Ektron CMS400.NET Setup Manual

Version 5.1, Revision 3

For updated versions of this manual, please visit:
http://www.ektron.com/cms400-web-cms.aspx?id=1701#documentation

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What's New in The 5.1 Release

- Information on adding an Apple Macintosh editor license. *See Also:* "Macintosh Editor License" on page 209

Table of Contents

System Requirements

The following components are required when developing or viewing an Ektron CMS400.NET based application.

Server Requirements

Component	Requirements
Recommended hardware configuration	- Microsoft® Windows® Server 2003 - Intel® Pentium Hyper-Threaded or Intel® XeonTM Processor (with 800MHz Bus) 1 GB RAM or higher - RAID array for hard drives - MS SQL Server 2000 or MSDE
Web server operating system	Microsoft ® Windows® 2003 *recommended* Microsoft ® Windows® 2000, XP Professional Note: XP Home does not support IIS.

Component	Requirements
Web application server	- Microsoft .NET ™ Framework 1.1 (required) - Microsoft Active Server Pages - Macromedia ColdFusion MX or higher - PHP - JSP
Web server	Microsoft® Internet Information Server (IIS) 4.0 or higher
Database	- SQL™ Server 2000 *recommended* (Enterprise or Standard version) - Microsoft ® MSDE 2000

PC Client Requirements

Component	Requirements
Operating system	Any IBM-PC compatible system running Windows (suggested minimum: Pentium 166 MHz or faster with 64MB of RAM)
Browsers for viewing	All major browsers including: - Microsoft ® Internet Explorer 3.0 through 6.0 - Netscape Navigator ® Version 3.0 through 7.2 - Mozilla Firefox 1.0

Component	Requirements
Browsers for editing	• Mozilla Firefox 1.0 • Microsoft® Internet Explorer 5.0 through 6.0 • Netscape ® 7.2 Note: If using Netscape, IE 5.0 through 6.0 must be installed. Note: When using the Document Management System, you must use a browser that supports ActiveX. Important: For issues when using Microsoft Windows Server 2003 as a client, see "Using Microsoft Windows Server 2003 as a Client (Web Folders Setup)" on page 69.
Hardware	Any IBM-PC compatible system running Windows (suggested minimum requirements: Pentium 166 MHz or faster with at least 64MB of RAM)
Web development tools	Visual Studio .NET™2003

Apple Macintosh Client Requirements

Component	Requirements
Operating system	MAC OS X
Browsers for viewing	All major browsers including: • Microsoft ® Internet Explorer • Netscape Navigator ® • Mozilla Firefox 1.0

Component	Requirements
Browsers for editing	- Apple Safari (Recommended) - Mozilla Firefox 1.0 - Microsoft® Internet Explorer - Netscape ® Important: If you use any browser other than Apple Safari, a text box appears in place of the WYSIWYG Integrated Macintosh Editor.
Hardware	Apple Macintosh

Optional Software

Component	Requirements
Web development tools	Visual Studio .NET™2003, Allaire HomeSite,.Macromedia/Allaire Coldfusion Studio, Macromedia Dreamweaver, Microsoft FrontPage, NotePad

NOTE Ektron does not guarantee support of beta releases for new versions of any components listed above.

Preparing for Windows XP SP2

Microsoft Windows XP Service Pack 2 includes significant changes affecting **Ektron CMS400.NET** security, especially in regard to the installation of the eWebEditPro ActiveX control. The most significant change affects the eWebEditPro+XML editor in data design or data entry modes. To work around this change, configure **Ektron CMS400.NET** to allow pop-up windows for automatic download and installation.

More Information on Windows XP Service Pack 2

For more information on Windows XP Service Pack 2, visit the Microsoft site at www.microsoft.com/technet/prodtechnol/winxppro/maintain/winxpsp2.mspx. One article on that site of particular interest to developers is "Changes to Functionality in Microsoft Windows XP Service Pack 2". Part 5 of that article, "Enhanced Browsing Security," details changes to Internet Explorer.

Disabling the Popup Blocker

Pop-up windows are used to initially install the editor in Internet Explorer (IE) and by other features, such as selecting an image and setting Section 508 Data Table properties. By default, Windows XP SP 2 blocks pop-up windows. For Ektron products to operate effectively, allow pop-up windows for web sites that host Ektron products.

Enabling Popup Windows

When a Web page in IE running on Windows XP Service Pack 2 (XPSP2) attempts to open a pop-up, the Information Bar appears at the top of the page. The message on the Information Bar is **Pop-up blocked. To see this pop-up or additional options click here...**

To allow proper operation of the editor, enable pop-up windows for the Web site. To do so, click the Information Bar and select **Always Allow Pop-ups from This Site**.
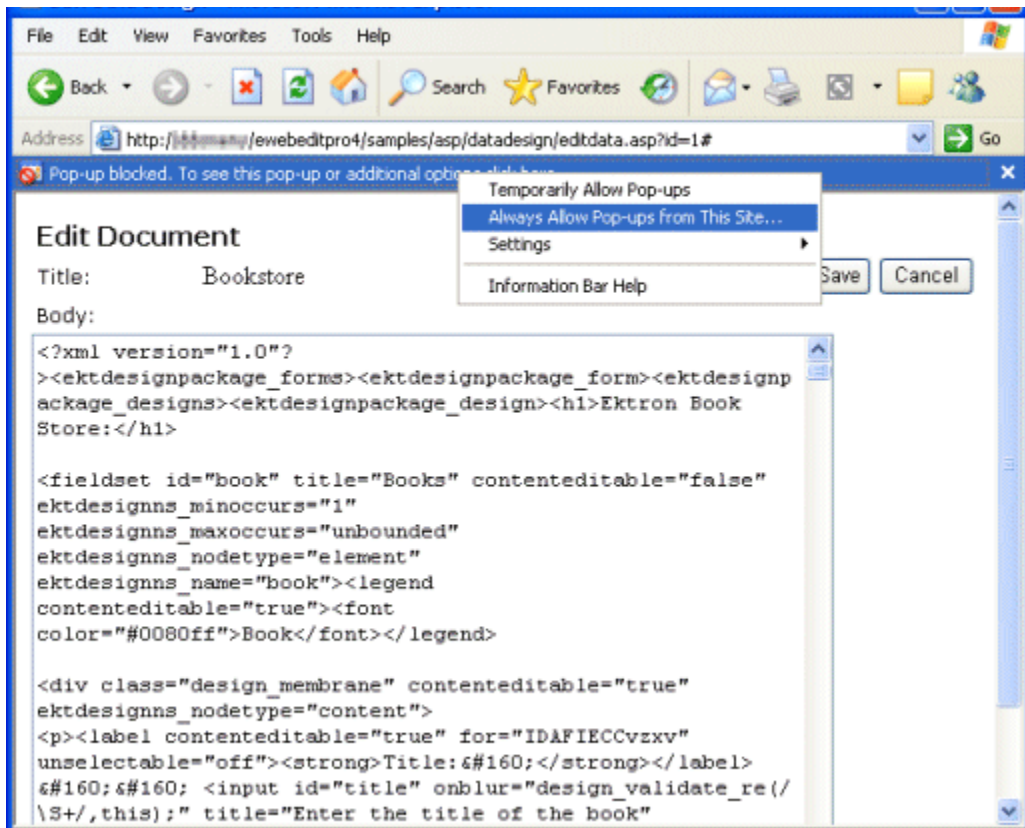
For easier administration, add the Web site as a Trusted site. By default, this change disables the pop-up blocker.

Download and Installation with Windows XP SP2

The installation of the Ektron editor is only required the first time it is used and for every upgrade. The automatic installation supported in IE uses a pop-up to walk the user through the process. Therefore, the first step is to enable pop-up windows (see "Enabling Popup Windows" on page 4). An additional step to install the editor requires an extra mouse click by the user.

If you are an administrator, you may want to configure client computers to avoid these extra steps. One simple way is to add the Web site that hosts Ektron products as a Trusted Site.

When installing the editor, the user should follow these steps.

1. When the Automatic Download and Installation page appears, click the **Install** button.
2. When the next window appears, the Information Bar displays this message:

   To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer. Click here for options...
3. In place of the editor, the following message appears.

   Click here to install the following ActiveX control: 'eWebEditPro' from 'Ektron Inc'...
4. Click on either message and select **Install ActiveX Control..**.

Upgrading Ektron CMS400.NET

The upgrade procedure copies **Ektron CMS400.NET**'s latest features to your Web server. Version 5.0 is installed to its own folder, `CMS400v50`. This means it can coexist on the same machine with previous versions -- the template directories are independent.

The Base Folder

The upgrade installs a base folder (`C:\\Program Files\Ektron\CMS400v50`), which provides a template for setting up **Ektron CMS400.NET** Web sites. The Site Setup utility uses the files in the base folder to create and upgrade **Ektron CMS400.NET** sites.

The base folder contains the following subfolders.

Subfolder	Includes
Bin	Required .NET assemblies for **Ektron CMS400.NET**
cms400example	A sample site that demonstrates the use of **Ektron CMS400.NET**
CMS400Min	A minimal set of files site that is best for new integrations
DMS400v11	Contains folders and files for the Document Management Functionality
Documentation	Documentation. The site setup procedure copies this directory to the `CMS400Workarea` directory when setting up a site.
SiteSetup	The sitesetup.exe utility and the needed database setup scripts

Subfolder	Includes
Utilities	Utilities for • database upgrade • database application strings update • email encrypt password tool • a setup Sharepoint Portal • Asset Management Registration tool
Workarea	Scripts used for the Workarea

NOTE The contents of this folder are later copied to a Web site folder, typically in the Web server's web root. The sample provides a good way to learn how to work with an **Ektron CMS400.NET** site.
An alternative is the minimum database. Use this when you understand how to create a site and do not want to place extra, sample files on your server.

The Upgrade Procedure

Upgrading involves the following tasks.

1. Install the new files to the new directories. *See Also:* ”Running the Installation and Setup Program” on page 42

2. Copy these folders to the site directory.

    • bin

    • workarea

    • cms400example

    • Documentation

3. Update the web.config file with new settings.

4. Update your databases using the upgrade and language update utilities. *See Also:* ”Performing the Upgrade” on page 10

5. Create a new DSN for each database. See ”Creating a New DSN” on page 35

6. If needed, modify the site to use the server controls. *See Also:* **Ektron CMS400.NET** Developer Manual section "Ektron CMS400.Net Server Controls" > "Making the Server Controls Available" > "Updating the Server Controls".

This chapter walks you through the upgrade process.

Performing the Upgrade

There are three types of upgrades available for **Ektron CMS400.NET**. You can upgrade:

*   CMS400 only

*   Document Management Add-on only

*   CMS400 + Document Management

When completing a CMS400 + Document Management upgrade, the upgrade first completes the CMS400 upgrade, then does the Document Management upgrade.

The following steps explain how to perform an Ektron CMS400.NET + Document Management Add-on upgrade.

If you perform a CMS400 only upgrade, follow these steps until you get to the Document Management upgrade section. When the Upgrade Complete screen appears click finish.

If you are performing a Document Management only upgrade complete steps 1-3 and skip down to .

---

1. Follow the steps of the installation procedure, . These steps instruct you to install **Ektron CMS400.NET** and restart your server. Return to step two when the Site Setup Selection appears.

---

2. The Setup wizard appears. Choose **Upgrade Site/ Reinstall**.

   (If this screen does not appear, launch it by following this path from the Windows Start menu:

   Start > Programs > Ektron > CMS400 > Utilities > Site Setup)

CMS400 Site Setup - InstallShield Wizard

Setup Type
Select the setup type that best suits your needs.

Thank you for installing CMS400. The following wizard will allow you to setup, upgrade, or reinstall a CMS400 site.

- ◯ CMS400 + Document Management Add-on
- ◯ CMS400 Setup
- ◯ Document Management Add-on
- ◯ CMS400 Database Setup
- ◉ Upgrade / Reinstall

InstallShield

[< _B_ack] [_N_ext >] [Cancel]
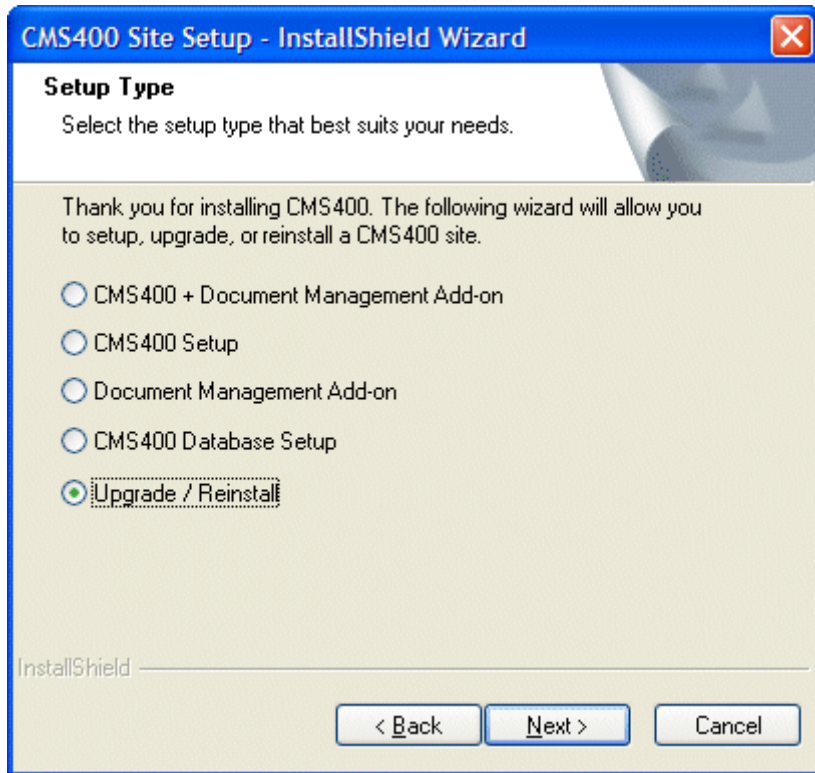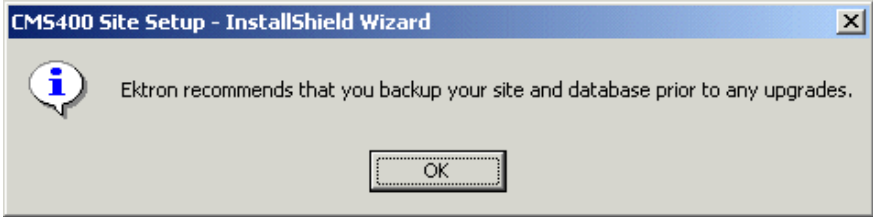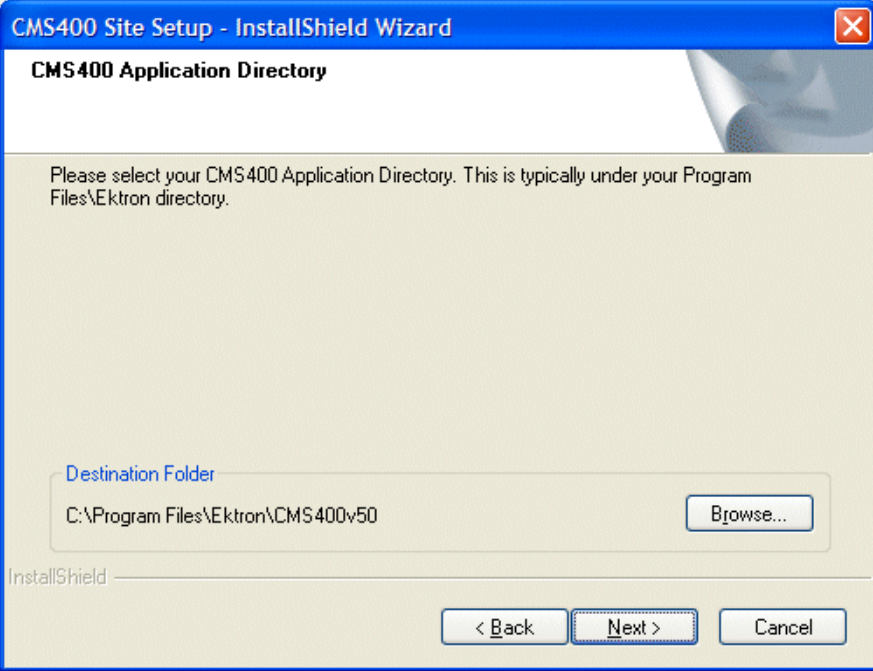
3. The Setup Type screen appears. Choose an option to upgrade.

- **CMS400** - Choose this option if you are upgrading a CMS400 only installation.

- **Document Management Add-on** - Choose this option if you are upgrading a standalone Document Management server. Skip ahead to "Document Management Add-on Upgrade" on page 14

- **CMS400 + Document Management Add-on** - Choose this option if you are upgrading a server with both the CMS400 and Document Management Add-on installed on it.

Note: If you have **Ektron CMS400.NET** and the Document Management Add-on installed on different servers, the upgrade needs to be run twice, once on each server.

CMS400 Site Setup - InstallShield Wizard

Setup Type

Select the setup type that best suits your needs.

Please select the option you would like to upgrade.

○ CMS400

○ Document Management Add-on

○ CMS400 + Document Management Add-on

InstallShield

[< Back] [Next >] [Cancel]

4. A message recommends backing up your Web site before proceeding. **Important!** Ektron strongly urges you to do this. If you back up and then encounter any problems during installation, you can return your site to its state before the installation. After backing up your site, click **OK** to proceed.	**CMS400 Site Setup - InstallShield Wizard** (i) Ektron recommends that you backup your site and database prior to any upgrades. OK
5. Choose an application directory. If you are not sure, use the default (`C:\\Program Files\ Ektron\CMS400v50`). This directory stores **Ektron CMS400.NET** components and utilities.	**CMS400 Site Setup - InstallShield Wizard** **CMS400 Application Directory** Please select your CMS400 Application Directory. This is typically under your Program Files\Ektron directory. Destination Folder C:\Program Files\Ektron\CMS400v50 Browse... InstallShield < Back Next > Cancel

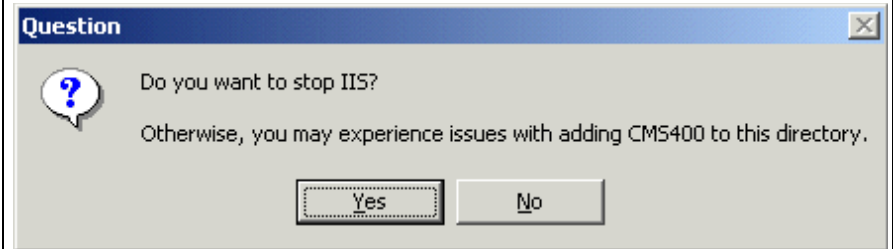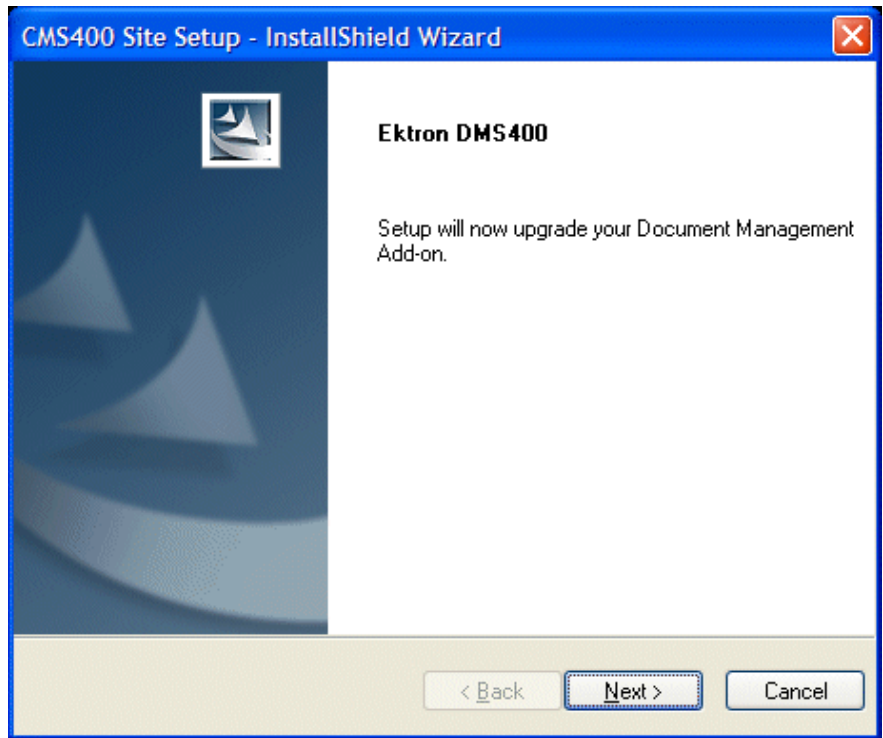|	
6. Choose a site path directory. If you are not sure, use the default (webroot/ CMS400Example). The site directory maintains Web site templates, the CMS400 Workarea directory, etc. Note that the upgrade only updates the web.config file, **Ektron CMS400.NET** assembly files, **Ektron CMS400.NET** script files, and Web Service components. It does not update your templates nor other files not mentioned above.	**CMS400 Site Setup - InstallShield Wizard** ✕ **Site Path Directory** Please select the directory where your CMS400 site is located. This upgrade will only update the web.config, CMS400.Net assemblies, Workarea, and the WebService components. It will not update your templates or any other files. ─ Destination Folder ─ c:\inetpub\wwwroot\CMS400Example Browse... InstallShield < Back Next > Cancel
7. You are prompted to stop IIS. Ektron recommends doing so.	**Question** ✕ ❓ Do you want to stop IIS? Otherwise, you may experience issues with adding CMS400 to this directory. Yes No
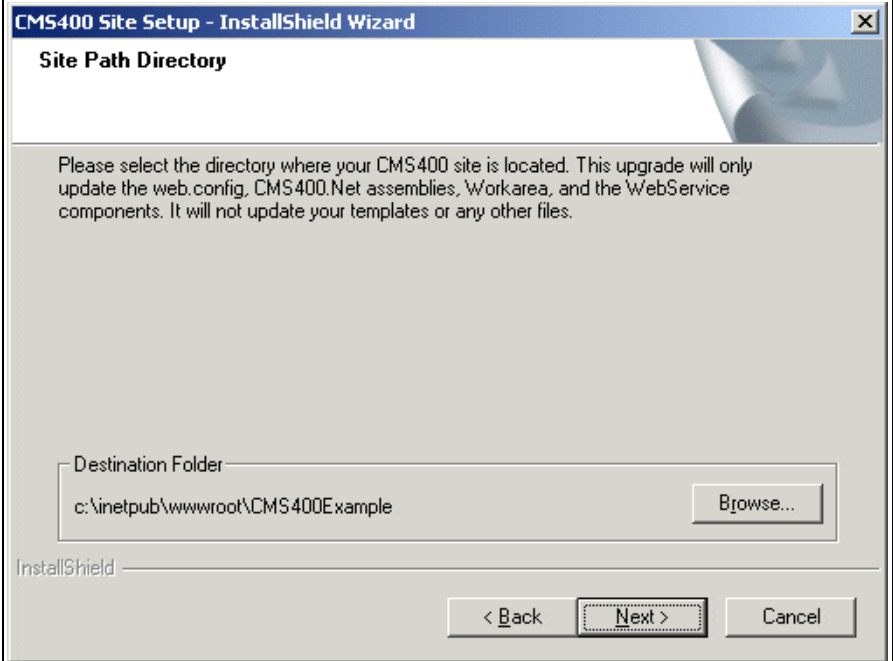
8. You are notified that files are moving to the sample site directory.

9. Your web.config file is updated with information needed to run **Ektron CMS400.NET**.

Only the section of the file between the <appsettings> tags and the section within <http modules> tags are affected. If other applications use the web.config file, the upgrade does not affect their sections.
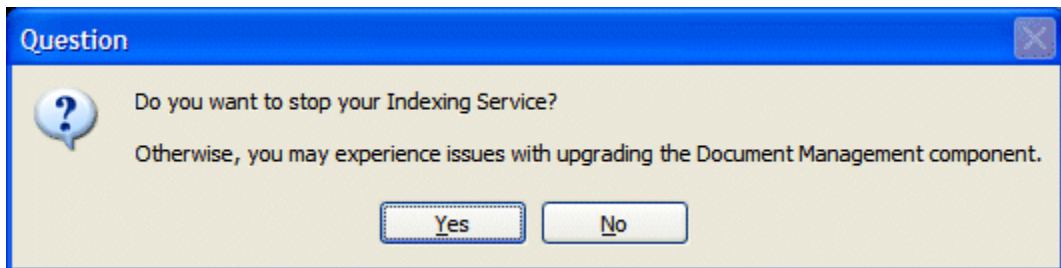
Note: In the web.config file, the default setting for EnableMultilingual is off. Also, the DefaultContentLanguage is English (1033).

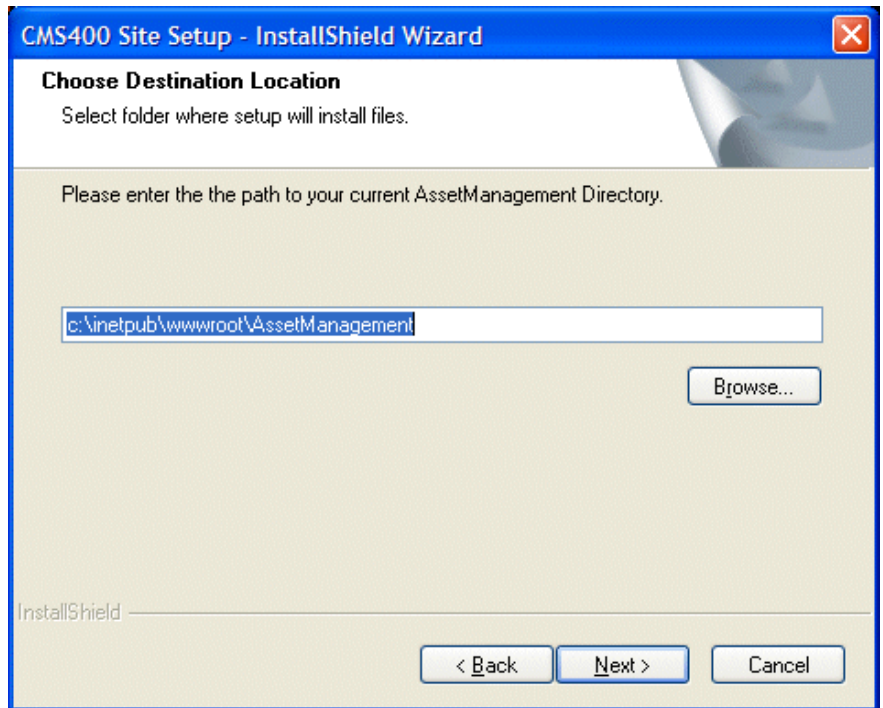## Document Management Add-on Upgrade

10. The Documentation Add-on setup screen appears. Click **Next**.	**CMS400 Site Setup - InstallShield Wizard** **Ektron DMS400** Setup will now upgrade your Document Management Add-on. < Back Next > Cancel

11. You are prompted to stop the Indexing Service. Ektron recommends doing so.

Question

? Do you want to stop your Indexing Service?

Otherwise, you may experience issues with upgrading the Document Management component.

Yes   No

12. The Choose Destination Location screen appears. Enter the path of your current AssetManagement directory.

CMS400 Site Setup - InstallShield Wizard

Choose Destination Location
Select folder where setup will install files.

Please enter the the path to your current AssetManagement Directory.

c:\inetpub\wwwroot\AssetManagement

Browse...

InstallShield

< Back   Next >   Cancel

13. A dialog box appears warning you that the `c:\inetpub\wwwroot\AssetManagement\` folder will still exist on your system. Ektron recommends removing this folder and its contents when the upgrade is complete. When upgrading, the AssetManagement folder is copied and to your site root folder.

Important: Do not remove this folder until the upgrade has successfully completed.

CMS400 Site Setup - InstallShield Wizard

⚠ WARNING: Directory: .c:\inetpub\wwwroot\AssetManagement\ still exists on your system though it is not being used. You may want to move or remove this directory.
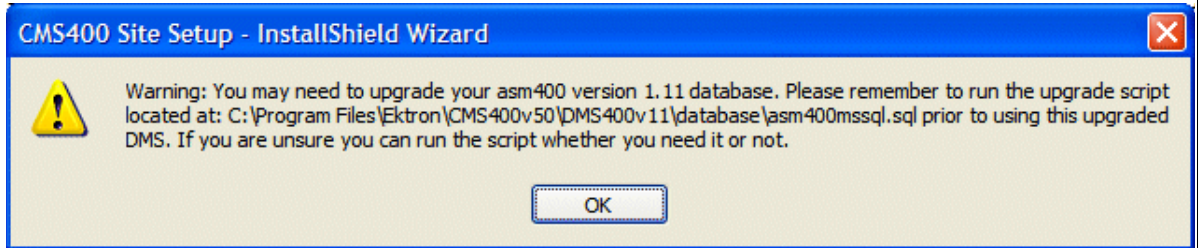
OK
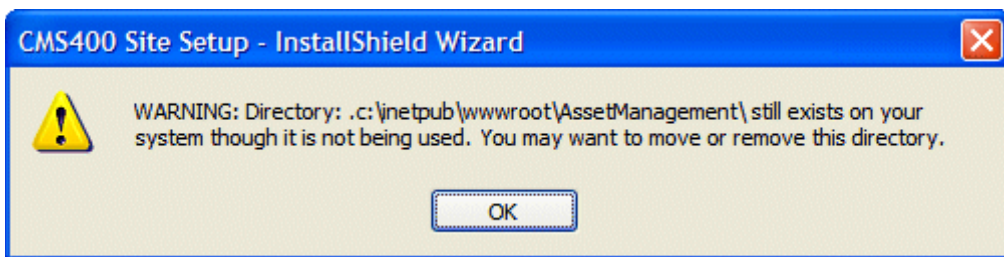
14. The Choose Destination Location screen appears. Enter the folder where the Document Management Functionality will be installed. If you unsure, leave the default. If the CMS400 and Document Management Add-on are on the same server, the location should be the same as your CMS400 site.
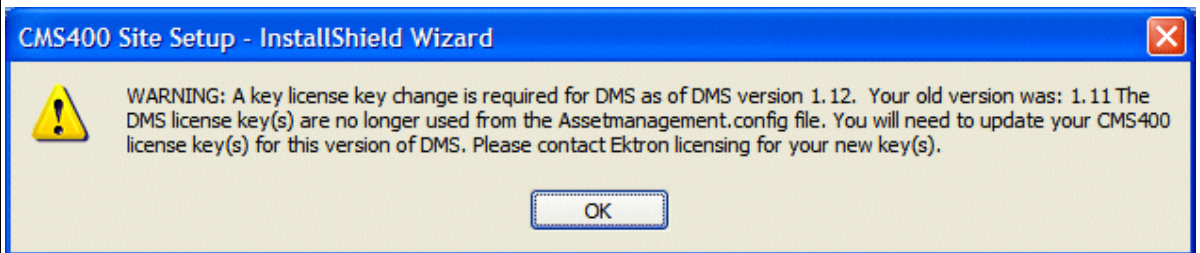

15. A question box appears. If your Document Management database is before version 1.11, click **Yes**. If your version is 1.11 or newer, click **No**.

Important: If you have not already backed up your assets database, do so before clicking Yes.

16. If you clicked Yes to upgrade your database, continue to the next step. If you clicked No, a warning box appears. This box reminds you to run the update script if your assets database version is before version 1.11. If you are unsure whether you should run the upgrade script or not, run the upgrade script. Click **OK**.

CMS400 Site Setup - InstallShield Wizard

⚠️ Warning: You may need to upgrade your asm400 version 1.11 database. Please remember to run the upgrade script located at: C:\Program Files\Ektron\CMS400v50\DMS400v11\database\asm400mssql.sql prior to using this upgraded DMS. If you are unsure you can run the script whether you need it or not.

[OK]

17. The License Key warning box appears. The license keys contained in the assetmanagement.config file are not used with the new version of the Document Management. A New CMS400 license key that contains the DMS modifier is needed. You can obtain a new license by contacting Ektron Licensing at license@ektron.com. For information on updating the license key in the workarea, see the **Administrator Manual** section **"Introduction to Ektron CMS400.NET"** > **"Modifying the Application Setup"** > **"Updating Setup Information"**.

CMS400 Site Setup - InstallShield Wizard

⚠️ WARNING: A key license key change is required for DMS as of DMS version 1.12. Your old version was: 1.11 The DMS license key(s) are no longer used from the Assetmanagement.config file. You will need to update your CMS400 license key(s) for this version of DMS. Please contact Ektron licensing for your new key(s).

[OK]

18. The Site Setup Completion Screen appears. Click **Finish**.

What Happens Next?

After upgrading your site and rebuilding the solution, you are ready to use **Ektron CMS400.NET**.

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.

Upgrading Your Database

If the database upgrade was unsuccessful during installation, or you chose to do it outside of the install, you need to manually upgrade your database. Use the Database Upgrade utility supplied with the installation program to do so.

Prerequisites

Before you can upgrade your database, be sure the following conditions are met:

- Ektron CMS400.NET is installed on your server. See "Installing Ektron CMS400.NET" on page 40 or "Performing the Upgrade" on page 10 for more information.
- A DSN exists on your server that points to the old database. If one does not, see "Creating a New DSN" on page 35.

With these two conditions met, you can upgrade your database.

Performing the Database Upgrade

WARNING! Ektron recommends backing up your database before performing an upgrade. For information on backing up a database, see "Backing Up Databases" on page 21.

To perform the database upgrade:

---

1. Click the Windows Start button then follow this path: **Programs** > **Ektron** > **CMS400** > **Utilities** > **Database Upgrade**. (If this path does not work, click the dbupgrade.exe file, located under the C:\Program Files\Ektron\CMS400v50\Utilities folder.)

---

2. The Ektron CMS400.NET Database Upgrade utility opens.

3. From the **Product** dropdown list, select **CMS400**. When you do, the database type (**MS SQL**) appears in the **Type** field.

4. Select the DSN for the database from the drop down list.

5. Specify the username and password that are needed to access the DSN, if required.

Ektron CMS DB Upgrade Utility

NOTE: You should back-up your database prior to running this utility.

Product: [   ]

Database Information

[   ]

DSN: [   ]

User: [   ]

Pwd: [   ]

Type: [   ]

Language: [English (U.S.) - 1033]

Note: Language type is for the type of language being used in your CMS content for your entire site

[Update]   [Close]

Version: 4.7.5

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6. Select the **Language** of your content blocks. If your content blocks are in several languages, select the language of the majority of them.

   After upgrading your database, all content blocks are assigned the language that you select. If some should not be in that language, find those content blocks and change their language. For more information, see the **Ektron CMS400.NET** Administrator manual section **Special Features** > **Multi-Language Support** > **Working with non-English Content** > **Resolving Conversion Issues**.

Warning!
If you select a language other than English, you must also open the webroot\CMS400Example\web.config file. Then, change the ek_DefaultContentLanguage variable to the language to which you assigned the content via the **Language** field above. In web.config, you must enter the new language's locale ID value. A list of supported languages and their locale id values is in "Appendix A: List of Supported Languages," in the Ektron CMS400.NET Administrator manual.

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7. Click the **Update** button to execute the database upgrade utility.

