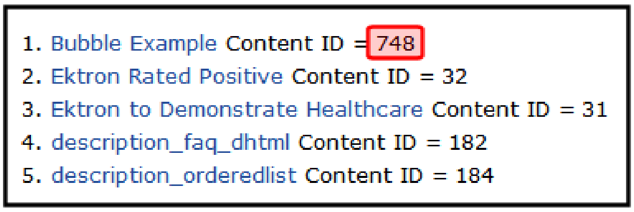
Ektron Supports Rapid and Efficient Globalization Strategies on the Web. Efficient Globalization Strategies on the Web Powerful new tools in Ektrons CMS300 and CMS400.NET enable content managers to better handle end-to-end site translation and localization processes- Amherst, NH, December 7, 2004example_listsummary. ...
ID="284" Size="9 KB" LastAuthor="Application Administrator"

Business Practices(8/8/2006 5:55:50 PM)

Business Practices. Business Practice Standards ektron Medical 's Global Business Practice Standards manual is a practical guide to business practice issues ektron Medical faces as a dynamic, growing corporation. It helps explain the universal principles governing business, provides clarity ab...
ID="84" Size="7 KB" LastAuthor="Application Administrator"

[$ContentId]

Displays the content item’s ID.

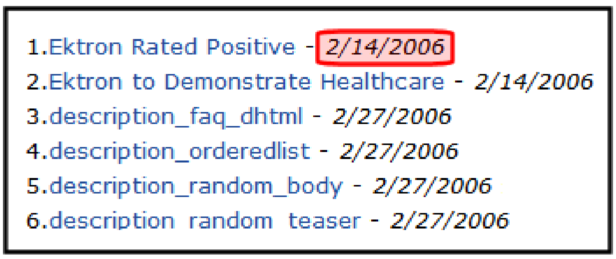


1. Bubble Example Content ID = 748
2. Ektron Rated Positive Content ID = 32
3. Ektron to Demonstrate Healthcare Content ID = 31
4. description_faq_dhtml Content ID = 182
5. description_orderedlist Content ID = 184

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] Content ID = [$ContentId]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$DateCreated]

Displays the date the content was created.



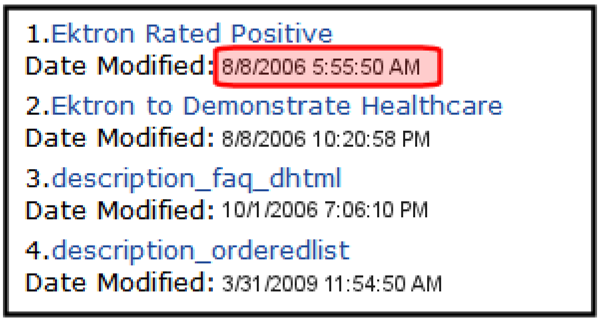
1.Ektron Rated Positive - *2/14/2006*
2.Ektron to Demonstrate Healthcare - *2/14/2006*
3.description_faq_dhtml - *2/27/2006*
4.description_orderedlist - *2/27/2006*
5.description_random_body - *2/27/2006*
6.description_random_teaser - *2/27/2006*

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
```

```
        <td>
          [$Index]. [$HyperLink] - <i>[$DateCreated]</i>
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$DateModified]

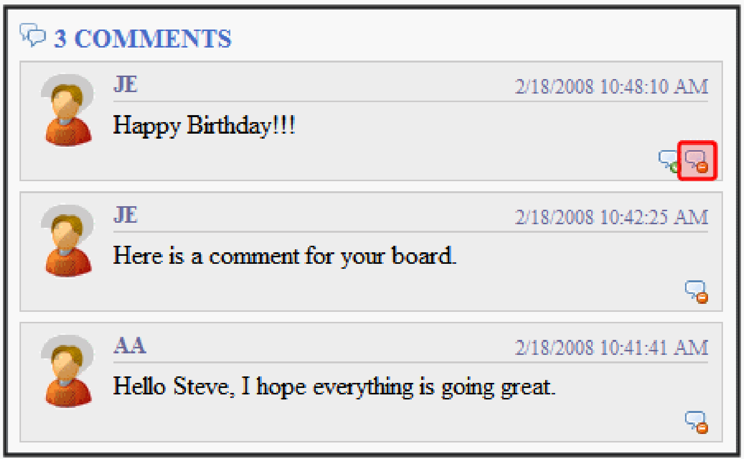
Displays the date and time the content was last modified. To display the date only, use *[$ShortDateModified]* on page 1945.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] <br/>Date Modified: <b>[$DateModified]</b>
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$DeleteMessageLink]

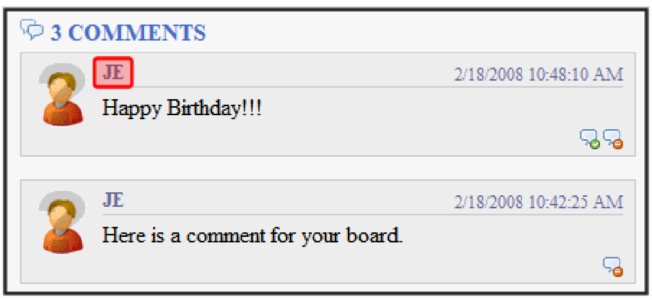
Displays the Delete link for a comment on the message board. Only Administrators, the person who left the message or the person who owns the board.




```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
  </div>
</ekoutput>
```

[$DisplayName]

Displays the display name of the member who left the message.

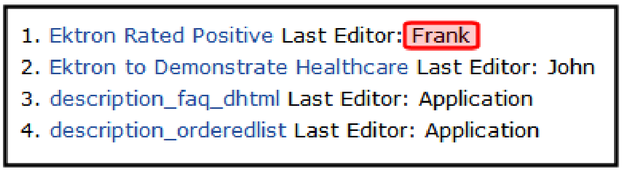



```
<ekoutput>
  <div class="ContributionForm">
```

```
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$DisplayName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
  </div>
</ekoutput>
```

[$EditorFirstName]

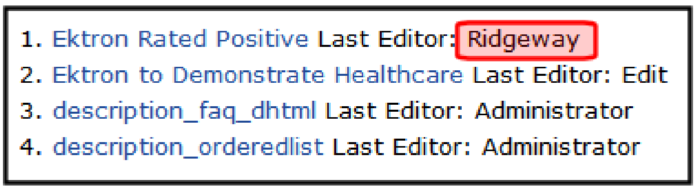
Displays the last editor’s first name for a content item.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] Last Editor: [$EditorFirstName]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$EditorLastName]

Displays the last editor’s last name for a content item.



```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] Last Editor: [$EditorLastName]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$EmailAddress]

Displays the email address of the member who left the message on the board. To create a hyperlinked email, wrap the [$EmailAddress] variable in a <a> tag with the mailto: variable. For example:

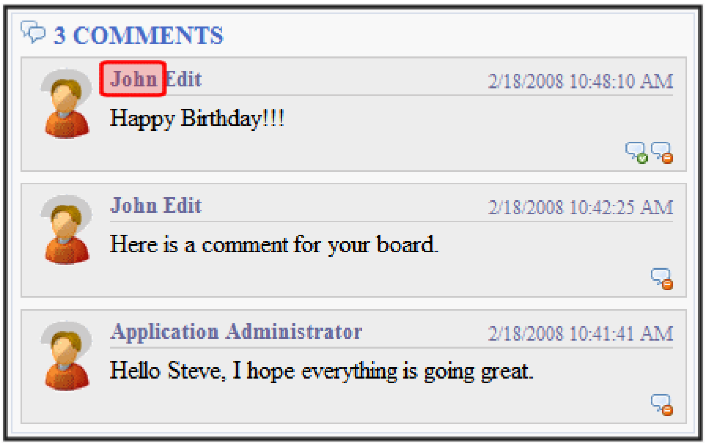
```
<a href="Mailto:[$EmailAddress]">[$EmailAddress]</a>
```


```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]  
              <a href="Mailto:[$EmailAddress]">[$EmailAddress]</a>
            </span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
```

```
  </div>
</ekoutput>
```

[$FirstName]

Displays the first name of the user who left a comment on a message board.




```
<ekoutput>
    <div class="ContributionForm">
      <h4>[$NumberComments] Comments</h4>
      <ul>
        <ekrepeat>
          <li class="ekMessagePost">
            <div class="avatar">[$Avatar]</div>
            <div class="message">
              <div class="metaData">
                <span class="username">[$FirstName] [$LastName]</span>
                <span class="time">[$DateCreated]</span>
              </div>
              <p>[$MessageText]</p>
              <ul class="commands">
                <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
                <li class="ekApproveMessage">[$ApproveMessageLink]</li>
              </ul>
            </div>
          </li>
        </ekrepeat>
      </ul>
      [$AddCommentBox]
    </div>
  </ekoutput>
```

[$FolderDescription]

Displays the folder’s description.


```
<ekmarkup>
  <ekoutput>
    <h3><b>[$FolderName]</b></h3><p/>[$FolderDescription]<br/>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
            [$Index]. [$HyperLink]
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$FolderId]

Displays the folder ID of a content item.

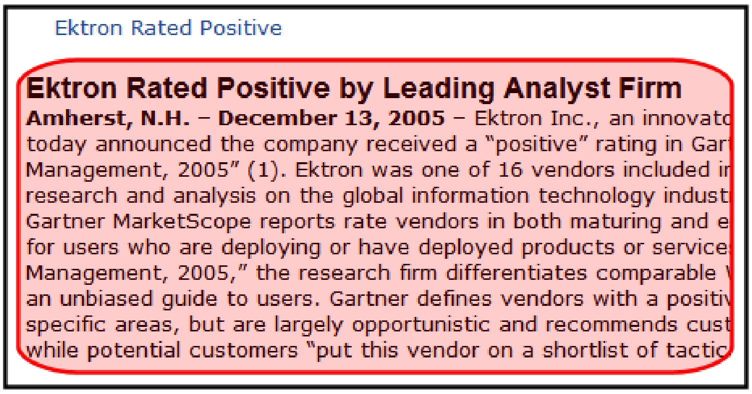
[$FolderName]

Displays the folder’s name.


```
<ekmarkup>
  <ekoutput>
    <h3><b>[$FolderName]</b></h3><p/>[$FolderDescription]<br/>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
            [$Index]. [$HyperLink]
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$Html]

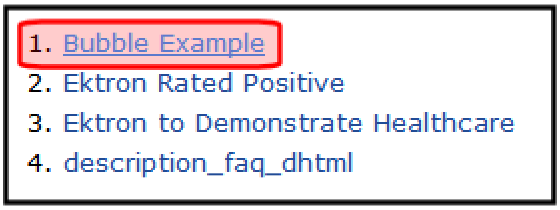
Displays the HTML contained in the content item. In the server control, the control's `GetHTML` property must be set to **True**; otherwise nothing appears. The exception to this is when the `[$Html]` appears between the `<ekbubbleinfo>` tags. In that case, the `GetHTML` property can be set to **True** or **False**.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$HyperLink]<br/>[$Html]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$HyperLink]

Adds a hyperlink using the title of the content block as the text. You do not add an `<a href="">` tag when using this variable. That functionality is built into the EkML. Use this variable when you do not want to create a custom hyperlink. If you want to create a custom hyperlink, use the `[$QuickLink]` variable. See Also: *[$QuickLink]* on page 1943




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink]
        </td>
```

```
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

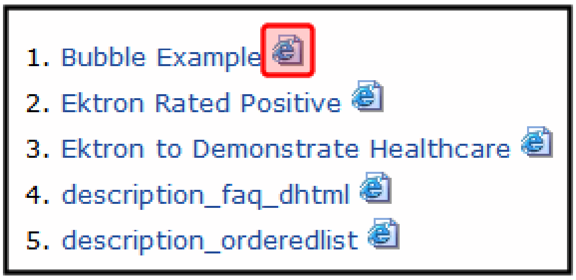
[$Image]

Displays the path for the image defined in a content item’s Metadata. When wrapped in tag, the image appears. For example, .

[$ImageIcon]

Displays an image icon for the content item. Except for HTML content, these icons are the same icons used in the Workarea to show the content type. HTML content uses the Internet Explorer icon ( ). For example, Forms use the Form icon ( ).

When using this variable with the server control, the IncludeIcons property is automatically set to **True**.



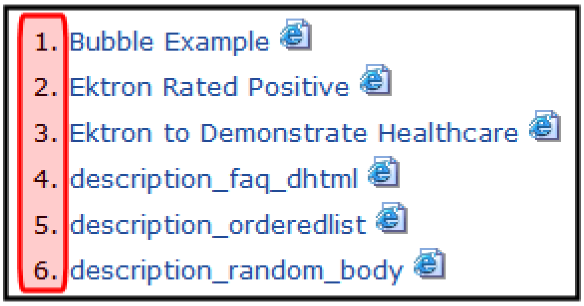

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] [$ImageIcon]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$ImageThumbnail]

Displays the path for the image’s thumbnail defined in a content item’s Metadata. When wrapped in tag, the image thumbnail appears. For example, .

[$Index]

Serialize the content items in a numbered list.



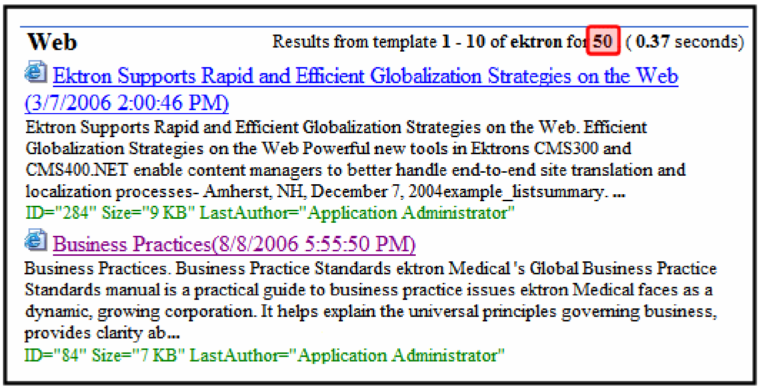

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
         [$Index]. [$HyperLink] [$ImageIcon]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$ItemCount]

Displays the total number of results in a list that are produced by the search. In the server control, the `EnablePaging` property must be set to **True**; otherwise nothing appears.

This variable is typically used in the following context:

Results `[$PagingCurrentStartIndex]`—`[$PagingCurrentEndIndex]` of **`[$ItemCount]`** for item `[$SearchText] ([$SearchDuration])`.

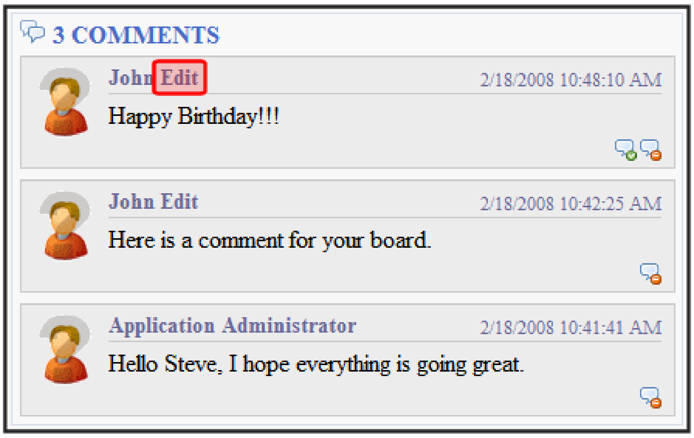


[$Language]

Displays the language ID for the content item.

[$LastName]

Displays the last name of the user who left a comment on a message board.




```
<ekoutput>
    <div class="ContributionForm">
      <h4>[$NumberComments] Comments</h4>
      <ul>
        <ekrepeat>
          <li class="ekMessagePost">
            <div class="avatar">[$Avatar]</div>
            <div class="message">
              <div class="metaData">
                <span class="username">[$FirstName] [$LastName]</span>
                <span class="time">[$DateCreated]</span>
              </div>
              <p>[$MessageText]</p>
              <ul class="commands">
                <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
                <li class="ekApproveMessage">[$ApproveMessageLink]</li>
              </ul>
            </div>
          </li>
        </ekrepeat>
      </ul>
      [$AddCommentBox]
    </div>
  </ekoutput>
```

[$LinkTarget]

When added to an <a href=””> tag’s target=”” attribute, this variable reads the server control’s LinkTarget property and uses its setting. For example, If you want to create a custom hyperlink that opens in a new window, you set the server control’s LinkTarget property to _Blank. Then, in the Ektron Markup Language file, add the [$LinkTarget] variable to the <a href=””> tag’s Taget=”” attribute. A code example appears below.

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
         <a href=”[$QuickLink]” target=”[$LinkTarget]”>[$Title]</a>
        </td>
```

```
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$MessageText]

Displays the text of a message on a message board.


```
<ekoutput>
    <div class="ContributionForm">
      <h4>[$NumberComments] Comments</h4>
      <ul>
        <ekrepeat>
          <li class="ekMessagePost">
            <div class="avatar">[$Avatar]</div>
            <div class="message">
              <div class="metaData">
                <span class="username">[$UserName]</span>
                <span class="time">[$DateCreated]</span>
              </div>
              <p>[$MessageText]</p>
              <ul class="commands">
                <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
                <li class="ekApproveMessage">[$ApproveMessageLink]</li>
              </ul>
            </div>
          </li>
        </ekrepeat>
      </ul>
      [$AddCommentBox]
    </div>
  </ekoutput>
```

[$NumberComments]

Displays the number of comments posted on the message board.

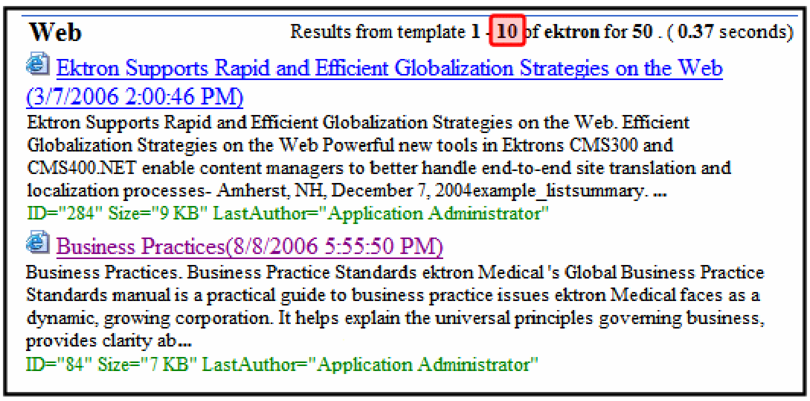

```
<ekoutput>
  <div class="ContributionForm">
    <h4>[$NumberComments] Comments</h4>
    <ul>
      <ekrepeat>
        <li class="ekMessagePost">
          <div class="avatar">[$Avatar]</div>
          <div class="message">
            <div class="metaData">
              <span class="username">[$UserName]</span>
              <span class="time">[$DateCreated]</span>
            </div>
            <p>[$MessageText]</p>
            <ul class="commands">
              <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
              <li class="ekApproveMessage">[$ApproveMessageLink]</li>
            </ul>
          </div>
        </li>
      </ekrepeat>
    </ul>
    [$AddCommentBox]
  </div>
</ekoutput>
```

[$PagingCurrentEndIndex]

The numerical record of the last item on a page. For example, if you are displaying items 1 through 10 out of 50 total items on a page, this variable represents the number 10.

This variable is typically used in the following context:

Results `[$PagingCurrentStartIndex]`—**`[$PagingCurrentEndIndex]`** of `[$ItemCount]` for item `[$SearchText] ([$SearchDuration])`.

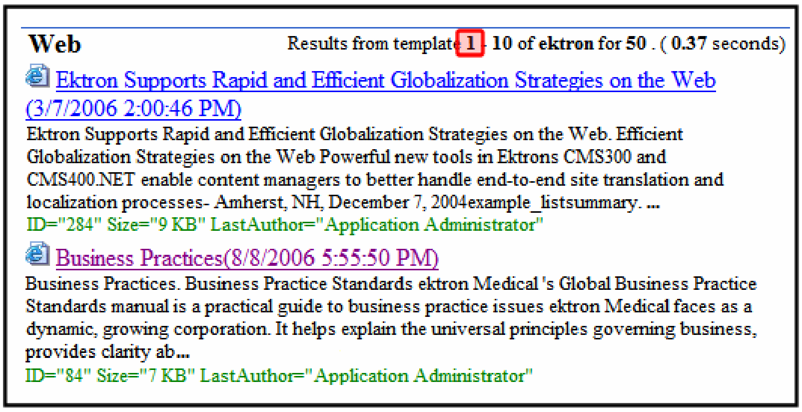


[$PagingCurrentStartIndex]

The numerical record of the first item on a page. For example, if you are displaying items 1 through 10 out of 50 total items on a page, this variable represents the number 1.

This variable is typically used in the following context:

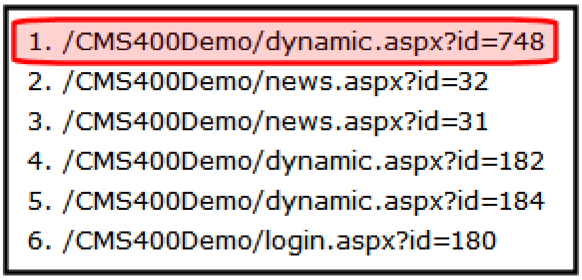
Results **`[$PagingCurrentStartIndex]`** — `[$PagingCurrentEndIndex]` of `[$ItemCount]` for item `[$SearchText] ([$SearchDuration])`.



[$QuickLink]

This property displays the Quicklink information for the content item. When wrapped in an `<a href="">` tag, you can create a Hyperlink. Use this property instead of the `[$HyperLink]` if you want to customize your hyperlinks. See Also: *[$HyperLink]* on page 1937

The first image shows the variable displaying the Quicklink information. The second image shows the Quicklink as a Hyperlink with a custom text.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$QuickLink]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

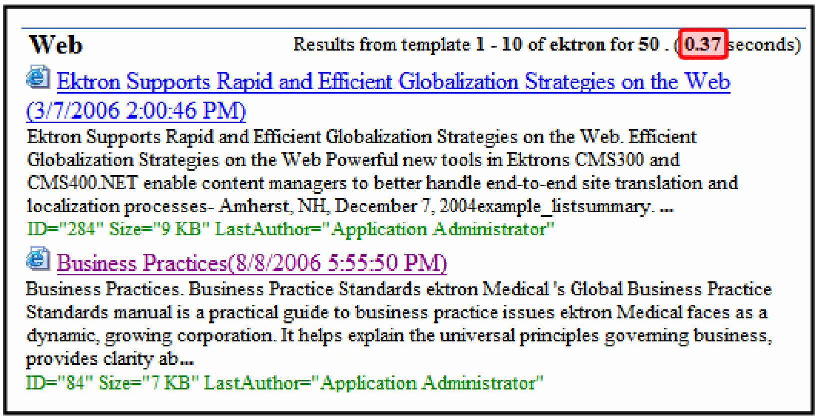

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. <a href="[$QuickLink]">Click Here For Item #[$Index]</a>
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$SearchDuration]

Displays the amount of time, in seconds, it has taken to perform the search.

This variable is typically used in the following context:

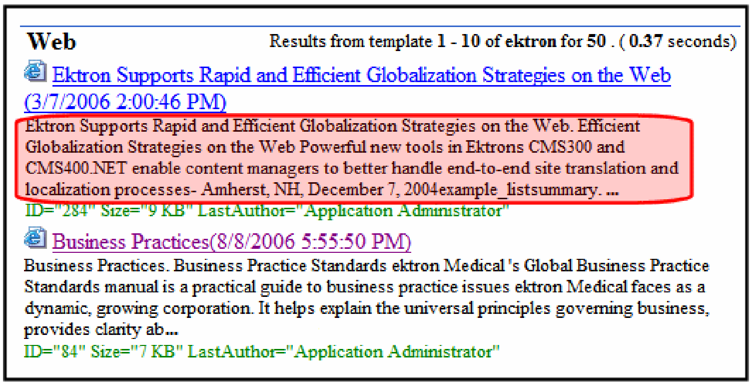
Results `[$PagingCurrentStartIndex]`—`[$PagingCurrentEndIndex]` of `[$ItemCount]` for item `[$SearchText]` (**`[$SearchDuration]`**).



[$SearchSummary]

Gets the first 300 characters from the body content and creates an abstract.

For content items that do not get indexed, such as images, the SearchSummary uses the image's title, summary, and metadata information.



[$SearchText]

Displays the text for which a user is searching. This information is same as what a user entered in the search text box.

This variable is typically used in the following context:

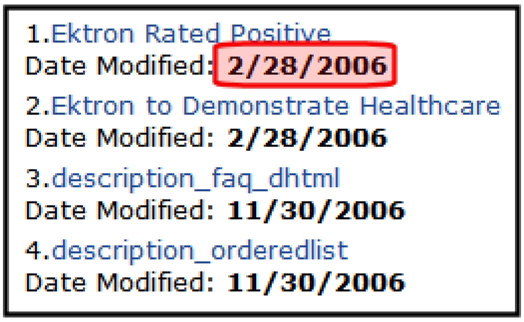
Results `[$PagingCurrentStartIndex]`—`[$PagingCurrentEndIndex]` of `[$ItemCount]` for item **`[$SearchText]`** `([$SearchDuration])`.

[$SERVER_NAME]

Displays the server name for the page on which this variable appears. For example, If this variable is applied to `http://www.example.com/demo.aspx`, the return is `www.example.com`.

[$ShortDateModified]

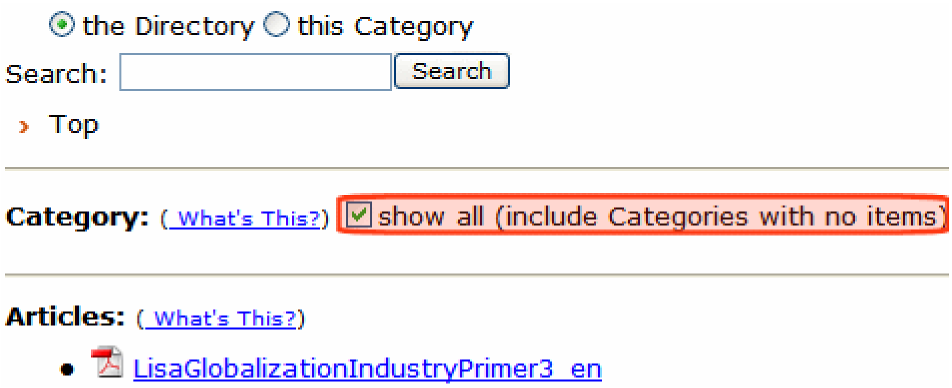
Displays the date the content was last modified. The variable show the date only. To show the Date and Time, use the *[$DateModified]* on page 1931 variable.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
        [$Index]. [$HyperLink] <br/>Date Modified: <b>[$ShortDateModified]</b>
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$ShowAllcategory]

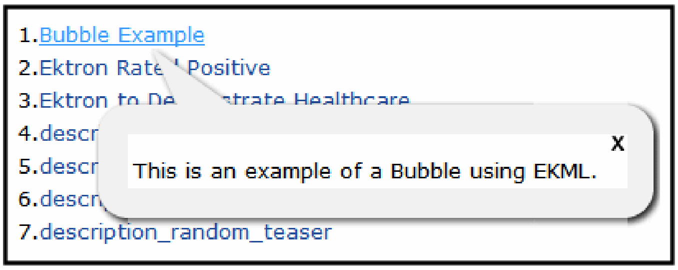
If a Directory server control's `EnableSearch` property is set to `true`, this variable adds the checkbox circled below to the right of the search field.



By default, the Directory server control only shows categories to which at least one content block is assigned. If you check this box, all categories appear, even those with no content assigned.

[$ShowBubble]

Calls the `<ekbubbleinfo>` tags and places the information contained within those tags in a pop-up bubble. This bubble is typically assigned to the `onclick` or `onmouseover` attribute in an `<a href="">` tag. See the following example EkML code.




```
<ekmarkup>
  <ekbubbleinfo>
    <table border="0">
      <tr>
        <td>[$Html]</td>
      </tr>
    </table>
  </ekbubbleinfo>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
            [$Index].<a href="#" onmouseover="[$ShowBubble]">[$Title]</a>
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$ShowBubble(width,height)]

This is similar to [$ShowBubble]. It calls the <ekbubbleinfo> tags and places the information contained within those tags in a pop-up bubble. This variable lets you set the width and height of the bubble. For example, [$ShowBubble(300,400). In this example, the first number represents the width. The second number represents the height.

If you enter a single number, it sets the width. The height of the bubble is then limited to the length of the content. For example, if you had a video that was formatted at 200 pixels wide and you wanted to launch it in a bubble, you would add the function as [$ShowBubble(200)].

The minimum width for a bubble is 287. The minimum height is 101.

```
<ekmarkup>
  <ekbubbleinfo>
    <table border="0">
      <tr>
        <td>[$Html]</td>
      </tr>
    </table>
  </ekbubbleinfo>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
```

```
          [$Index].<a href="#" onmouseover="[$ShowBubble(200)]">[$Title]</a>
         </td>
       </tr>
     </ekrepeat>
   </table>
  </ekoutput>
</ekmarkup>
```

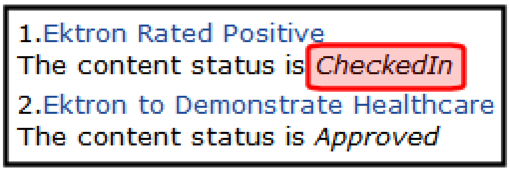
[$ShowContent('htmltagid')]

Calls the `<ekcontentinfo>` tags and places the information contained within those tags in the specified HTML tag ID. Replace the htmltagid with the ID of the tag. This tag is typically assigned to the `onclick` or `onmouseover` attribute in an `<a href="">` tag. See the example EkML code below.

```
<ekmarkup>
  <ekcontentinfo>
    <table border="0">
      <tr>
        <td>[$Html]</td>
      </tr>
    </table>
  </ekcontentinfo>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
        <tr>
          <td>
   [$Index].<a href="#" onmouseover="[$ShowContent('contarea')]">[$Title]</a>
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$Status]

Displays the status of a content item. For example, Approved, Checked in, or Submitted for Approval. For additional information, see *Content Statuses* on page 307.

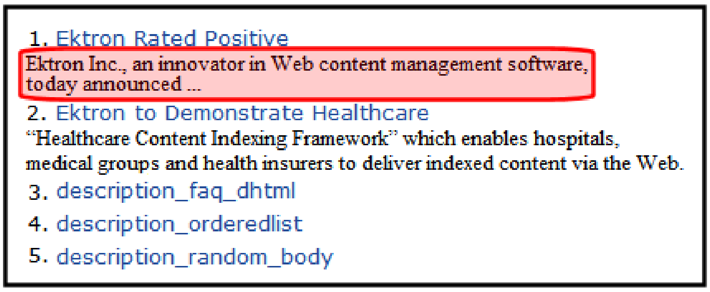



```
<ekmarkup>
  <ekoutput>
   <table width="100%"  border="0">
    <ekrepeat>
      <tr>
       <td>
         [$Index]. [$Hyperlink]
          The content status is <i>[$Status]</i>
       </td>
```

```
      </tr>
    </ekrepeat>
   </table>
  </ekoutput>
</ekmarkup>
```

[$Teaser]

Displays the content item's summary information. Summary information is added to content in the Workarea via the Summary tab. A code example appears below.