8. After the database is upgraded, you are prompted to update the database with new messages. Click **Yes** to continue, or **No** to update the strings at a later time. For information about updating the strings later, see "Updating Application Messages" on page 29.	
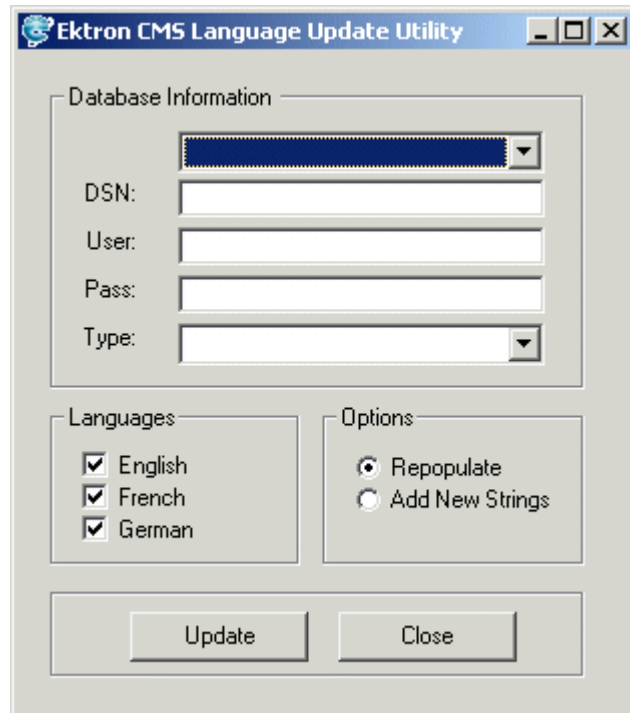
9. A screen indicates that the upgrade is complete. Click the Finish button to end the upgrade.

10. Rebuild the site solution in Visual Studio.NET.

Backing Up Databases

To protect information contained within the database, it is recommended that you back it up before performing a database upgrade. This section describes how to backup and restore Microsoft SQL and MSDE2000 databases. The steps to perform each are in the following sections:

- "Backing Up a Microsoft SQL Database" on page 22.

- "Restoring a Microsoft SQL Database" on page 25.

- "Backing Up an MSDE2000 Database" on page 28.

- "Restore an MSDE2000 Database" on page 28.

Backing Up a Microsoft SQL Database

The following is an example of the steps for creating a backup of a Microsoft SQL database.

1. Open Microsoft SQL Server Enterprise Manager.
2. Click on **Microsoft SQL Servers > SQL Server Group**.
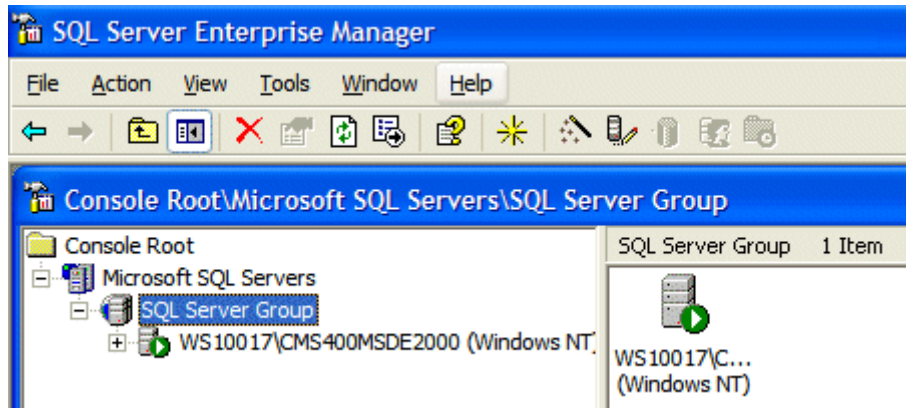
3. Click on the server where the database is located.
4. Click on **Databases**.
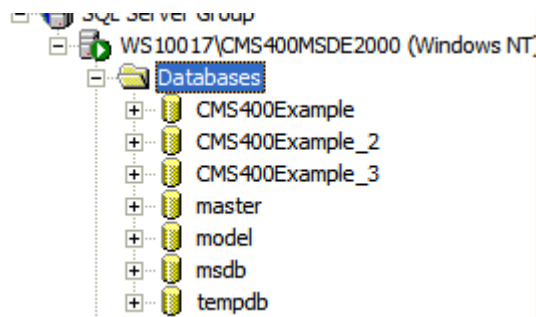
5. Choose the database to back up.

6. Right click on **Database** and click **All Tasks > Backup Database**.
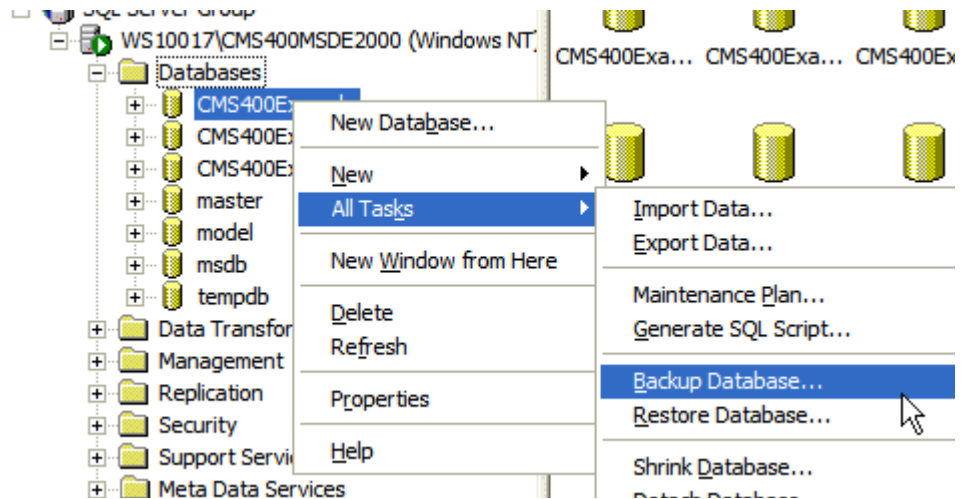

7. Add a location to which to back up the file.
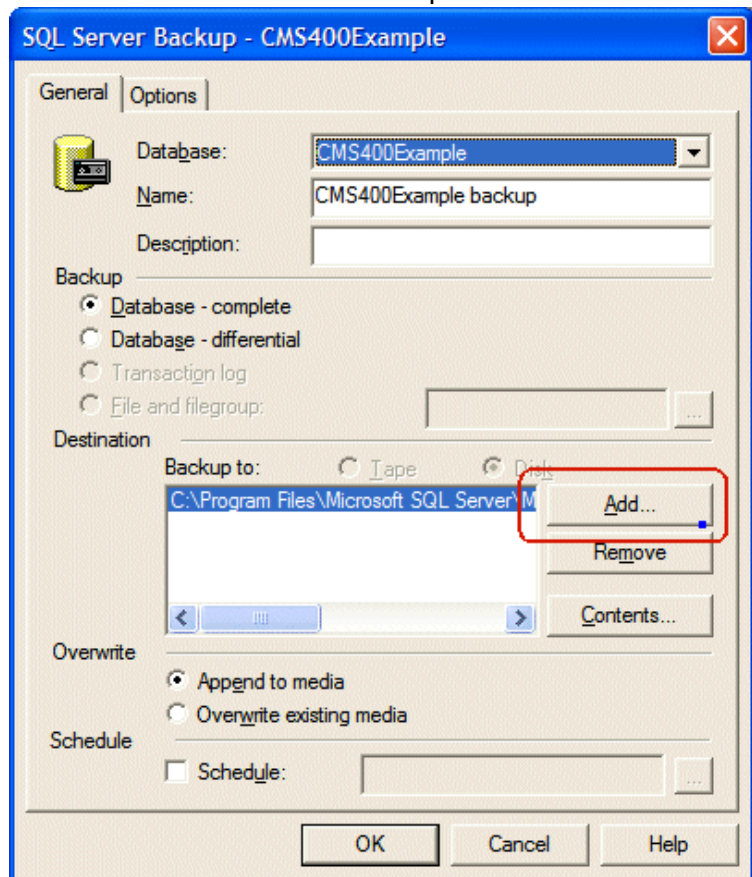
8. Set any options.
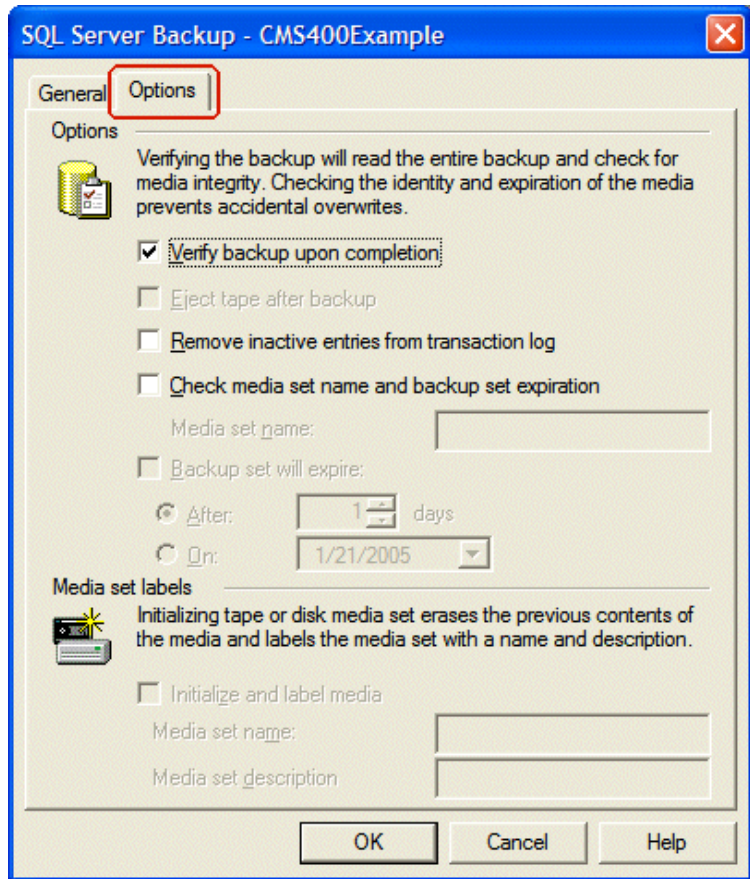
9. Click **OK**.

If the Backup is successful, this window appears.
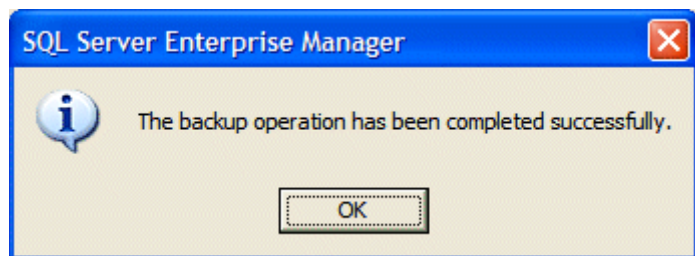
Restoring a Microsoft SQL Database

The following is an example of the steps for restoring a backup copy of a Microsoft SQL Database.

1. Open Microsoft SQL Server Enterprise Manager.
2. Click on **Microsoft SQL Servers > SQL Server Group**.
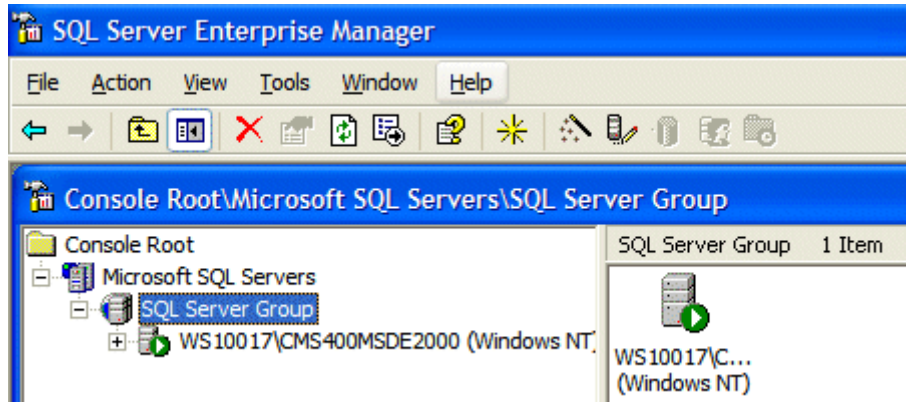
3. Click the server to which you want to restore the database.
4. Right click **Databases > All Tasks > Restore Databases**.
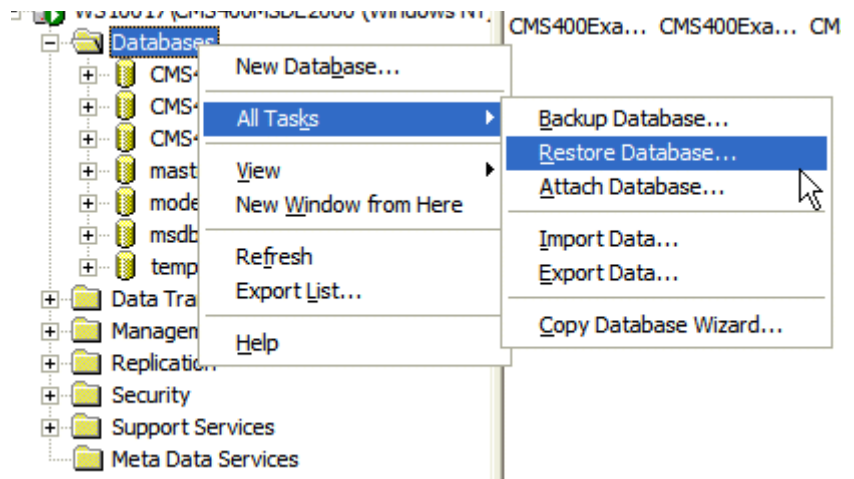
5. In the **Restore as database** field, type the name you want the database to be restored as.
6. Choose the **Database** radio button.

7. In **Parameters**, choose a backup to restore.
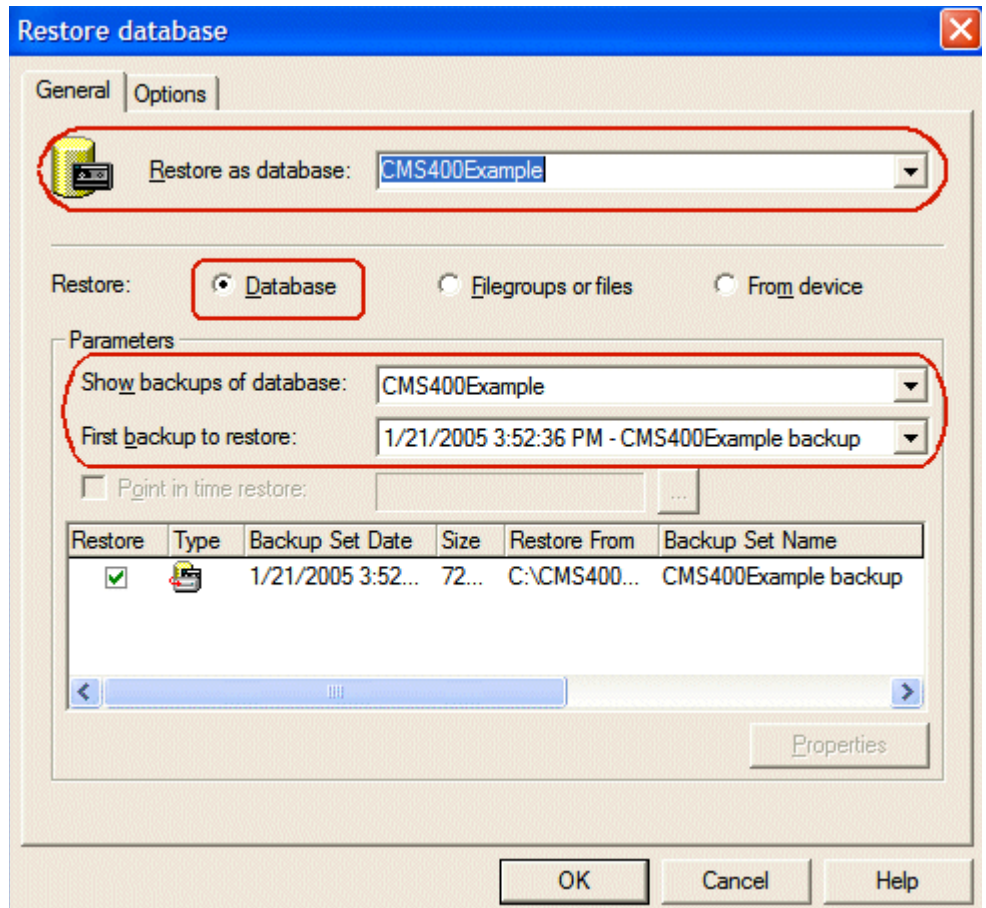
8. Set any options.
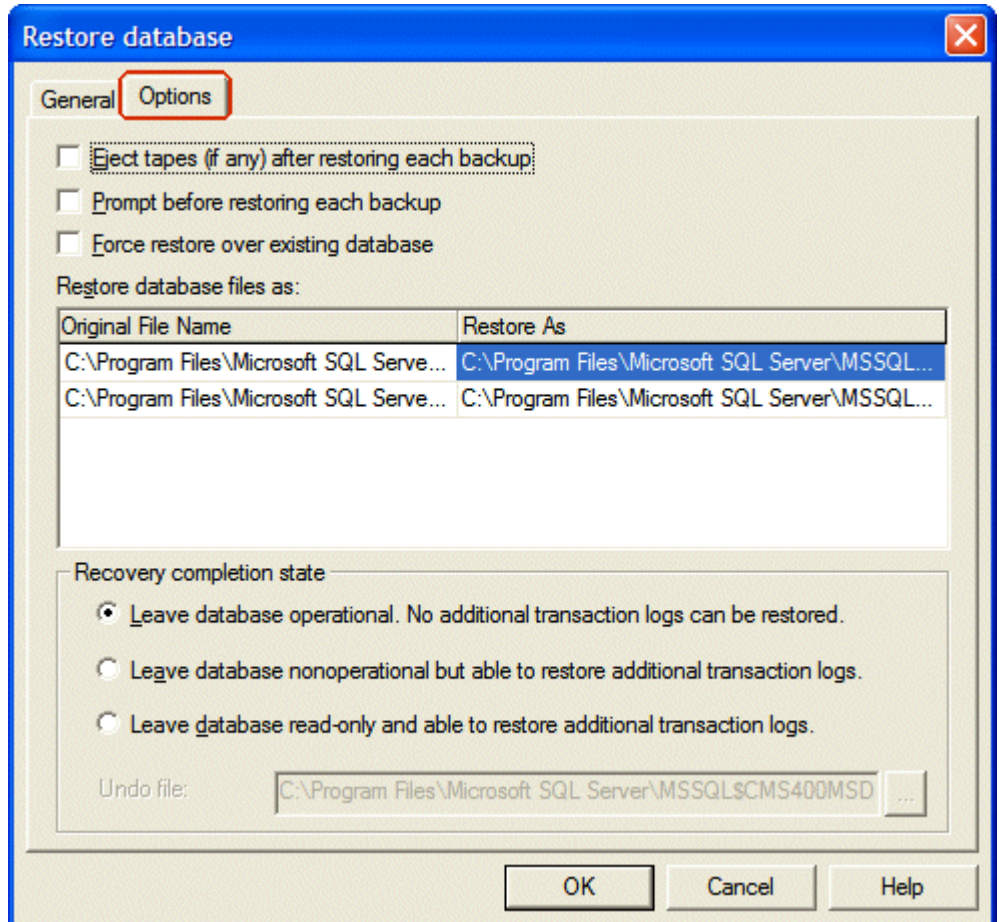
9. Click **OK**.

If the restore is successful, this window appears.
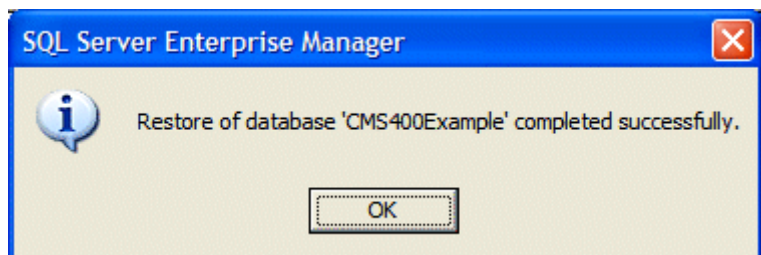
Backing Up an MSDE2000 Database

Below are examples of syntax to backup your database and create a log of your backup. You may need to modify them or add switches based on the configuration of your database. To find a list of switches and their definitions, type **osql -?** at the prompt.

To backup an MSDE2000 database, follow these steps.

1. Open a command window.
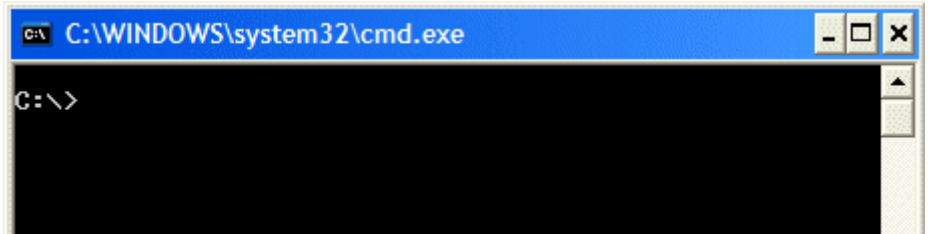
2. Add the following line after the prompt.

```
osql -d CMS400Example -E -n -Q "BACKUP DATABASE CMS400Example TO DISK = 'c:\CMS400Example.bak'"
```

3. Press <Enter>.

4. To make a log of the backup, add the following line after the prompt.

```
osql -d CMS400Example -E -n -Q "BACKUP LOG CMS400Example TO DISK = 'c:\CMS400Example _log.bak'"
```

5. Press <Enter>.

Restore an MSDE2000 Database

Below is an example of syntax to restore your database. You may need to modify it or add switches based on the configuration of your database. To find a list of switches and their definitions, type **osql -?** at the prompt.

To restore an MSDE2000 database, follow these steps.

1. Open a command window.
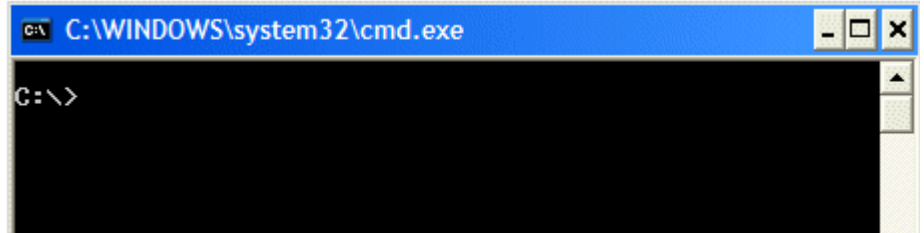
2. Add the following line after the prompt.

```
osql -d master -E -n -Q "RESTORE DATABASE CMS400Example FROM DISK = 'c:\CMS400Example.bak'"
```

3. Press <Enter>.

Updating Application Messages

Ektron CMS400.NET provides language support for French and German. If you are upgrading from a previous version and are using your old database, the translated strings are not included. Because of this, the installation includes a utility that lets you populate your old database with the translated strings.

Prerequisites

Before using the language upgrade utility, you must upgrade your version of Ektron CMS400.NET. For information on this, see "Performing the Upgrade" on page 10. During the upgrade, if you opt to keep your previous database, proceed with this section.
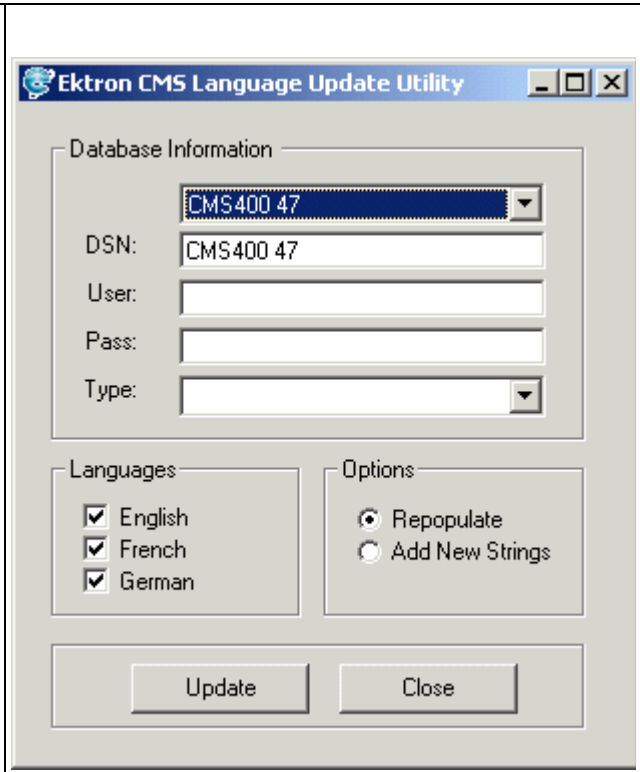
Using the Language Update Utility

To use the language update utility, follow these steps.

1. Go to **Start > Programs > Ektron > CMS400 > Utilities > Application Strings Update**.

2. The Language Update Utility opens.
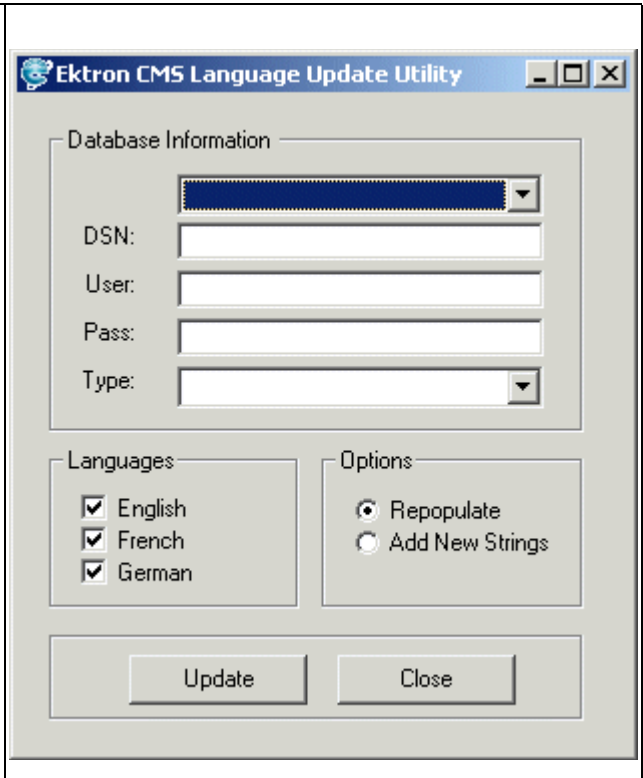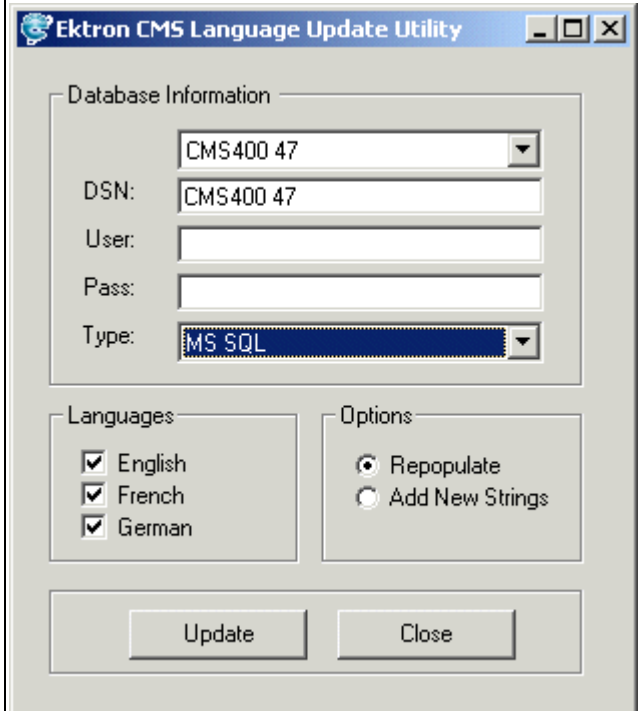
Ektron CMS Language Update Utility

Database Information

[▼]

DSN: [ ]

User: [ ]

Pass: [ ]

Type: [▼]

Languages
☑ English
☑ French
☑ German

Options
◉ Repopulate
○ Add New Strings

[Update] [Close]

3. Select the DSN for the database from the drop down list.	**Ektron CMS Language Update Utility** _ □ X Database Information CMS400 47 ▼ DSN: CMS400 47 User: Pass: Type: ▼ Languages ☑ English ☑ French ☑ German Options ◉ Repopulate ○ Add New Strings Update Close
4. Enter a username and password with permissions to the DSN if required.	
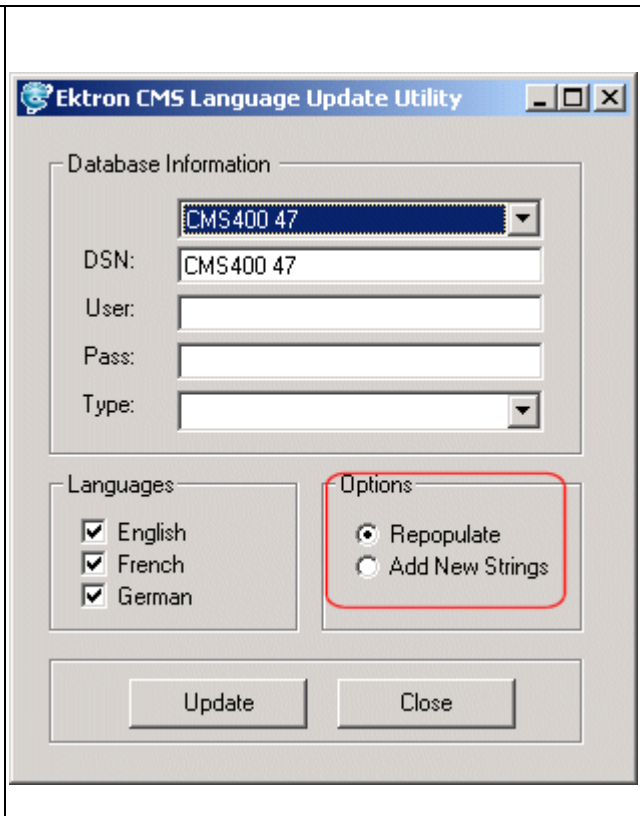
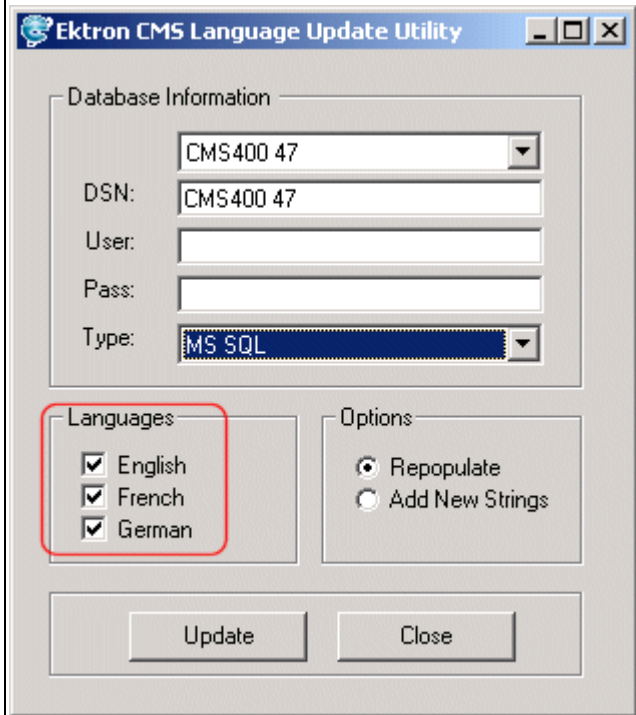5. Select the type of database you are using. It will be updated with the language strings.

6. Select the action you want to perform.

- **Repopulate** - deletes all strings and repopulates the database

- **Add New Strings** - adds only new strings in the current release of Ektron CMS400.NET. (Recommended if you changed existing strings)

|	
7. Select the languages that you would like to be updated/added to the database.	
8. Click the **Update** button.	
9. When the language update is complete, the following screen appears.	
10. Click **OK** to close the window.	
11. Click **Close** on the Languages Update Utility window.	
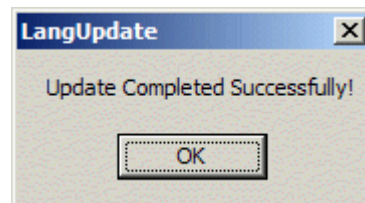
Creating a New DSN

If a DSN was not automatically created during installation/upgrade, follow this procedure to access the ODBC Manager and point the DSN to the new database.

1. Access the ODBC Manager from the Control Panel.
2. The ODBC Data Source Administrator dialog is displayed.
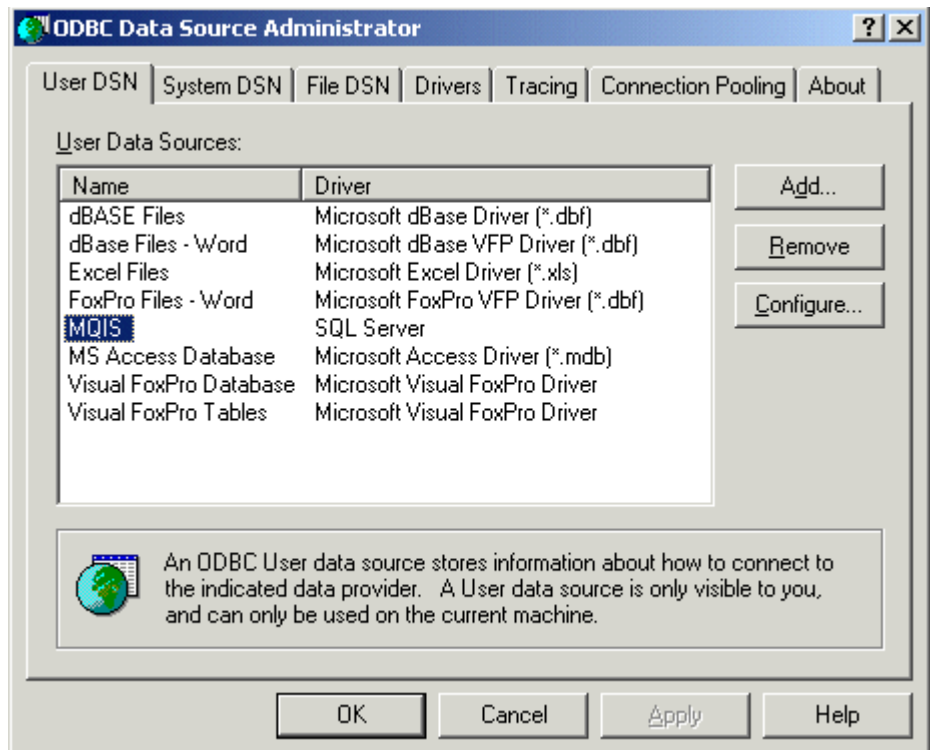
3. Click the **System DSN** tab.
4. A list of system data sources appears.
5. Click **Add**.
6. The Create New Data Source window appears.
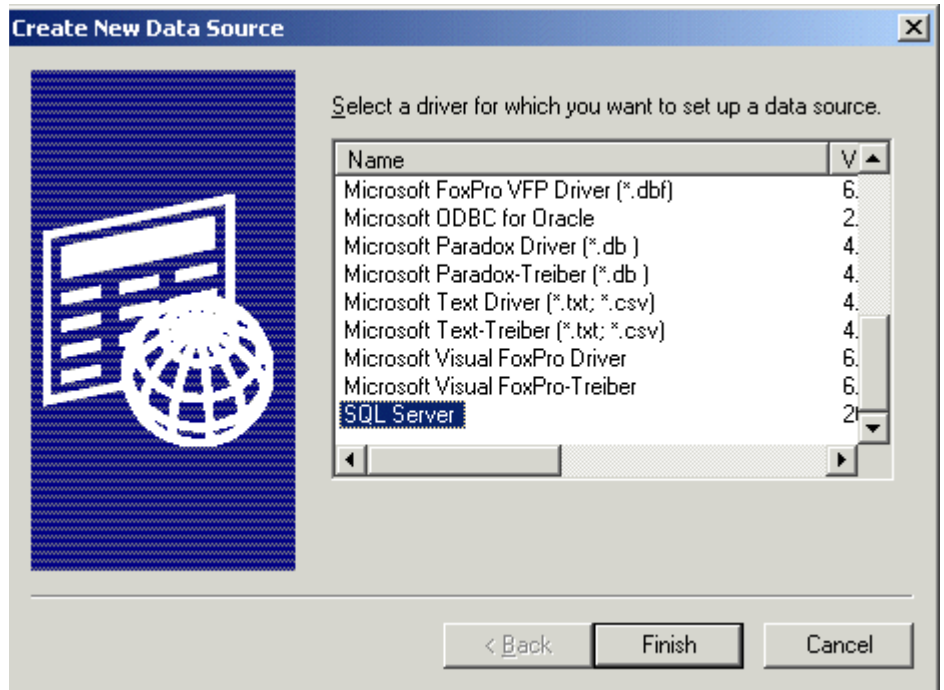
7. Select the driver that best suits your version of MS-SQL server.

8. Click **Finish**.

9. The Create a New Data Source to SQL Server window opens.

10. Specify a name, description, and choose the SQL server to connect to.

11. Click **Next >**.
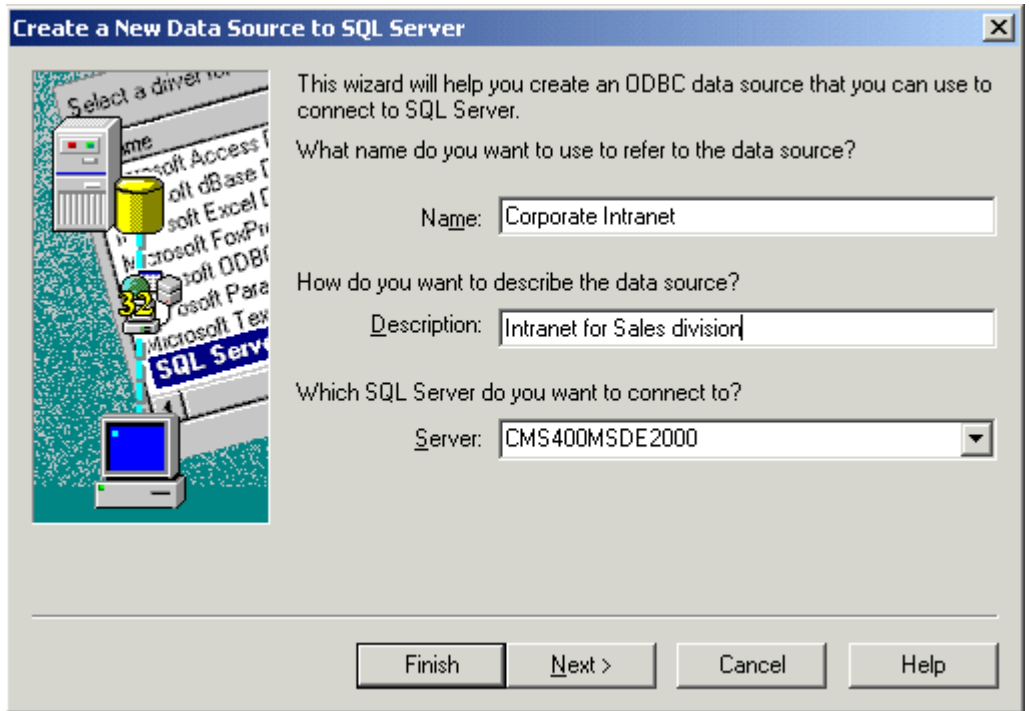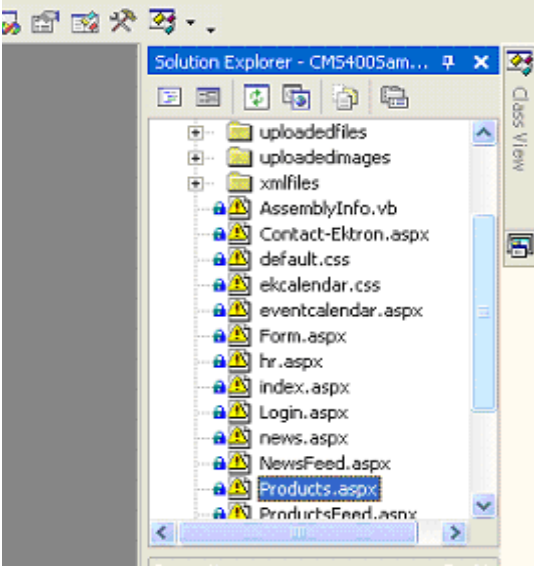
12. The next screen appears. Enter the necessary information about the authentication for the DSN, then click **Next >**.

13. The next screen appears.

14. Change the default database to the one that you created. Make any other adjustments on this screen if necessary. Then click **Next >**.
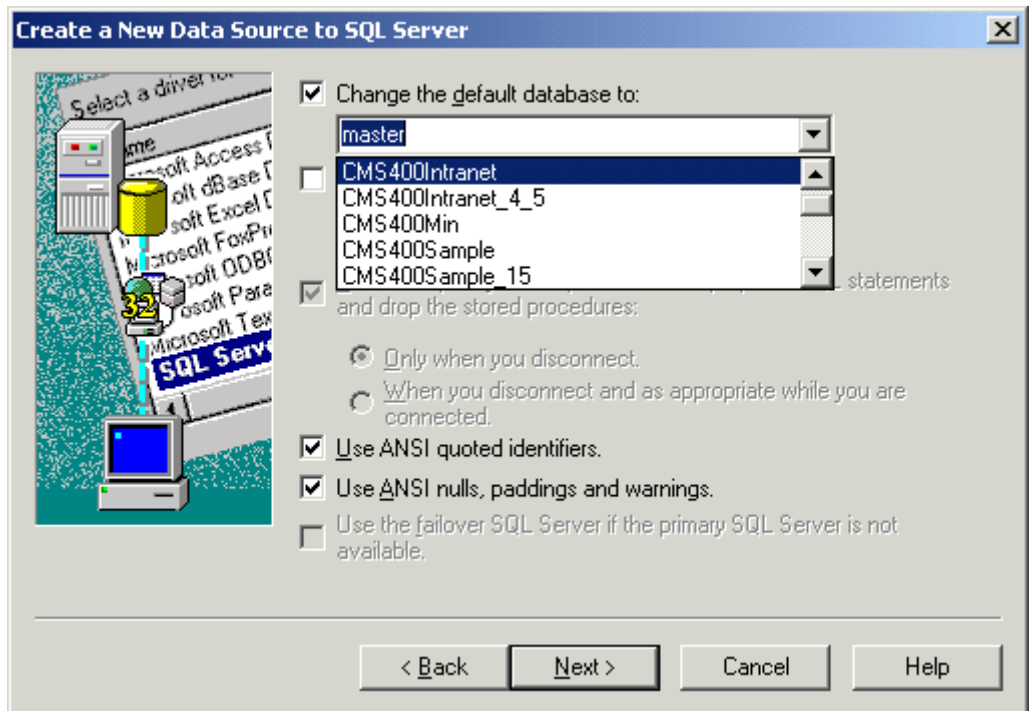
15. The next screen appears. Choose whichever options you would like for the DSN, then click **Finish**.

16. The ODBC Microsoft SQL Server Setup window displays a summary of your settings.

17. Click **Test Data Source** to verify the data source.

18. If the DSN is good, you receive a message that the test completed successfully. If not, edit the DSN and make sure that everything is set up properly.

19. To finish, click the **OK** button at the bottom of the screen, and close the ODBC Manager.

Troubleshooting Upgrade Problems

Problem	Solution
After upgrade, Ektron CMS400.NET 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. 	To verify the problem, open the Ektron CMS400.NET solution file in Visual Studio.NET (`webroot\CMS400Example\CMS400Example.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\CMS400Example\bin` folder.
When viewing a page containing CMS400.NET 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.	See Ektron Knowledge Base article "ERRMSG: Compiler failed with Error Code 2000" (`www.ektron.com/developers/cms400kb.cfm?id=2029`)

Installing Ektron CMS400.NET

This section explains how to install **Ektron CMS400.NET** through the following topics:

Before You Install

Prior to installing Ektron CMS400.NET, complete these tasks.

1. Make sure that Internet Information Server (IIS) is installed in your server.

2. Install and configure your Web Application Server. For more information, see http://www.asp.net.

Performing the Installation

NOTE   The installation program checks to see if MSSQL is installed on your server. If it is not, it will attempt to install MSDE2000.

Installing **Ektron CMS400.NET** involves these actions. The installation program guides you seamlessly through them.

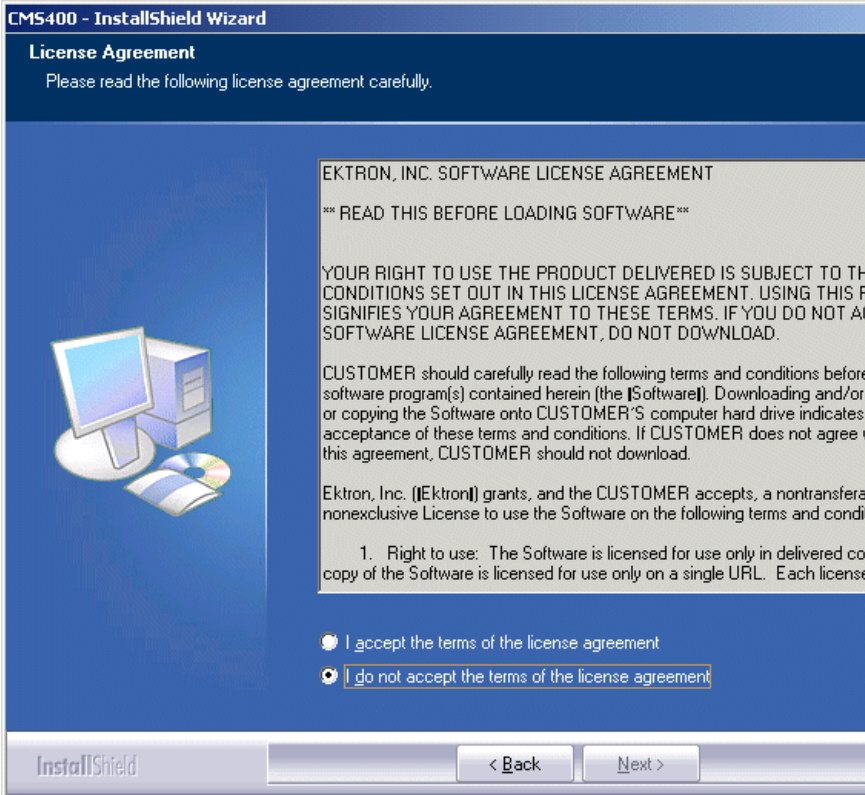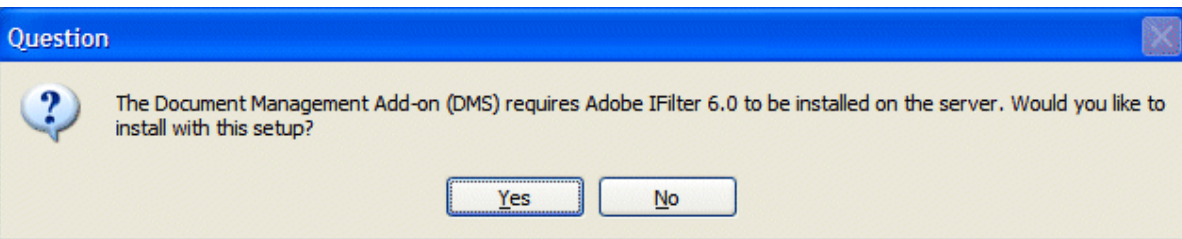| Action	What it does	For details, see
Copy installation files to `C:\Program Files`	• ensures system requirements • installs non-working copy of files needed to set up site	"An introductory screen appears. Click Next to proceed." on page 42
Set up a site	• moves files based on selected Web folder • creates IIS application directories • sets upload folder permissions • updates web.config (path, version, and build number)	"Setting up a Site" on page 47
Set up a database	• references database folder for scripts needed to create a database • creates new tables and populates them • adds and sets user permissions • updates the web.config file • tests database connection	"Setting up a Database" on page 51
Set up **Ektron Document Management Add-on**	• set up all files and folders • set up database • set up indexing service	"Complete Document Management Add-on Setup" on page 56
Set up **Ektron Document Management Add-on** user	• sets a user to communicate with the /dmdata/ folder.	"Adding a Document Management User Account" on page 66
Set up a user (MS SQL only)	• set up SQL user information	"Set Up a User for the CMS400 Database" on page 71

Action	What it does	For details, see
Create a new DSN	• Create a new DSN that points to the MS-SQL data-base	"Creating a New DSN" on page 35
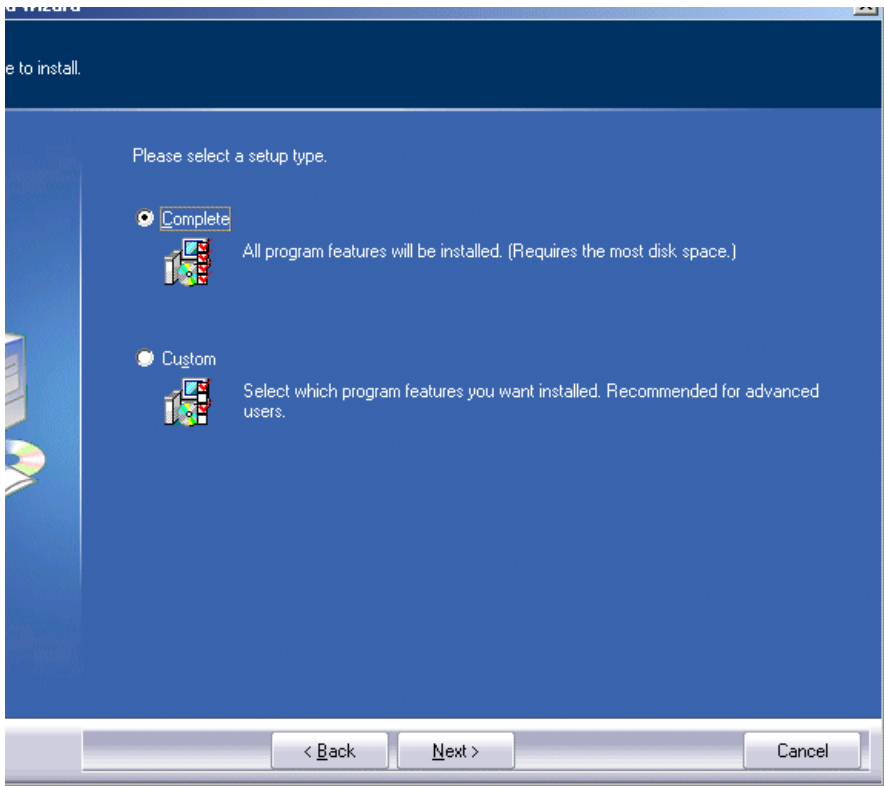
Running the Installation and Setup Program
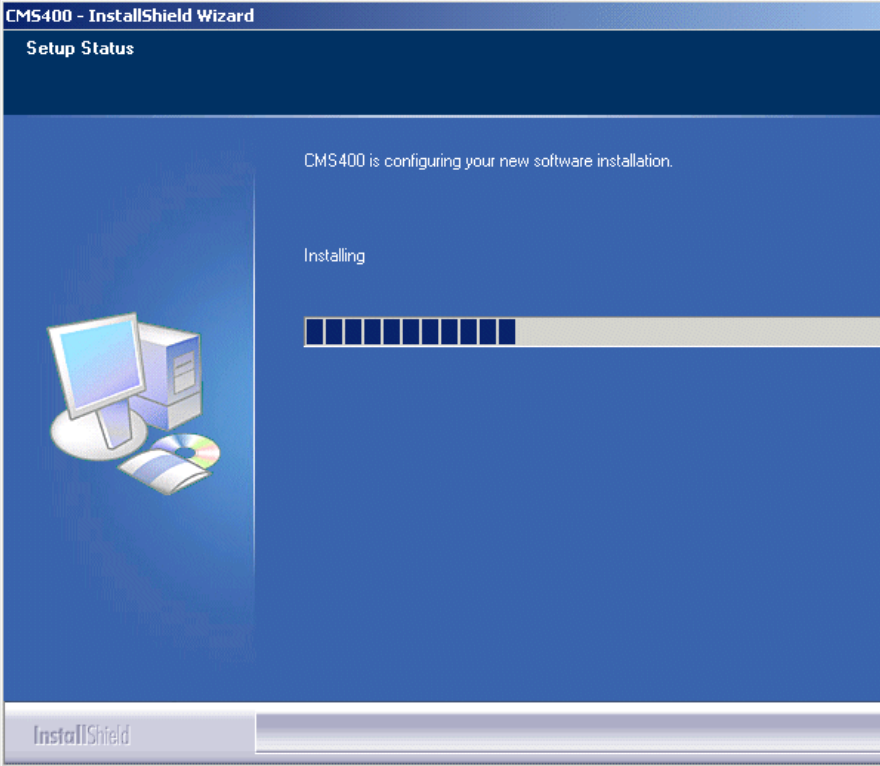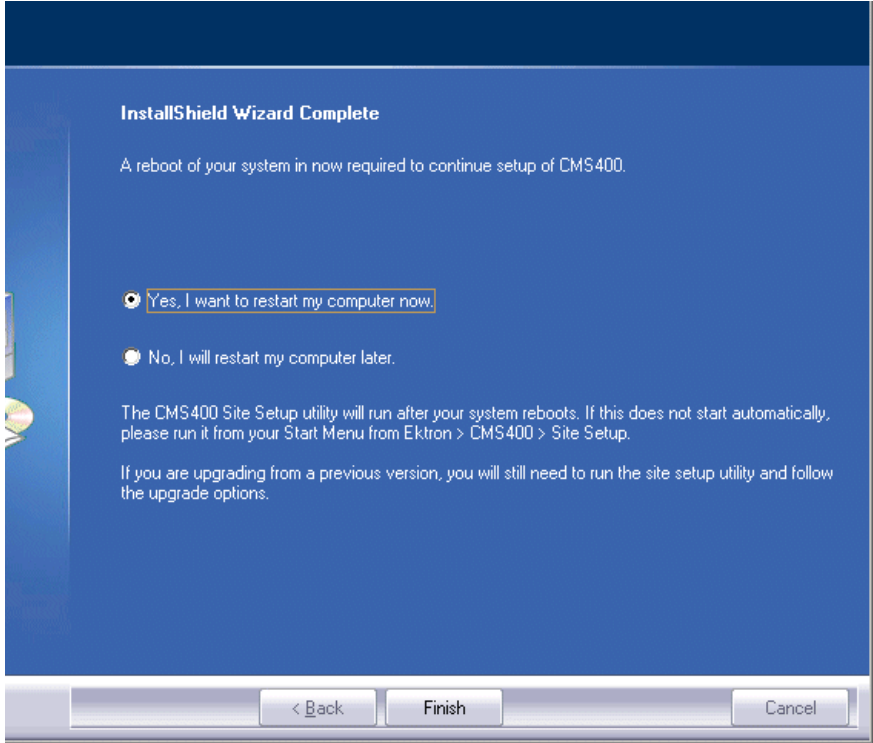
IMPORTANT! If you are installing Ektron CMS400.NET and the Document Management Add-on on separate servers, you need to run the install twice, once on each server. You can choose whether you want a CMS400 or Document Management Add-on install during the site setup portion of the install. *See Also:* "Complete Document Management Add-on Setup" on page 56.
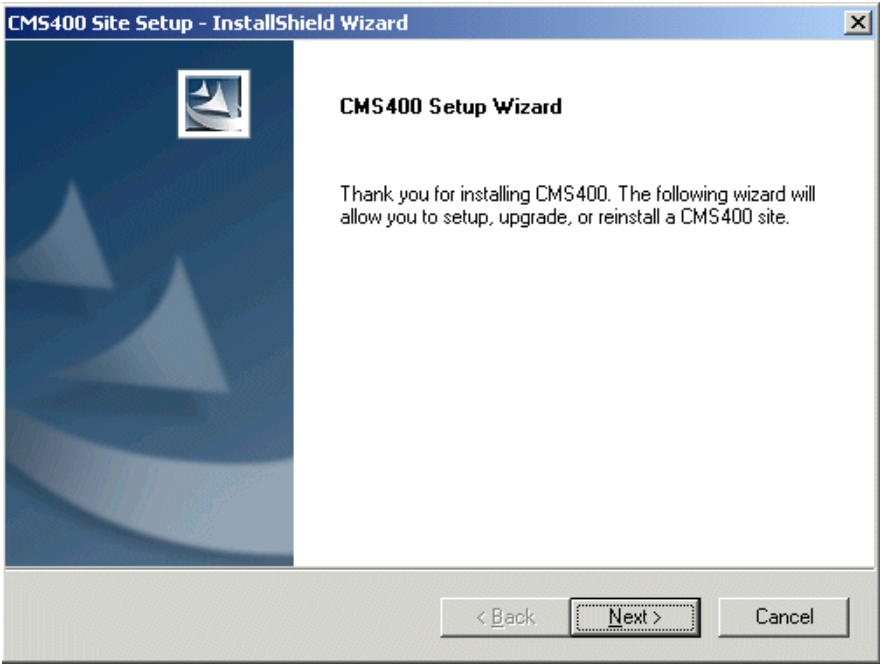
Step	Setup Screen
1.	Go to the Ektron Web site (http://www.ektron.com/download.cfm?product_id=260&purchase=0) and download Version 5.1 of **Ektron CMS400.NET**.
2.	Double click the downloaded Ektron CMS400.NET executable file. CMS400.exe
3.	An introductory screen appears. Click **Next** to proceed.
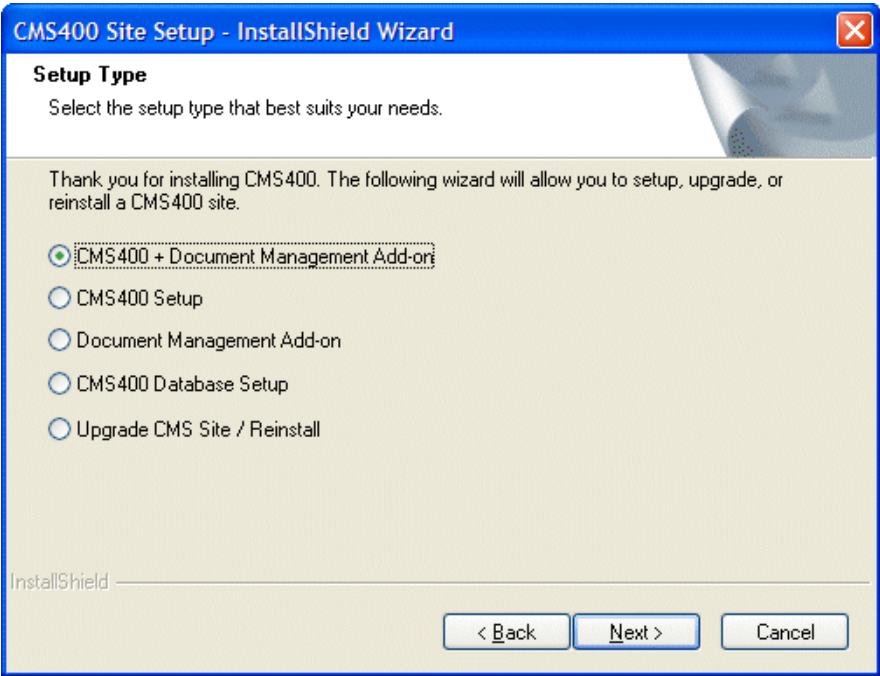
Step	Setup Screen
4. A screen displays Ektron's License Agreement. Please read the agreement. • Click **I Accept...** to accept the agreement. • Click **I do not accept.** if you do not accept the agreement. This action ends the setup program.	

5. A Question Box appears. It ask you if you want to install the Adobe IFilter 6.0, select **Yes**. The Document Management Add-on needs this software to index PDF files.
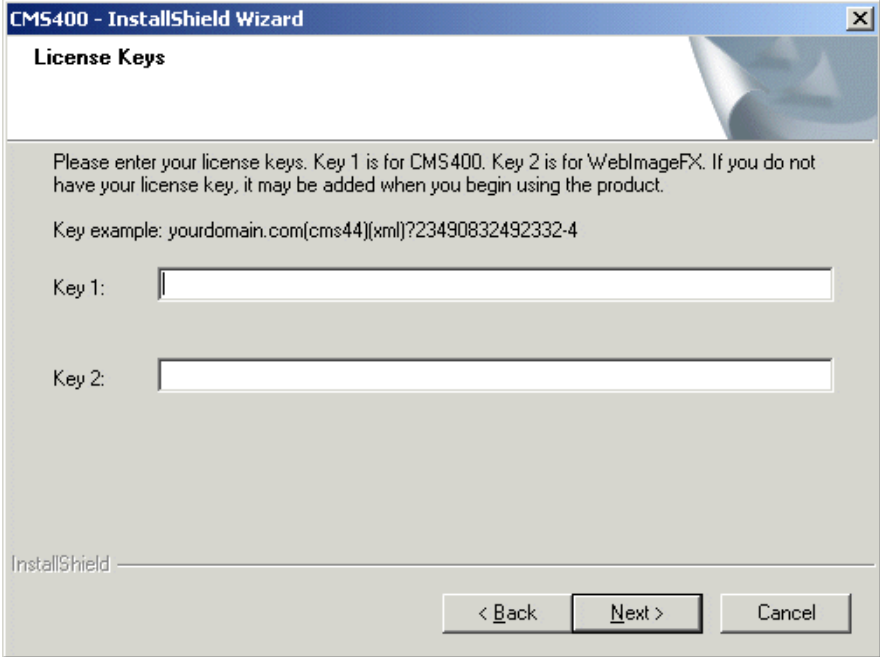
Step	Setup Screen
6. Select **Complete** to install all possible components. Or select **Custom** to select which components to install.	

Step	Setup Screen
7. The installation program copies the necessary files to the `C:\Program Files` folder. During this process, the installation grants the Everyone user group write permissions to the following system folders: • `\CMS400Example\UploadedImages` • `\CMS400Example\UploadedFiles` • `\CMS400Example\Databases` After completing the installation, you should further configure your permissions based on your network security model before using Ektron CMS400.NET.	**CMS400 - InstallShield Wizard** **Setup Status** CMS400 is configuring your new software installation. Installing InstallShield
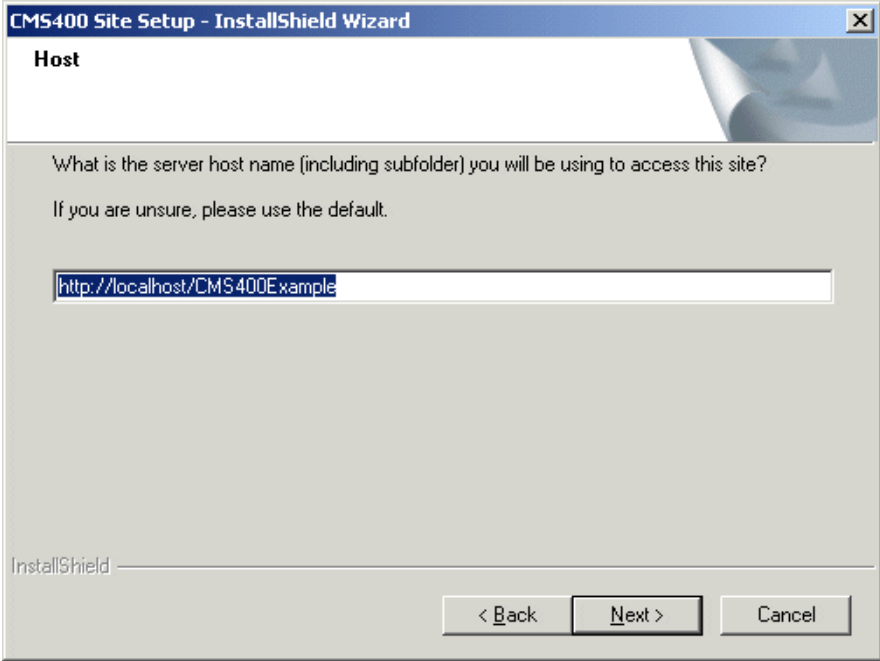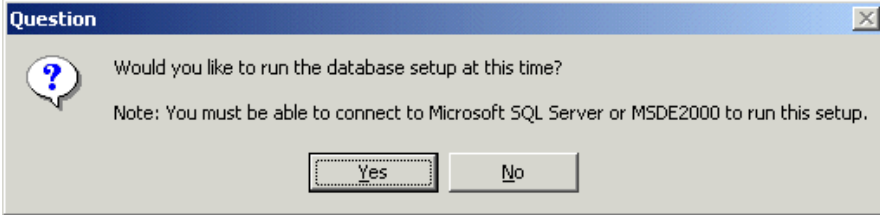
Step	Setup Screen
8. The Adobe iFilter Setup screen appears. Click **Next** if you want to install the ability to search through PDF documents. Otherwise, click **Cancel**. If you proceed, you are asked to agree to Adobe's license agreement and to select a a destination folder. Then, the filter is installed.	
9. A screen indicates that the installation is complete. 10. If you have an MS-SQL database, proceed to "Setting up a Site" on page 47. If you are installing an MSDE database, you are prompted to restart your computer. Ektron recommends doing a restart now, before continuing the installation.	
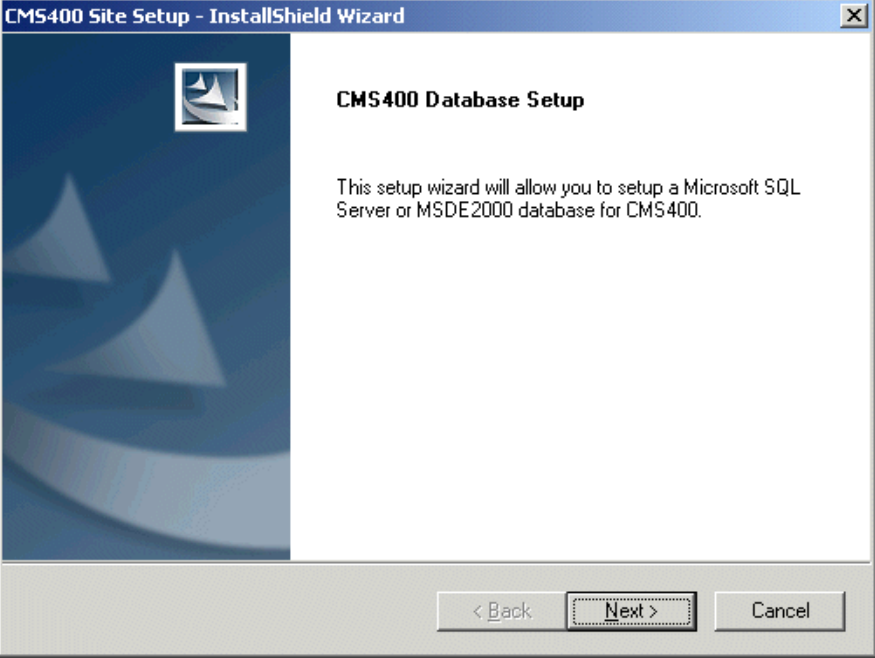
Step	Setup Screen
If you restart now, the site setup procedure begins immediately upon completion of the restart. If you restart later, you can launch the site setup from **Start > Programs > Ektron > CMS400 > Utilities > CMS400 Site Setup**. Note: If you have any problems installing MSDE, you can download it directly from Microsoft's Web site at `http://www.microsoft.com/sql/msde/downloads/download.asp`.	

Setting up a Site

| 11. This screen appears. It lets you set up a Web site.