```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. [$HyperLink] <br/> [$Teaser]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$TemplateQuickLink]

This variable displays the Template Quicklink information assigned to the taxonomy item in the Workarea. When wrapped in an `<a href="">` tag, you can create a Hyperlink.

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
         <a href="[$TemplateQuickLink]">[Title]</a><br/>[$Teaser]
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

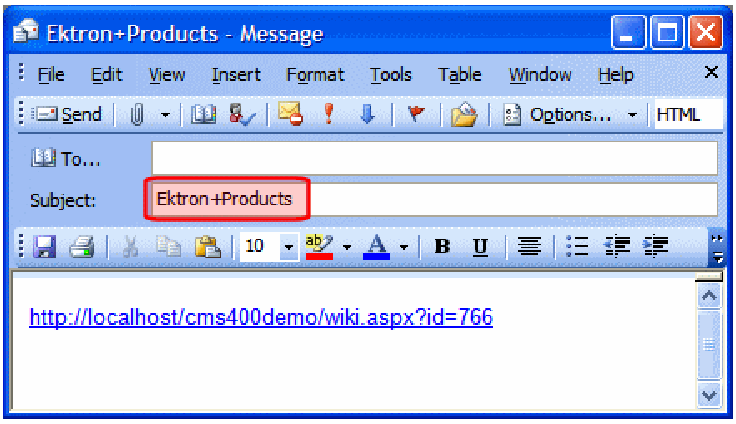
[$Title]

Displays the content item's title. Use this variable if you want to display the title as normal text. If you want to display the title as a hyperlink, use [$HyperLink]. See Also: *[$HyperLink]* on page 1937. If you want to create a custom hyperlink with the title as the text of the hyperlink, use this property in conjunction with the <a href=""> tag and the [$QuickLink] variable. See Also: *[$QuickLink]* on page 1943.

```
<ekmarkup>
  <ekoutput>
    <table width="100%"  border="0">
      <ekrepeat>
      <tr>
        <td>
          [$Index]. <a href="[$QuickLink]">[$Title]</a>
        </td>
      </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$UrlEncode('str')]

Encodes the string information in the variable. This variable can be used to encode another EkML variable and place it in an email. For example, You want the title of the content block to appear as the subject of an email. A code example appears below.

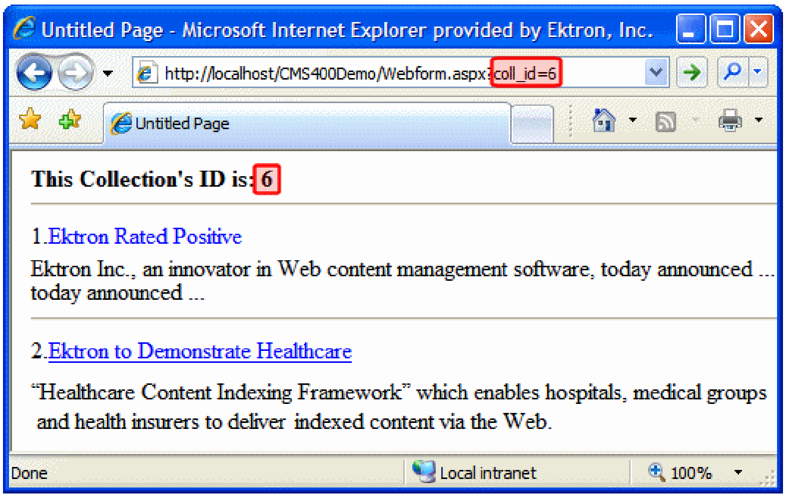



```
<ekcontentinfo>
    <table border="0">
      <tr>
        <td>
          <strong>Title: </strong>
          <span style="color:red;">[$Title]</span>
          <a href="mailto:?subject=[$UrlEncode('[$Title]')]&body=
            http://[$SERVER_NAME]/CMS400Developer/wiki.aspx?id=
            [$ContentId]"> 
            <img src="WorkArea/images/application/icon_email.png"
              align="absmiddle" alt="[$Title]" border="0"/></a>
          <hr />
        </td>
      </tr>
      <tr>
        <td>[$Html]</td>
```

```
      </tr>
    </table>
  </ekcontentinfo>
```

[$UrlParam('paramname')]

Displays the value of a query string's parameter. For example, if you have a collection and want to display its ID, add the `[$UrlParam('coll_id')]` where you want the collection's ID to appear.




```
<ekmarkup>
  <ekbubbleinfo>
    <table border="0">
      <tr>
        <td>[$Html]</td>
      </tr>
    </table>
  </ekbubbleinfo>
  <ekoutput>
    <table width="100%"  border="0">
    <tr>
      <td>
        <b>This Collection's ID is: [$UrlParam('coll_id')]</b>
        <br/><hr/>
      </td>
    </tr>
      <ekrepeat>
        <tr>
          <td>
      [$Index].<a href="#" onclick="[$ShowBubble]">[$Title]</a>[$Teaser]<hr/>
          </td>
        </tr>
      </ekrepeat>
    </table>
  </ekoutput>
</ekmarkup>
```

[$UserName]

Display the Username of a user who left a comment on a message board.


```
<ekoutput>
    <div class="ContributionForm">
      <h4>[$NumberComments] Comments</h4>
      <ul>
        <ekrepeat>
          <li class="ekMessagePost">
            <div class="avatar">[$Avatar]</div>
            <div class="message">
              <div class="metaData">
                <span class="username">[$UserName]</span>
                <span class="time">[$DateCreated]</span>
              </div>
              <p>[$MessageText]</p>
              <ul class="commands">
                <li class="ekDeleteMessage">[$DeleteMessageLink]</li>
                <li class="ekApproveMessage">[$ApproveMessageLink]</li>
              </ul>
            </div>
          </li>
        </ekrepeat>
      </ul>
      [$AddCommentBox]
    </div>
  </ekoutput>
```

Appendix A

User and Content Constants

Developers can use the following information to determine constant values when working with Ektron users and content.

User Constants

- 999999999—Builtin
- 18611864—Internal Admin
- 1—Image
- 2—File
- 888888—AllMemberShip Group
- 2—Everyone Group
- 1—Admin Group

Content Constants

- -1—CMSContentType_AllTypes
- 1—CMSContentType_Content
- 2—CMSContentType_Forms
- 3—CMSContentType_Archive_Content
- 4—CMSContentType_Archive_Forms
- 7—CMSContentType_Library
- 9—CMSContentType_NonImageLibrary
- 12—CMSContentType_Archive_Media
- 13—CMSContentType_BlogComments
- 14—CMSContentType_XmlConfig
- 98—CMSContentType_NonLibraryForms
- 99—CMSContentType_NonLibraryConten
- 101—CMSContentType_OfficeDoc
- 102—CMSContentType_PDF
- 104—CMSContentType_Media
- 106—CMSContentType_Image
- 1111—CMSContentType_DiscussionTopic
- 3333—CMSContentType_CatalogEntry
- 100—ManagedAsset_Min
- 1099—ManagedAsset_Max
- 1100—Archive_ManagedAsset_Min
- 2099—Archive_ManagedAsset_Max
- 1000—MaxNumManagedAssetTypes

Appendix B

Using the eWebEdit400 Editor

The eWebEdit400 editor is a Web content editor designed for dynamic websites that lets you create and publish Web content in any language supported by the operating system and your website. You can use the eWebEdit400 editor on Windows and Macintosh operating systems.

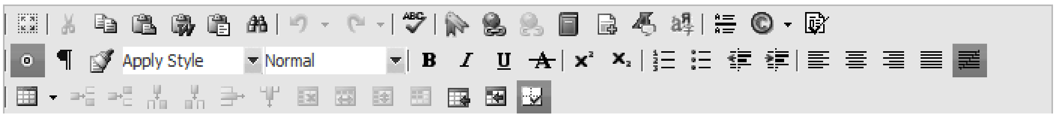
Although you can still use the eWebEdit400 editor, it is not the default editor since Ektron Version 8.7. For information about the default editor, see *Editing in Ektron* on page 207.

To use a the eWebEdit400 editor in Ektron, edit `web.config` and set `ek_EditControlWin` (Windows) or `ek_EditControlMac` (MacIntosh) to `ContentDesigner`.

```
<!-- EditControlWin may be either "Aloha" or "ContentDesigner" or "eWebEditPro" or
"UserPreferred" -->
<add key="ek_EditControlWin" value="ContentDesigner" />
```

Working with Tables in eWebEdit400 on page 1975 has more information about working with tables in the eWebEdit400 editor.

eWebEdit400 Toolbar



When you cut, copy and paste from *Microsoft Word*, you can preserve the styles, class attributes, and HTML tags by following these steps:

1. In the Workarea, choose **Settings > Configuration >Setup**. The Application Setup screen appears.
2. Click **Edit**.
3. Click the **Editor** tab.
4. Check the boxes: **Preserve MS-Word Styles** and **Preserve MS-Word Classes**.

This section also contains the following topics.

eWebEdit400 functions

NOTE: HOW TO: Add and remove buttons to the toolbar for eWebEdit400 is an Ektron Knowledge Base article that explains how a Webmaster adds a custom toolbar button to eWebEdit400.

- **Select All** (Ctrl/a)—Select all content
- **Cut** (Ctrl/x)—Remove selected text and graphics. Place that data into temporary memory, also known as the “clipboard.” (If you later cut or copy more information onto the clipboard, the new information overwrites the original information.)

- **Copy** (Ctrl/c)—Copy selected text and graphics into temporary memory. Leave selected data where it is. (If you later cut or copy more information into memory, the original information is lost.)
- **Paste** (Ctrl/v)—Insert the most recently cut or copied text and graphics at the current cursor location.
- **Paste from Word**, Cleaning Fonts & Styles—Designed for pasting Microsoft Word content, this button strips fonts and classes. For example, if you use the Paste button, Word content contains these tags.