 To set up a site, the installation copies the following folders from `C:\Program Files\Ektron\CMS400v50` to the Web root folder you specify:

 • BIN

 • workarea

 • documentation

 • uploaded files and uploaded images

 • a login page

 • the VS.NET solution file | |
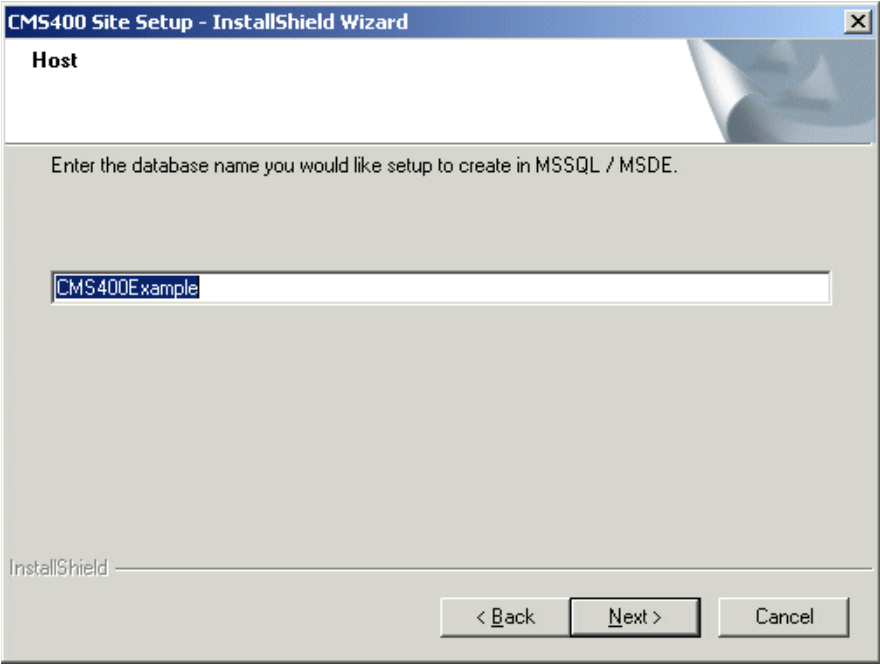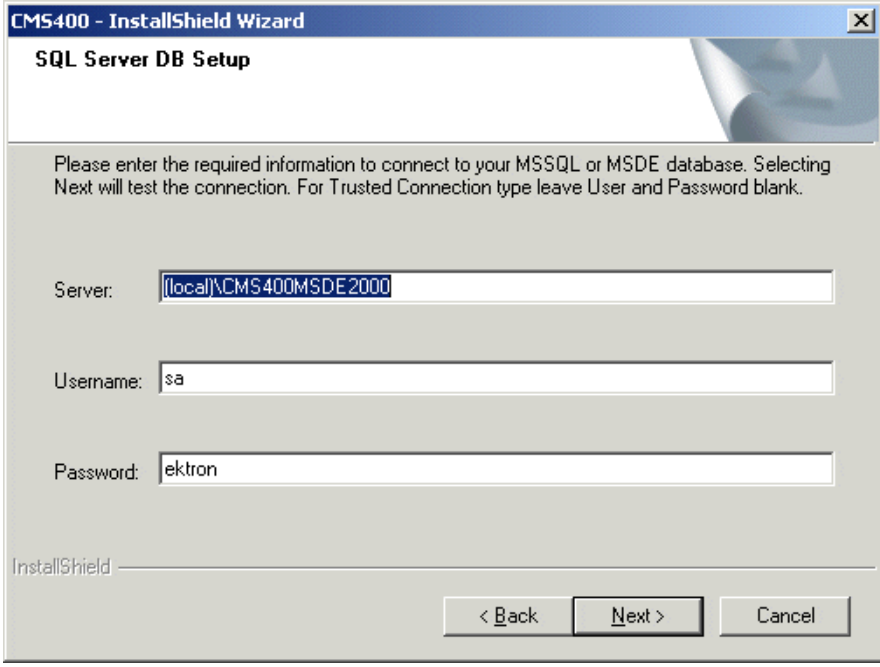
Step	Setup Screen
12. Select the type of site you want to install: • **CMS400 + Document Management Add-on** - installs all CMS400 and Document Management supporting files and folders. • **CMS400 Setup** - installs all templates and supporting files for CMS400. • **Document Management Add-on** - installs all supporting files, folders and services for Document Management. *See Also:* "Complete Document Management Add-on Setup" on page 56 • **CMS400 Database Setup** - Sets up a database in selected folder. You can choose sample or minimal database. *See Also:* "Setting up a Database" on page 51 • **Upgrade CMS Site / Reinstall** - Use if you have an earlier version of **Ektron CMS400.NET**. *See Also:* "Upgrading Ektron CMS400.NET" on page 8	**CMS400 Site Setup - InstallShield Wizard** **Setup Type** Select the setup type that best suits your needs. Thank you for installing CMS400. The following wizard will allow you to setup, upgrade, or reinstall a CMS400 site. ⦿ CMS400 + Document Management Add-on ○ CMS400 Setup ○ Document Management Add-on ○ CMS400 Database Setup ○ Upgrade CMS Site / Reinstall InstallShield [< _B_ack] [_N_ext >] [Cancel] --- **Important!** If you are installing Ektron CMS400.NET and the Document Management Add-on on separate servers, you need to run the install twice, once on each server.
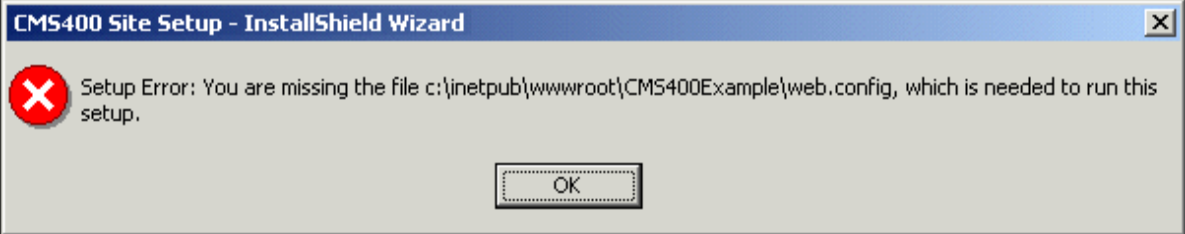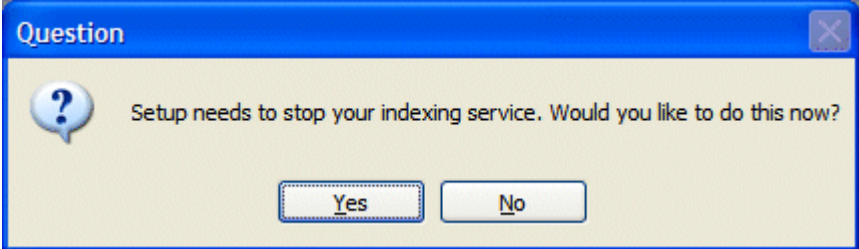
Step	Setup Screen
13. Enter license keys for the **Ektron CMS400.NET** and WebImageFX, if you have them. License keys are typically emailed to your organization when you request a copy of the application. When cutting and pasting license keys, keep the full license key intact without adding or deleting characters. If you do not have the license keys now, you can insert them later. See "Configuring **Ektron CMS400.NET**" in the Administrator manual for details.	**CMS400 - InstallShield Wizard** **License Keys** Please enter your license keys. Key 1 is for CMS400. Key 2 is for WebImageFX. If you do not have your license key, it may be added when you begin using the product. Key example: yourdomain.com(cms44)(xml)?23490832492332-4 Key 1: Key 2: InstallShield < Back Next > Cancel
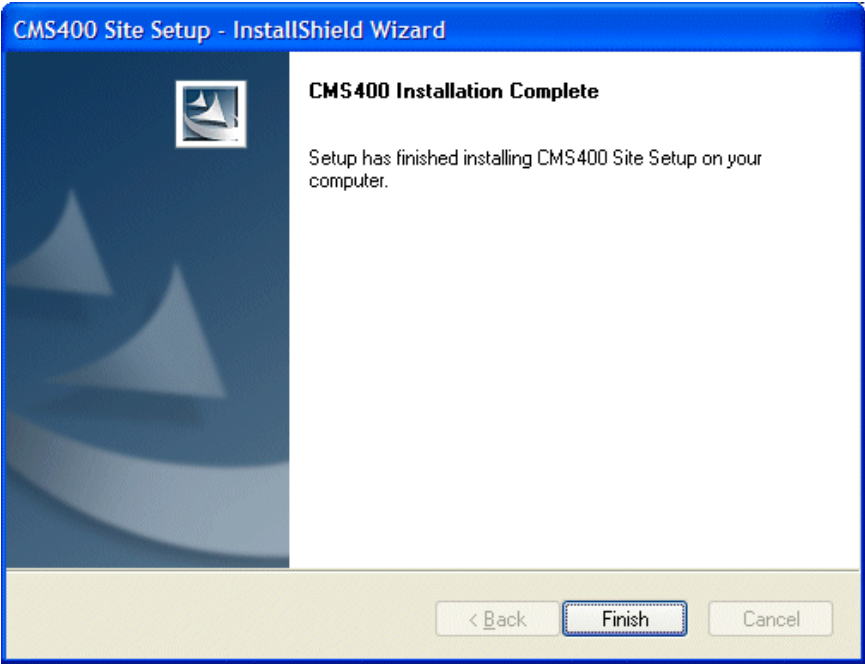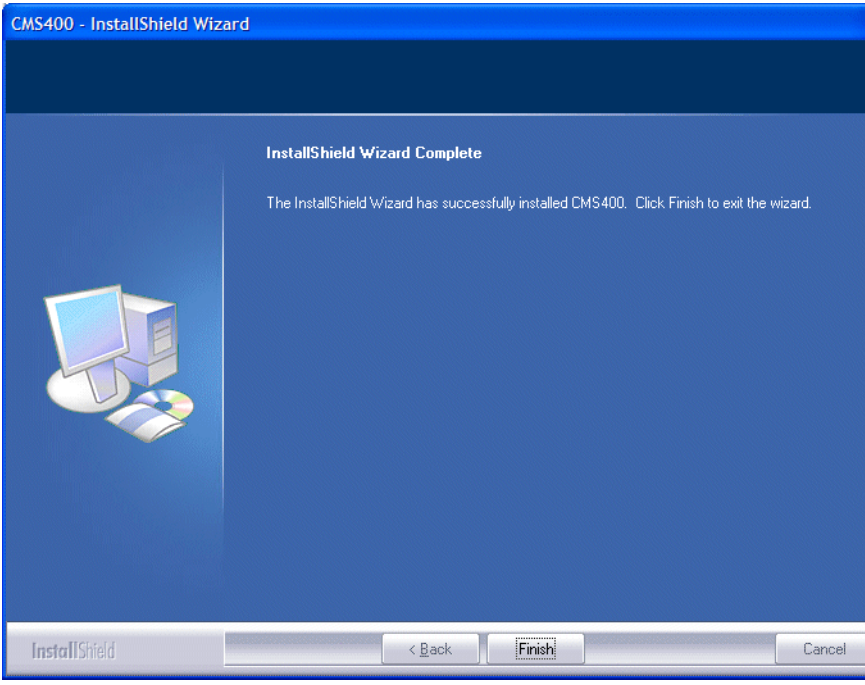
Step	Setup Screen
14. Select the type of site you want to install: **Example site** or **Minimal**. The sample site contains • Two users - 1 administrator, 1 editor • Sample content • Sample images • Fonts The minimal site lacks sample content and images. It only includes necessary files and the default administrator (admin/admin).	**CMS400 Site Setup - InstallShield Wizard** **Setup Type** Select the setup type that best suits your needs. Please select which type of site you would like to setup. ⊙ CMS400 Examples Site ○ Minimal (best for site integration) InstallShield < _B_ack _N_ext > Cancel
15. If your server operating system accommodates multiple Web sites (for example, Windows Server 2003), select the site to which you want to install **Ektron CMS400.NET** from the dropdown list. Otherwise, accept the default.	**Ektron Site Selection** **Ektron CMS400 Site Setup** Please select the site you would like to install to. Select Site: Default Web Site ▼ InstallShield < _B_ack _N_ext _C_ancel

Step	Setup Screen
16. On the Host screen, specify the host name (which defines the URL) that will be used to access your Web site. The host name also configures variables during the installation. It can be any of the following: • An IP address (123.456.7.890) • A server name (WebServer1234) • A domain name (www.ektron.com)	

Setting up a Database

Your database contains information such as users and content blocks. **Ektron CMS400.NET** is compatible with the following databases:

- SQL Server 2000

- Microsoft MSDE 2000 (a free, scaled-down version of SQL database. For more information see, http://www.microsoft.com/sql/msde/default.asp.). If your server does not have SQL Server 2000 or MSDE, MSDE is installed.

17. You are asked if you want to set up a database. Click **Yes** to do so.	

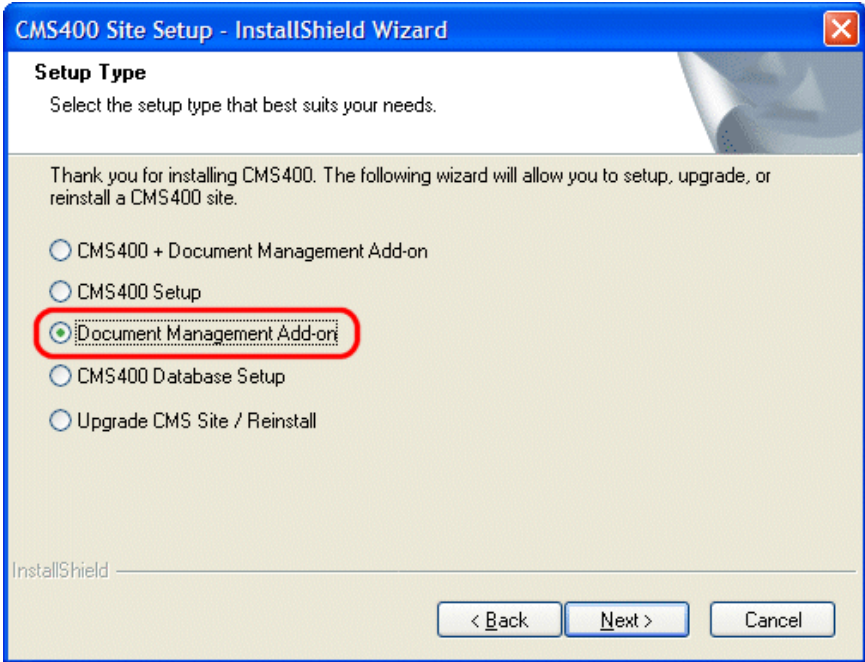| Step	Setup Screen
The database setup program • checks for MSDE or SQL server. If SQL is installed on your server, a SQL database is set up. If MSDE is installed, an MSDE database is set up. If neither is detected, MSDE is installed then an MSDE database is set up. • loads database tables • updates the web.config file with information about your data-base connection, based on your responses	**CMS400 Site Setup - InstallShield Wizard** ✕ **CMS400 Database Setup** This setup wizard will allow you to setup a Microsoft SQL Server or MSDE2000 database for CMS400. < Back Next > Cancel

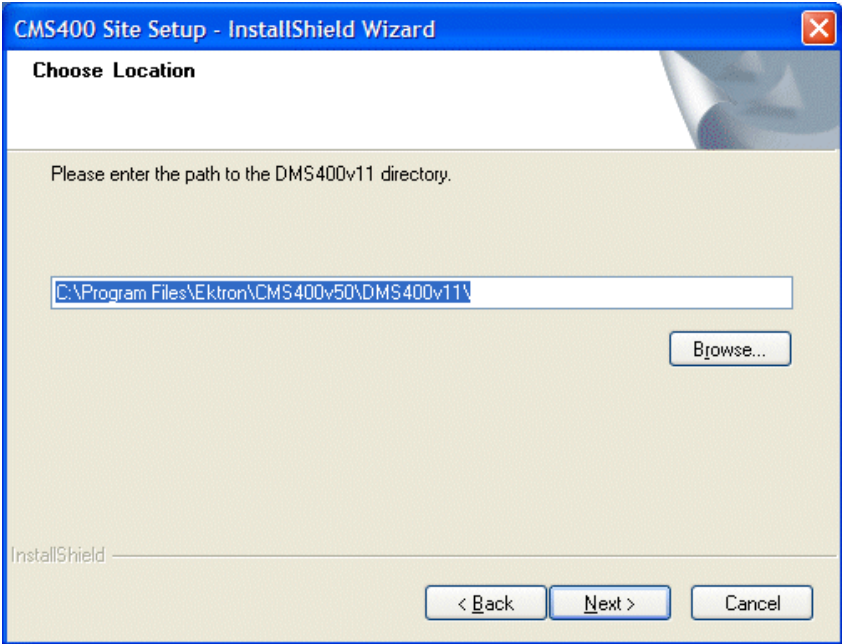| Step	Setup Screen
18. Enter the name of the database you are creating. If you are installing the sample site, accept the default. If you are setting up your own site, assign a different name.	**CMS400 Site Setup - InstallShield Wizard** **Host** Enter the database name you would like setup to create in MSSQL / MSDE. CMS400Example InstallShield < Back Next > Cancel
19. This screen prompts for database connection information. **Server** - **(local)\CMS400MSDE2000** is the default value for the MSDE server installed with **Ektron CMS400.NET**. To install this, accept the default. Otherwise, enter a SQL or MSDE server that already exists. For SQL, this would typically be **(local)**.	**CMS400 - InstallShield Wizard** **SQL Server DB Setup** Please enter the required information to connect to your MSSQL or MSDE database. Selecting Next will test the connection. For Trusted Connection type leave User and Password blank. Server: (local)\CMS400MSDE2000 Username: sa Password: ektron InstallShield < Back Next > Cancel

Step	Setup Screen
Username - Enter the username you will use to access the database. If you are installing the MSDE database delivered with **Ektron CMS400.NET**, the username is **sa**. **Password** - Enter the password you will use to access the database. If you are installing the MSDE database delivered with **Ektron CMS400.NET**, the password is **ektron**. 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 installation program creates a database using the provided information. Then, it tests the database connection to verify that the information is valid and that you can save content. If the database name was used previously, you are informed and asked to assign a different name.	
If you see the following error message, change the **Destination Folder** to `program files\ektron\cms400v50\sitesetup\database`. **CMS400 Site Setup - InstallShield Wizard** ✕ ❌ Setup Error: You are missing the file c:\inetpub\wwwroot\CMS400Example\web.config, which is needed to run this setup. [OK]	
20. Click **Yes** to install the Indexing Service for the Document Management Add-on.	**Question** ✕ ❓ Setup needs to stop your indexing service. Would you like to do this now? [Yes] [No]
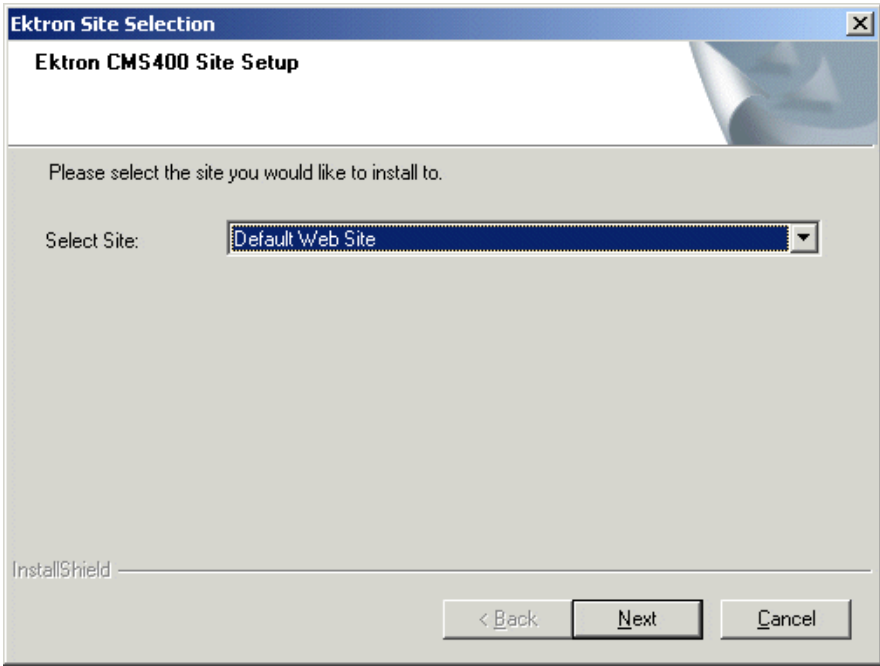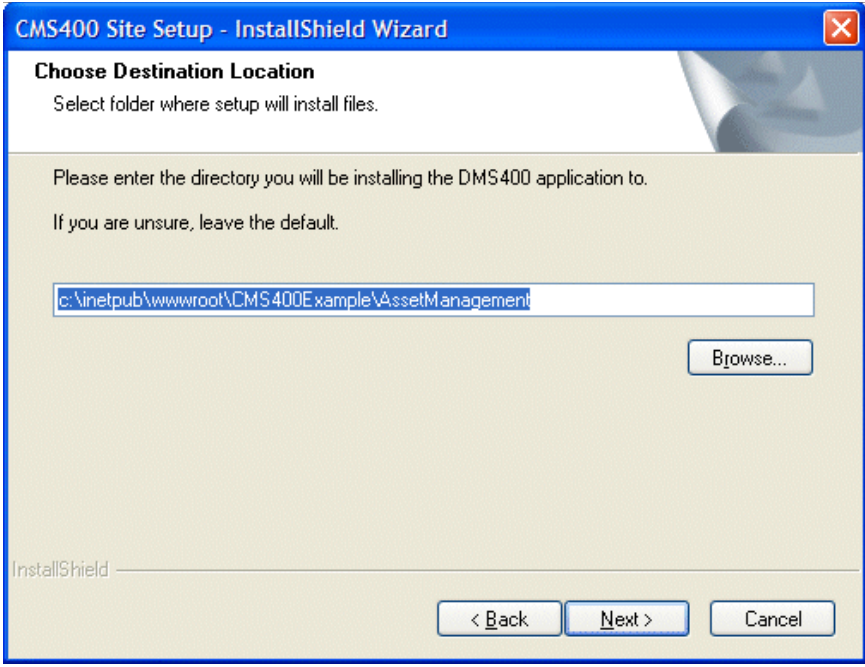
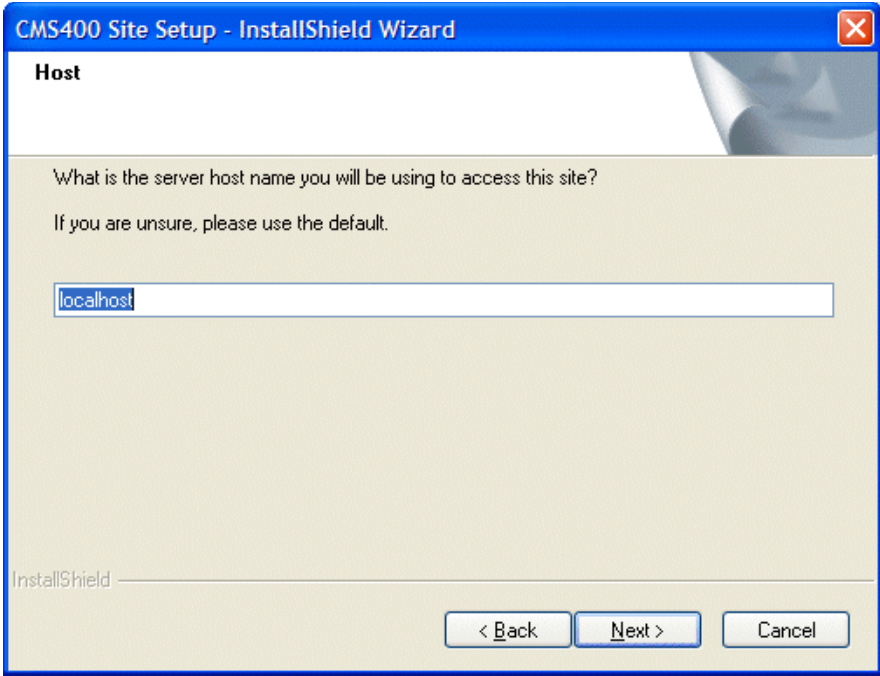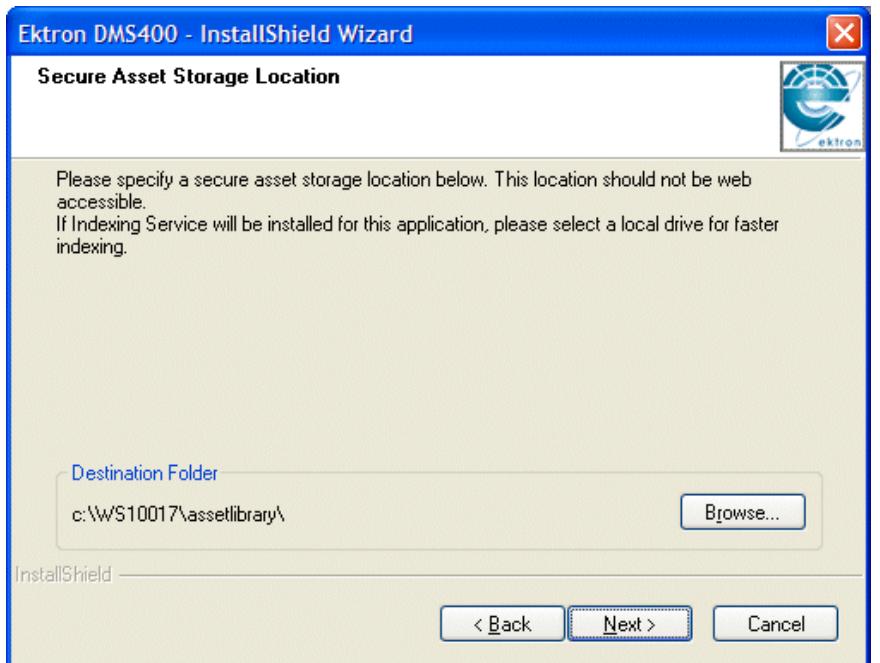| Step	Setup Screen
21. Click **Finish**. The site setup portion of the install is complete.	CMS400 Site Setup - InstallShield Wizard **CMS400 Installation Complete** Setup has finished installing CMS400 Site Setup on your computer. < Back Finish Cancel
22. The Ektron CMS400.NET + Document Management Add-on installation is complete. Click **Finish**.	CMS400 - InstallShield Wizard **InstallShield Wizard Complete** The InstallShield Wizard has successfully installed CMS400. Click Finish to exit the wizard. InstallShield < Back Finish Cancel

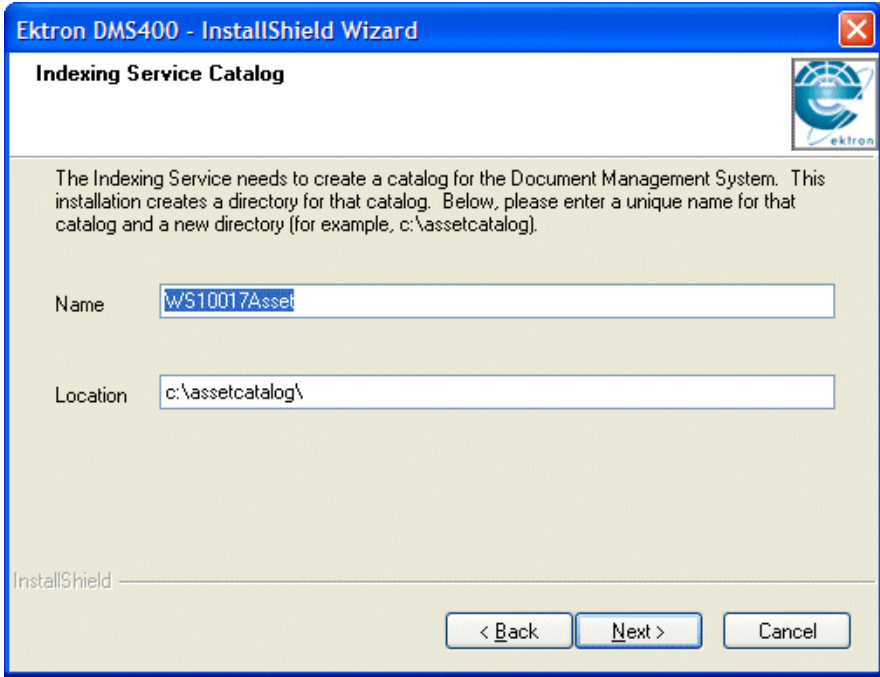## Complete Document Management Add-on Setup

This section explains the process of doing a complete **Ektron Document Management Add-on** only setup. If you ran the CMS400 + Document Management Add-on, you do not need to run this setup.
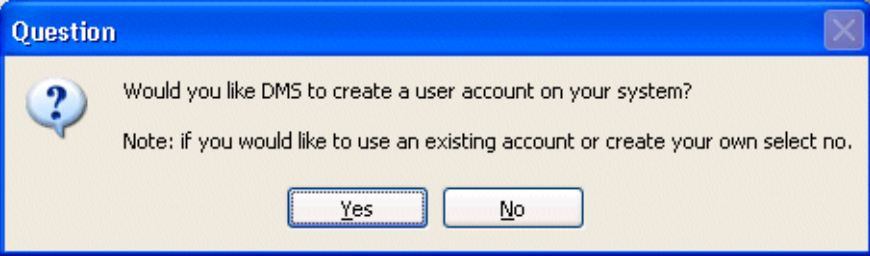
Step	Setup Screen
1. Run the CMS400.exe.	 **Note**: If you arrived at this section of documentation from the CMS400.exe steps you do not need to re-run CMS400.exe.
2. When you get to the CMS400 Site Setup screen, choose **Document Management Add-on**.	
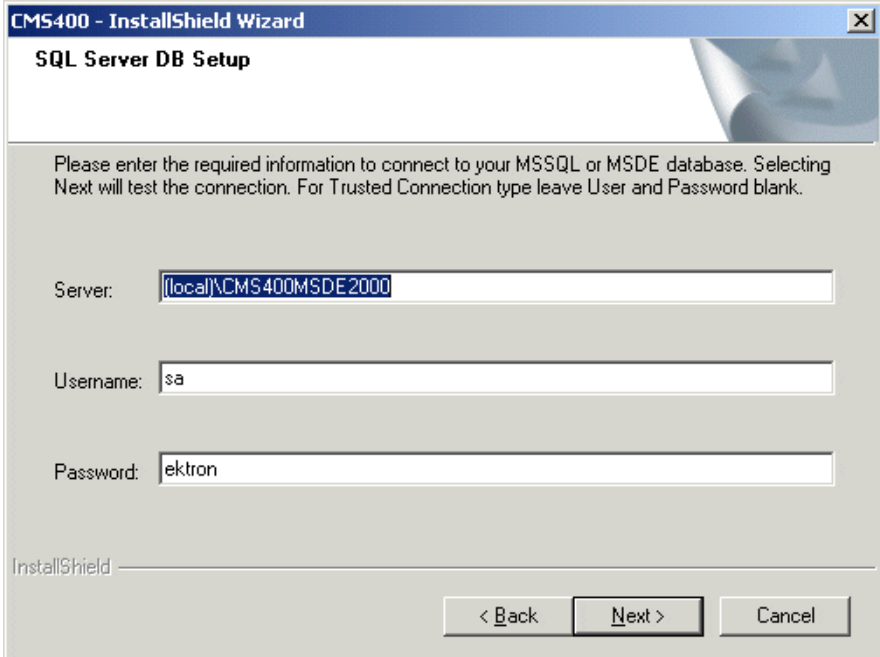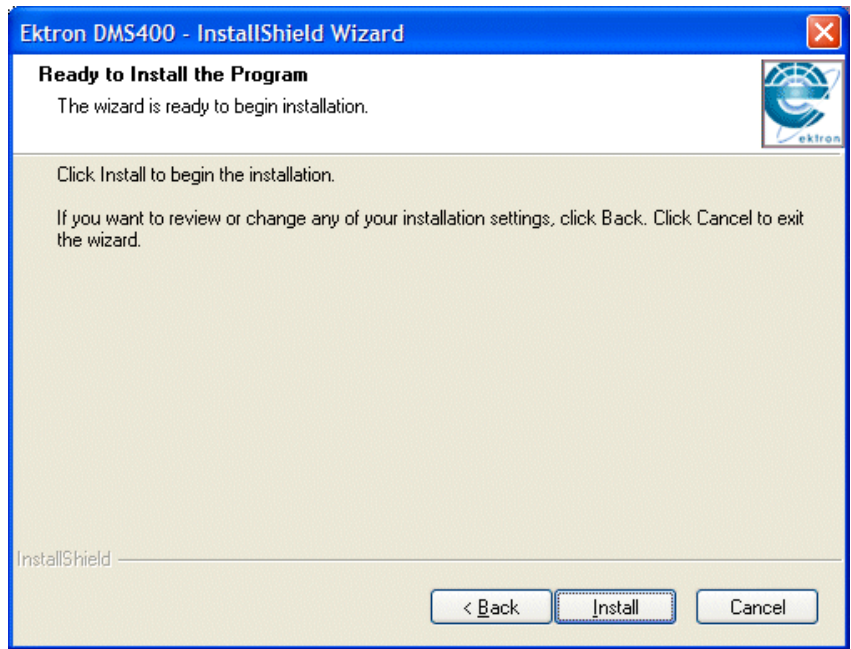
Step	Setup Screen
3. The Adobe iFilter Setup screen appears. Click **Next** if you want to install the ability to search through PDF documents. Otherwise, click **Cancel**. If you proceed, you are asked to agree to Adobe's license agreement and to select a a destination folder. Then, the filter is installed.	
4. Enter the path where the **Ektron Document Management Add-on** install files are located. The default location is: **C:\Program Files\Ektron\CMS 400v50\DMS400v 11**	
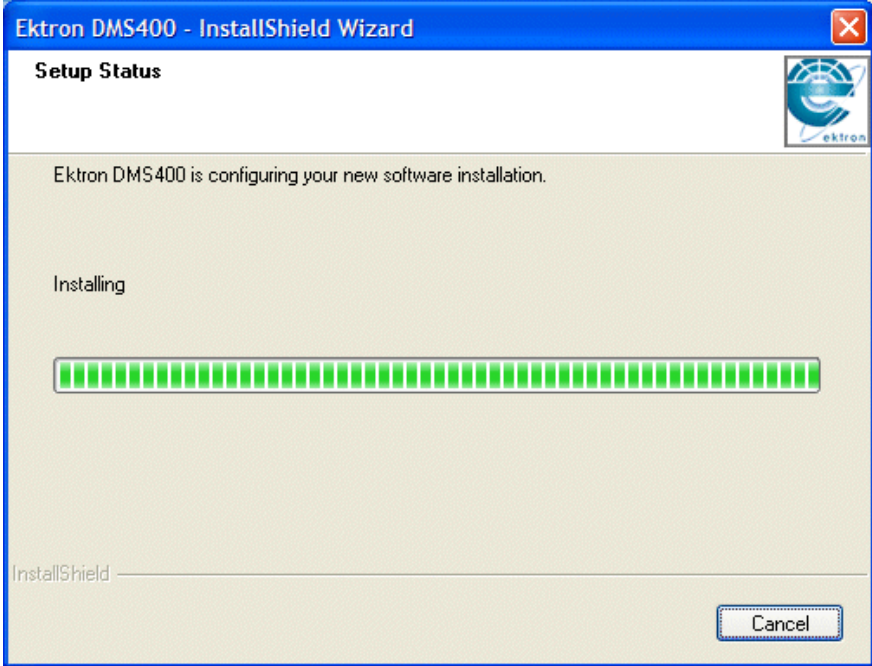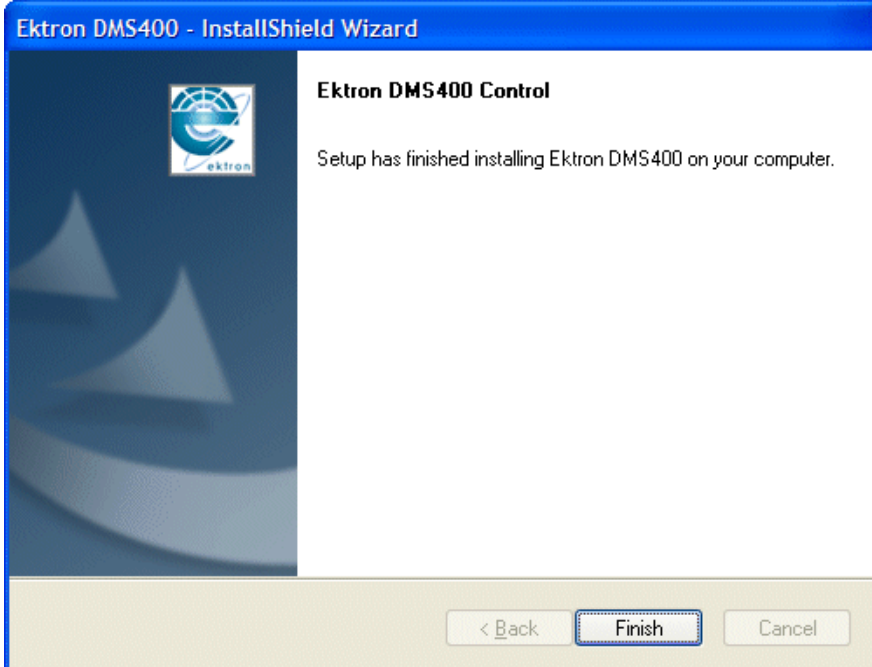
Step	Setup Screen
5. If your server operating system accommodates multiple Web sites (for example, Windows Server 2003), select the site to which you want to install **Ektron Document Management Add-on** from the dropdown list. Otherwise, accept the default.	**Ektron Site Selection** **Ektron CMS400 Site Setup** Please select the site you would like to install to. Select Site: Default Web Site InstallShield 〈 Back Next Cancel
6. Enter the directory where **Ektron Document Management Add-on** will be installed. If you are unsure, leave the default location.	**CMS400 Site Setup - InstallShield Wizard** **Choose Destination Location** Select folder where setup will install files. Please enter the directory you will be installing the DMS400 application to. If you are unsure, leave the default. c:\inetpub\wwwroot\CMS400Example\AssetManagement Browse... InstallShield 〈 Back Next 〉 Cancel
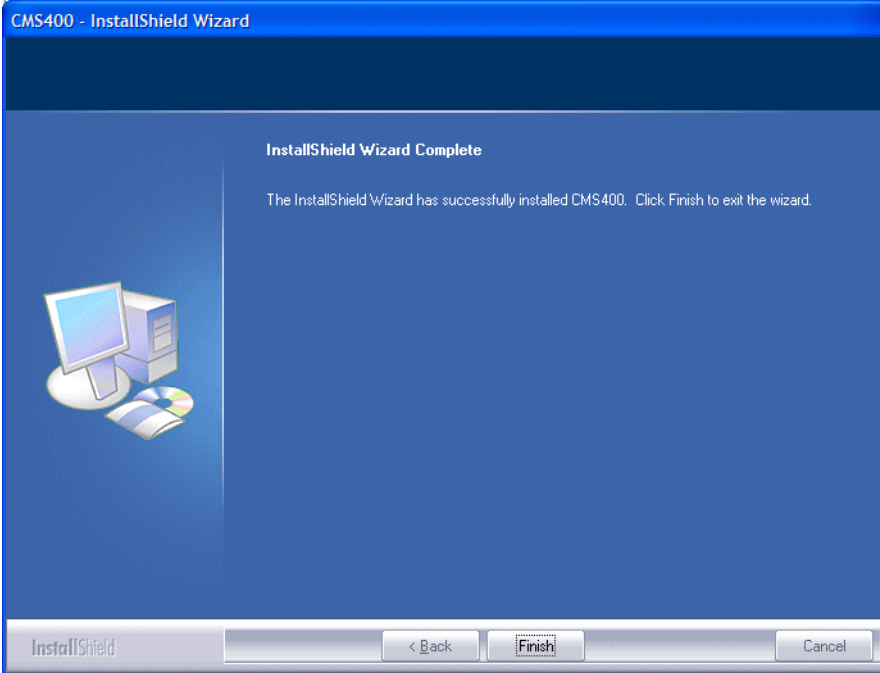
Step	Setup Screen
7. Enter the host name you will use to access this site. If you are unsure, use the default	**CMS400 Site Setup - InstallShield Wizard** **Host** What is the server host name you will be using to access this site? If you are unsure, please use the default. `localhost` InstallShield — < Back Next > Cancel
8. On the Secure Asset Storage Location screen, select a destination folder or use the default.	**Ektron DMS400 - InstallShield Wizard** **Secure Asset Storage Location** Please specify a secure asset storage location below. This location should not be web accessible. If Indexing Service will be installed for this application, please select a local drive for faster indexing. Destination Folder c:\WS10017\assetlibrary\ Browse... InstallShield — < Back Next > Cancel

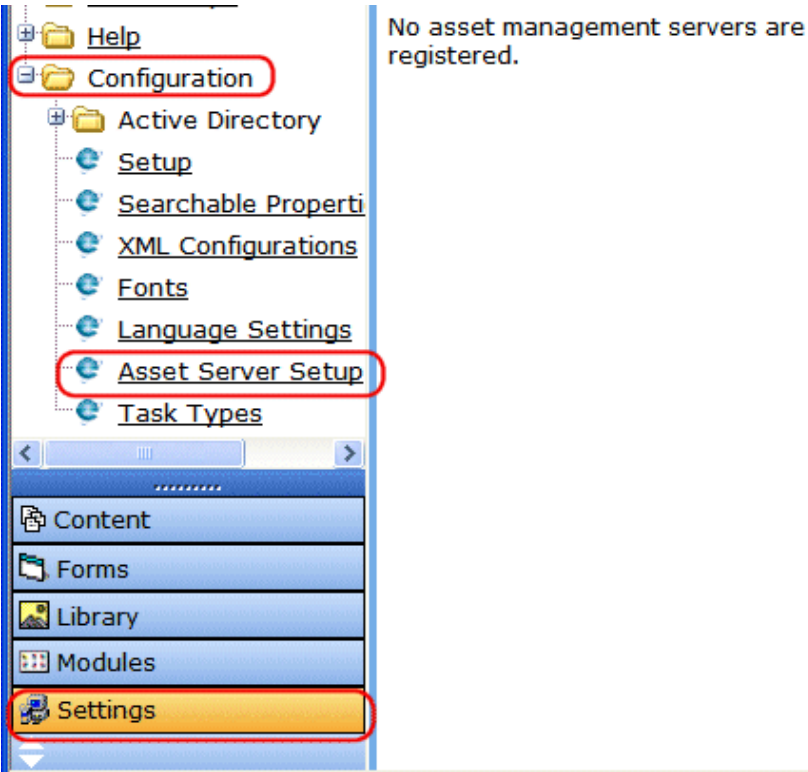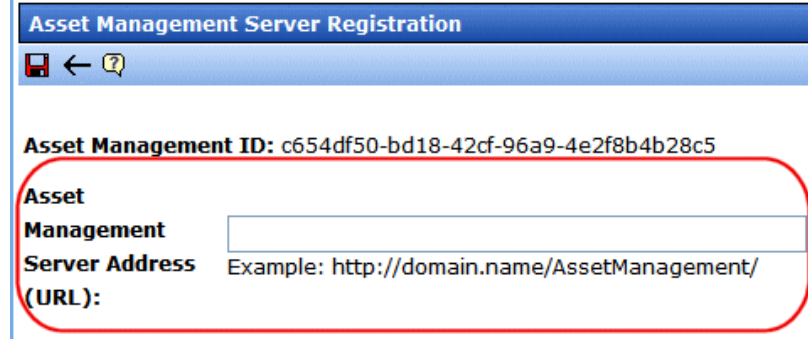| Step	Setup Screen
9. On the Indexing Service Catalog Screen, enter the following. • **Name** - The name of the Asset Catalog. It must be unique. • **Location** - The folder where the asset catalog will reside.	

Step	Setup Screen

10. The **create a Document Management user account** question box appears.
 	
• Would you like Document Management to create a user account on your system?
 	
   – Click **Yes**, **Ektron Document Management Add-on** creates a user for you.
 	
   – Click **No** to use an existing account.
 	
--- 	
Note: If you click **No**, go to "Adding a Document Management User Account" on page 66. When finished, return and continue with next step.
--- 	
	Question
	
	Would you like DMS to create a user account on your system?
	
	Note: if you would like to use an existing account or create your own select no.
	
	[Yes] [No]

Step	Setup Screen
11. This screen prompts for database connection information. **Server** - **(local)\CMS400MSDE2000** is the default value for the MSDE server installed with **Ektron CMS400.NET**. To install this, accept the default. Otherwise, enter a SQL or MSDE server that already exists. For SQL, this would typically be **(local)**.	**CMS400 - InstallShield Wizard** ⊠ **SQL Server DB Setup** Please enter the required information to connect to your MSSQL or MSDE database. Selecting Next will test the connection. For Trusted Connection type leave User and Password blank. Server: `(local)\CMS400MSDE2000` Username: `sa` Password: `ektron` InstallShield < Back Next > Cancel
12. At the Ready to Install the Program screen, your choices are: • Click **Install** to Install the program • Click **Back** to change any installation settings • Click **Cancel** to cancel the setup	**Ektron DMS400 - InstallShield Wizard** ✕ **Ready to Install the Program** The wizard is ready to begin installation. Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. InstallShield < Back Install Cancel

Step	Setup Screen
13. The setup program installs all necessary files and sets the proper permissions for users.	**Ektron DMS400 - InstallShield Wizard** **Setup Status** Ektron DMS400 is configuring your new software installation. Installing InstallShield Cancel
14. A completion message is displayed. Click **Finish**. **Important!**: Continue to the next step.	**Ektron DMS400 - InstallShield Wizard** **Ektron DMS400 Control** Setup has finished installing Ektron DMS400 on your computer. < Back Finish Cancel

Step	Setup Screen
15. The Document Management Add-on installation is complete. Click **Finish**. **Important!**: Continue to the next step to register your **Document Management Add-on** with your **CMS400.NET**	 **CMS400 - InstallShield Wizard** **InstallShield Wizard Complete** The InstallShield Wizard has successfully installed CMS400. Click Finish to exit the wizard. InstallShield < Back Finish Cancel

Step	Setup Screen
16. Enter the **CMS400.NET** Workarea, click **Settings** > **Configuration** > **Asset Server Setup**.	<table><tr><td>⊞ 📁 Help ⊟ 📂 Configuration ⊞ 📁 Active Directory 🌐 Setup 🌐 Searchable Properti 🌐 XML Configurations 🌐 Fonts 🌐 Language Settings 🌐 Asset Server Setup 🌐 Task Types 📑 Content 📋 Forms 🖼 Library ▦ Modules 🐾 Settings</td><td>No asset management servers are registered.</td></tr></table>
17. Click the **Edit** button.	🖹
18. Add the location of the AMS in the **Asset Management Server Address (URL)** field.	**Asset Management Server Registration** 💾 ← ⑦ **Asset Management ID:** c654df50-bd18-42cf-96a9-4e2f8b4b28c5 **Asset Management Server Address (URL):** Example: http://domain.name/AssetManagement/
19. Click **Save**.	💾

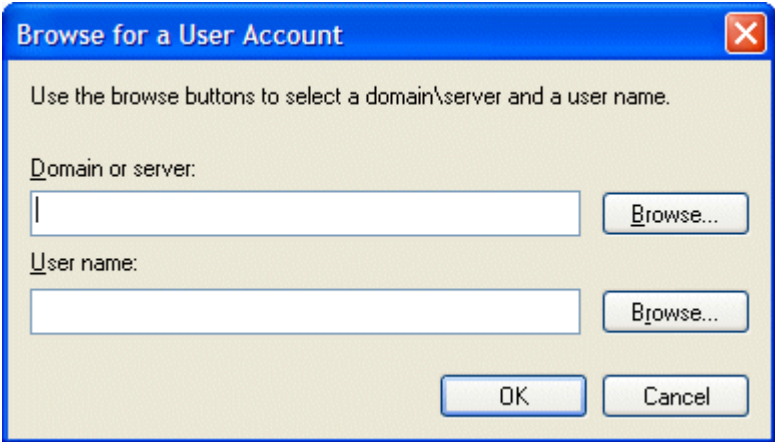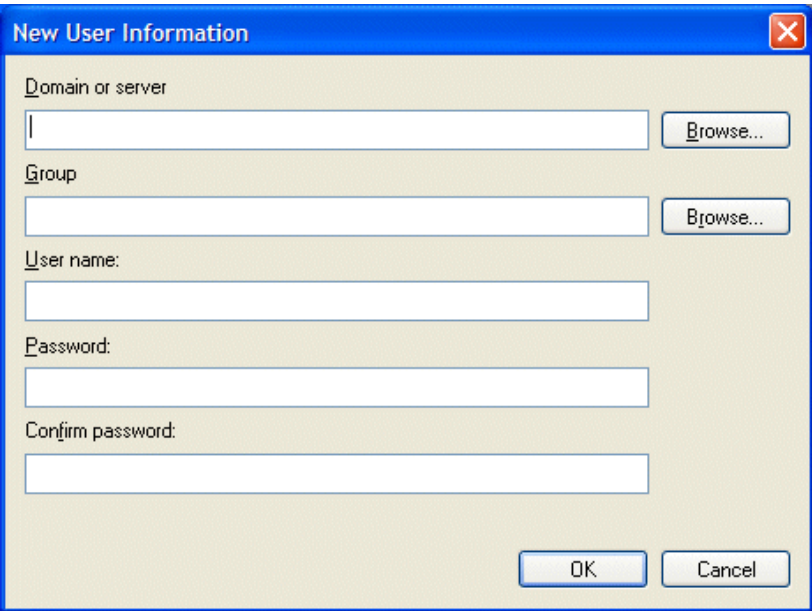| Step	Setup Screen
Congratulations, The **Ektron Document Management Add-on** is now installed and connected to the **CMS400.NET**	
20. If installing on Microsoft Windows Server 2003, the Web Folders install starts. To follow along with the install, see . Return to next step when complete. If you are not installing on Microsoft Windows Server 2003, continue to the next step.	
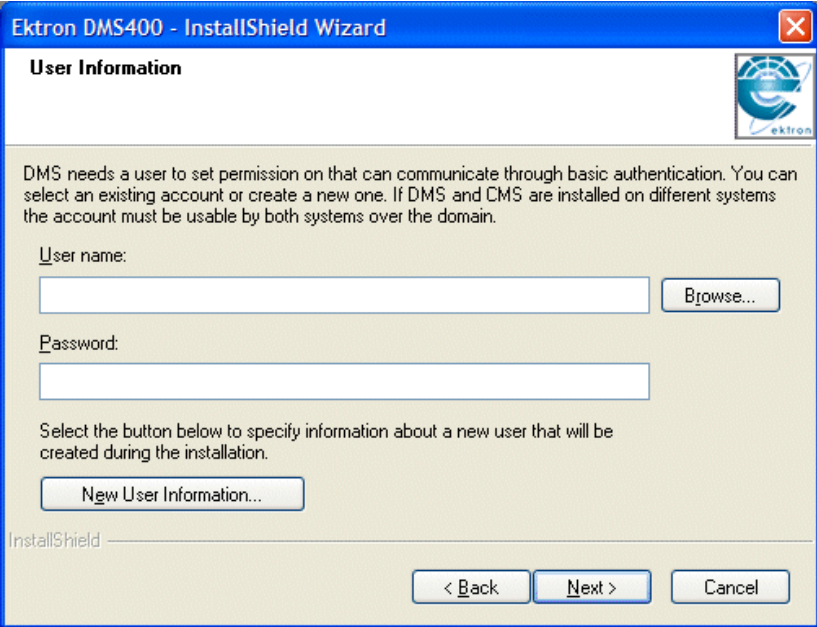
Adding a Document Management User Account

The **Ektron Document Management Add-on** needs a user to set permission on that can communicate through basic authentication. You can have the installation add an account, select an existing account from your server or domain, or create a new one. If **Ektron Document Management Add-on** and **Ektron CMS400.NET** are installed on different systems, the account must be usable by both systems over the domain.

During the installation of **Ektron Document Management Add-on**, you have a choice to:

- let the **Ektron Document Management Add-on** create a user account called EKT_ASSET_USER
- create a new user account
- use an existing user account

The user is authenticated to write to **C:\inetpub\wwwroot\dmdata**.

Step	Description
1. The user information screen appears. **Important**: **Ektron Document Management Add-on** needs a user to set permission on that can communicate through basic authentication. You can select an existing account or create a new one. If **Ektron Document Management Add-on** and **CMS400.NET** are installed on different systems, the account must be usable by both systems over the domain. • **User Name**: Type in a user name or click **Browse** to find a user. If you click browse continue to "Browse for a User Account." on page 68. Then return, enter a password and click **Next**. • **Password**: Type the password for the user. • **New User Information**: Select this button to create a new user. If you click the New User Information button, see"New User Information" on page 68 Click **Next** to continue. Return to "This screen prompts for database connection information." on page 62	

Step	Description
Browse for a User Account. • **Domain or Server**: Enter a domain or server name or click **Browse** to choose one from a list. • **User name**: Enter a user name or click **Browse** to choose one from a list. **Note:** You must specify a domain or server before browsing to a user. Click **OK**. Return to "The user information screen appears." on page 67	**Browse for a User Account** Use the browse buttons to select a domain\server and a user name. Domain or server: [ ] Browse... User name: [ ] Browse... OK Cancel
New User Information • **Domain or Server**: Enter a domain or server name or click **Browse** to choose one from a list. • **Group**: Enter a group in which to add the user or click **Browse** to choose one from a list. • **User name**: Enter a user name. • **Password**: Enter a password for the user. • **Confirm Password**: Confirm the password. Click **OK**. Return to "This screen prompts for database connection information." on page 62	**New User Information** Domain or server [ ] Browse... Group [ ] Browse... User name: [ ] Password: [ ] Confirm password: [ ] OK Cancel

Using Microsoft Windows Server 2003 as a Client (Web Folders Setup)
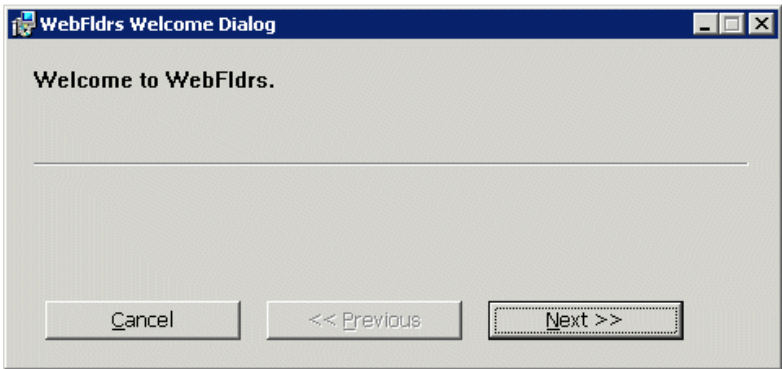
Symptom	Resolution
You receive the following error message: *Windows Server 2003 no longer ships MSDAIPP.DLL, thus connecting to an FPSE server through Webfolders, is no longer possible.*	Per MS Licensing, you can obtain webfldrs.msi from any down-level OS, or any Office product that shipped before Windows2003 (not Office 2003) and install the WebFolders client. Doing so will keep you compliant with licensing. Installing WebFolders from Office 2003 is only allowed if you have an Office 2003 license for each Windows2003 server you plan to install WebFolders on.
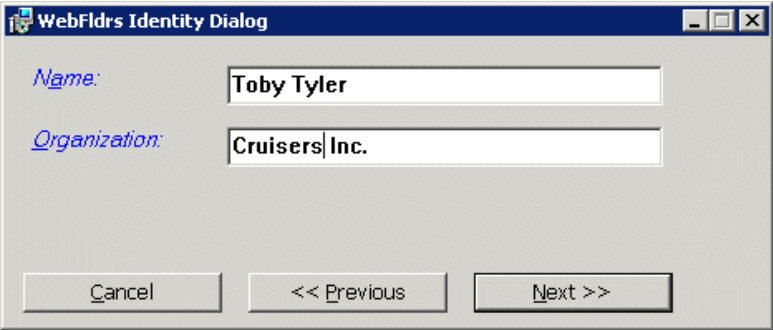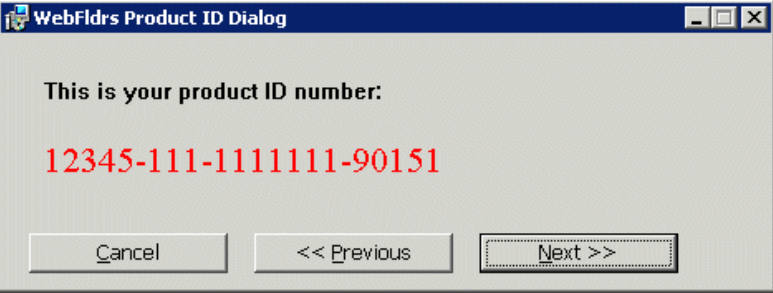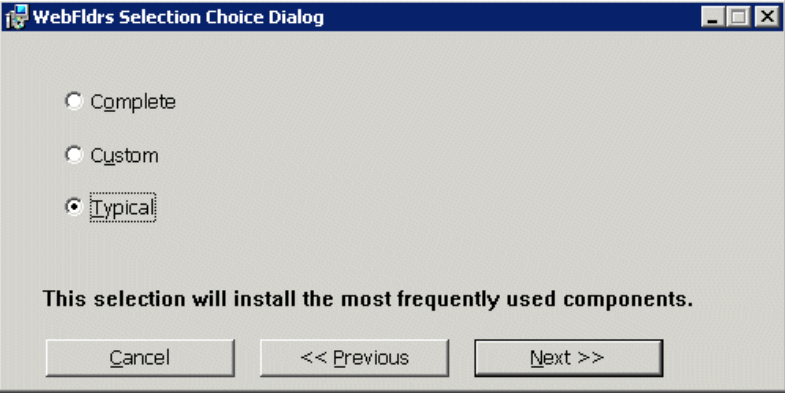
Web Folders Setup for Microsoft Windows Server 2003
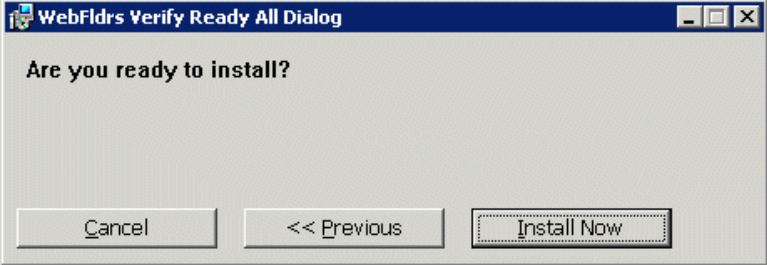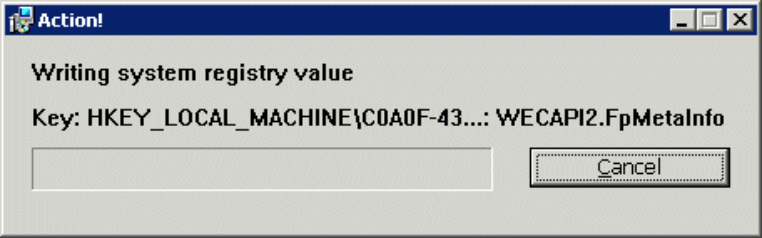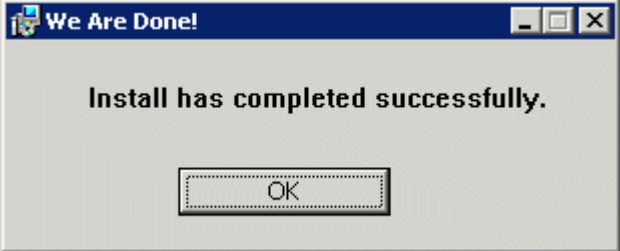
NOTE You only need to run the Web Folders Setup if there is a problem during the install. The **Ektron Document Management Add-on** install performs the setup when needed.

The MSDAIPP.DLL is no longer shipped with Microsoft Windows Server 2003, making communication with Web folders impossible. To correct this, **Ektron Document Management Add-on** setup runs the Web folder setup when it detects Microsoft Windows Server 2003.

The following steps explains installing Web Folders. You will need to obtain a copy of the webfldrs.msi file.
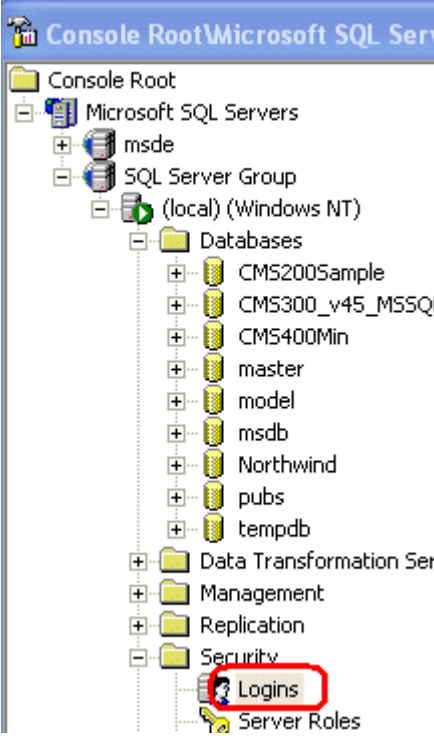
Step	Setup Screen
1. Double click the **webfldrs.msi** file.	
2. The Web Folders install screen appears. Click **Next** to continue.	
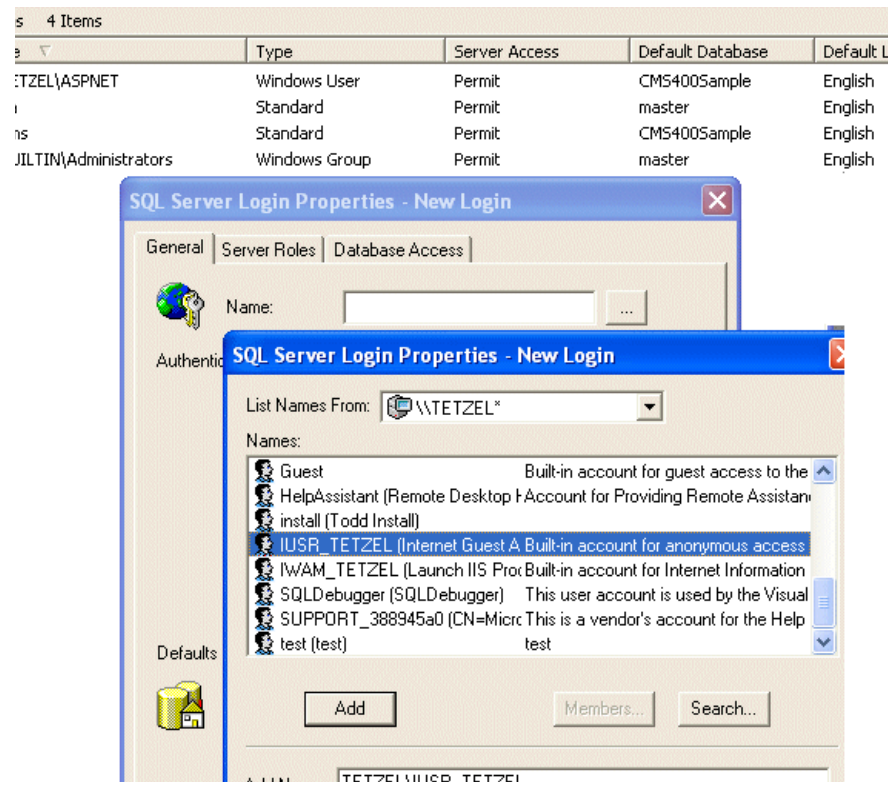
Step	Setup Screen
3. The Web Folders Identity dialog box appears. • Add your **Name**. • Add your **Organization**. • Click **Next**.	**WebFldrs Identity Dialog** Name: **Toby Tyler** Organization: **Cruisers Inc.** Cancel << Previous Next >>
4. The Web Folders Product ID dialog box appears. This dialog box displays the your product ID number. • Click **Next**.	**WebFldrs Product ID Dialog** **This is your product ID number:** **12345-111-1111111-90151** Cancel << Previous Next >>
5. The Web Folders Selection Choice dialog box appears. • **Complete** - installs all components. • **Custom** - you choose the components to install. • **Typical** - installs the most frequently used components. After making a selection, click **Next**.	**WebFldrs Selection Choice Dialog** ○ Complete ○ Custom ● Typical **This selection will install the most frequently used components.** Cancel << Previous Next >>
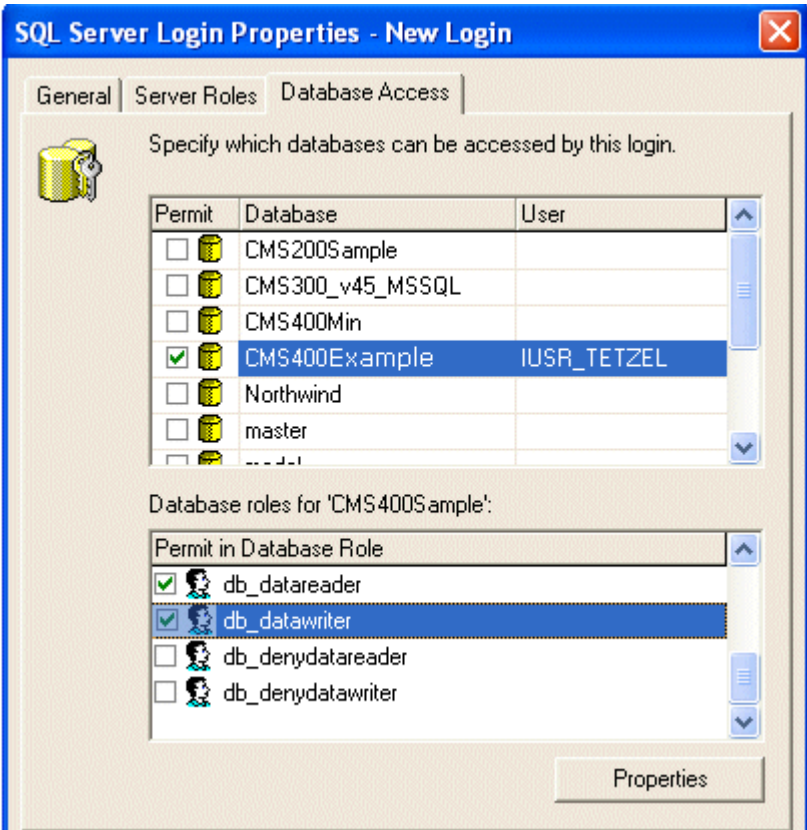
Step	Setup Screen
6. The Verify Ready All dialog box appears. • Click **Install Now**.	**WebFldrs Verify Ready All Dialog** Are you ready to install? Cancel << Previous Install Now
7. The Action dialog box appears. The Setup is installing Web folders.	**Action!** Writing system registry value Key: HKEY_LOCAL_MACHINE\C0A0F-43...: WECAPI2.FpMetaInfo Cancel
8. The We Are Done dialog box appears. • Click **OK**.	**We Are Done!** Install has completed successfully. OK

Set Up a User for the CMS400 Database

The installation automatically sets up user information based on the data collected during setup. However, if there is a problem creating the user, this section describes how to set up a user manually.

Step	Setup Screen
1. In the SQL Enterprise manager, select **Security > Logins**.	

Step	Setup Screen
2. On the Login Properties dialog, select **New Login**. From the New Login dialog, click **IUSER**, **Add**, and **OK**.	

Step	Setup Screen
3. On the **Database Access** tab, click the cms400example database. Then, assign permission to read and write to that database (as illustrated.)	

Possible Error Messages During Installation

Error
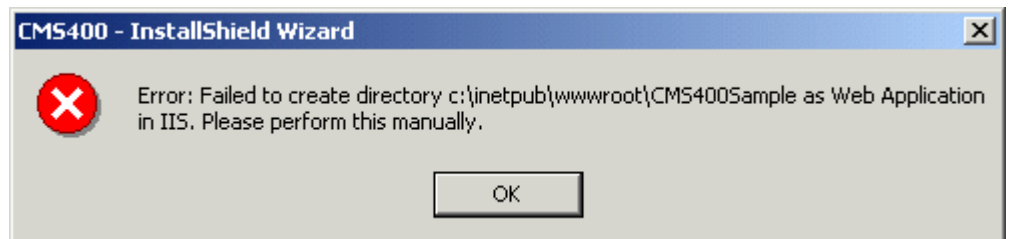
Possible Causes and Solutions
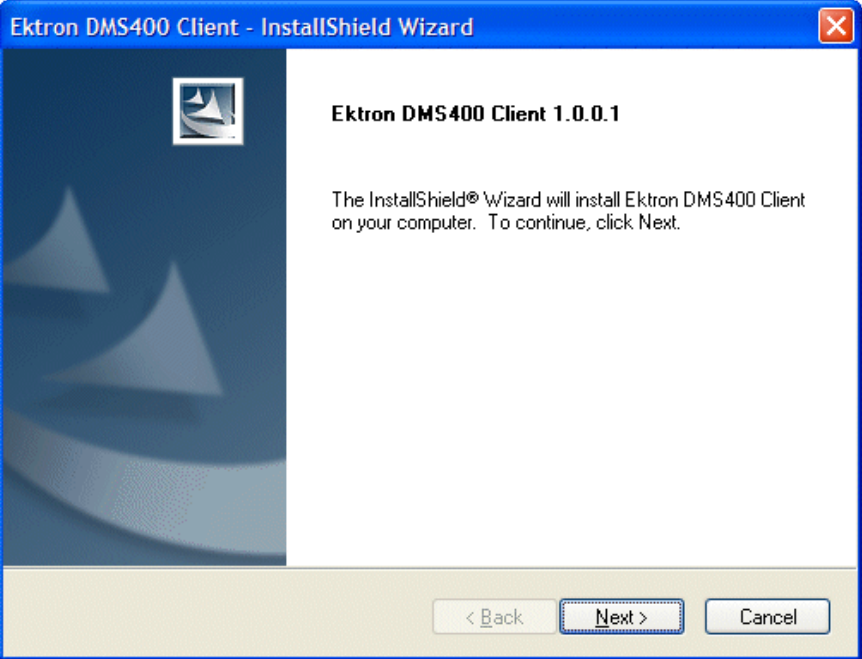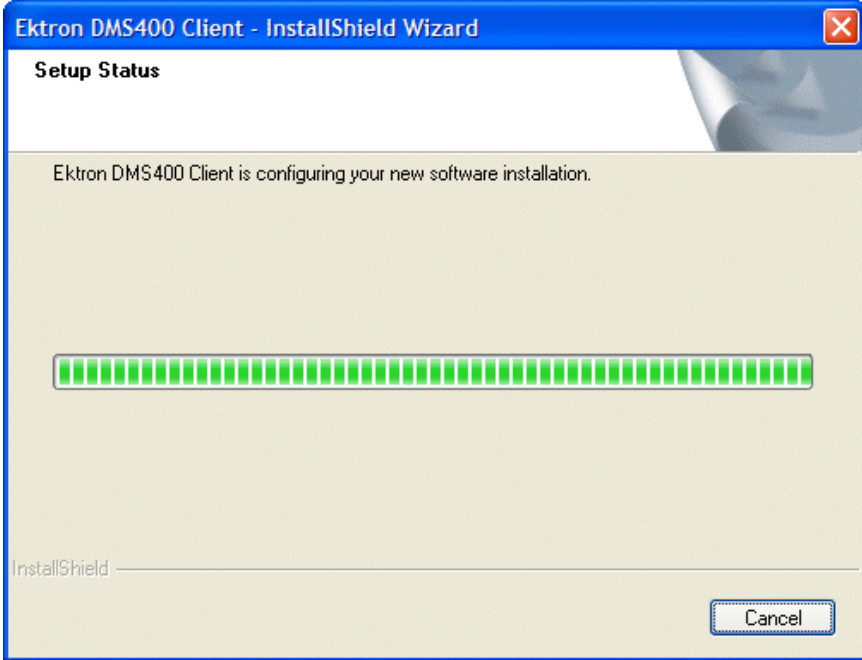
Possible cause	Suggested solution
User does not have permission to create objects	Grant user permission to create objects. For information on how to, read IIS Security help topic "Setting NTFS Permissions for a Directory or File." http://localhost/iishelp/iis/htm/core/iidfpsc.htm
IIS is not running	Restart IIS. For information on how to, read IIS help topic "Starting and Stopping Sites." http://localhost/iishelp/iis/htm/core/iiststp.htm
Host is not localhost	Install **Ektron CMS400.NET** on localhost machine only.
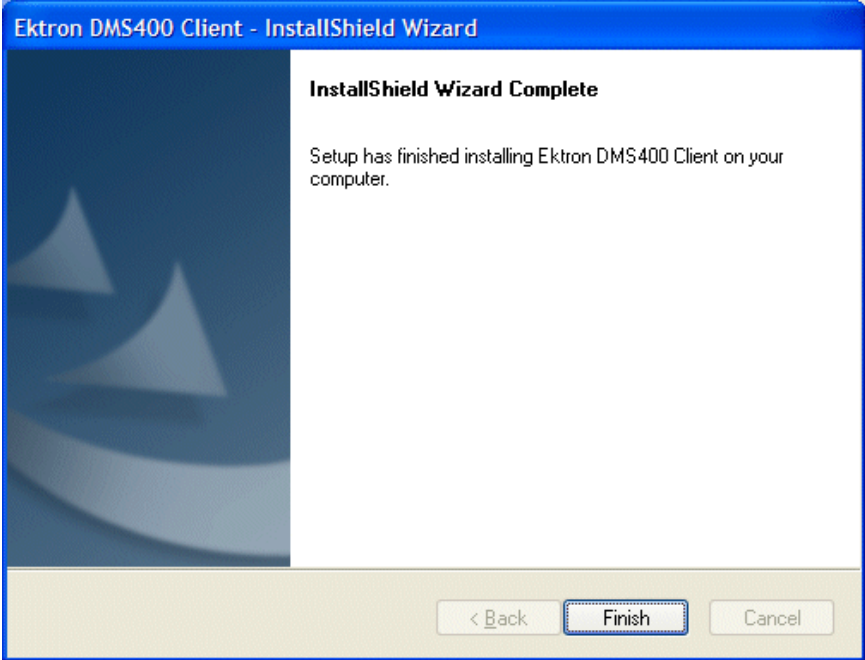
Document Management Client Install

This section explains the steps to install the **Ektron Document Management Add-on** on client systems. The client setup needs to be performed on all client systems that connect to a server with **Ektron Document Management Add-on** installed on it.