```
<p class="MsoNormal" style="MARGIN: 0in 0in 0pt">
<span style="BACKGROUND: lime; mso-highlight: lime">
<font size="3">
<font face="Times New Roman">
```

But if you paste that content using this button, only `<p>` tags are preserved.

- **Paste Plain Text**—Paste the clipboard's contents as plain text. That is, all HTML tags (including images) are stripped out. This button is helpful when you want to eliminate HTML formatting from the copied text.
- **Find and Replace**—Launch the Search and Replace dialog box. The dialog searches for (and lets you optionally replace) text that you specify. See *Finding and Replacing Text* on page 1960.
- **Print** (Ctrl/p)—Print the editor content.
- **Undo** (Ctrl/z)—Reverse the most recent action, as if it never occurred. You can undo as many actions as you wish.
- **Redo** (Ctrl/y)—Reverse the undo action.
- **Spell Check**—Begin spell checker. See *Checking Spelling* on page 1961.
- **Anchor Tag**—Insert a bookmark anchor. See *Using Bookmarks* on page 1962.
- **Add/edit Hyperlink**—Change information about a hyperlink. *Using Hyperlinks* on page 1964.
- **Remove Hyperlink**—Remove a hyperlink.
- **Library**—Insert a library file. See *Storing Files in the Library* on page 333.
- **Add Wiki Link**—Create a wiki link. See *Using the Wiki Feature* on page 1966.
- **Localize Section**—Designate sections of content for certain languages only. *Creating One or More Localized Paragraphs* on page 1073.
- **Translate**—Translate content into another language. See *Using Machine Translation* on page 1071.
- **Horizontal Line**—Insert a horizontal line.
- **Insert Symbol**—Insert symbols and special characters.
- **Validate**—Check content for adherence to XHTML and accessibility standards.
- Hide/Show Elements—Toggle to show/hide temporary markers in content.
- Apply CSS Cl **Apply CSS Class**—Display a list of style sheet classes. Users can select from the list to apply a class to selected text. The list can change depending on the selected text. Your Webmaster determines which styles are available.

- Normal **Paragraph Style**—Display a list of paragraph styles. Users can select from the list to apply a style to selected text. The list can change depending on the selected text. Your Webmaster determines which styles are available. See: HOW TO: Customize the Formatting drop down in the eWebEdit400 toolbar
- **Bold** (Ctrl/b)—Make selected text **bold**.
- **Italic** (Ctrl/i)—Make selected text *italic*.
- **Underscore** (Ctrl/u)—Make selected text underlined.
- **Strikethrough**—Apply strikethrough to selected text. For example: ~~Here is some text~~
- **Superscript**—Make selected text appear smaller and above text line.
- **Subscript**—Make selected text appear smaller and below text line.
- 2 **Relative Font Size**—Change the relative font size. Your Webmaster determines which relative font sizes are available.
- Verdana **Font Style**—Change the font style. Your Webmaster determines which fonts are available.

NOTE: If more than one font appears in a selection, the browser on the reader's PC tries to display text using the first font. If the browser cannot find that font, it tries to use the second, and so on. Your system administrator can enable or disable the font toolbar buttons (style, size, color, and background color).

- 10pt **Font Size**—Change the font size in points. Your Webmaster determines which font sizes in points are available.
- **Font Color**—Change the font color.
- **Background Color**—Change the background color of the selected content.
- **Number**—Begin the line on which the cursor rests with a number. If the line above this line is:
  - not numbered, assign this line 1
  - numbered, assign a number one more than the line above

NOTE: The Number toolbar button applies a number to each paragraph. If you want to switch to regular (that is, non-numbered) paragraphs, click the button a second time

- **Bullet**—Begin the line on which the cursor rests (or all selected lines) with a bullet.

NOTE: The Bullet toolbar button applies a bullet to each paragraph. If you want to switch to regular (that is, non-bulleted) paragraphs, click the button a second time.

- **Indent**—Increase or decrease the current line's distance from the left margin.
- **Left, Center, and Right Justify**—Align paragraph so that it is arranged evenly on the...
  - left side (uneven on the right)
  - in the center of each line
  - evenly on the right side (uneven on the left)
  - evenly on right and left side

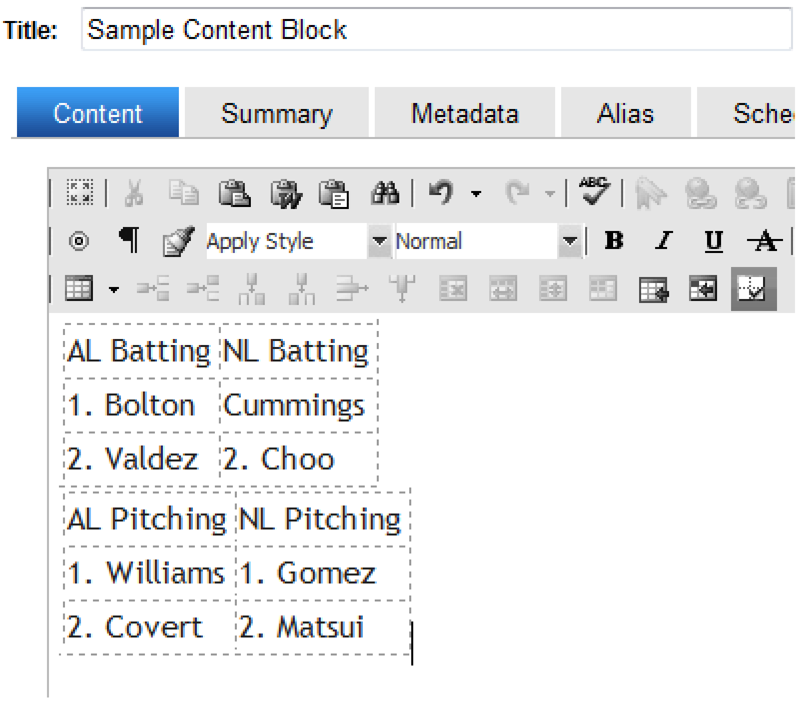
  Use the last button to remove justification.

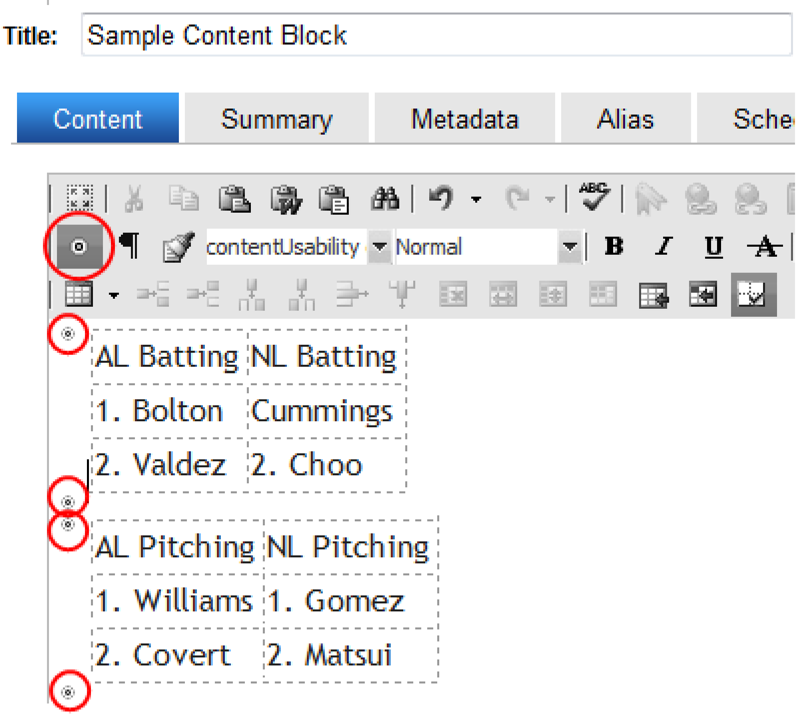
- **Insert table**—Insert a table. See: *Working with Tables in eWebEdit400* on page 1975
- **Insert row above**—Insert a new row above current one (that is, the one in which the cursor currently resides).
- **Insert row below**—Insert a new row below current one (that is, the one in which the cursor currently resides).
- **Insert column left**—Insert a new column to the left of the current one.
- **Insert column right**—Insert a new column to the right of the current one.
- **Delete row**—Delete current row.
- **Delete column**—Delete current column.
- **Delete cell**—Delete current cell.
- **Merge cells horizontally**—Merge current cell with cell to its right.
- **Merge cells vertically**—Merge current cell with cell below it.
- **Split cell**—Divide a cell into two. After you split, each cell occupies one half the size of the original cell.
- **Table properties**—Adjust a table's properties.
- **Cell properties**—Adjust properties of current cell.
- **Show/hide border**—Display/suppress internal table border.

Using Temporary Markers

Temporary markers let you insert your cursor in a place that is otherwise inaccessible. For example, if 2 tables are adjacent to each other, you cannot insert text between them without temporary markers. You can click on any marker and begin inserting new content. When you save, temporary markers are removed.

To toggle temporary markers on and off, click **Hide/Show Elements** ().

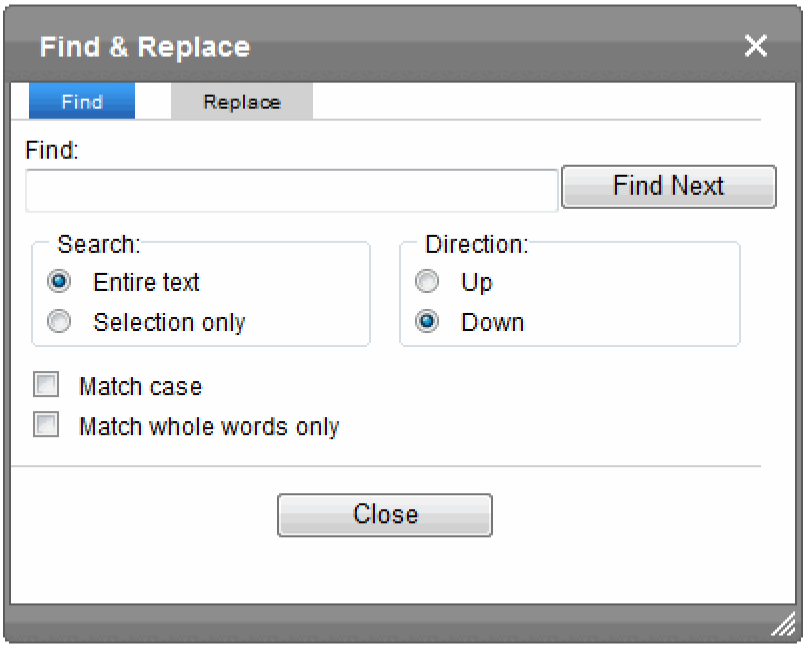




NOTE: Your Ektron system administrator can use the *siteroot*`/web.config` file's `ek_ShowTemporaryMarkers` element to enable (`true`) or disable (`false`) temporary markers for all users.

Finding and Replacing Text

To find (and optionally replace) text, click **Find and Replace** (). The Find and Replace dialog box appears.



In the **Find** field, type the text you want to find.

1. Click the **Replace** tab.
2. In the **Replace With** field, type the replacement text.
3. Set dialog box options.
   - **Selection only**—operates on a selected portion of content.
   - **Direction**—Search from the current cursor location up (backwards) or down (forwards).
   - **Match case**—The search must match the string exactly.
   - **Match whole words only**—Find only whole words. By default, the search finds any occurrence of the text that you type into the **Find** field. For example, if you enter *the*, the search finds the word *the*, as well as those letters embedded in other words, such as o*the*rs and *the*ater.
4. If you want to...
   - replace all occurrences of the “find” text with the “replace” text, click **Replace All**.

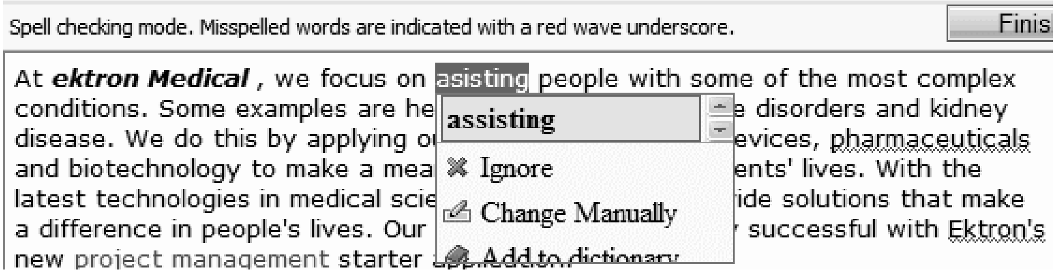