If you have a large client base to deploy, you should use deployment software. A good Web site for deployment software information and links is http://appdeploy.com/.

Step	Setup Screen
1. Double click the executable file `dms400client.exe`. The file's default location is `C:\Program Files\Ektron\CMS400v50\DMS400v11\AssetManagement\ektasset\clientinstall` Note: This step is not necessary if the install was launched from the server setup. If you are using Netscape Navigator or Mozilla Firefox as a client, you need to run this install.	

Step	Setup Screen
2. The following screen appears. Click **Next** to install **Ektron Document Management Add-on** client.	**Ektron DMS400 Client - InstallShield Wizard** **Ektron DMS400 Client 1.0.0.1** The InstallShield® Wizard will install Ektron DMS400 Client on your computer. To continue, click Next. < Back Next > Cancel
3. The setup program installs all necessary files.	**Ektron DMS400 Client - InstallShield Wizard** **Setup Status** Ektron DMS400 Client is configuring your new software installation. InstallShield Cancel

Step	Setup Screen
4. A completion message is displayed. Click **Finish** to complete the installation.	**Ektron DMS400 Client - InstallShield Wizard** **InstallShield Wizard Complete** Setup has finished installing Ektron DMS400 Client on your computer. < Back Finish Cancel

Results of Installation

File Locations

By default, the installation inserts files into two locations on the server:

- `C:\Program Files\Ektron\CMS400v50`: sample and minimal databases, documentation, utilities, site setup files (for creating additional sites)

- `C:\Inetpub\wwwroot\CMS400Example`: bin folder, Web Services, scripts, supporting files, uploaded files and images, graphics used in the application, CustomAPI (used to customize **Ektron CMS400.NET**), etc.

NOTE The bin folder stores Ektron CMS400.NET's binary executable files. The .NET environment automatically searches this folder when looking for dll files.

File Permissions

During installation, the everyone group is given permission to create folders in the following directories:

- `C:\Inetpub\wwwroot\CMS400Example\uploadedfiles`
- `C:\Inetpub\wwwroot\CMS400Example\uploadedimages`

Ektron recommends setting up .NET user accounts to authorize users to add, edit, and delete folders in the installation folder, `C:\Inetpub\wwwroot\CMS400Example\`.

Changes to the CMS400 web.config File

IMPORTANT!	If you perform a complete CMS400 and Document Management Add-on install, there are two web.config files that are created. One for the CMS400 located in /webroot/CMS400Example/ and one located in /webroot/CMS400Example/AssetManagement/ for the Document Management Add-on. This section refers to the CMS400 web.config file.

See Also: "Managing the web.config File" on page 90

After you install **Ektron CMS400.NET**, the web.config file is updated as follows.

web.config setting	Assigned this value by installation
ek_sitePath	*webroot*/CMS400Example
ek_buildNumber	current build number of **Ektron CMS400.NET**
ek_version	current version of **Ektron CMS400.NET**

After you run the database setup utility, the web.config file is updated as follows.

Line	Description	Value (if default accepted)
ek_dbCatalog	the database name you assigned	

Line	Description	Value (if default accepted)
ek_dbServer	the database server name (MSSQL or MSDE)	(local)\CMS400MSDE2000
ek_dbConnectionType	database connection type (MSDE or SQL)	sql
ek_dbUsername	user from CMS400 database (only used for SQL)	sa
ek_dbPassword	password from CMS400 database (only used for SQL	Ektron
ek_dbTrustedConnection	**false** - (default) sets authentication to **SQL Server**. Username and password are required. **true** - sets authentication to **Windows**. Windows handles security when connecting to database.	false
ek_sitePath	path from the root of web server	

After Installation

Ektron strongly recommends configuring a secure socket layer (SSL), especially if you are using Active Directory Integration. SSL encrypts passwords that are otherwise sent as clear text to the Ektron CMS400.NET server. See "Configuring SSL" on page 105 for more information.

Setting Up an Additional Site

After installing **Ektron CMS400.NET**, 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 would typically install a minimal site and database, then create your Web page templates. Later, you can add users and content.

To set up an additional site, follow these steps.

-
-
-

Step 1: Set up New Site

1. Create a new folder in the Web root folder to contain the site files.

2. From the Windows Start menu, follow this path:

   Start > Programs > Ektron > CMS400 > Utilities > SiteSetup

3. Follow the steps for creating a new site, as described in "Setting up a Site" on page 47. When prompted to select a folder to which you want to install the files, choose the folder you created in Step 1.

Step 2: Set up New Database

After installing an **Ektron CMS400.NET** site, it is easy to create a new, starter database. You can create either a sample or minimal database. If you want to create a database for your content, you typically install a minimal database.

To set up a database, follow these steps.

1. From the Windows Start menu, follow this path:

   Start > Programs > Ektron > CMS400 > Utilities > SiteSetup

2. On the first screen that appears, choose **Database Setup only**.

```
CMS400 Site Setup - InstallShield Wizard                               ✕

Setup Type
Select the setup type that best suits your needs.


Thank you for installing CMS400. The following wizard will allow you to setup, upgrade, or
reinstall a CMS400 site.

    ◯ CMS400 + Document Management Add-on

    ◯ CMS400 Setup

    ◯ Document Management Add-on

    ◉ CMS400 Database Setup

    ◯ Upgrade CMS Site / Reinstall




InstallShield ─────────────────────────────────────────────────────

                          < Back      Next >         Cancel
```
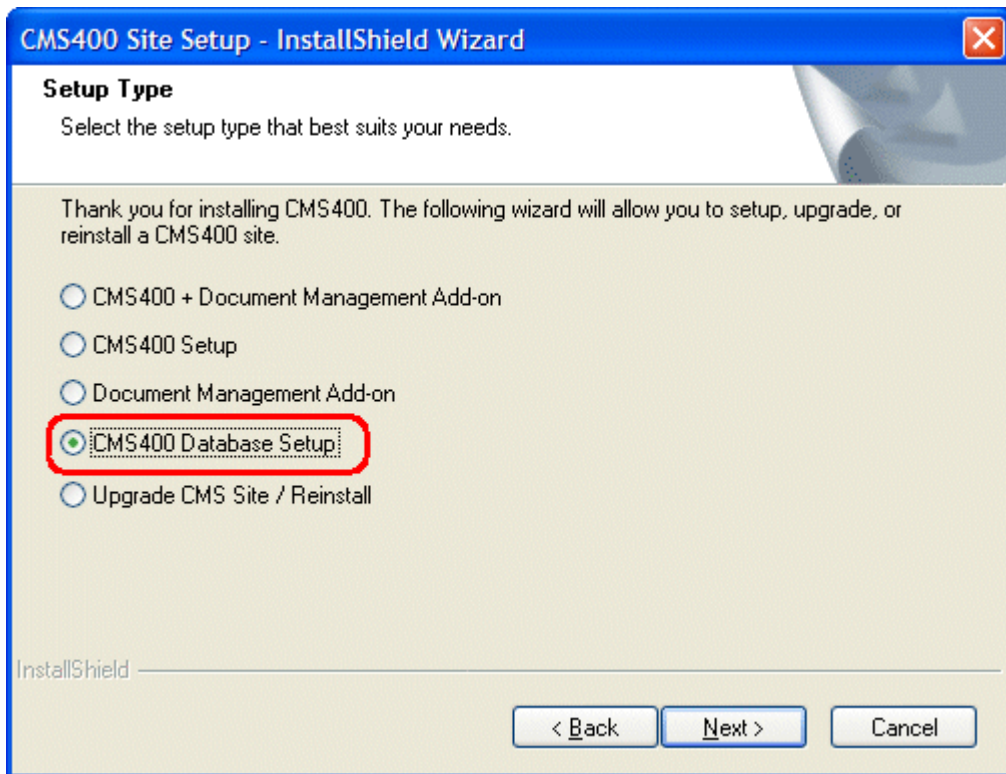
3. Follow the steps for creating a new database, as described in "Setting up a Database" on page 51. Be sure to assign the database a name other then the default. Also, when asked to enter a SQL or MSDE server, enter the server name or IP address.

WARNING! Do *not* use the instance name (CMS400MSDE2000) -- it will cause an error.

Step 3: Create Project in Visual Studio.NET

To work with the new site in Visual Studio.NET, you need to create a new project for it. To do that, follow these steps.

1. Navigate to the folder of the new site you created.

2. Double click **Ektron CMS400.NET**'s solution file. If you are using the minimal database, the file is CMS400Min.sln. If you are using the sample database, the file is CMS400Example.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, you can use the builtin account: the username is builtin and password is builtin.

WARNING!   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 CMS400.NET.

To learn about creating templates and using server controls, see the **Ektron CMS400.NET** Developer's Manual section "Ektron CMS400.NET Server Controls."

Moving a Site to Another Directory or Server

Use this procedure to move an **Ektron CMS400.NET** Web site to a new folder or even a different server. For example, you complete work on a site that resides on a development server and want to move it to a production server.

Within this documentation, the original site's folder is referred to as the *source* directory, and the new site's folder is called the *destination* directory. The directories can reside on the same server or different ones.

Moving the site consists of the following major steps. Each step is described below.

- "Step1: Set up an IIS Site on the Destination Server" on page 83
- "Step 2: Copy Files to Destination Directory" on page 84
- "Step 3: Set Security on New Folders" on page 84
- "Step 4: Make the New Directory an IIS Application" on page 85
- "Step 5: Back up the Database" on page 86
- "Step 6: Create a New Database" on page 87
- "Step 7: Restore the Database" on page 88
- "Step 8: Set Security on the Copied Database" on page 90
- "Step 9: Update web.config on the Destination Site" on page 90

Moving a Site vs. Using the Site Replication Feature

In addition to the Site Move procedure described below, **Ektron CMS400.NET** offers a Site Replication feature. That feature automatically pushes new and updated site files to the production server. Site Replication is especially useful when your site contains sensitive information (for example, pricing) that needs to be carefully reviewed for quality assurance before it goes live. For more information, see the **Ektron CMS400.NET** Administrator manual section "Site Replication."

When You Would Use the Site Replication feature

You'd use the Replication feature in these cases.

- Moving a site from staging to production
- Distributing a site among load-balanced servers

When You Would Use the Move Site Procedure

You'd use the Move Site procedure in these cases.

- Moving a site from staging to production if you do not have the Replication feature
- Distributing a site among load-balanced servers if you do not have the Replication feature
- The initial move of a site up to a shared server (or any other server on which you cannot run the .exe installer). Subsequently, you could use Site Replication if you have it.
- Making a backup copy of a site
- Moving a site to a new server. For example, you purchase a new server to replace your existing one.
- Moving a site between two servers that are not connected by a network.

Step1: Set up an IIS Site on the Destination Server

NOTE	This procedure assumes your Web server runs Windows 2003 server.

1. On the destination server, go to **Start** > **Control Panel** > **Performance and Maintenance** > **Administrative Tools** > **Internet Information Services**.

2. Click the plus sign (+) next to the computer's name so that you can see the Web Sites folder.

3. Right click the Web Sites folder and select **New Web Site**.

4. The Web Site Creation wizard appears and walks you through the steps of creating a new Web site.

5. At the **TCP Port** field, make sure the IP address/host header/ port combination do not conflict with an existing Web site. For example, if the destination server already publishes a Web site on IP address 172.23.23.231 with host header dev.example.com on port 80, your new site could use the same settings on port 81. The new site is accessible through `http:// dev.example.com:81/`.

6. When prompted for the path to the new site, create a new folder for the site in the destination server's file system.

7. When prompted to assign permissions to the new folder, assign **read**, **write** and **run scripts** permissions.

Step 2: Copy Files to Destination Directory

1. In the Web root of the destination directory, create a folder with the same name as the folder in the source directory.

NOTE   You do this in order to set the destination site on the same URL path as the source site on the source server. For example, if you the source site's login page is `http://localhost/MySite/login.aspx` and you're moving it to dev.example.com port 81, place the destination site at `http:// dev.example.com:81/MySite/login.aspx`.
It is important for both sites to use the same URL path because **Ektron CMS400.NET** uses "root relative" pathing in links to pages and images. This means that any managed content item can be displayed on any page in the Web site. Since the path may be embedded in hyperlinks and image paths, changing the URL path on the destination server may cause problems.

2. Copy all files in the source directory to the destination directory.

Step 3: Set Security on New Folders

This procedure lets **Ektron CMS400.NET** users upload files to the library.

1. Within IIS manager, navigate to the folder created in .

2. For the uploadedfiles and uploadedimages directories, right click on the folder and choose **Properties**. On the **Directory** tab of the Properties dialog, ensure that the **Write** attribute is checked.

3. Exit IIS manager.

4. Open Windows Explorer.

5. Navigate to new Web site's folder.

6. Right click the uploadedfiles directory, and choose **Properties**.

7. On the **General** tab of the properties dialog, ensure the Read-Only attribute is not checked.

8. On the **Security** tab of the properties dialog, ensure that the IIS anonymous user (usually named "IUSR_COMPUTERNAME") has Write permission.

9. Right click the uploadedimages directory, and choose **Properties**.

10. Repeat steps 7 and 8 for the uploadedimages directory.

Step 4: Make the New Directory an IIS Application

1. Within IIS manager, right mouse click the folder created in .

2. Select **Properties**.

3. In the **Application Settings** area, click **Create**.
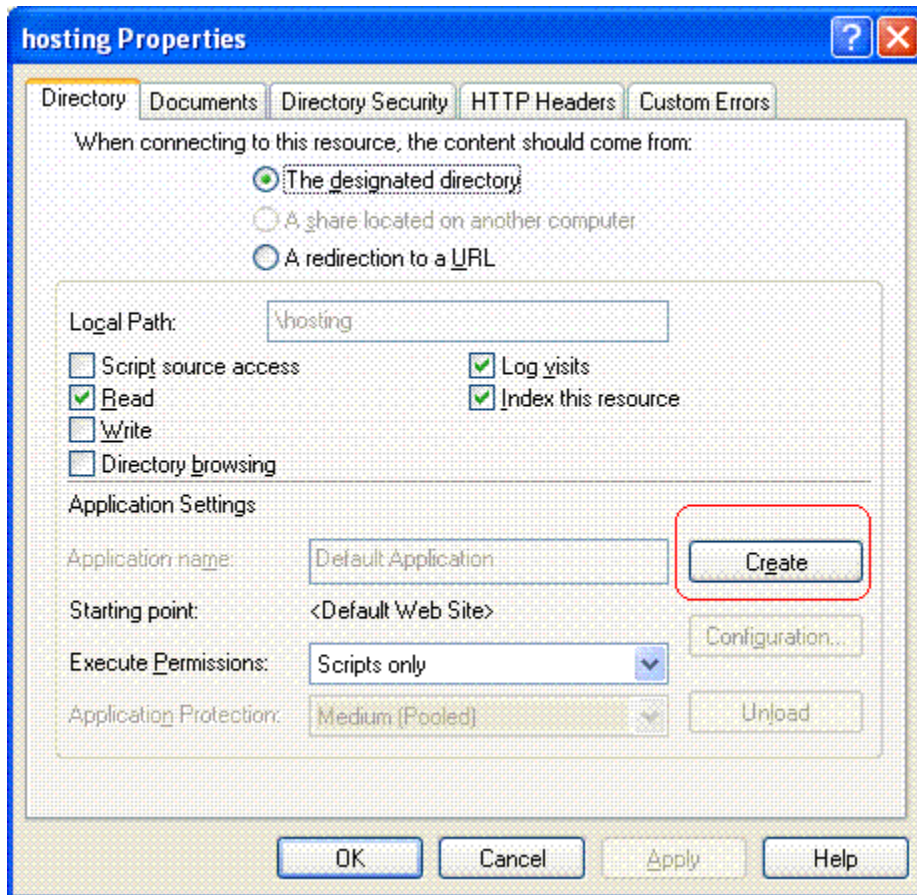
4. Click **OK**.

Step 5: Back up the Database

WARNING!   Do not use SQL Server Data Transformation Services to move the database. This feature is not compatible with Ektron CMS400.NET.

Ektron recommends backing up the database in the source folder then restoring the database backup to the destination folder. This procedure is described below.

1. In the **Ektron CMS400.NET** source folder, open the web.config file and verify the name of the database. The database name appears after `key="ek_dbCatalog" value=` .

2. On the source server, open SQL Enterprise Manager and navigate to the database you identified in Step 1.

3. Right mouse click the database then select **All tasks > Backup database**.

4. Select a destination file name by clicking the **Add** button in the Destination area of the SQL Server Backup screen.
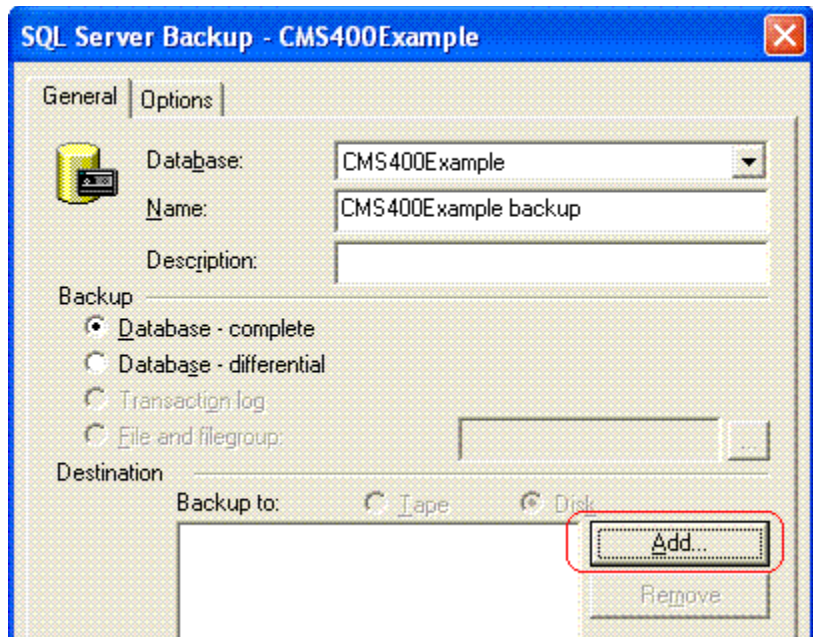

Step 6: Create a New Database

1. On the Destination server, open SQL Enterprise Manager.

2. Expand the display until you see the Databases folder.

3. Right click the Databases folder.

4. Choose **New Database...**.

5. Assign a name to the database.

6. The remaining options can remain as defaults, or you can be edit them as needed.
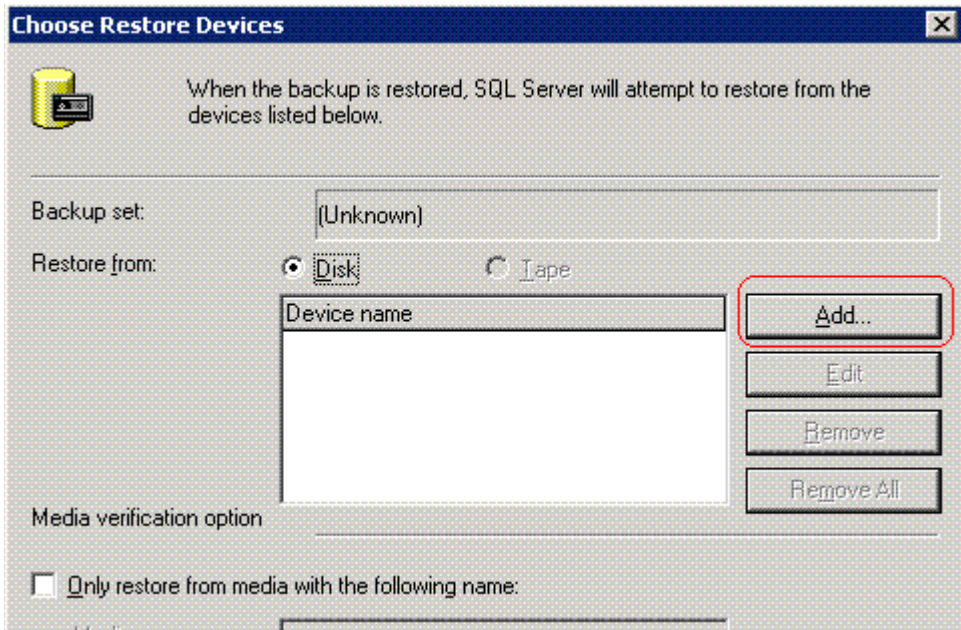
Step 7: Restore the Database

Restore the database to the new destination folder. To do this, follow these steps.
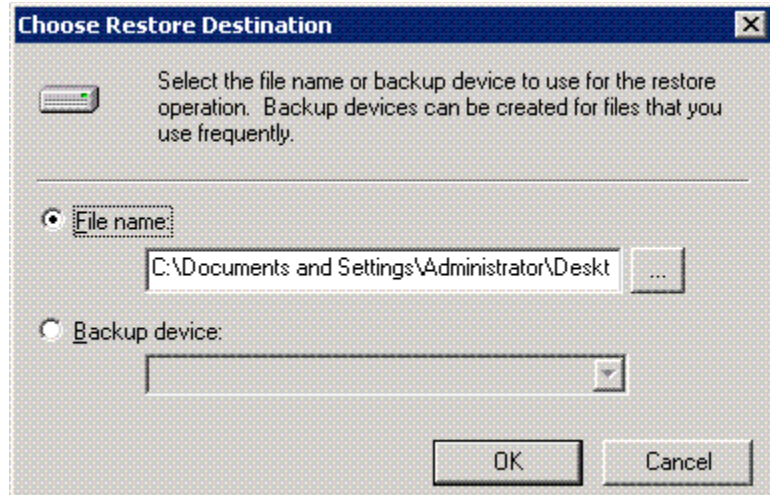
1. Right click the database you created in .

2. Select **All Tasks** > **Restore database**.
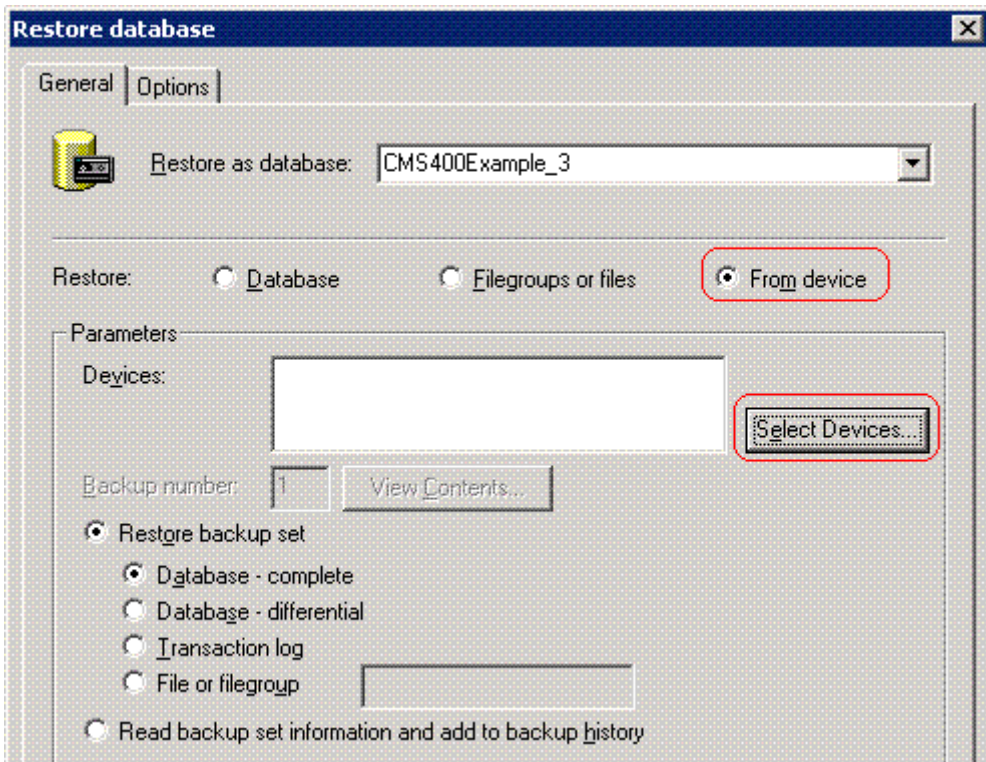
3. In the **Restore as database** field, verify that the database you created in Step 6 appears.

4. In the **Restore** section, click **From device** (circled above).

5. Click the **Select Devices** button (circled above).

6. The Choose Restore Devices screen appears. Click the **Add** button (circled below).

7. On the Choose Restore Destination screen (below), select **File name** and navigate to the backup file you copied to the destination folder.

8. Press **OK** three times. SQL copies the data to the database you created in "Step 6: Create a New Database" on page 87.

Step 8: Set Security on the Copied Database

1. This procedure is described in "Set Up a User for the CMS400 Database" on page 71. Do this for the following users.

- IUSER
- ASPNET User

Step 9: Update web.config on the Destination Site

1. Within the destination site folder, open the web.config file.

2. Modify the following values as needed.

Web.config element	How to Modify
ek_dbCatalog	The name of the new database, if you changed it
ek_dbUsername	The database user, if you created one
ek_dbPassword	The database password, if you created one
ek_dbTrustedConnecti on	Whether the new database uses a trusted connection
ek_sitePath	The path to the new folder, relative to the server's webroot folder
WSPath	The full path to the folder that stores the Web Service URL for Server Controls at design time

Managing the web.config File

Ektron CMS400.NET's web.config file lets you control many key functions of the content management system. When you install **Ektron CMS400.NET**, web.config is placed into `webroot/CMS400Example.`

This section explains the settings in the web.config file.

NOTE   In CMS300 and CMS200, most web.config settings were handled in the setup.*xxx* file.

If your server is currently running another .NET application, you must merge that web.config file with this one.

Note that all **Ektron CMS400.NET** settings begin with ek_ and reside within the `<appSettings>` tags of the web.config file. This prefix distinguishes **Ektron CMS400.NET**'s tags from others.
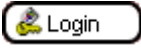
Settings in the web.config File

Setting	Description
ek_dbCatalog	The name of the SQL database you are using.
ek_dbServer	The name of the database server to which **Ektron CMS400.NET** is installed. If installed locally, the value is **localhost**. This value is set during installation, at the Host screen.
ek_dbConnectionType	Should be SQL for SQL authentication.
ek_dbDatabase	MSSQL is currently the only supported database

Setting	Description
ek_dbUsername	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.
ek_dbPassword	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.
ek_dbUseTransactions	not used currently -- for future use
ek_dbTrustedConnection	For SQL authentication, set to **false**. In this case, username and password are required. For Windows authentication, set to **true**. If set to **true**, Windows handles security when connecting to the database. In this case,.NET impersonates the user coming from IIS, eliminating the need for the ASPNET account.
ek_dateFormat	Enter a pattern describing how dates and times are stored in your database.
ek_workareaDateFormat	Choose how you want to display dates in some areas of the Workarea. ● long - for example, Saturday May 21, 2005 ● short - for example, 5/21/2005
ek_sitePath	The location of **Ektron CMS400.NET** relative to the Web root. This value is set during installation at the Site Path Directory screen. If you move **Ektron CMS400.NET** to another folder, you must update this value.
ek_buildNumber	This value is set by the installation program. You typically would not change it.
ek_version	This value is set by the installation program. You typically would not change it.

Setting	Description
ek_appPath	This element is prefixed by the ek_sitePath value and describes the location of the CMS400Workarea folder. This file stores external applications (such as eWebEditPro and eWebDiff), templates, and the images folder.
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.
ek_pluginDir	not used currently -- for future use
ek_appName	The name of the application, CMS400. You typically would not change this value.
ek_RedirectorInstalled	Sets whether the redirector is turned on or off in the **Ektron CMS400.NET** Workarea. Turning the redirector on enables the option of aliasing the URL of your Web site. The default is **false**. **True** = Aliasing turned on **False** = Aliasing turned off *See Also:* The Administrator's Manual section "URL Aliasing".
ek_RedirectorManualExt	Set a comma-delimited list of Web page extensions for which you will want to create aliased pages. For example, ".aspx,.htm,.html,". By default the list contains **.aspx**. **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 (,). *See Also:* The Administrator's Manual section "URL Aliasing".

String Values - These strings appear in **Ektron CMS400.NET** before the user logs in. They are placed here because this file is outside the database. Edit them if you want to translate them to another language or to make them more specific to your installation.

String	Default Text
ek_String_1	Login
ek_String_2	Invalid username or password.
ek_String_3	Please try again.

Setting	Description
ek_String_4	User:
ek_String_5	Pwd:
ek_String_6	Enter your username and password.
ek_String_7	Click here to close this window
ek_String_8	Click here to log in
ek_String_9	All the words
ek_String_10	Any of the words
ek_String_11	Exact Phrase
ek_String_12	Match Partial Words
ek_String_13	The search resulted in zero matches
ek_String_14	The following error occurred while trying to login:
ek_String_15	Domain
ek_appImagePath	The folder that stores the images within **Ektron CMS400.NET**, such as toolbar icons. You would only change this value if you need to move the images folder to another location. Note that this value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to *webroot*/`CMS400Example/CMS400Workarea/`. So, by default, this folder is set to *webroot*/`CMS400Example/CMS400Workarea/images/application/`.
ek_appeWebPath	The folder that stores eWebEditPro, **Ektron CMS400.NET**'s editor. You would only change this value if you need to move the editor to another location. Note that this value is prefixed by the value set in the ek_appeWebPath variable. By default, ek_appeWebPath is set to *webroot*/`CMS400Example/CMS400Workarea/`. So, by default, this folder is set to *webroot*/`CMS400Example/CMS400Workarea/`ewebeditpro.

Setting	Description
Images - Similar to text strings, 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" on page 93	

Setting	Description
ek_Image_1	close button
ek_Image_2	small login button
ek_Image_3	big login button

Setting	Description
SMTP server configuration - See "Configuring SMTP Settings" on page 101	

Setting	Description
ek_SMTPServer	The server that processes email
ek_SMTPPort	The port your system uses to retrieve email
ek_SMTPUser	The username set up to send and receive email
ek_SMTPPass	The password set up to send and receive email
Mail Format	
ek_MailFormat	The format of the email created in **Ektron CMS400.NET**. A value of **HTML** generates email in HTML format, while a value of **Text** generates plain text email.
SSL Support - See "Updating the web.config File" on page 108	
ek_UseSSL	Determines if server will use SSL for security
ek_SSL_Port	SSL port used by Web server.
Active Directory Server Configuration	
ek_ADEnabled	Whether your **Ektron CMS400.NET** uses Active Directory support.

Setting	Description
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_UserMenuType	Determines the appearance of the menu that appears within every content block after the user signs in.
	0 - New dynamic menu - menu only appears when user moves cursor over content block
	1 - Old classic menu - menu always appears
	See Also: **Ektron CMS400.NET** Administrator Manual section "Introduction to Ektron CMS400" > "Getting Started" > "Recognizing Content Blocks" > "The Floating Toolbar"
ek_MenuDisplayType	This setting only works if `ek_UserMenuType` is set to zero (0).
	Determines the appearance of the menu that appears within every content block after the user signs in.
	0 - Horizontal - menu icons are arranged horizontally
	1- Vertical - menu icons are arranged vertically and include the tooltip text
	See Also: **Ektron CMS400.NET** Administrator Manual section "Introduction to Ektron CMS400" > "Getting Started" > "Recognizing Content Blocks" > "The Floating Toolbar"
Multilingual Settings	
ek_EnableMultilingual	Enable or disable support for multilingual content
	1- enable
	0 -disable
	See Also: **Ektron CMS400.NET** Administrator Manual section "Multi-Language Support" > "Working with Multi-Language Content" > "Enabling/Disabling Support for Multiple Language Content"
ek_DefaultContentLanguage	Sets the four-digit, decimal representation of the default content language. For example, American English is 1033.
	If you have another version of an Ektron CMS (e.g., CMS200) or an earlier than 4.7 version of CMS400, all content blocks are set to this value during the upgrade.
	See Also: See Also: **Ektron CMS400.NET** Administrator Manual section "Multi-Language Support" > "Working with Multi-Language Content" > "The Default Language"

Setting	Description
ek_ServerURL	Mainly used in Web services to determine the location of a remote server. 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.
WSPath	Determines the location of the Web services page used by the server controls at design time.
ek_BatchSize	The amount of files that can be uploaded at the same time. The default is **4**, but it could be any non negative number. **Note:** Users can upload any amount of files. The system will handle them four at a time.
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" />`

Configuring E-Mail Notifications

An email is sent to notify users when a task (such as approving a content block or submitting a form) was performed or needs to be performed. This section explains the steps needed to use Microsoft's SMTP service to enable e-mail notification in Ektron CMS400.NET.

CDOSYS

To process email, **Ektron CMS400.NET** uses the CDOSYS model. Using the Simple Mail Transport Protocol (SMTP) and the Network News Transfer Protocol (NNTP) standards, CDOSYS enables applications based on Windows XP, Windows 2000 or Windows 2003 to route e-mail and USENET-style news posts across multiple platforms.

CDOSYS, the successor to CDONTS, is as easy to use as CDONTS but is more powerful by letting authors create and view sophisticated emails using html and data sources.

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

Set up SMTP Server

For CDOSYS to work, set up the SMTP server on your local system (to which you installed **Ektron CMS400.NET**) or a remote system that sends and receives email.

NOTE To access an SMTP server on a local or remote system, consult the system administrator who manages email in your organization. This administrator may not be the same as the Ektron CMS400.NET administrator.