     NOTE: You can undo replacements one at a time using the Undo button ( ).

   - replace only the highlighted term with the “replace” text, click **Replace**.
   - find the next occurrence of the “find” text (and optionally replace it with the “replace” text), click **Find Next**.
   - change the highlighted term using the editor, exit the Find and Replace dialog, move to the term and edit as needed. To restart the search, press the Find button ( ).

   Continue to find and optionally replace or edit until you reach the end of the text.

Checking Spelling

To begin spell checking, click the spell check button ( ). eWebEdit400 puts a red line under each word that’s not in the dictionary. Then, it stops at the first misspelled word and displays your options for fixing the problem. Instead of stopping at every misspelled word, you can place the cursor on any highlighted word. When you do, its spelling options appear.



NOTE: The FireFox browser has its own spell check software. To eliminate confusion between eWebEdit400's and Firefox's spell checker, you can disable Firefox's by choosing **Tools > Options dialog > General Tab** and unchecking the **Check my spelling as I type** check box.

If you are done before fixing every misspelled word, click **Finish spell checking** from the toolbar. Your changes are saved, and you return to edit mode. If you want to exit the spell checker and ignore all changes you have made since beginning it, click **Cancel** (circled above) at any time.

Using Bookmarks

A bookmark lets you "jump" from any word or phrase to another place in the same content block. On your Web page, text appears in a different color to indicate the bookmark. Bookmarks are helpful if your page is long.

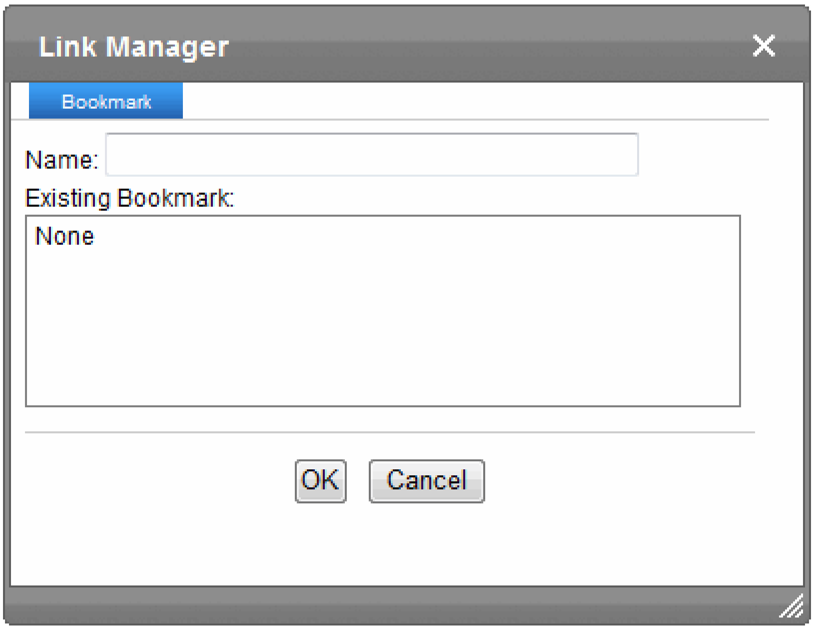
To create a bookmark, you must specify:

- a *source*—the text a user clicks to move to the bookmark
- a *bookmark*—the destination to which the cursor jumps when a user clicks the source

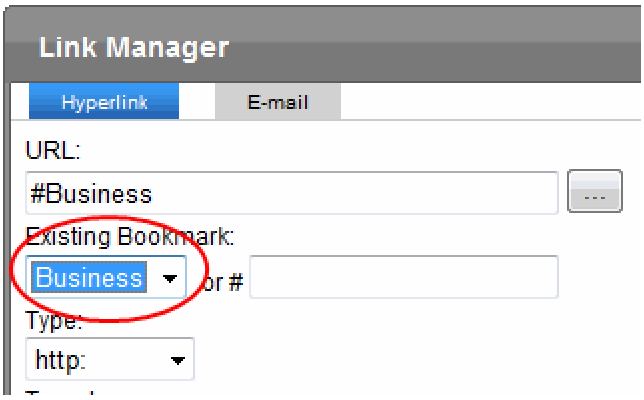
For example, if your Web page contains minutes from several meetings, the top of the page could list the meeting dates. You could then assign a hyperlink (source) to each date and a bookmark to each set of minutes. The user sees that a date is in a different color, so clicks it to "jump" (using the bookmark) to the correct minutes.

To create a bookmark:

1. Place the cursor where you want to create the bookmark..
2. Click **Insert Bookmark** ( ). The Link Manager dialog appears with the **Bookmark Tab** selected.



3. Enter a name for the bookmark and click **OK**. The editor screen redisplays. (The bookmark does not appear on the page.)
4. Select the source text that will link to the bookmark that you created..
5. Click **Hyperlink Manager** ( ). The Hyperlink Manager dialog appears with the **Hyperlink** tab selected.
6. Click the down arrow on the **Existing Bookmark** field and click the bookmark you created.



7. Optionally set the **Target Frame** field on the Hyperlink Manager dialog to change the window that displays the destination page.
   - **New Window**—Appears in a new browser window, on top of the current browser.
   - **Same Window**(default)—Appears in the same position within the browser window. The new window replaces the current one.
   - **Parent Window**—Appears if your page contains frames, in the frame that contains the frame with the hyperlink.
   - **Browser Window**—Appears if your page contains frames, in the full display area, replacing the frames.
8. Click **OK**.

Using Hyperlinks

A hyperlink lets you "jump" from any word or phrase to another Web page. The page can be within your network (that is, on an intranet) or anywhere on the internet. For example, your Web page could include a link to the Ektron website.

To create a hyperlink, you must specify:

- a *source*—the text a user clicks to move to the bookmark
- a *destination*—the destination to which the cursor jumps when a user clicks the source

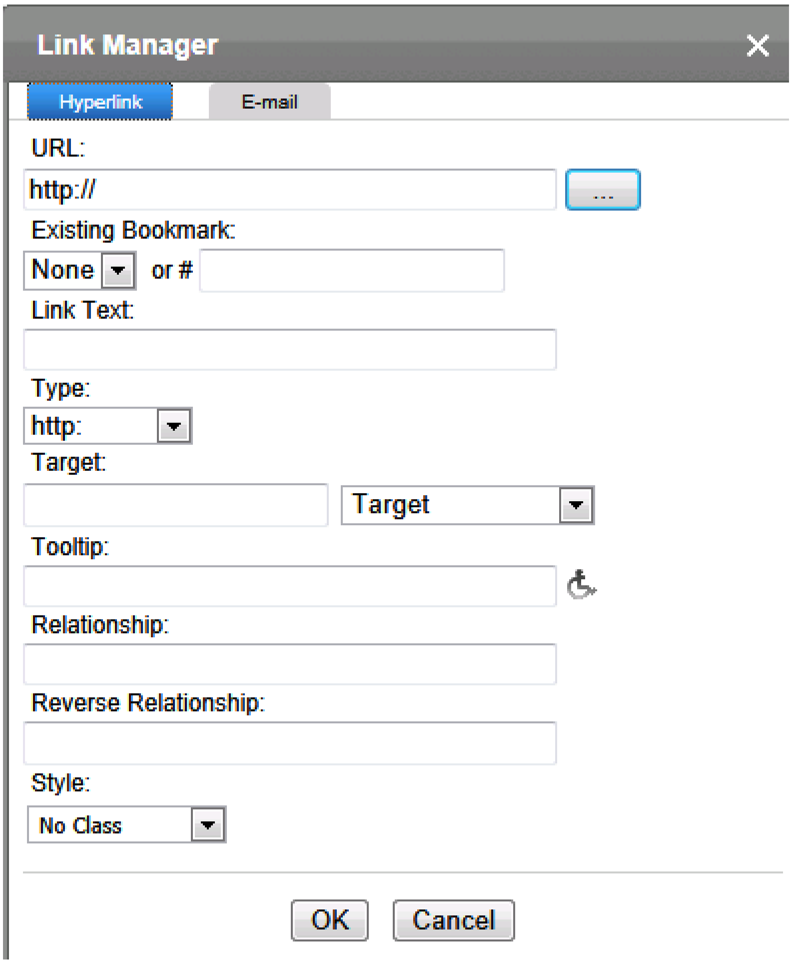
NOTE: To create jumps within a content block, see *Using Bookmarks* on page 1962.

This section also contains the following topics.

Creating a Hyperlink

To create a hyperlink:

1. Select the source text. (You can also select an image as a hyperlink.)
2. Click **Hyperlink Manager** ( ). The Link Manager dialog appears.



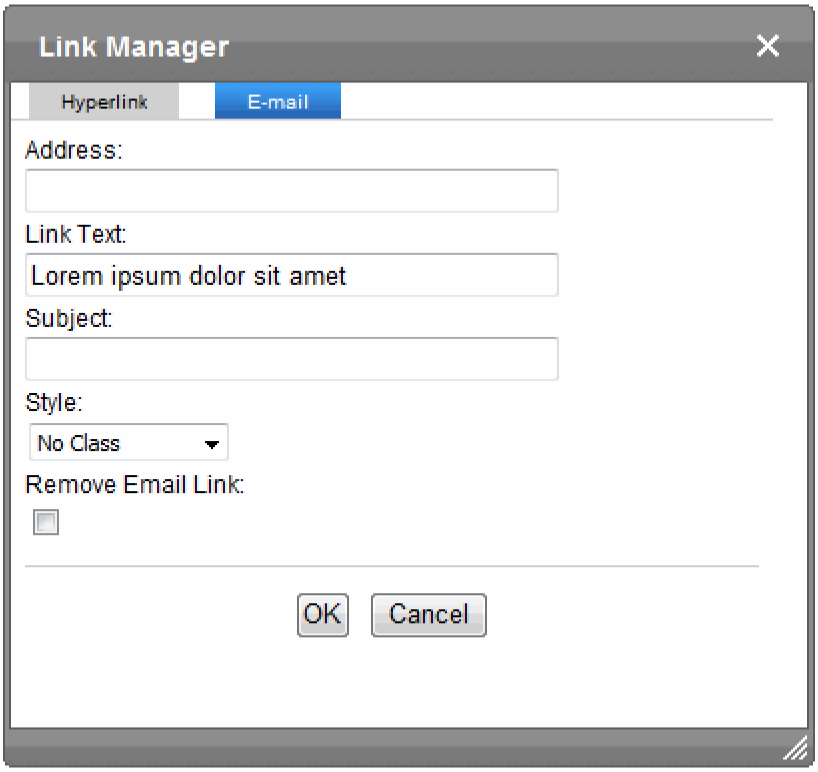
3. In the **URL** field, after `http://`, enter the address of the destination Web page. For example, `www.ektron.com`. If your Ektron library includes a hyperlink that you want to apply, click the ellipsis button (...) to browse the library and choose one.
4. Optionally set the **Target Frame** field to change the window in which the destination text appears. If you leave the **Target Frame** field blank, the new window replaces the current window.
5. Optionally enter "hover over" text in the **Tooltip** field.
6. The hyperlink's style is normally determined by the style sheet assigned to the content’s page template. However, if you want to apply a special style sheet class to this link, select it from the **Style** drop-down.
7. Click **OK**.

Creating an Email Hyperlink

An email link resembles a hyperlink. When a site visitor clicks the link, instead of opening a Web page, the person's email application is launched. To create an email hyperlink:

1. Select the source text. (You can also select an image as an email hyperlink.)
2. Click **Hyperlink Manager** ( ). The Link Manager dialog appears.

3. Click the **E-mail** tab. The selected text appears in the **Link Text** field.



4. In the **Address** field, enter the email address of the message recipient.
5. In the **Subject** field, enter default text for the email's Subject line. The user sending the mail can edit it.
6. Click **OK**.

Editing a Hyperlink

To change a hyperlink's destination Web page or target frame:

1. Right click on hyperlinked text and choose **Set Link Properties**. The Link Manager dialog appears.
2. Edit the fields as needed and click **OK**.

Removing a Hyperlink

- To remove a hyperlink from text, select the text and click **Remove Link** ( ).
- If you enter a URL or an email address into eWebEdit400, it automatically becomes a hyperlink. To avoid this, select the text and click **Remove Link** ( ).

Using the Wiki Feature

The Wiki feature lets registered site visitors (that is, membership users) and Ektron users insert hyperlinks to other content. The hyperlinks can connect to existing content or to content that doesn't exist yet. This collaborative authoring style is used in wiki sites such as Wikipedia, where any author can contribute new content and articles.

There are 2 ways to create a wiki link.

- Surround text with double square brackets (`[[ ]]`). This is quick.
- Use the wiki button (). This has the following advantages:
  - Can link to existing content or create new content
  - Can choose new content's folder

    NOTE: Membership users cannot choose a folder. The new content is created in the same folder as the content being edited.

  - Can change title of new content
  - Can select new window's target frame

To create a wiki link using the wiki button, select the text to which you want to assign a wiki hyperlink. It can be one or several words and click **Add Wiki Link** ().

NOTE: The Wiki button only appears if you have permission to add content to the folder that contains the current content.

The Add/Edit Wiki Link screen appears. It has 2 tabs.

- **New Content** tab—create new content to which you will add information later. The new content item will appear when a site visitor clicks the link text.

  If you want to place the new content item in the folder that contains the text you are editing, do nothing. To place new content in a different folder, click **Change** and navigate to that folder. You can also edit the **Title** and the **Target Frame**.

  NOTE: Membership users cannot assign a folder. New content is saved to the folder that contains the source content.

- **Related Content** tab—link to existing content. If you click this tab, Ektron uses the selected text to search your website. All content with that text then appears on the screen. Each content item's title appears followed by its summary. Click the radio button next to the content you want to link to.

To indicate that a wiki has been applied to new content, the text color changes to blue and bold, and small dots appear under the wiki text.

- If you applied a link to related content, a regular hyperlink appears.
- If you link to existing content, the link is the same as quicklink.
- If you are creating new content, Ektron assigns a `<span>` tag to the selected text. For

example:

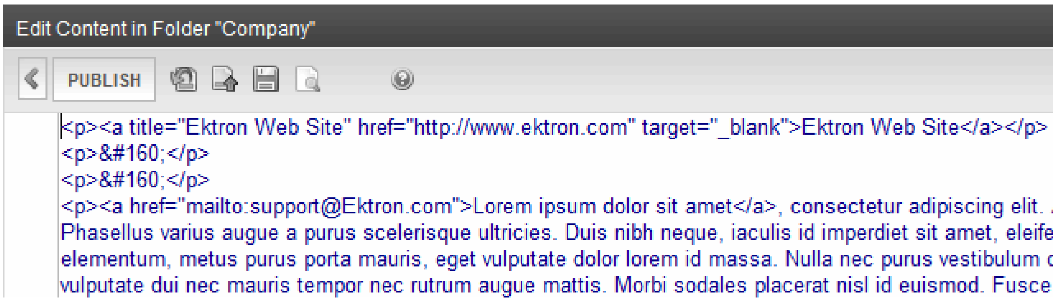
```
<Span class = "makelink">selected text here</span>
```

When the content is published, Ektron does the following:

- Detects the `<span class = "makelink">` tag.
- Finds text surrounded by the `<span>` tag.
- Creates a new content block in the selected folder.
  - its name is typically the selected text. However, if the user used the wiki button, the user can modify the new content block's title on the Add/Edit Wiki Link screen.
  - its initial text is New Content: content for selected text. (Fill in the topic text as you or other collaborators have time.)
- Gets the quicklink for the newly-created content block.
- Opens the original content and replaces the `<span>` tag with the quicklink to newly-created content.

Working with HTML

You do not need to know HTML to use eWebEdit400. However, if you know HTML, you can view, insert or edit your Web page's HTML code by clicking at the bottom of the editor. The HTML code appears.



To return to normal view, click .

Working with Images

PREREQUISITE

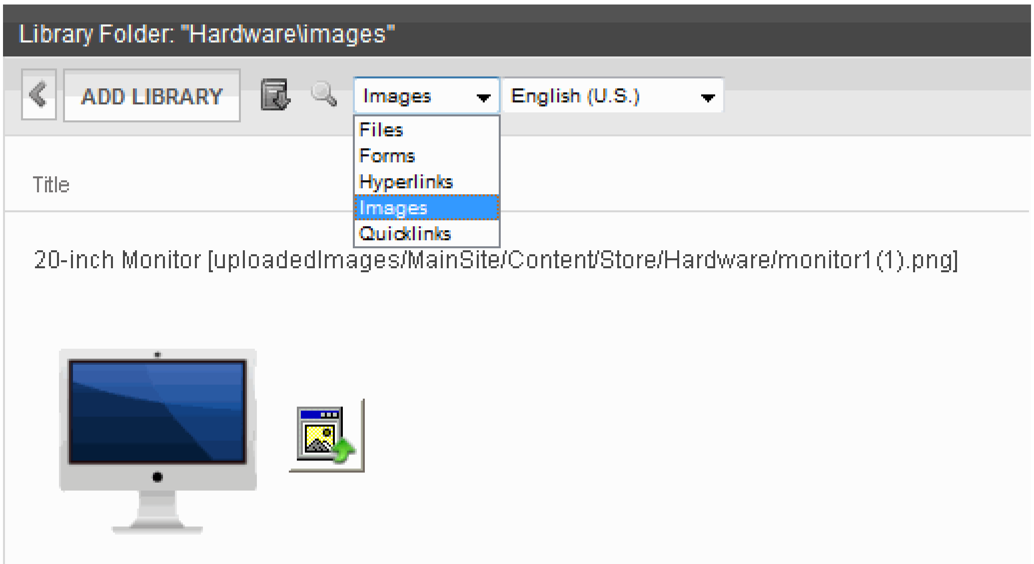
Before you can insert an image into eWebEdit400, the image must be either uploaded to the Library or imported as an asset.

- *Moving or Copying Content* on page 290 explains how to upload an image to the Library.
- *Methods for Importing Assets* on page 315 explains how to import an asset.

This section also contains the following topics.

Inserting an Image into the Editor

1. Place the cursor where you want the image to appear.
2. Click Library ( ).
3. From the left panel's folder display, select the folder that contains the image you want to insert. If you don’t know the image’s folder, use the search button ( ) to find the image by title, description, or internal file name.
4. Select **Images** from the content type drop-down.



NOTE: If you are inserting an asset, its content ID number (for example, `assets/1062.jpg`) appears in the Insert Library Item screen.

5. Select an image to insert.
6. Click **Insert** ( ). The image is inserted into the content.

   Alternatively, you can insert a miniature version of the image, called a *thumbnail*, by clicking the thumbnail button ( ). When the thumbnail appears on a Web page, a site visitor can click it to view a full-sized image.

NOTE: You can change the thumbnail image by right clicking it, selecting **Set Image Properties** and editing the **Image Src** field. If you do that, however, and someone clicks it, the original full-sized image appears. If you want to change both the thumbnail and the full-sized image, delete it then enter a new thumbnail.

To delete an image, click it and click **Cut** ( ).

Editing an Image

To edit an image, right click it and choose **Image Modification Tool**.

NOTE: The Image Modification Tool is not available in the default editor. To edit image properties in the default editor, choose **Review > Inspect Properties**, then click the image. The Inspector shows the properties you can edit.

- —Save changes
- —Exit without saving changes
- —Crop image. Drag the box around the area you want to keep and click **Done**.
- —Change image size. Specify the width and height. Check the box to keep the aspect ratio.
- —Rotate image
- —Adjust brightness. Move slider to left to lighten image; to right to darken it.

Setting a Border on an Image

To add a border around a picture, enter the border's thickness in pixels in the **Border Width** field on the Image Properties dialog.

1 pixel border

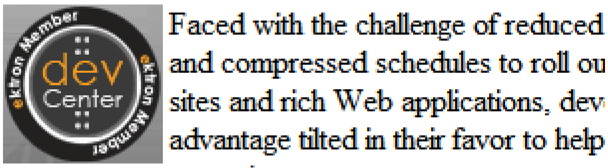
10 pixel border

If the picture is not a hyperlink, its border is black. If the picture is also a hyperlink, the border is the same color as a hyperlink (for example, blue or purple if visited).

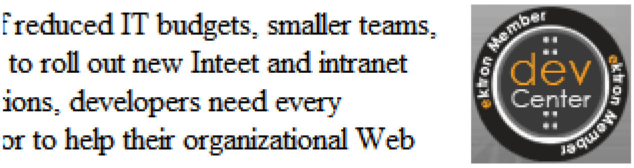
Aligning an Image

To align an image , use the **Image Alignment** field on the Image Properties dialog.

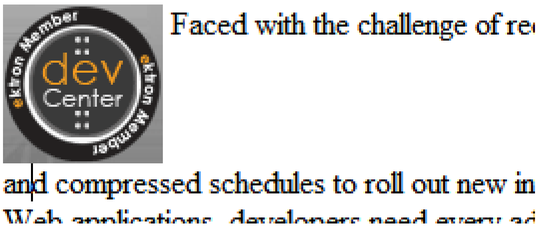
- —The picture on the left margin, allowing subsequent text to wrap around it

- —The picture on the right margin, allowing subsequent text to wrap around it

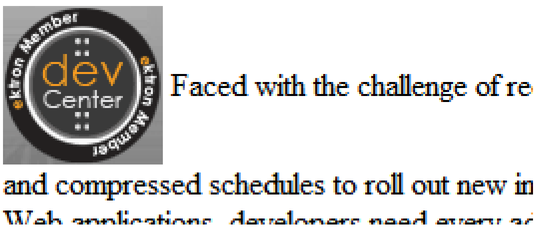
  

- —The top of the picture with the first line of text

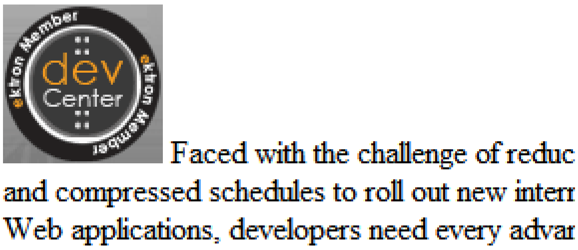
  

  image

- —The vertical center of the picture with the first line of text

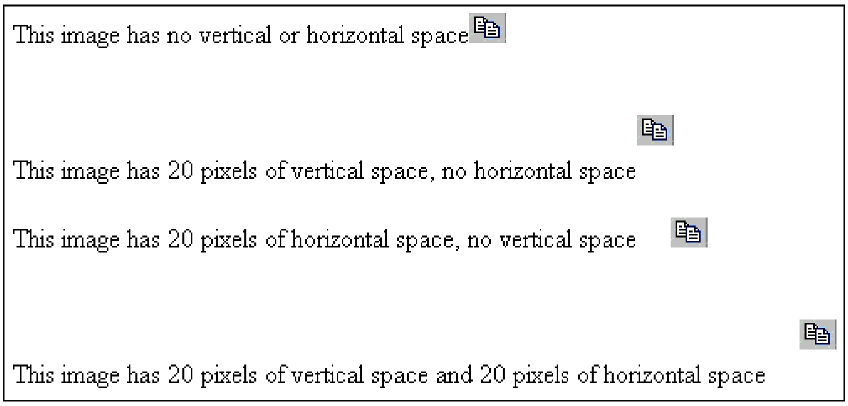
  

- —The bottom of the picture with the first line of text



Adding Space Around an Image

On the Image Properties dialog box, you can use the **Spacing** fields (**Horizontal** and **Vertical**) to add space around the picture. You enter a number of pixels to determine spacing value.

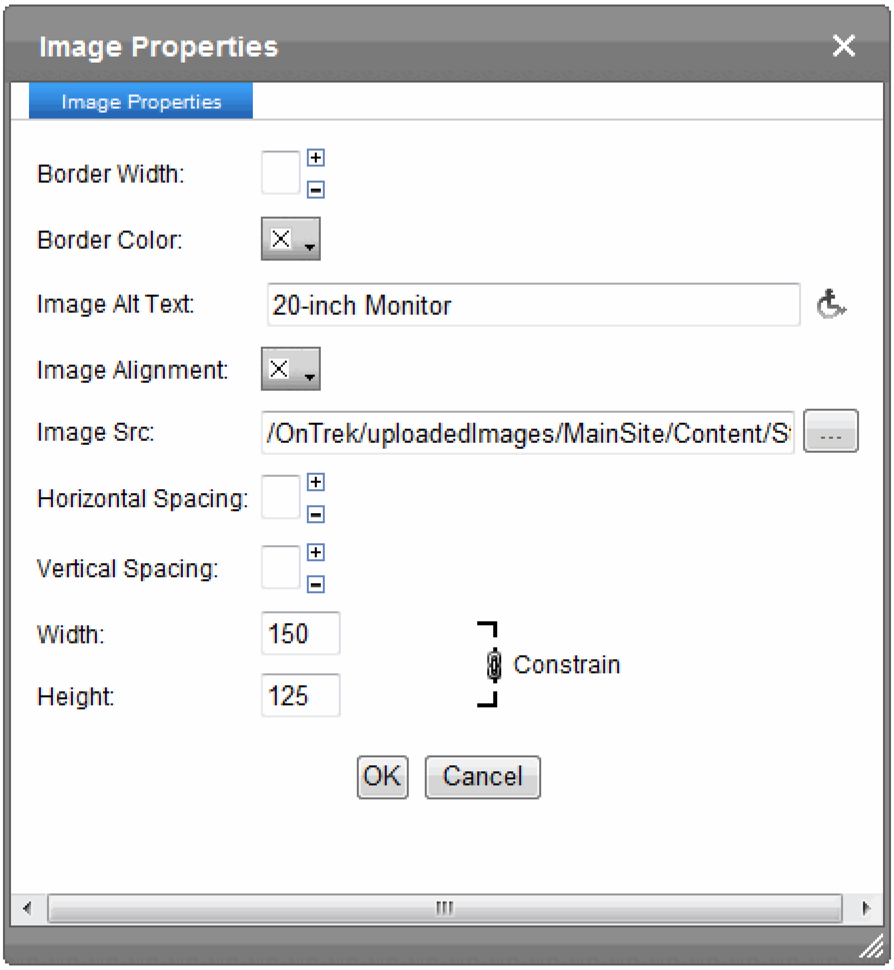


NOTE: When you save an image, a version is placed in the *`siteroot`*`/uploaded images/CMS folder` folder. The version is named *filename.nextnumber.file extension*.
For example, if a library image is named ektronlogo.png, and someone inserts it into content and saves it, a new version is created and named `ektronlogo.1.png`. If someone later saves that image in another content block (or even another section of the same content), that version is named `ektronlogo.2.png`. Also, whenever someone edits and saves the image, a new version is created and assigned the next highest number.
These edits have no effect on the original image stored in the library.

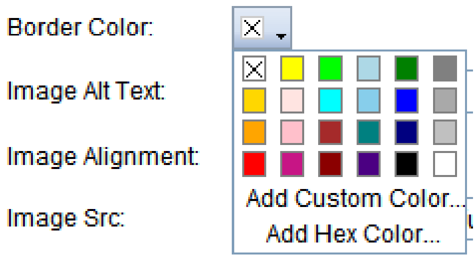
Editing Image Properties

After an image in inserted, you can adjust the image properties by right clicking on the image and choosing **Set Image Properties**.

NOTE: To edit image properties in the default editor, choose **Review > Inspect Properties**, then click the image. The Inspector shows the properties you can edit.



- **Border Width**—Set the width of the image's border in pixels. See Also: *Setting a Border on an Image* on page 1970
- **Border Color**—To set the color of the image's border, click the **X** circled below. When you do, a palette of colors appears. Click the border color from the palette.



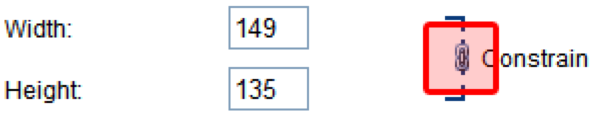
If a color has already been assigned, it appears next to this field label. To change it, click down arrow next to the color to display the color palette.

- **Image Alt Text**—The image's title is used as the default `alt` text. Change if desired. The `alt` text appears in place of the image on the Web page if the image does not display. Examples of when an image does not display include:
  - a speech browser (for example, a visually impaired person)
  - a text-only browser (for example, browsing from a mobile phone)
  - a graphical browser with images turned off

- **Image Alignment**—The alignment of the image relative to adjacent text and images. If you choose left or right alignment, the text wraps around the image. For more information, see *Aligning an Image* on page 1971
- **Image Src**—The path to the image.

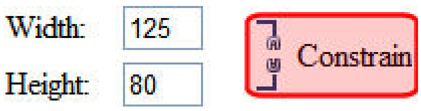
  If you want to change the image, click the ellipsis () button to open the library. From there, select a replacement image.
- **Horizontal Spacing, Vertical Spacing**—The amount of horizontal and vertical space around the picture. See Also: *Adding Space Around an Image* on page 1972
- **Width**—The width of the picture in pixels. See Also: *Working with Images* on page 1968

  NOTE: The **Width** and **Height** settings determine the area on a Web page in which the image appears. To display an image correctly, its height and width settings should match its actual size (set using the resize button). See Also: *Working with Images* on page 1968
- **Height**—The height of the picture in pixels.
- **Constrain**—The constrain feature lets you determine if an image's height and width can be adjusted independently. Typically, you want Constrain on, as shown.

  In this state, if one dimension is adjusted, the other is automatically adjusted in proportion to it. For example, if you change the height from 100 to 200, the width is also doubled.

  To turn Constrain off, click it. When you do, it looks like this.

  When Constrain is off, the adjusted picture can be disproportionate.

  NOTE: If you substantially adjust a picture's height and/or width, the picture may be distorted when users view your Web page.

Deleting an Image from an XML Smart Form and eWebEdit400

If you want to remove an image from content created from an XML Smart Form and eWebEdit400 is your editor, click **image** (), open the Image Properties dialog, and delete the image path (circled below).

NOTE: If you begin editing an image then click **cancel** (), and later try to edit that image, you may see a small, red x instead of the image. (This problem only occurs if your browser is Internet Explorer.) To remedy the problem, go to **Tools > Internet Options > Browsing History > Settings** (or **Temporary Files > Settings** in Internet Explorer 6). Set **Check for newer versions of stored pages** to **Every Visit**.

Working with Tables in eWebEdit400

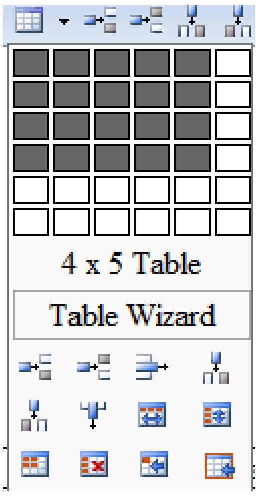
You can do the following tasks with tables. For information about tables in the default editor, see *Working with Tables* on page 219.

This section also contains the following topics.

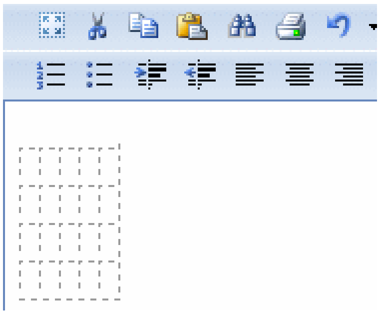
Creating aTable

Creating Up to 6 Rows by 6 Columns

1. Click **Table** ( ). A table dialog box appears.
2. Drag the cursor over rows and column to indicate the size of the table.



3. Click the mouse.

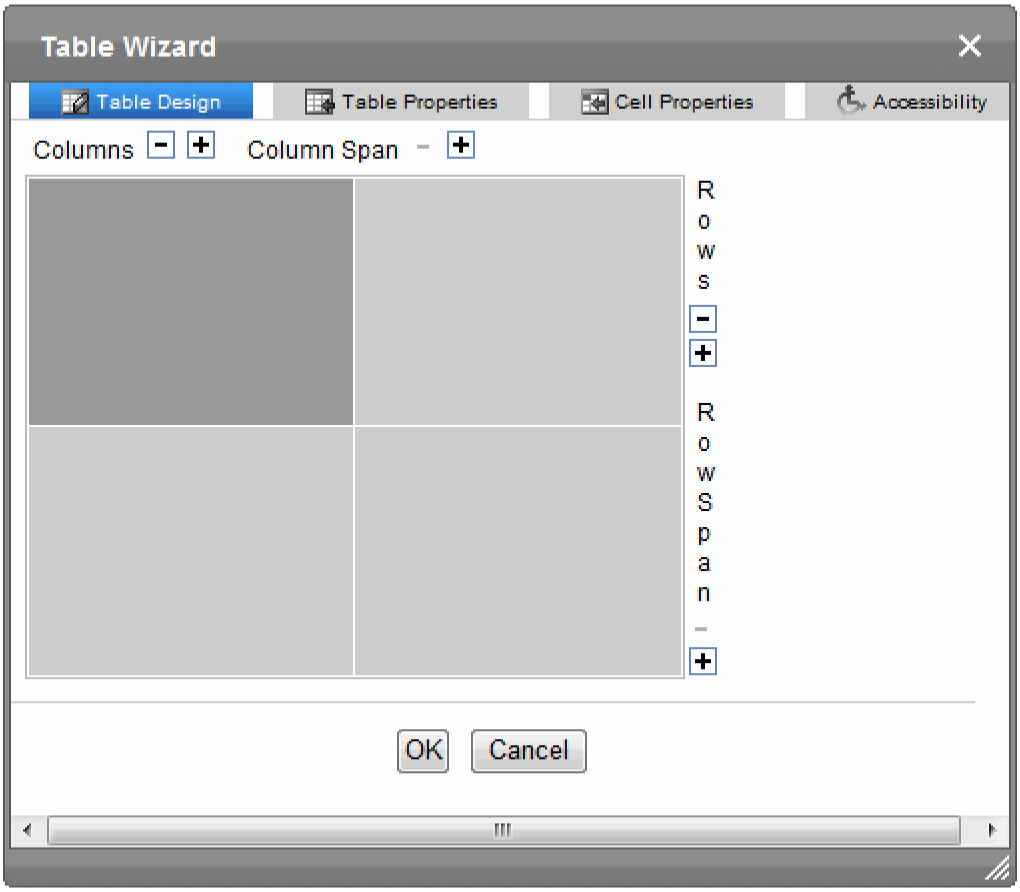


4. Enter text and images in the table cells. You can also select the table and drag its right border to the right and/or down to enlarge it for ease of use.

NOTE: You can create a table within a table by clicking Table ( ) inside a table cell. To modify an inner table, click inside a cell and use right click menu options, such as **Set Table Properties**.

Creating More than 6 Rows by 6 Columns:

1. Click **Table** (). A table dialog box appears.
2. Click **Table Wizard**. The Table Wizard dialog box appears.

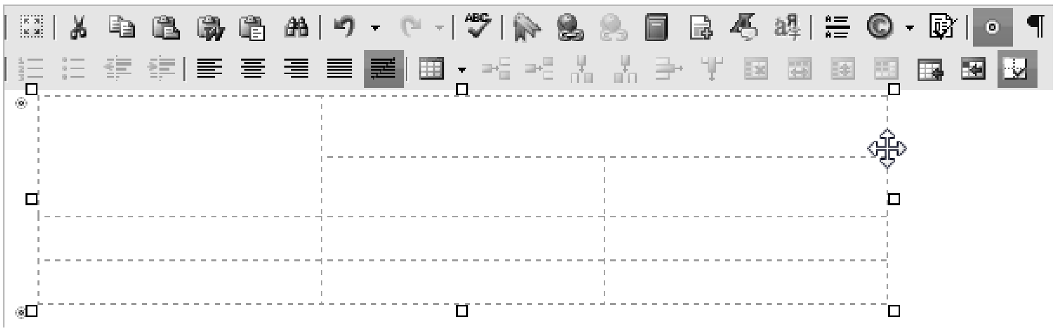


3. To change the number of columns or rows, click the plus or minus signs (**+ -**) next to **Columns** and **Rows**. The image adjusts to show the number of rows and columns.
4. Press **OK**.
5. Enter text and images into the table cells.

NOTE: You can create a table within a table by clicking Table () inside a table cell. To modify an inner table, click inside a cell and use right click menu options, such as **Set Table Properties**.

Deleting a Table

1. Move the cursor over the table until the cursor becomes a 4-headed arrow (✥).
2. Click the mouse button. The table becomes selected (small squares appear around it).



3. Press **Delete**.

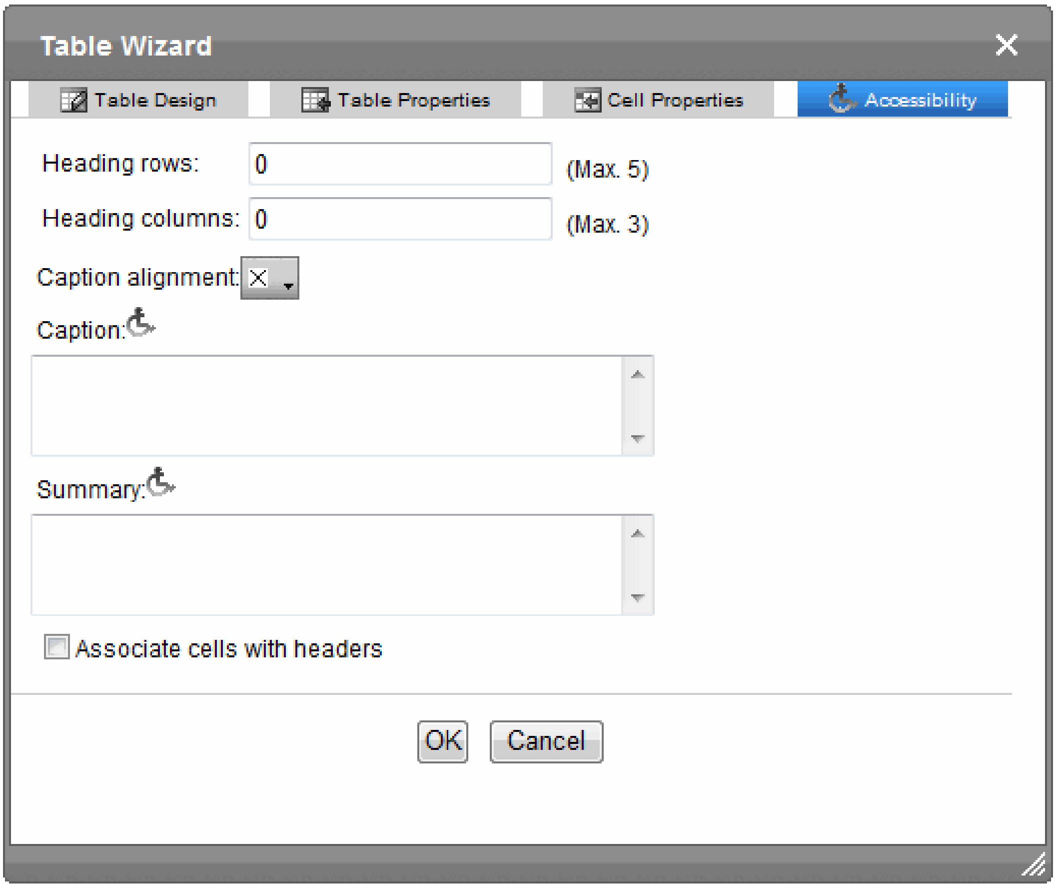
Creating a Section 508-Compliant Table

Narrative software uses the information from the Accessibility table fields (heading rows, columns, caption alignment and summary) to produce a Tooltip message for each table cell. Users with impaired vision can see those Tooltips as they hover over the cells.

To create a 508-compliant table:

1. Create a new table or edit an existing one.
2. Right click in the table and choose **Set Table Properties**. The Table Properties dialog appears.

3. Click the **Accessibility** tab.

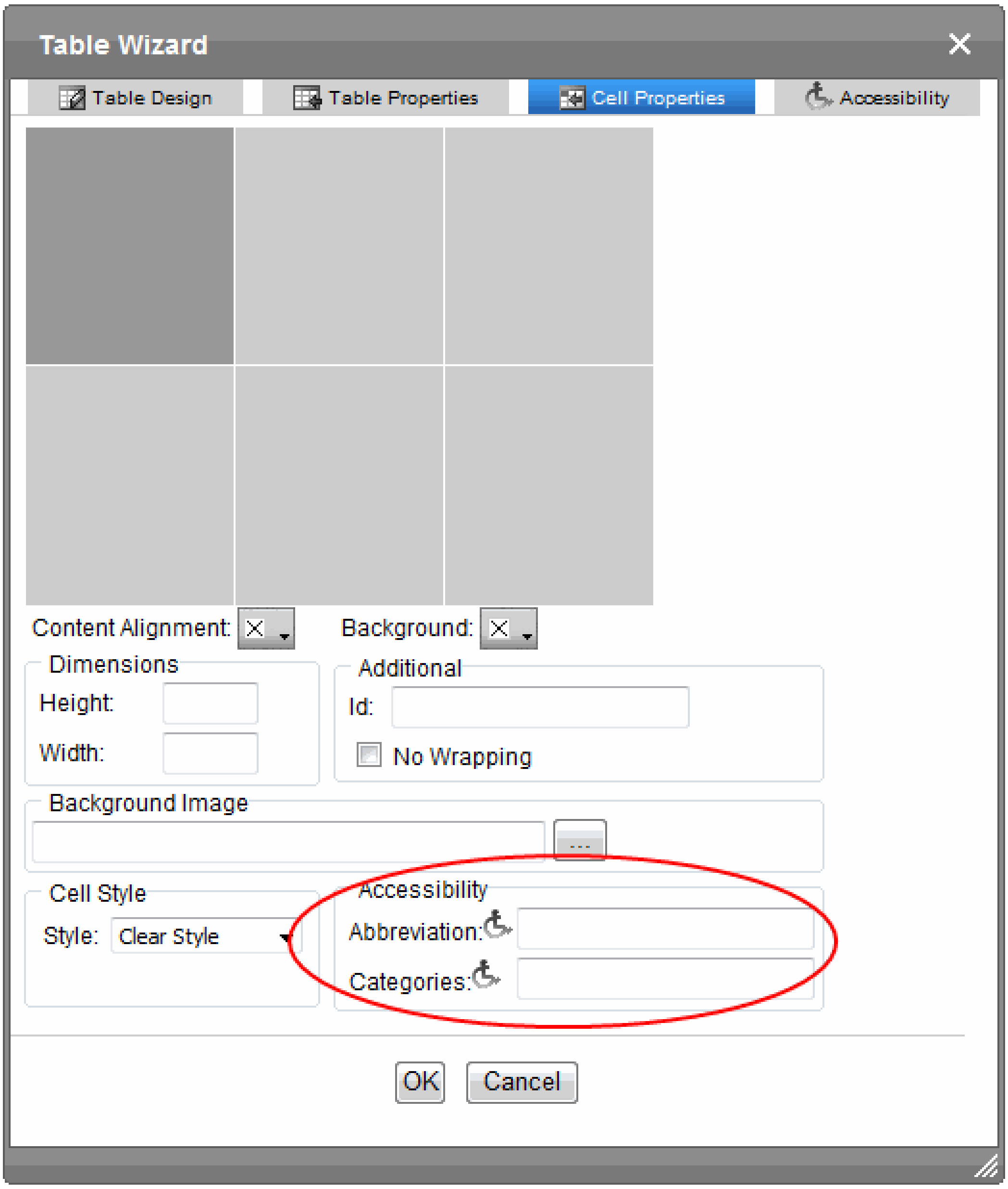


- **Heading Rows**—If you want your table to have a horizontal header, enter the number of rows that it should occupy. The number cannot exceed five. Beginning with the top, all cells in the specified number of rows are designated as table headers.
- **Heading Columns**—If you want your table to have a header, enter the number of columns that it should occupy. The number cannot exceed 3. Beginning with the left column, all cells in the specified number of columns are designated as table headers.
- **Caption Alignment**—To choose the caption's alignment, click the down arrow next to this field. Click the box that represents the alignment style you want.
- **Caption**—Enter a table caption. The caption appears above the table. The caption's alignment is set in the **Caption Alignment** field.
- **Summary**—Enter the table summary. Non-visual browsers use the summary to explain the table's contents. From HTML Techniques for Web Content Accessibility Guidelines 1.0:

  "*A summary of the relationships among cells is especially important for tables with nested headings, cells that span multiple columns or rows, or other relationships that may not be obvious from analyzing the structure of the table but that may be apparent in a visual rendering of the table. A summary may also describe how the table fits into the context of the current document. If no caption is provided, it is even more critical to provide a summary.*"

- **Associate Cells with Headers**—Check this box if you want to associate the table's data cells with the appropriate headers. See Also: H43: Using id and headers attributes to associate data cells with header cells in data tables

4. Click on the **Cell Properties** tab to set the **Abbreviation** and **Categories** fields.



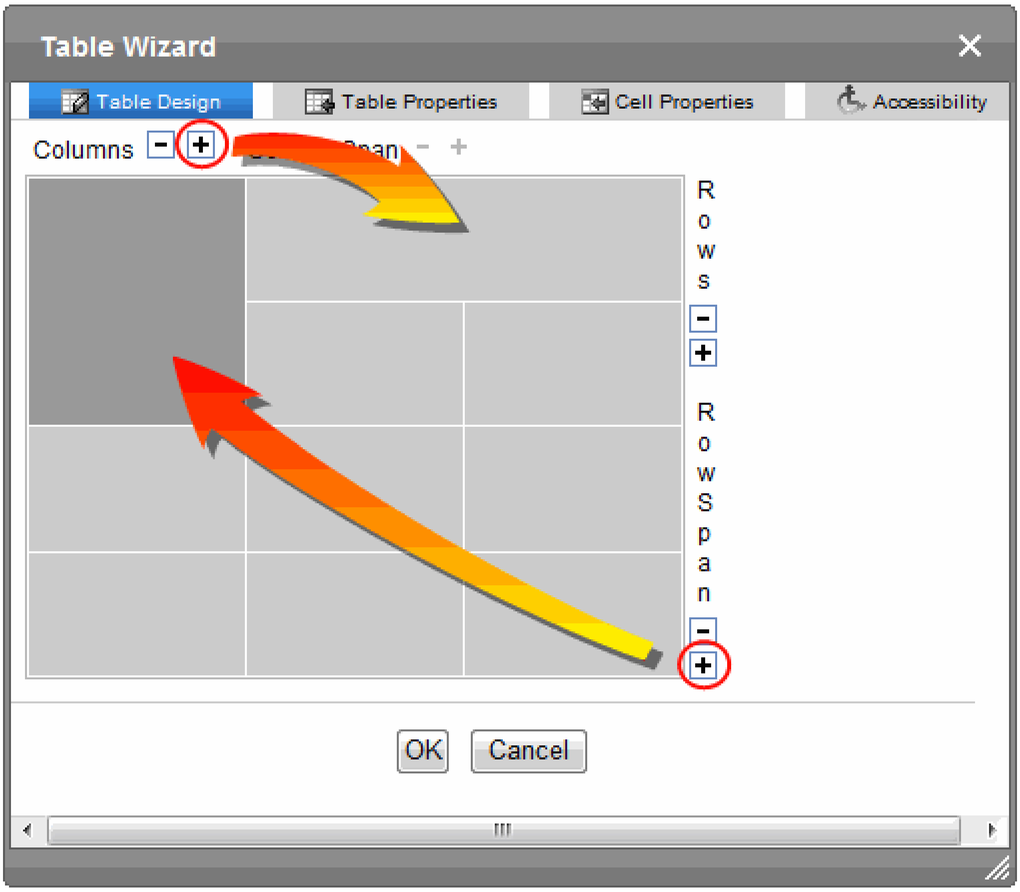
- **Abbreviation**—Sets or retrieves abbreviated text for the content in the tag. Can be used to render non-visual media, such as speech or Braille. For more information, see abbr attribute | abbr property
- **Categories**—Sets or retrieves a comma-delimited list of conceptual categories associated with that tag. Can be used to render non-visual media, such as speech or Braille. For more information, see axis attribute | axis property

5. Click **OK** to make the table Section 508-compliant.

Formatting Tables

Merging and Splitting Table Cells

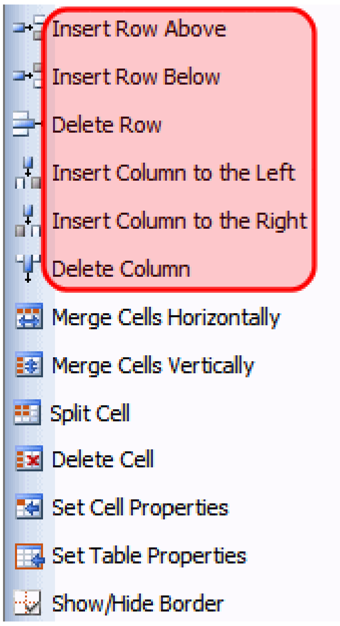
- Merge cells in the table wizard.



- Merge cells in a the editor by clicking in a cell, then right clicking and choosing **Merge Cells Horizontally** (row span) or **Merge Cells Vertically** (column span).
- Split a previously merged cell by clicking in a cell, then right clicking and choosing **Split Cell**.

Inserting and Deleting Rows and Columns

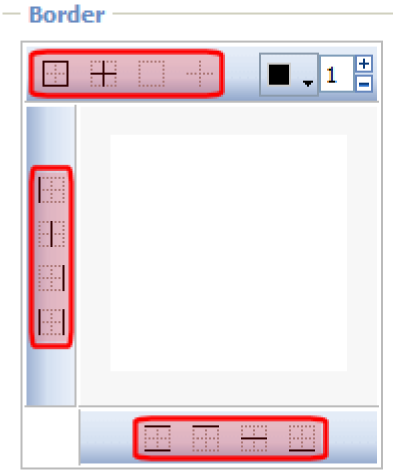
1. Place the cursor in the cell from which you want to add or delete rows or columns.
2. Right click the mouse. A menu appears.



NOTE: These options are also on the toolbar.

Setting Table Borders

1. Right click in the table and choose **Set Table Properties**.
2. Click the **Table Properties** tab.
3. Use the icons within the Border area to indicate which border lines should appear. Each icon has tooltip text that explains its function.

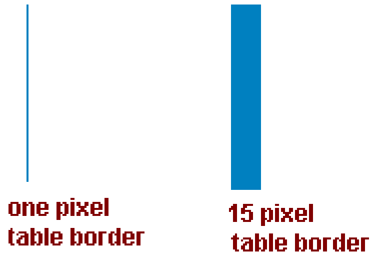


NOTE: To view the selected borders on the dialog, a border color must be assigned.

Setting the Exterior Border of a Table

1. Right click in the table and choose **Set Table Properties**.
2. Click the **Table Properties** tab.

3. Enter a number of pixels in the **Border** field.



Setting the Color of a Table Border

1. Right click the table and choose **Set Table Properties**.
2. Click the **Table Properties** tab.
3. Click the **Border Color**drop-down. A color selection box appears.
4. Click a color to apply to the table's border.

Excursion	Cost ($USD)	Number of Days
Costa Rica	$3450	14
Bermuda	$1835	7

Deleting Cells from a Table

To delete one or more cells, right click in the cell you want and choose **Delete Cell**. Cells to the right of the deleted cell shift left to occupy the vacant space.

Before

a	b cursor	c
d	e	f

After

a	c	
d	e	f

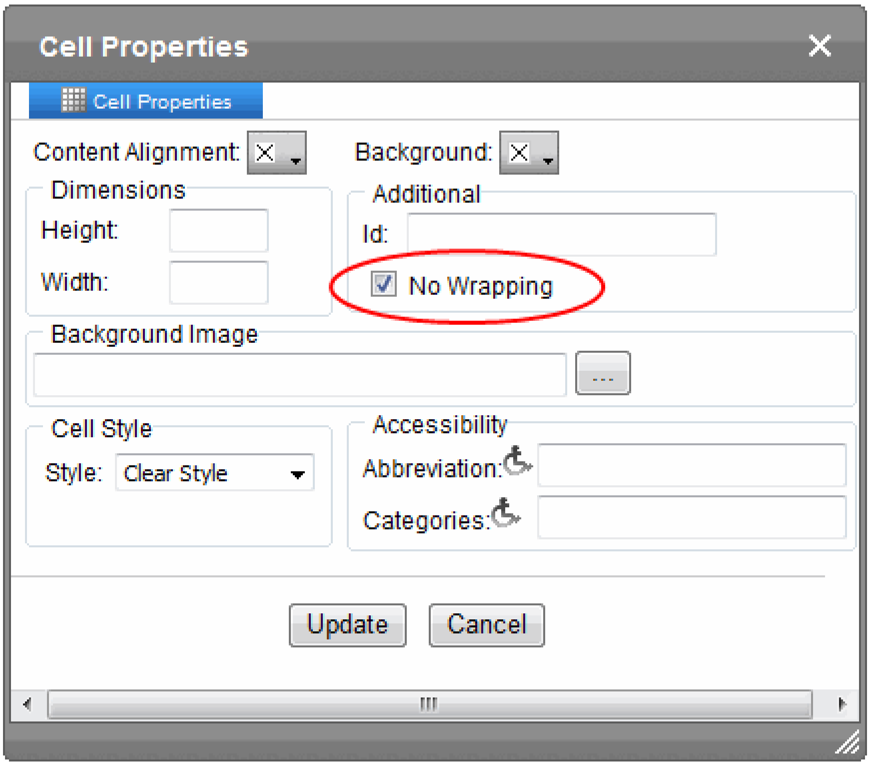
Aligning the Contents of a Cell

1. Right click the cell you want and choose **Set Cell Properties**. The Cell Properties dialog appears.
2. Click the down arrow to the right of **Content Alignment**. The alignment choices appear.

3. Click your alignment choice.
4. Click **Update**.

Setting the Word Wrap Feature

1. Right click in the cell you want and choose **Set Cell Properties**. The Cell Properties dialog box appears.
2. To turn off Word Wrap, click the **No Wrapping** checkbox.



Horizontal Alignment	Sets the horizontal position of the entire table. For example, left, center, right.
Border Color	Sets the color of the table borders unless *Use Default Color* is checked.

Horizontal Alignment	Sets the horizontal position of the entire table. For example, left, center
Border Color	Sets the color of the table borders unless *Use Default Color* is checke

3. Click **Update**.

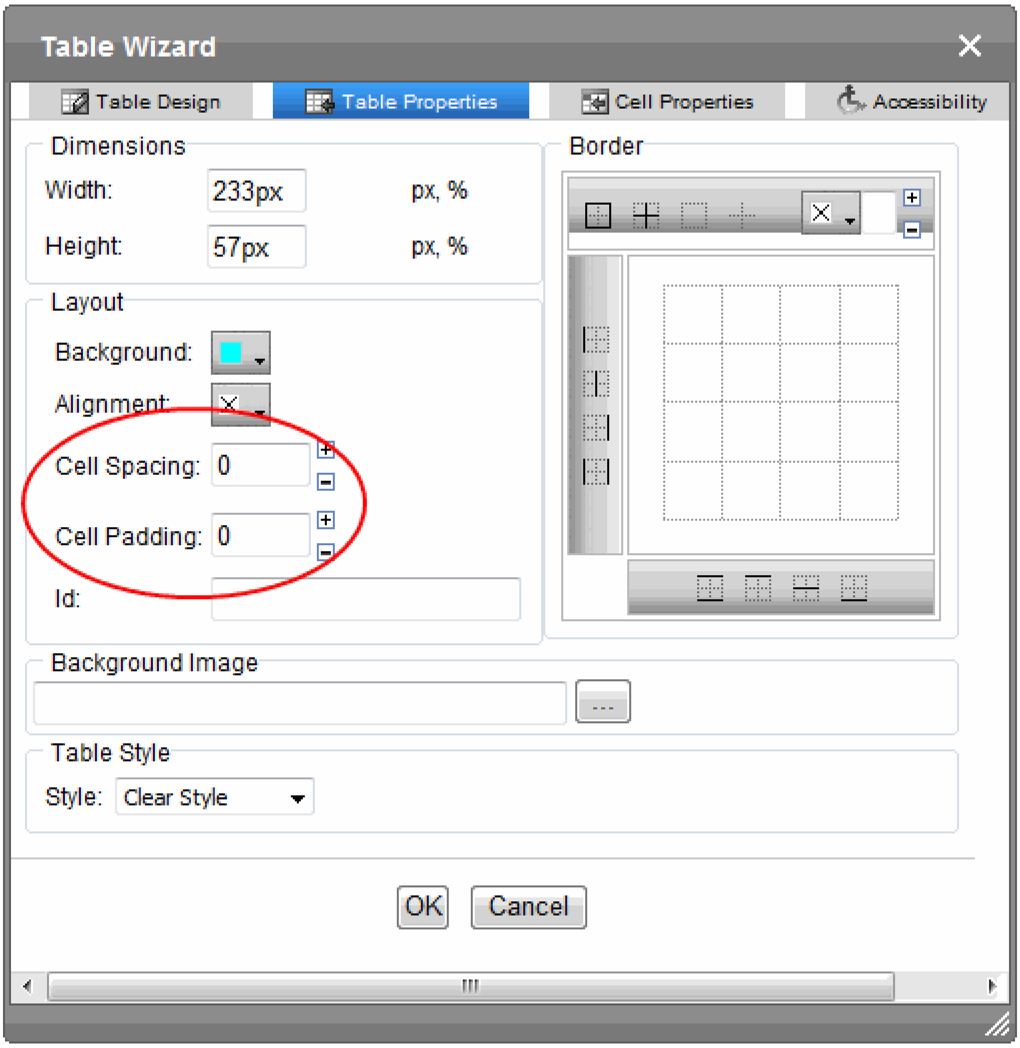
Word Wrap causes text to move down to the next line when the width of the characters on a line equals the column width. By default, all cells have the Word Wrap feature turned on.

If Word Wrap is turned off, text stays on one line until you press **Enter**.

Setting Cell Padding and Spacing

1. Right click in the cell you want and choose **Set Table Properties**. The Table Properties dialog appears.

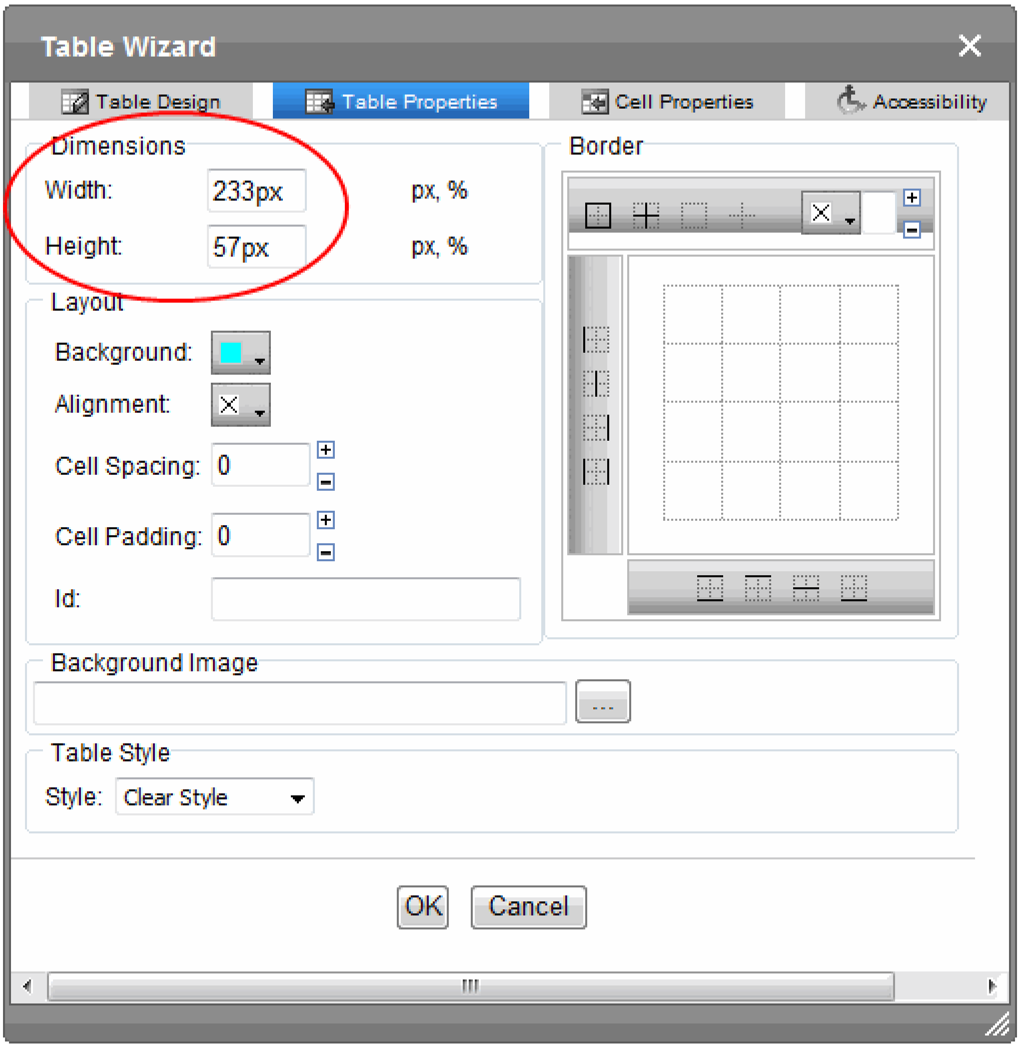
2. Click the **Table Properties** tab.
3. In the **Cell Padding** and **Cell Spacing** fields, enter the number of pixels.



4. Click **Update**.

Setting the Minimum Height and Width of a Cell

1. Right click on the cell you want and choose **Set Cell Properties**.
2. Click **Cell Properties**. The Cell Properties dialog appears.



3. Enter the cell width and height in the fields. You can enter the width in pixels or percentage.

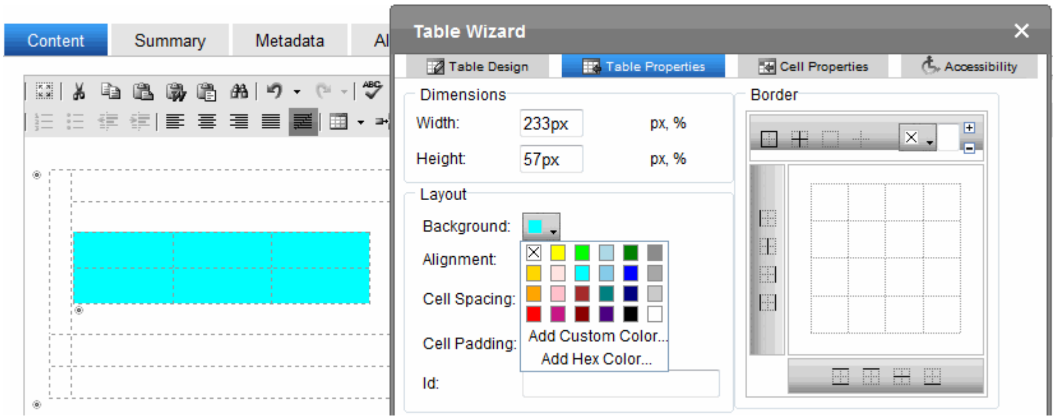
NOTE: When you set a cell width, there is no guarantee that the cell will occupy that width when displayed in a browser. This is because the cell is part of a column, and changes to other cells in the column can affect the cell whose width you set. Setting cell width only guarantees that the cell will not be *less than* the width you specify.

4. Click **Update**.

Setting a Background Color for a Table or a Cell

1. Right click in a table cell and choose **Set Table Properties**.
2. Click the **Table Properties** tab (or the **Cell Properties** tab).

3. Click the **Background** drop-down list. A selection of colors appears.

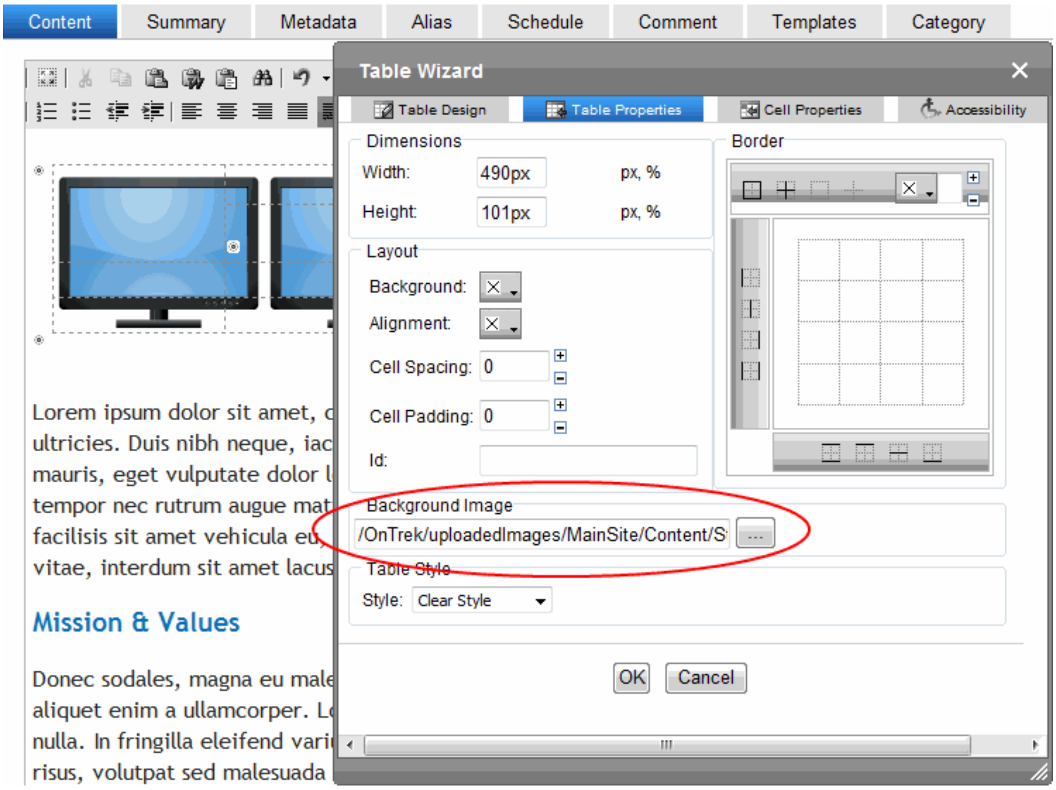


4. Click a color for the table's background. To choose no color, click the X color box.

NOTE: From the drop-down, you can add custom colors by selecting a color patch or entering a color's hex value. Follow these steps to get help on how to use the color box. The custom colors box is only available with Internet Explorer. If you are using Firefox or Google Chrome, you can enter a custom color by its hexadecimal value.

Setting a Background Image for a Table or a Cell

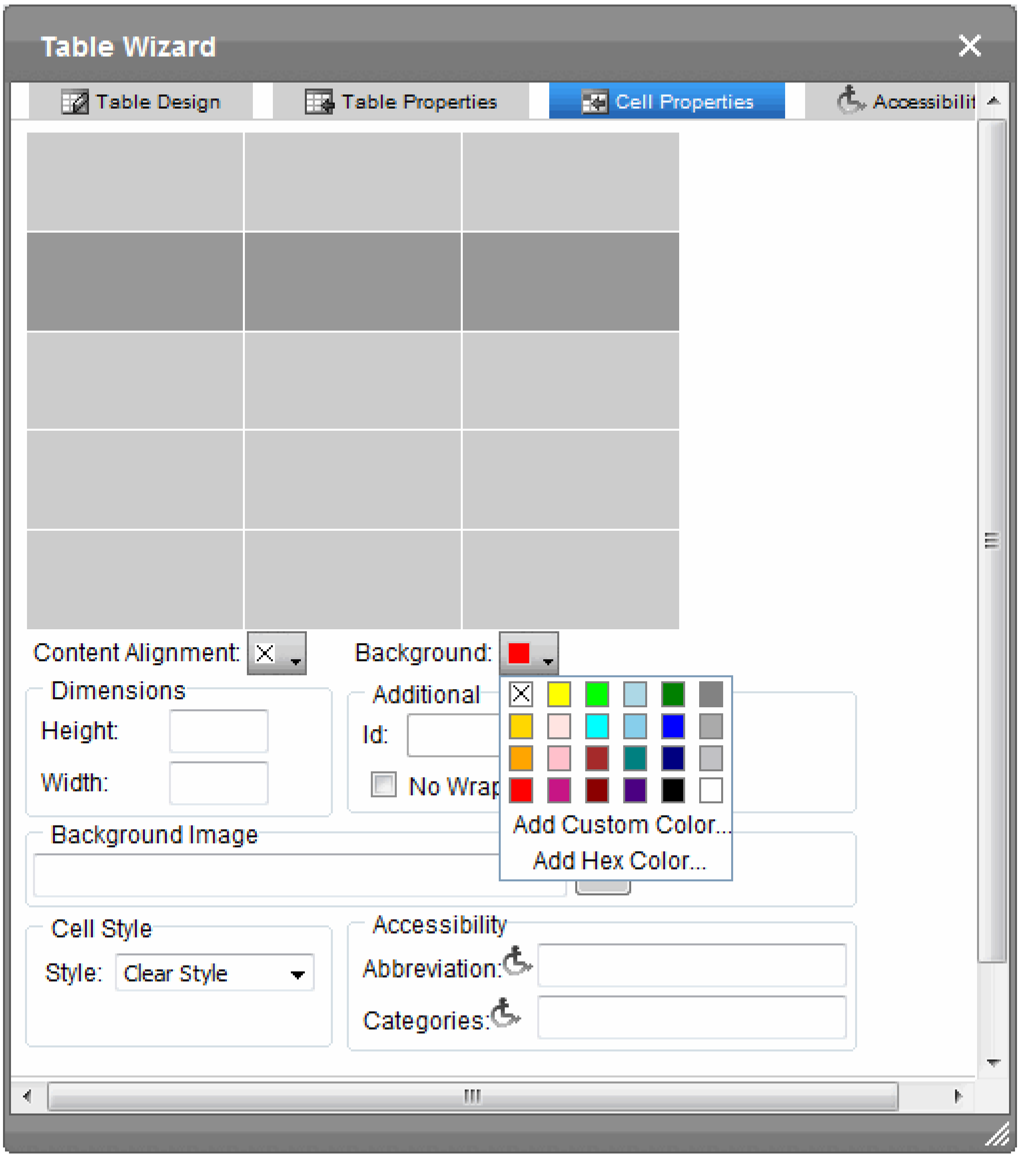
1. Place the cursor within the table.
2. Right click the mouse.
3. Select **Set Table Properties**.
4. Click the **Table Properties** tab (or the **Cell Properties** tab).
5. In the **Background Image** field, click the ellipsis button (...) to open the Library. From there, select an image for the table's background.



6. Click **Update**.

Setting a Background Color for a Table Row or Column

1. Right click on a table cell and choose **Set Table Properties**.
2. Click the **Cell Properties** tab.
3. Within the Table Wizard dialog, hold down **Ctrl** while clicking all cells in the row. In the following image, the second row from the top is selected (dark gray) and red is chosen for the background color.



4. Click a color for the table’s background.
5. Click **OK**.

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Appendix C

Getting Support

Technical Support

- via Web form: Ektron Tech Support
- via chat
- via phone or email: Support phone
- additional contact information: Contact Ektron

More Resources

- ektron.com has lots of useful information, including additional contact information and services.
- Ektron Dev Center (http://developer.ektron.com/) has resources to help you find a solution to a problem or see what you can do with Ektron. The Dev Center also has Webinars for many Ektron features. In the product forum, you can post tips or ask fellow users about using Ektron products more effectively.
- Ektron Professional Services (http://www.ektron.com/Services/Professional-Services/) is a complete services infrastructure that is customized to meet your specific needs. Ektron Implementation offers comprehensive, end-to-end architectural, development and deployment services to ensure a successful Ektron-powered website
- Ektron Training Services (http://www.ektron.com/Solutions/services/training/) ensure your Web project's success by providing the right level of training to your team at the right stage of your Web project's lifecycle.

Appendix D

Glossary

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