- **Local** - Before setting up an SMTP server on your local system, install IIS. The SMTP server settings on a local system would be 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. The SMTP server on a remote system can be something like this:

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

```
"ek_SMTPServer" value= "yourserver.com"
```

After the SMTP server is set up, configure it as described in "Verification for Relay" on page 98.

Verification for Relay

To verify that your Ektron CMS400.NET Web server's IP address supports relay through your SMTP server, follow these steps.

NOTE The WWW and SMTP components of IIS must be installed on the Web server to which Ektron CMS400.NET is installed.

1. On your SMTP server, access your Internet Services Manager in the Administrative Tools.
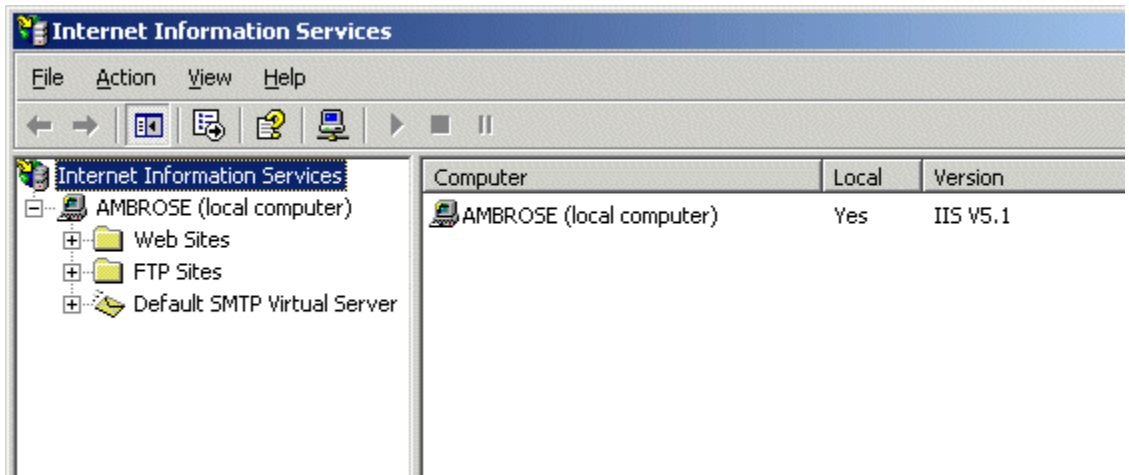
2. In the IIS Management Console, select the SMTP virtual server.
3. On the Action menu, click **Properties**.
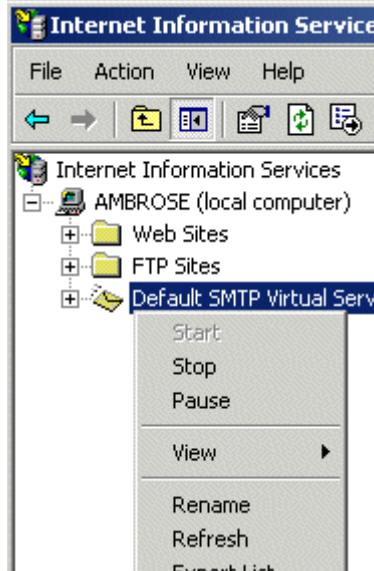
4. The SMTP properties window opens.
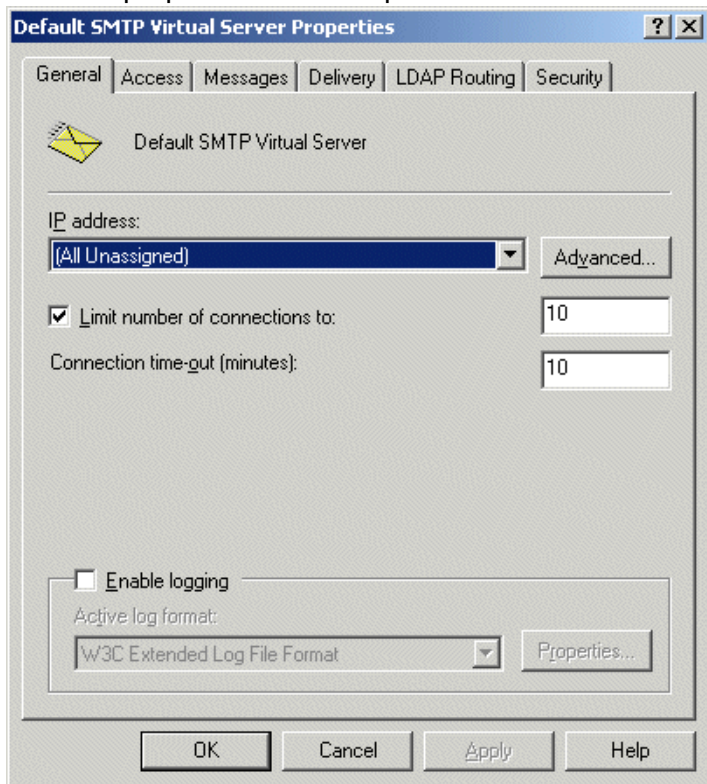
5. Click the **Access** tab.

6. The access properties appear.
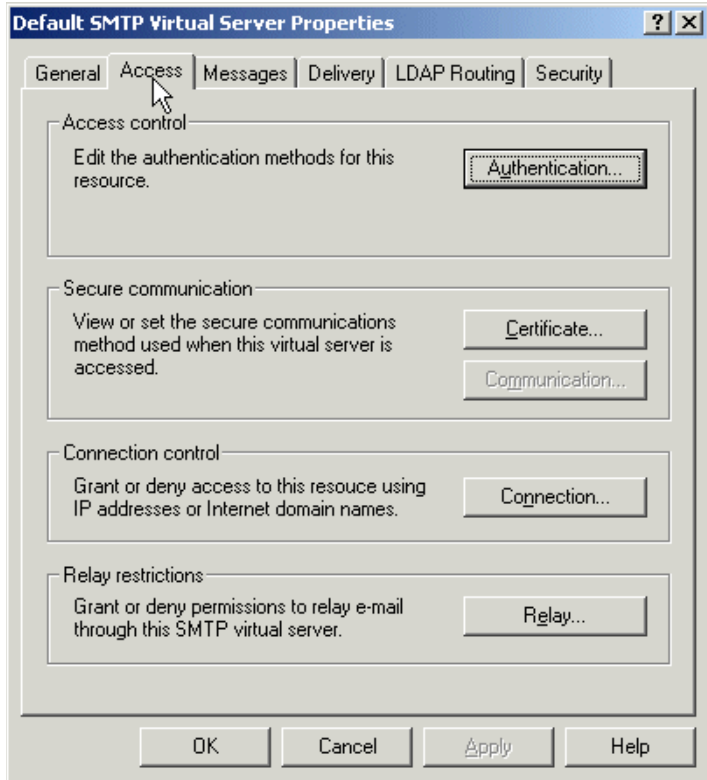
7. In the Relay Restrictions section, click the **Relay...** button.
8. The Relay Restrictions window opens. Set or remove relay restrictions.
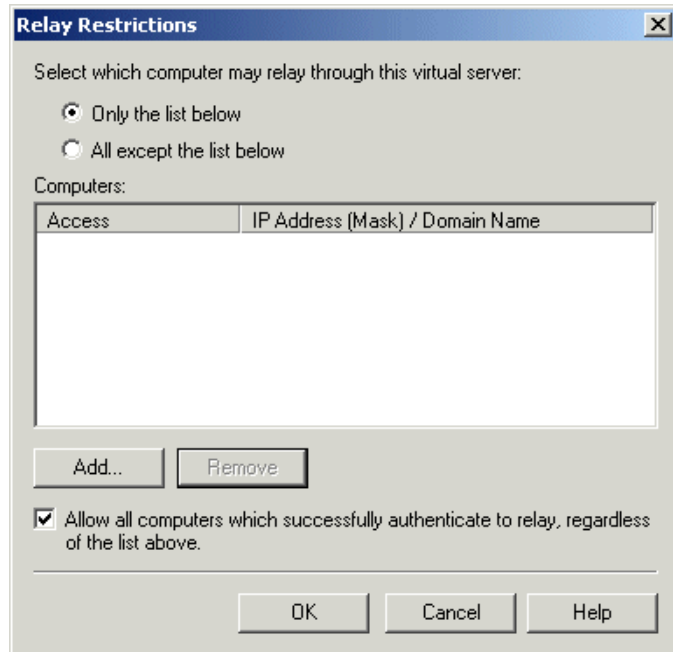
NOTE   For more information, see "Setting or Removing Relay Restrictions from a Virtual Server" from this Web page: <http://www.microsoft.com/WINDOWS2000/en/professional/help/moc04_57.htm>

Configuring SMTP Settings

Next, configure Ektron CMS400.NET to use SMTP.

1. Open the web.config file. (See "Managing the web.config File" on page 90.)

2. Move to the section of the file that has these settings.

```
<!-- 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. See "Set up SMTP Server" on page 97.

---

4. Set the `ek_SMTPPort` value 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 the `ek_SMTPUser` value 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@companyname.com`".

   This retrieval of email is based on how basic authentication is set up for you, though you do not need a username when using a local SMTP server. Check with your System Administrator for details.

   If you are using a remote system for accessing email, you must provide an authenticated username before you can send or receive email.

6. 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, the **Ektron CMS400.NET** only accepts passwords in the encrypted form.

   To encrypt the password, Ektron provides a password encrypting tool. See "The Encrypt Password Utility" on page 102.

The Encrypt Password Utility

To use the utility tool EncryptEmailPassword.exe, follow these steps.

1. Open `C:\Program Files\Ektron\CMS400\Utilities`

2. Run EncryptEmailPassword.exe.

3. The Encrypt Utility dialog appears.

4. Enter your SMTP password in the Text field.

5. Click the **Encrypt** button.

6. The screen displays an encrypted password in the **Encrypted** field.

7. Copy the encrypted password and paste it into the web.config file after `"ek_SMTPPass" value=`.

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 CMS400.NET**.

- **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@company.com [CBR SendMail R1] [CBR R1] [DIO R36]**

What's Next?

After you set up the mail server, you can begin using **Ektron CMS400.NET**. For e-mail notification to work properly in Ektron CMS400.NET, the following criteria must be met.

- Valid system email address
- Email notification is enabled in the settings table
- Valid user email address
- User email notification is enabled

For information about these settings, refer to the Administrator Manual.

Configuring SSL

In **Ektron CMS400.NET**, you can use SSL when users log in to your Web site. SSL encrypts the username and password during transmissions to the server.

When you set up the SSL certificate, and configure Ektron CMS400.NET to use it, the login page is launched in a Secure Socket Layer. This section explains how to set up SSL for Ektron CMS400.NET.

Setting Up the Certificate

If your Web server does not have a certificate installed, you need to install one. To do so, follow these steps.

1. Access the Internet Information Server Administrator Console on your Web server.
2. Navigate to the computer and Web site to which Ektron CMS400.NET is installed.
3. Right click on the Web site.
4. Click **Properties**.
5. Click the **Directory Security** tab.
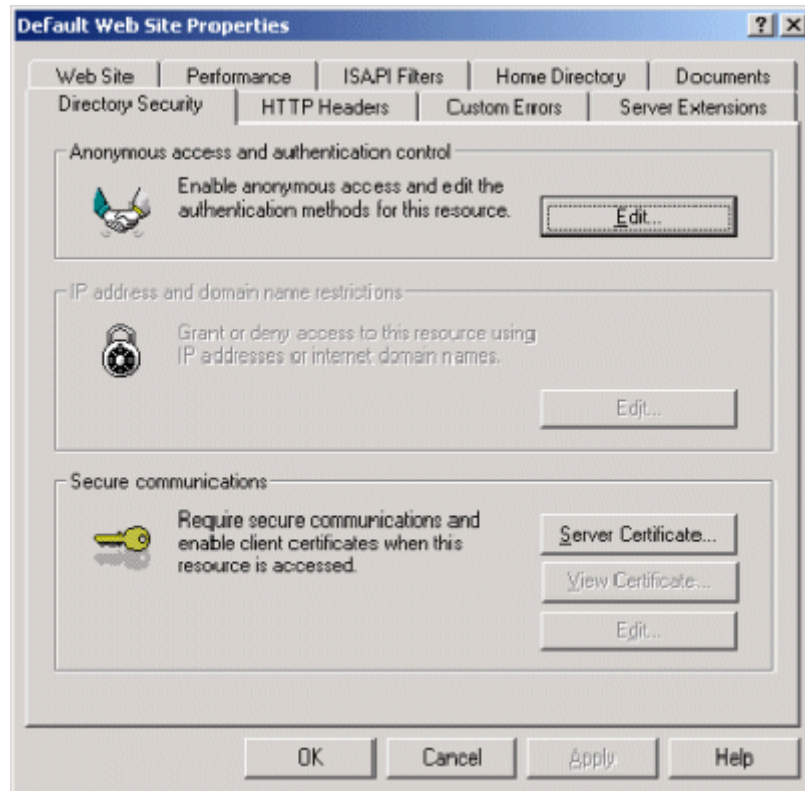
6. In the Secure communications area, click the **Server Certificate** button.

7. Use the wizard to set up a certificate for your Web site.
8. Close the wizard. You return to the Properties window.
9. Click the **Web Site** tab at the top of the Properties window.
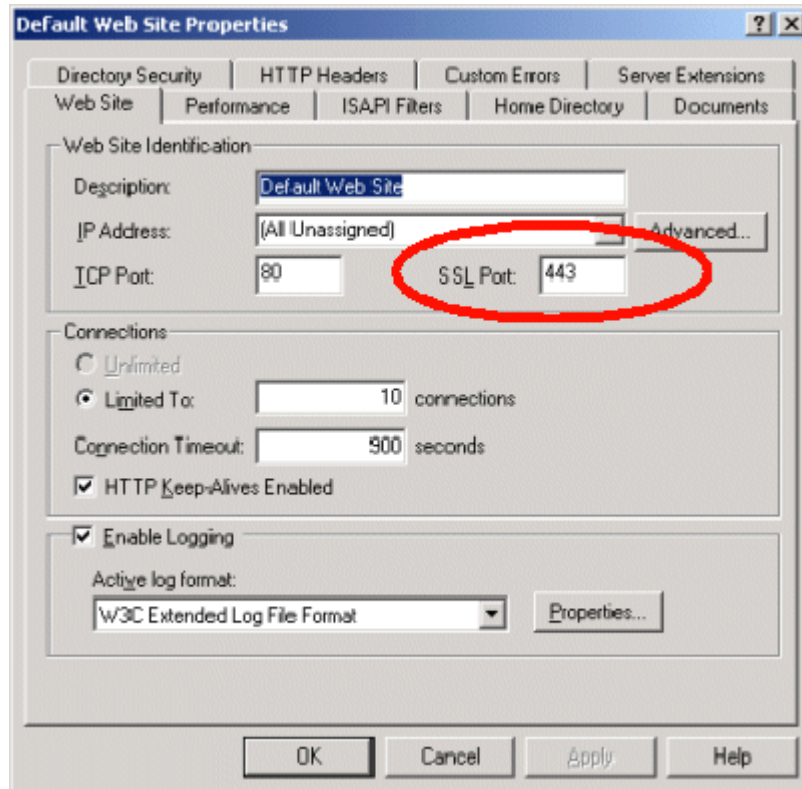
10. Set the **SSL Port** that the Web server will use.

11. Click **OK**.

Updating the web.config File

Next, configure Ektron CMS400.NET to use the SSL certificate.

1. Open the web.config file. (See "Managing the web.config File" on page 90.)

2. Move to the section of the file that has these settings.

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

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

3. Set the ek_UseSSL value to **true**.

WARNING!	If the ek_UseSSL value is **true**, but you did not install the certificate to the Web Server, you cannot log into Ektron CMS400.NET.

4. Set the ek_SSL_Port value to **443** (unless you specified another SSL port).

5. Save and close the file.

You are ready to use the SSL support for **Ektron CMS400.NET**.

Customizing Ektron CMS400.NET

The following chapter contains information about customizing your **Ektron CMS400.NET** application. The topics that are discussed are:

Customizing Ektron CMS400.NET email

Introduction

Ektron CMS400.NET can send email notification to users, informing them that actions have either taken place or are requested of them. For example, a content contributor receives an email that his content has been published to the Web site.

These emails are stored in and received from the app_messages table in the database. In that table, each email consists of one string for the subject and one for the body. Ektron CMS400.NET does not currently support HTML emails, however the messages are fully customizable.

The body of an email often includes variables, which are between the @ symbols. Ektron CMS400.NET replaces these variables on the fly 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.

These emails can be customized. The variables can be taken out or moved around. More text can be added; text can be rewritten or reorganized.

Before	"**@appContentTitle@"** has been deleted from the XYZ Web site.
After	"About Us" has been deleted from the XYZ Web site.

Each message is called in the presentation layer by its message title.

Carriage Return/Line Feeds are represented by the variable **@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!

Variables

The following table lists variables you can use to customize email messages. When the email is sent, the corresponding description replaces the variable.

Variable	Inserts
@appCRLF@	A carriage return.
@appContentTitle@	The title of the content block.
@appDeletionDateTime@	The date and time the content will be deleted from the Web site.
@appChangeDateTime@	The date and time changes will be updated on the Web site.
@appDeclinerFirstName@	The first name of the user who declined the content block.
@appDeclinerLastName@	The last name of the user who declined 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.
@appFolderPath@	The location of the content block in the folder tree in the Ektron CMS400.NET Workarea.
@appContentLink@	The link to the content block on the Web site. Note: You must be logged in to see the changes.

Variable	Inserts
@appSubmitterDateTime@	The date and time the content block was submitted.
@appApprovalList@	The current approval list that the content block must pass through.
@AppComment@	Displays the comments for the content block.

List of Ektron CMS400.NET email

Notify Approval Process Complete

Because of the logic, there are four emails for notifying that the approval process is complete.

Deletion of Content Approved

Message Title: email subject: content deletion approved.

Message Text: Deletion of content has been approved.

Message Title: email body: content deletion approved.

Message Text: The deletion of the content "**@appContentTitle@**" has been approved. The content deletion will occur on: **@appDeletionDateTime@**.

Immediate Deletion of Content

Message Title: email subject: content has been deleted.

Message Text: Content has been deleted.

Message Title: email body: content has been deleted.

Message Text: The deletion of the content "**@appContentTitle@**" has been approved. The content was deleted immediately.

Approved Content Awaiting Go Live Date

Message Title: email subject: content changes approved.

Message Text: Content changes have been approved.

Message Title: email body: content changes approved.

Message Text: The changes to the content "**@appContentTitle@**" have been approved. The content changes will occur on: **@appChangeDateTime@**.

Approved Content Published Immediately

Message Title: email subject: content has been changed.

Message Text: Content changes have been made.

Message Title: email body: content has been changed.

Message Text: The changes to the content "**@appContentTitle@**" have been approved. The content changes went live immediately.

Decline Approval Request

Message Title: email subject: approval request declined.

Message Text: Content approval request declined.

Message Title: email body: approval request declined.

Message Text: Your submitted approval request for the content "**@appContentTitle@**" has been declined by "**@appDeclinerFirstName@ @appDeclinerLastName@**".

Send Approval Message

Message Title: email subject: request for approval.

Message Text: Request for content approval.

Message Title: email body: request for approval.

Message Text: The content "**@appContentTitle@**" has been submitted for your approval by "**@appSubmitterFirstName@ @appSubmitterLastName@**".**@appCRLF@@appCRLF@**To locate the content, the folder path in your workarea is: **@appFolderPath@**.**@appCRLF@@appCRLF@**The following link will

take you to the submitted content block on the Web site: **@appContentLink@**.**@appCRLF@@appCRLF@**Please Note: You must login and select the preview icon to view the changes.**@appCRLF@@appCRLF@**The content was submitted for approval on: **@appSubmittedDateTime@**.**@appCRLF@@appCRLF@**Approvals: **@appApprovalList@@appCRLF@@appCRLF@**Comment: **@appComment@**.

Branding Ektron CMS400.NET

Ektron CMS400.NET can be branded by a Web Developer. Through the use of a style sheet and replacing Ektron CMS400.NET's default graphics, the application can take on a different look that is fully customizable. Developers can incorporate a company logo, institute company colors, and control the look and feel of the application to create a personalized, web-based, content management solution.

Style Sheet

Ektron CMS400.NET's style sheet, global.css, is located in the **/ csslib** folder under the **Workarea** directory.

Using widely accepted style sheet classes and class attributes, you can modify the application, including colors, spacing, fonts, etc. Also, if you later upgrade or re-install **Ektron CMS400.NET**, you can reuse this file and retain your changes.
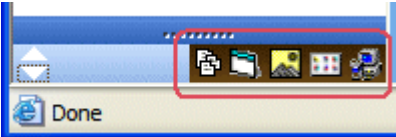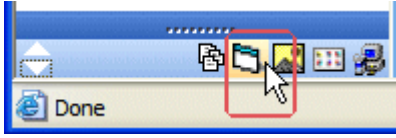
Class Explanation
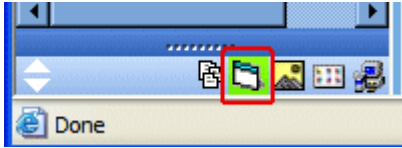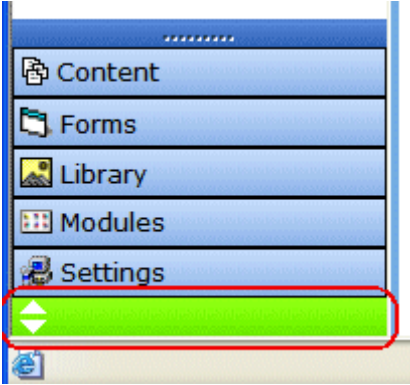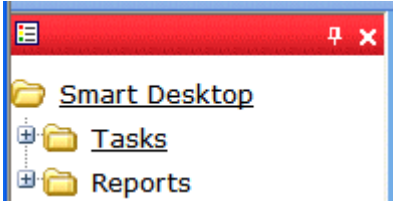
General Classes
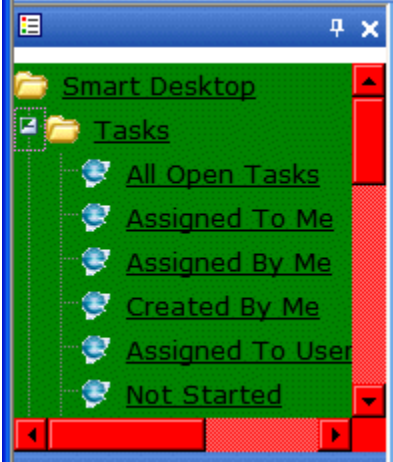
Class	Description
.titlebar	Located at the top of every page in the application, this class is used for page explanations or location explanation. While navigating through Ektron CMS400.NET, this page header or "titlebar" tells the user where he is (for example, Viewing content in content.asp).
.titlebar-error	Very similar to titlebar, this class is used to display error messages.
.input-box-text	In front every input box is text explaining its purpose. This class controls that text.
.title-header	Used under the titlebar when information is going to be listed. For example, it is used for column headers.
.info	Any important information that should stand out gets the info class. An example of this class can be seen in the content page when showing the attributes of the content block.
.info-header	Very similar to the info class, this is used for information that should stand out but starts a new section on a page. An example is the word "metadata" or "summary" on the content block properties page
.toolbar	The background of the toolbar. Note: Only change this class if you are changing all toolbar icons.
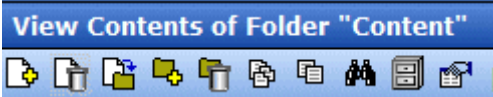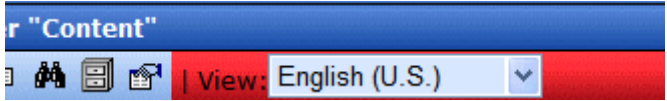
Workarea Classes
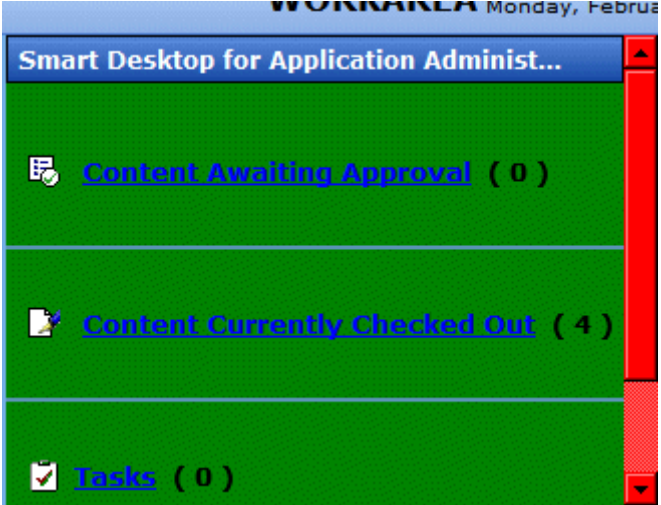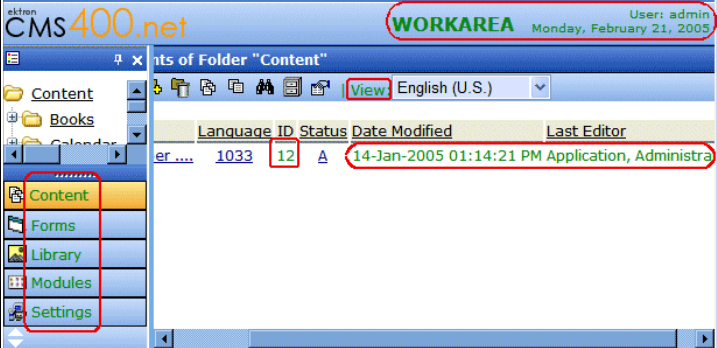
Class	Description
.workarea	The background color of the workarea.
td.FolderButtonBarNm	Text of top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
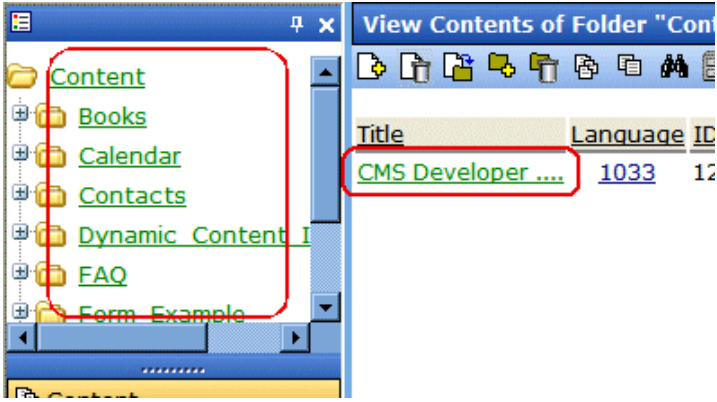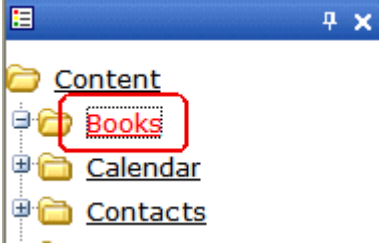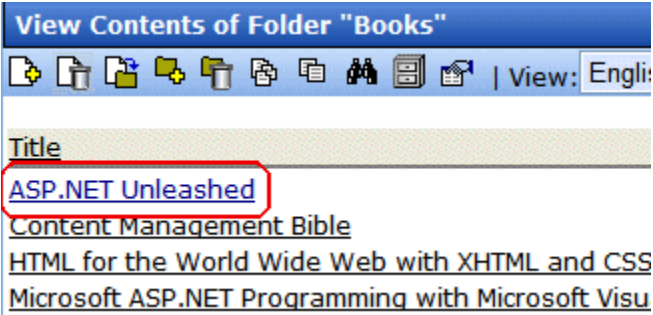
Class	Description
td.FolderButtonBarOver	Text that appears when you hover the cursor over top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
td.FolderButtonBarSelectedOver	Selected text in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
td.FolderButtonBarSelected	Text that appears when you hover cursor over selected text of top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
td.FolderResizeBar	The bar at the top of the top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings). Use this bar to switch the display of folders between icons and full buttons.
td.NavIconBarNm	Defines the minimized top level folder icons properties. The following example shows, the minimized icons with a brown background.
td.NavIconBarOver	Defines the minimized top level folder icons hover over properties. The following example shows, the Forms icon with an light orange background, while hovering over it.
td.NavIconBarSelectedOver	Defines properties of the minimized top level folder icons when selected then hovered over. The following example shows, the Forms icon with a dark blue background, while selected and hovering over it.
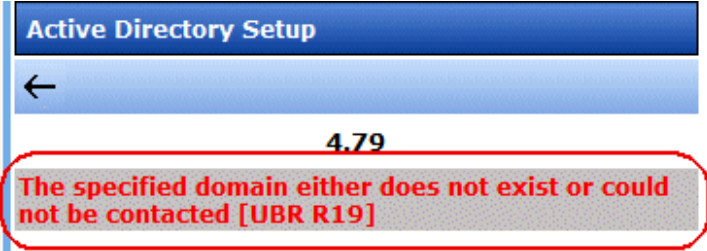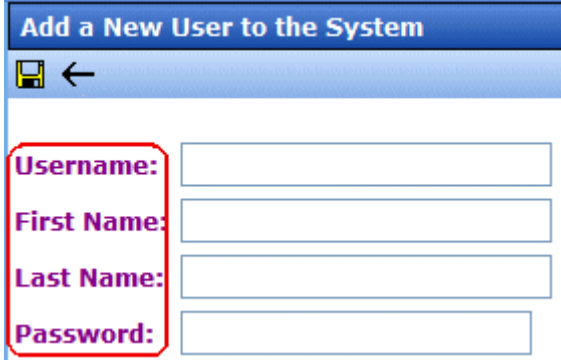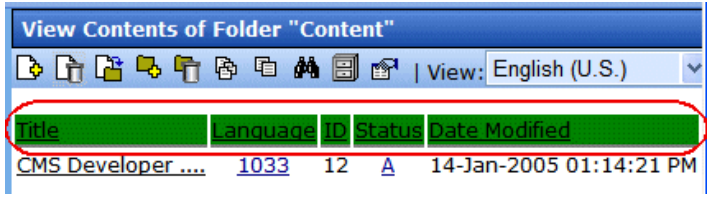
Class	Description
td.NavIconBarSelected	Defines the minimized top level folder icons properties, when selected. The following example shows, the Forms icon with a green background when selected.
body.FolderIconBar	The bottom bar the minimized top level folder icons appear in. The following example shows the bar green.
table.FolderToolbar	The top left bar where the Smart Desktop and pin buttons are located. The following example shows the bar red.
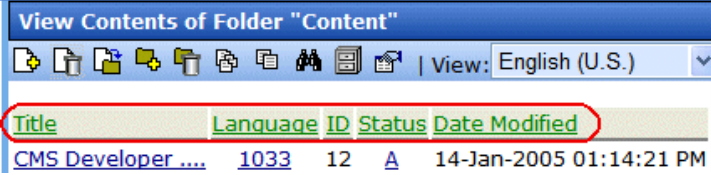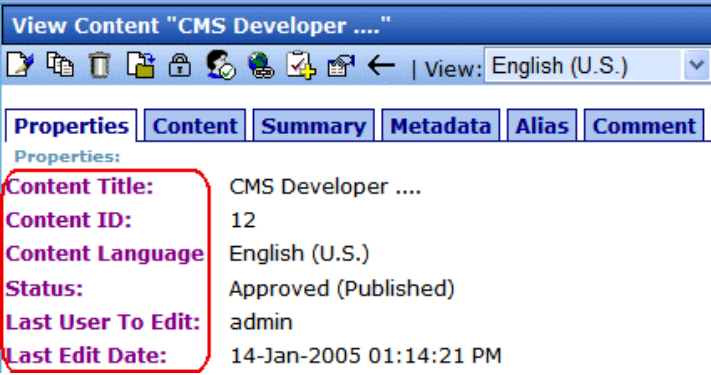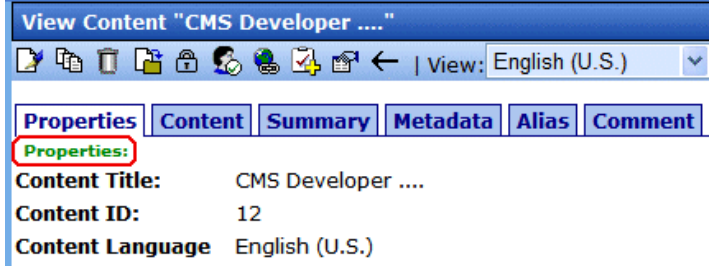
Class	Description
body.FolderArea	Defines the folder area on the left of the screen. The following is an example of a green background with red scrollbars.
.WorkareaToolbar-nm	Defines the workarea toolbar properties for the buttons section. the following is an example of a red background.
.WorkareaToolbar-ovr	Defines the workarea toolbar icon hover over properties. The following is an example of View Collections background being green when hovered over.
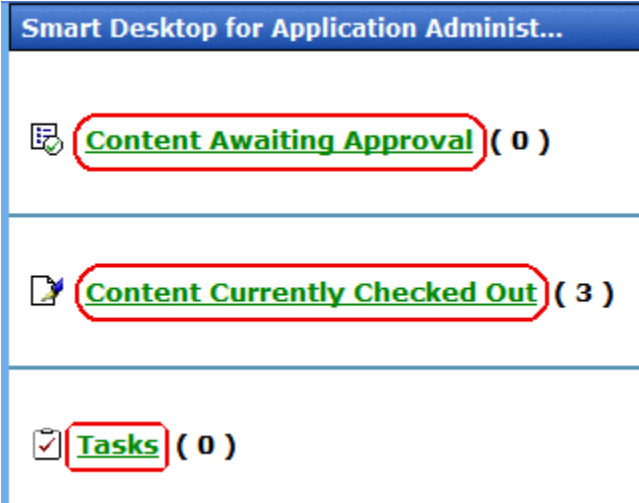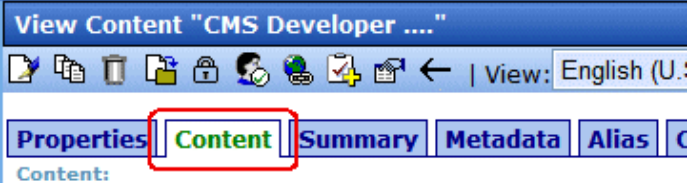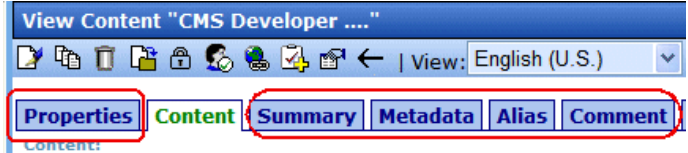
Class	Description
.ToolbarImage-nm	Sets the size of the workarea toolbar icons. The following is an example of setting the height and width to 35px. **View Contents of Folder "Content"** The following example has the height and width set to default 22px. **View Contents of Folder "Content"**
.WorkareaToolbar-bk	Defines the workarea toolbar properties for the non-button section. The following is an example of a red background. r "Content" | View: English (U.S.)
.WorkareaTitlebar	Sets the properties of the titlebar in the workarea. The following example show a red background with black letters. WOR **Smart Desktop for Application Administ...**
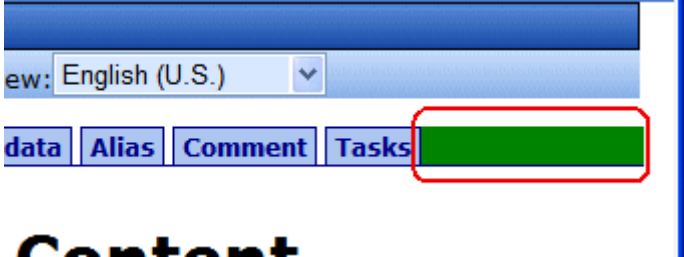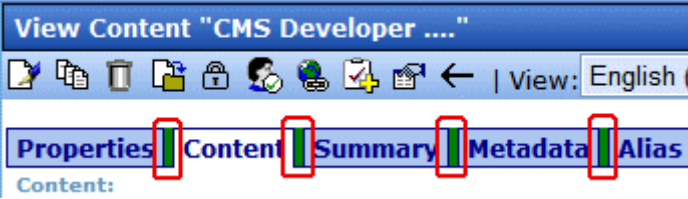
Class	Description
body.UiMain	Defines the properties of the user interface area. The following example shows a green background with a red scrollbar.
TD	Defines the default fonts in the logo bar area, the toolbar area, the folder buttons, and user interface area. In the following example, the font is green.

Class	Description
A	Defines properties of links in the workarea, before the links have been selected. The following example shows the links in green.
A:ACTIVE	Defines properties for links currently active. The following example shows the active link red.
A:Visited	Defines properties for links visited. The following example shows the visited links in navy blue.

Class	Description
TD.titlebar-error	Defines error display properties. The following example shows the error displayed with a silver background and red font.
TD.input-box-text	Defines the properties of the text that appears before a text box. The following example shows the text color purple.
TD.title-header TR.title-header	Defines the column head properties in the workarea. The following example shows the column head backgrounds in green.

Class	Description
A.title-header	Defines the font properties in the column heads. The following example shows the column heads with green fonts. View Contents of Folder "Content" | View: English (U.S.) Title Language ID Status Date Modified CMS Developer .... 1033 12 A 14-Jan-2005 01:14:21 PM
TD.info	Defines description information title properties. the following example shows the information titles in purple. View Content "CMS Developer ...." | View: English (U.S.) Properties | Content | Summary | Metadata | Alias | Comment Properties: Content Title: CMS Developer .... Content ID: 12 Content Language English (U.S.) Status: Approved (Published) Last User To Edit: admin Last Edit Date: 14-Jan-2005 01:14:21 PM
TD.info-header	Defines the information header label. The following is an example of the information header in green. View Content "CMS Developer ...." | View: English (U.S.) Properties | Content | Summary | Metadata | Alias | Comment Properties: Content Title: CMS Developer .... Content ID: 12 Content Language English (U.S.)

Class	Description
.moreinfo	Defines the font used on the Smart Desktop in the workarea. The following example shows the font in green.
td.tab_actived	Defines the active tab properties in the work area. The following example shows the active tab with a green font.
td.tab_disabled	Defines the non-active tab properties in the work area. The following example shows the non-active tabs with a dark blue font and blue background

Class	Description
td.tab_last	Defines the properties of the space at the end of the tabs. The following example shows the space at the end of the tabs with a green background.
td.tab_spacer	Defines the properties of the space between the tabs. The following example shows the spaces as green.

History Classes

Class	Description
.history-list	This class is used for two attributes. The TD controls the active date or the version that is presently published. The Anchor class is for the other versions of the content block.

Login Classes

Class	Controls
.login	The background color of the login and logout screen.

Folder Control Classes

Class	Controls
.folder	The font attributes of the folder control.
	NOTE: The font size cannot be controlled by the style sheet. It is set by the browser.

Library Classes

Class	Controls
.library	The background color of the three panels in the library.

Calendar Classes

The calendar uses the calendar.css style sheet, which is installed by default to the Web root directory.

Images

Application Images

To change the look **Ektron CMS400.NET** via a logo, you must change two images.

- **workarea_logo.gif** - the logo of the application. It presently displays the Ektron CMS400.NET logo. It lives under `\CMS400Workarea\images\application` directory.

  By changing this image, the application can be branded to display any other graphic or logo. You must use the same size attributes of 155 pixels wide by 77 pixels high. Alternate size attributes will cause the application to look wrong.

- **navigation_edit.gif**. This also resides in the application folder. This image is used for the left bar in the edit content, edit metadata, edit summary, and add content work areas. This image can also be changed but must retain the same size attributes of 128 pixels wide by 500 pixels high.

A third image, **workarea_back.gif,** makes up the blue/gray background at the top of the workarea. The size attributes are 50 pixels wide by 77 pixels high. This image cannot be less than 50 pixels wide as Netscape and Firefox do not repeat it correctly.

Language Images

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 `\CMS400Workarea\images\English folder`. You can modify these images as needed.

Converting CMS300 to Ektron CMS400.NET

Many customers who purchase **Ektron CMS400.NET** are upgrading from Ektron CMS300. Converting Ektron CMS300 to **Ektron CMS400.NET** is explained in the following sections:

- ”Step 1: Back Up Your Site and Database” on page 130
- ”Step 2: Install New Ektron CMS400.NET” on page 131
- ”Step 3: Migrate Your CMS300 Database For Use with Ektron CMS400.NET” on page 132
- ”Step 4: Copy Folders and Files” on page 134
- ”Step 5: Set Folder Permissions” on page 134
- ”Step 6: Update Files” on page 135
- ”Step 7: Create an IIS Application For Your Site” on page 138
- ”Step 8: Add Ektron CMS400.NET License Keys” on page 141
- ”Step 9: Verify Installation” on page 142

NOTE   For more information on upgrading your site to **Ektron CMS400.NET**, see ”Migrating Your Site to Ektron CMS400.NET” on page 143.

Step 1: Back Up Your Site and Database

Before starting any migration or upgrade process, you should always back up your site and database.

> **Best Practices**
>
> When applicable, Ektron recommends trying the migration procedure on a separate copy of the production database or in a staging/ development environment.

WARNING! This is a very important step! It should not be skipped! If you do not back up your database and convert to **Ektron CMS400.NET**, you will not have a way to go back to using your database in CMS300 if there is a problem. Also, there are file changes that need to be made. If you do not back up your site, you will have to undo each change manually.

Backing Up Your Site

You can back up your site files as you would any other group of files. You can copy them to a different location or use software to back them up to a tape drive or CD.

Backing Up Your Database

The steps to perform a backup on a Microsoft SQL database are explained in "Backing Up Databases" on page 21. If you have another type of database such as mySQL, Oracle or Access you can use the backup procedures provided with the software.

Step 2: Install New Ektron CMS400.NET

Install the latest version of **Ektron CMS400.NET** with platform support. When you install it, do not use your license keys and just install the CMS400Min site. Say no to the database install. You will be upgrading your CMS300 database for use with CMS400.
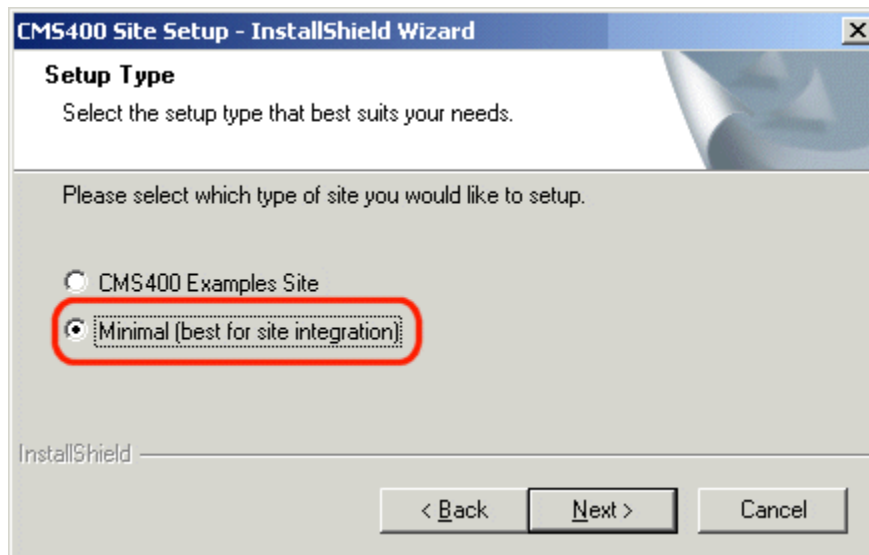
Step 3: Migrate Your CMS300 Database For Use with Ektron CMS400.NET

NOTE   Ektron CMS400.NET 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 CMS400.NET" on page 40.

Your database must satisfy the following criteria before you can use it with Ektron CMS400.NET. It needs to

- be a Microsoft SQL database

- be the same CMS version

- have ASPNET or IIS_WPG (if you are using Microsoft Windows 2003) user access to your database

This should be done in the following order.

1. "Migrate Database to Microsoft SQL" on page 133.
2. "Upgrade Database to Ektron CMS400.NET" on page 134.
3. "Adding Database Permission for ASPNET or IIS_WPG users" on page 134.

The following image shows the database migration path. This example uses CMS300 v4.2 going to the latest **Ektron CMS400.NET** version.
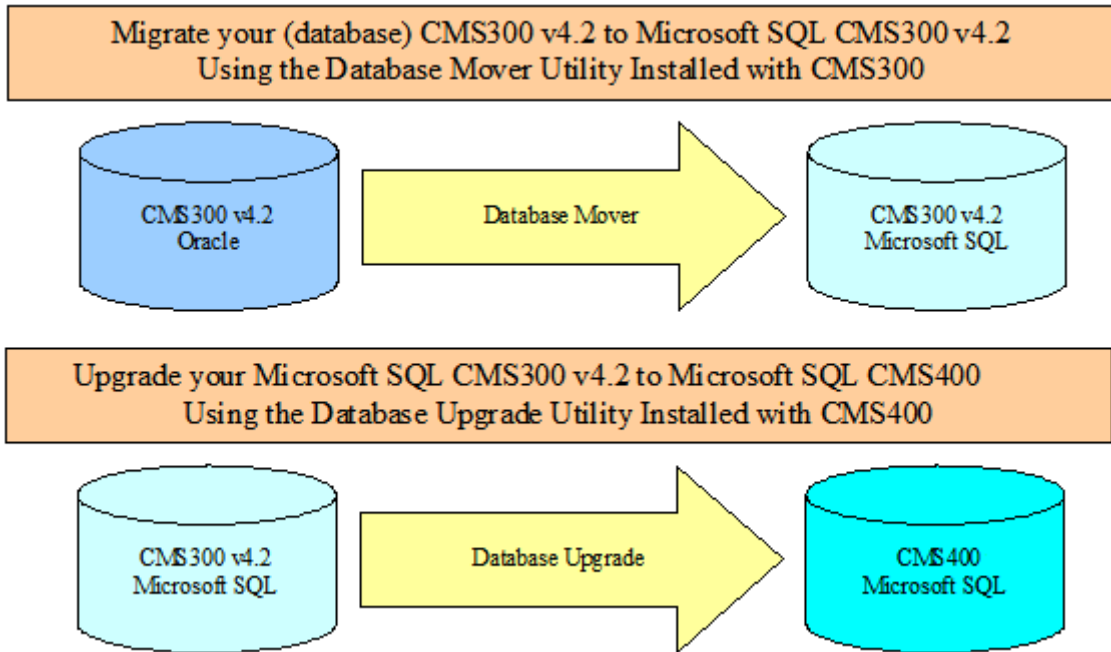
Migrate Database to Microsoft SQL

You must migrate your database in the same CMS it currently resides in. For example, if you are using CMS300 and have an Oracle database, you need to upgrade to Microsoft SQL in CMS300. You can migrate your database to Microsoft SQL from the following programs:

* Microsoft Access

* Oracle

* MySQL

You can migrate your database to Microsoft SQL by using the Database Mover program. To do this, click **Start > Programs > Ektron > CMS300 > Utilities > Database Mover**.

Upgrade Database to Ektron CMS400.NET

Upgrade your Microsoft SQL database from Ektron CMS300 to Ektron CMS400.NET. If your Ektron CMS300 version number matches the Ektron CMS400.NET version number, you do not need to perform this step.

To upgrade, use the Database Upgrade program installed with Ektron CMS400.NET. To do this, click **Start > Programs > Ektron > CMS400 > Utilities > Database Upgrade**.

Adding Database Permission for ASPNET or IIS_WPG users

After upgrading the database to the latest version of **Ektron CMS400.NET**, you need to add permission for either the ASPNET or IIS_WPG users to the database. Use the ASPNET user if you are using a Microsoft Windows 2000 or Windows XP Professional Server. Use the IIS_WPG user if you are using a Microsoft Windows 2003 Server.

Step 4: Copy Folders and Files

Copy the following folders and files to your CMS300 site's webroot:

- Copy the **Workarea** folder including all the subfolders from the CMS400min site

For example, if you installed the CMS400min site and are using the CMS300Sample site as your site, you would copy these folders and files from the CMS400min site to the following location:

```
C:\Inetpub\wwwroot\CMS300Sample
```

Step 5: Set Folder Permissions

The following folders in the site root need to have either the ASPNET user or IIS_WPG user added with Read, Write and Modify permissions. The IIS_WPG user is for Microsoft Windows Server 2003 only.

The table below contains Folder, User and Permission settings information.

Folder	User	Permission
uploaded images	ASPNET User or IIS_WPG (Windows Server 2003 only)	• Read • Write • Modify
uploadedfiles	ASPNET User or IIS_WPG (Windows Server 2003 only)	• Read • Write • Modify

Step 6: Update Files

The following files have information in them that need to be updated.

- "Web.config" on page 135 - Everyone needs to update this file.
- "site_scripts_path.asp" on page 136 - This only needs to be updated if you are using ASP pages.
- "applicationAPI.asp" on page 136 - This only needs to be updated if you are using ASP pages.
- "site_scripts_path.php" on page 137 - This only needs to be updated if you are using PHP pages.
- "applicationAPI.php" on page 137 - This only needs to be updated if you are using PHP pages.
- "PHP Templates" on page 138 - This only needs to be updated if you are using PHP pages.
- "Application.cfm" on page 138 - This only needs to be completed if you are using ColdFusion pages.

Web.config

The settings in the web.config file equate to the settings in the setup.xxx files in CMS300. Update the following areas of your

Web.config file to reflect your current database, site location and WSpath.

- **ek_dbCatalog**
  - Change to the name of your CMS300 database
- **ek_dbUserName**
  - Add the user name for your CMS300 database
- **ek_dbPassword**
  - Add the password for your CMS300 database
- **ek_sitepath**
  - Change the site path to the webroot of your site. For example: `/CMS300Sample/`
- **WSpath**
  - Change the web service path. For example:
    ```
    http://localhost/CMS400min/Workarea/
    ServerControlWS.asmx
    ```
    Becomes
    ```
    http://localhost/CMS300sample/Workarea/
    ServerControlWS.asmx
    ```

site_scripts_path.asp

Update the path to the `applicationAPI.asp` file. For example:

```
<!-- #include virtual="/cms300sample/cms300scripts/applicationAPI.asp" -->
```

becomes

```
<!-- #include virtual="/cms300sample/Workarea/platforms/asp/
applicationAPI.asp" -->
```

applicationAPI.asp

Update the WSDLpath to new location of your Web services file. Update the CMS400 Workarea to the new location of the Workarea folder. For example:

```
WSDLpath = "http://localhost/CMS400Example/WorkArea/WebServices/
ContentWS.asmx"
```

becomes

```
WSDLpath = "http://www.MyEktronSite.com/WorkArea/WebServices/
ContentWS.asmx"
```

and

```
CMS400WorkareaPath = "/CMS400Example/WorkArea/"
```

becomes

```
CMS400WorkareaPath = "/www.MyEktronSite.com/WorkArea/"
```

site_scripts_path.php

Update the path to the `applicationAPI.php` file. For example:

```php
<?php  include_once 'cms300scripts\applicationAPI.php'; ?>
```

becomes

```php
<?php  #include_once 'Workarea\platforms\asp\applicationAPI.php'; ?>
```

applicationAPI.php

Update the WSDLpath to new location of your Web services file. Update the CMS400 Workarea to the new location of the Workarea folder. For example:

```
$WSDLpath = "http://localhost/CMS400Example/WorkArea/WebServices/
ContentWS.asmx?WSDL";
```

becomes

```
$WSDLpath = "http://www.MyEktronSite.com/WorkArea/WebServices/
ContentWS.asmx?WSDL"
```

and

```
$CMS400WorkareaPath = "/CMS400Example/WorkArea/";
```

becomes

```
$CMS400WorkareaPath = "/www.MyEktronSite.com/WorkArea/";
```

PHP Templates

When upgrading your Ektron CMS300 to Ektron CMS400.NET, add the following line between the head tags for each template.

IMPORTANT!   This only needs to be done if you are upgrading from CMS300 to CMS400.NET

```
<meta http-equiv="Content-type" content="text/html; charset=utf-8" />
```

Application.cfm

Copy the settings in the `\workarea\platforms\coldfusion\application.cfm` file into the `application.cfm` file in the root of your site. These settings supersede and replace current CMS300 settings and includes.

Alter the `application.wsdlpath` and `application.workarea` values inside the `application.cfm` file to reflect the correct URL of your CMS site.

Step 7: Create an IIS Application For Your Site

This step needs to be performed only when you do not have your site in your server's webroot, or when your Web site is not already set up as an IIS application

Ektron CMS400.NET needs to be an IIS application to run properly.

You can check to see if your Web site is running as an IIS application by going to the Computer Management Console of your server, and viewing the Internet Information Services section. Use the following table to determine if you have your Web site is running as an IIS application.

Icon Next to Your Site Name In IIS	Microsoft Windows Version	Web Site as an IIS Application
	Microsoft Windows 2003 Server	Yes

Icon Next to Your Site Name In IIS	Microsoft Windows Version	Web Site as an IIS Application
	Microsoft Windows XP Professional	Yes
	Any	No

If an IIS application for your Web site needs to be created, follow the steps below.

1. Click **Start** > **Control Panel** > **Administrative Tools** > **Console Management**

2. In the left pane of the console, click **Services and Applications** > **Internet Information Services** > **Web Sites** > **Default Web Site**

3. Right click your Web site and select **properties**.

   The following window appears.
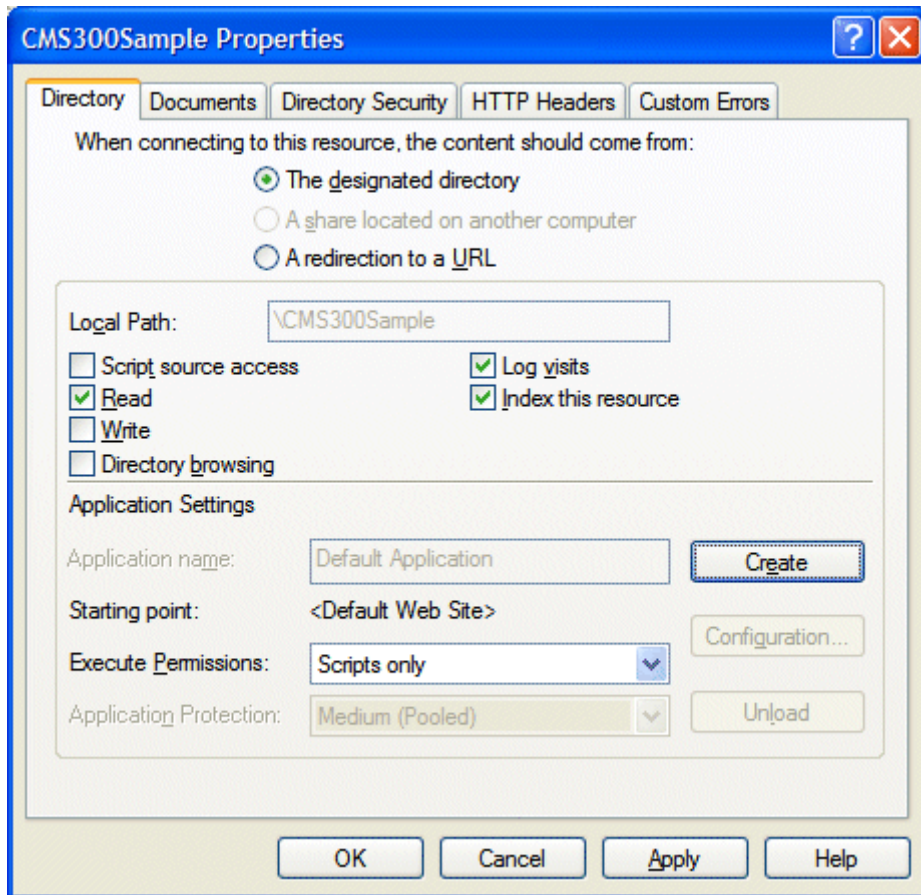
4. Click the **Create** button
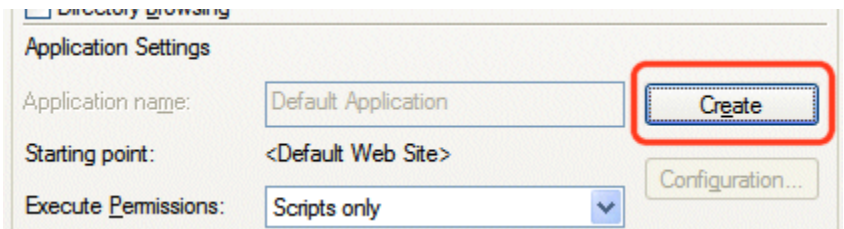
5. Your site is now an IIS application

6. Click OK.

Step 8: Add Ektron CMS400.NET License Keys

You need to add your CMS400 license keys to the database. You can use the builtin account to accomplish this. The builtin account's username is **builtin** and password is **builtin**.

WARNING! 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 CMS400.NET.

Below are the steps to add license keys to **Ektron CMS400.NET**.

1. Navigate to your Web site's Ektron CMS400.NET login page.

2. Click **Login**.

3. Use the username **builtin** and the password **builtin**.

4. Click **Workarea**.

5. Click **Settings** > **Configuration** > **Setup**.

6. Click the **Edit** button (![edit icon]).

7. Add in your license key and any module keys.

8. Click the **Update** button (![update icon]).

Step 9: Verify Installation

When first attempting to use the platform support, it is not uncommon to get a timeout message as the Web services bridge is established for the first time. If this occurs, wait several seconds and then refresh the page or navigate to another page. Once the connection is established, you will notice a speed improvement over the old platform support in CMS300.

Migrating Your Site to Ektron CMS400.NET

This chapter explains how to migrate your Web site to Ektron CMS400.NET. This chapter explains

- What to copy to your Web site
- Setting up and deploying templates

This chapter assumes you installed Ektron CMS400.NET and have read the Ektron CMS400.NET Administrator Manual so that you have an understanding of basic concepts, some of which are mentioned here.

Initial Steps

The following section describes tasks you need to perform before migrating your Web site.

Installation

Ektron CMS400.NET 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.

Verify Installation

After you install Ektron CMS400.NET, verify that it is properly installed by using the sample site. By default, the sample Web site is located at the following address on the machine to which Ektron CMS400.NET is installed.

```
http://localhost/CMS400Example/default.aspx
```

If you can browse the sample site and it works properly, **Ektron CMS400.NET** is properly installed.

Best Practices

Ektron recommends keeping a working version of the sample site. This can be used to help you debug problems.

For instance, if you encounter errors on your site, you can refer to the sample 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. To launch this utility, go to **Start > Programs > Ektron > CMS400 > Utilities > Site Setup**. To read about it, go to "Setting up a Site" on page 47.

Copy Application Core Files

Copy the application core files from the `CMS400Example/workarea` folder into your site's folder. These files operate the workarea, library, and content functions.

Set up the Database

Since 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 51.

Modify Application Parameters

After you install and create the Ektron CMS400.NET database, modify the web.config file that installed to the directory to which you installed **Ektron CMS400.NET**.

Edit that file and modify the following settings

Setting	Type in...
ek_dbDatabase	The type of database you are using.

Setting	Type in...
ek_dbUsername/ ek_dbPassword	The username and password, if your database requires one.
ek_sitePath	The relative path from Web root to the scripts folder.

NOTE   If you are using SSL, the settings you need to modify are explained in "SSL Support" on page 31.

Creating a Login Page

Now that everything is set up, you can create a login page. You can either copy the one from the sample site or create your own.

A list of the content tags can be found in the Ektron CMS400.NET Developer's Reference Manual.

Log In

To log into your Ektron CMS400.NET Web site, follow these steps.

1. Browse to the login page you created and click the **Login** button.
2. A login dialog box opens asking for a username and password.
3. Enter the default username (**admin**) and password (**admin**) and click **Login**.
4. You are logged into Ektron CMS400.NET

NOTE   If you get a message that the application is locked, log in using the username and password **builtin/builtin**. You get the message if your license key is invalid or has not been entered yet.

Modifying Configuration Settings

After you log in, access the Workarea by clicking on the Workarea button. From there, you can modify the configuration settings.

Set 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 "Active Directory Integration" in the Administrator Manual.

Modify the Setup Screen

The Ektron CMS400.NET setup section is located under the **Settings > Configuration** folder. The setup section allows you to configure items such as your license key, style sheet support, max content size, and default language.

See 'Configuring Ektron CMS400" in the Administrator manual for more information.

Set up Metadata

Ektron CMS400.NET 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 "Metadata" in the Administrator manual for more information.

Set up XML Configurations

You can also set up your XML configurations. You create XML files externally or via the Data Designer. Next, an XML configuration is assigned to content blocks and folders.

See "Managing XML" in the Ektron CMS400.NET Administrator Manual for additional information.

Creating Ektron CMS400.NET 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 CMS400.NET.

Every user must belong to a group. When you first add a user, he or she 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 & User Groups" in the Administrator manual.

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.

Best Practices

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 CMS400.NET 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 workflow to them. Permissions can be assigned to a user or a user group. The same is true for the approval process.

Best Practices

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.

Creating 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 CMS400.NET** content into a template. A list of server controls is in the Developer's Manual.

You can add as many server controls per template as you want, but you can only have one dynamic tag per template.

> **Best Practices**
>
> Since 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.

Migrating/Creating Content

At this point, you can begin to create/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 CMS400.NET editor.

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

Deployment

Deployment from development to production is as simple as moving the files over. To properly deploy your new Ektron CMS400.NET Web site, following these steps.

1. Copy all assets (templates, images, files, etc.) from your development box to your production machine.

2. Move the database. You have two 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

Advanced Features

The previous information allows you to create a basic Ektron CMS400.NET Web site from scratch. This section explains some advanced features that you may implement, although they are not needed for the Web site to function properly.

Email Notification

For email notification to work in Ektron CMS400.NET, make sure the SMTP service is setup and running in IIS, and that it points to a valid mail server.

Refer to "Configuring E-Mail Notifications" on page 97 for additional information.

Other

Other items, such as Load Balancing, can be configured in Ektron CMS400.NET. Please see the special features section of the Administrator Manual for more information.

Moving Content from Staging to Production Server

Overview

Before **Ektron CMS400.NET**, HTML files were deployed to a Web site in a three-stage process.

1. An author updates content on a staging server, which has a copy of the Web site.
2. A reviewer checks and possibly modifies the content.
3. The approved content is moved to a production server, which hosts the live Web site.

An Ektron Content Management System (CMS) provides a *virtual staging server*, which lets authors work directly on a production server yet prevents site visitors from viewing modifications until they are approved.

Here's how it works. An author edits one or more content blocks and submits them for approval. Authorized reviewers preview the changes and decide to publish or reject them. Reviewers can also edit the content then publish. All of this can occur on a single server, which acts as a virtual staging and a production server.

Ektron CMS400.NET also supports the traditional model of separate staging and production servers. This section describes options for managing servers and suggests best practices for a successful deployment.

Best Practice

Ektron's suggested best practice is a combination approach, using both a virtual and a physical staging server.

- Use a *virtual staging server* for the majority of your Web updates. Ektron takes this approach with its site, www.ektron.com.

  Most of the time, authoring occurs on the production server, which acts as a virtual staging server. The CMS workflow controls how content is updated to the live site, so content will only go live when it's ready.

- When the Web site is undergoing is a significant architectural change, use a *physical staging server*. An example of such a change would be one or more new templates. For more information, see "Managing an Architectural Change" on page 151

Managing an Architectural Change

Sometimes, the changes to your site are so substantial that the use of separate staging and production servers is warranted. Examples would be the release of new templates, or a redesign of the site.

> **Best Practices**
>
> Ektron recommends setting up the staging server with the same site path that the production server uses. This keeps references to library items that include site paths from breaking when the site is move from the staging server to production server.

When making such a change, follow these guidelines.

1. Copy the staging server content to the production server. For more information on moving files from the staging to the production server, see "Deploying Separate Staging and Production Servers" on page 152

2. Disable authoring on the production server. At this point, changes are permitted on the staging server only. For more information, see "Disabling Authoring on the Production Server" on page 154.

3. Test the new architecture on the staging server. Modify as needed until you are satisfied with the results.

   The test should involve a full QA sweep to determine that the staging site is acceptable for release in production. Included are functional testing, usability (as necessary), application integration, and bug fixes.

4. Move the updated files from the staging to the production server.Enable authoring on the production server.

Deploying Separate Staging and Production Servers
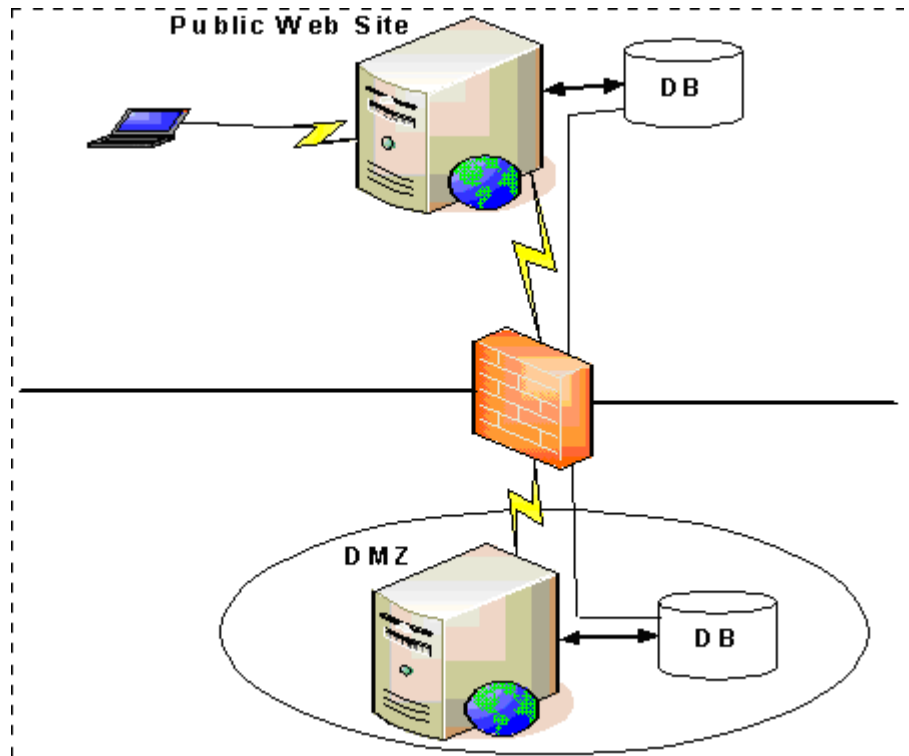
Ektron CMS400.NET can support multiple servers. For example, as illustrated above, you can have a staging server inside the DMZ, and a production server outside the DMZ to host the public Web site.

Several methods are available for moving information between servers.

- ”Basic Deployment” on page 153
- ”SQL Replication and CMS Load Balancing” on page 153
- ”Deploying with MS Application Center” on page 153

Basic Deployment

This scheme provides the most rudimentary methods for transferring data from a staging to a production server.

To move the database, back it up on the staging server and restore it on the production server.

To move the non-database files (library assets, .dlls, etc.), use FTP to transfer from the staging to the production server.

SQL Replication and CMS Load Balancing

To move the database, use database replication techniques to copy changes from staging to production server. Doing this via Microsoft Application center is explained in "Deploying with MS Application Center" on page 156.

To move non-database files from staging to production server, enable load balancing support in the CMS. When used properly, load balancing is an extremely efficient and time-saving tool for your Ektron CMS300 site. Instead of uploading an image or file on each Web server that makes up your Web site, you only need to upload once. The load balancing feature replicates the image or file in each directory specified by Ektron CMS300. For more information, see the "Load Balancing" chapter of the **Ektron CMS400.NET** Administrator Manual.

Deploying with MS Application Center

Application Center 2000 is Microsoft's deployment and management tool for high-availability Web applications built on the Microsoft Windows® 2000 and Windows Server™ 2003 operating systems. Application Center 2000 makes managing groups of servers as simple as managing a single computer. It was designed to replicate content from one server to many.

You can move Ektron CMS files, templates, assets (uploaded images & files), DLLs, registry entries, and even DSNs from one server to another using Microsoft's Application Center. Use SQL Server to move the database content. This strategy lets you move a staging version to a production server with a click of a button.

Application Center 2000 divides Web site content and code into *applications* that can be updated independently. These

applications can consist of any combination of HTML and ASP files, COM+ components, .NET components, Windows registry settings, and Internet Information Services (IIS) settings. Each server in the cluster hosts a copy of the application, which Application Center keeps synchronized.

Microsoft Application Center 2000 is deployed on each server in a cluster. In a typical development environment, Application Center is also deployed to a staging server that is not a member of the cluster. This staging server acts as the drop-off point for Web content and application developers. With Application Center, you can move content and configuration settings from the staging server to the cluster with an easy, point-and-click interface.
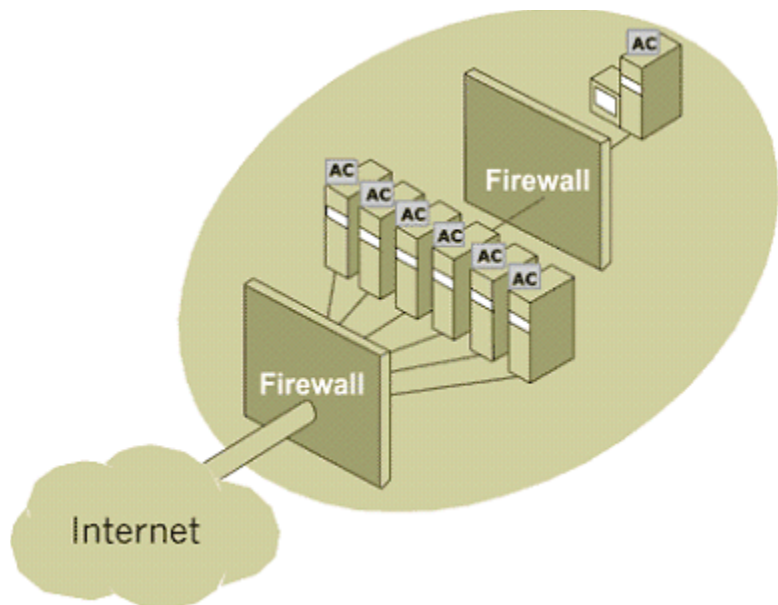
Application Center can deploy content to foreign clusters, so that network administrators can easily move content and applications from a staging server to a production cluster of multiple servers. The staging server does not need to be a member of the production cluster. For more information, see "Deploying with MS Application Center" on page 156.

Disabling Authoring on the Production Server

Follow these steps to disable authoring on the production server.
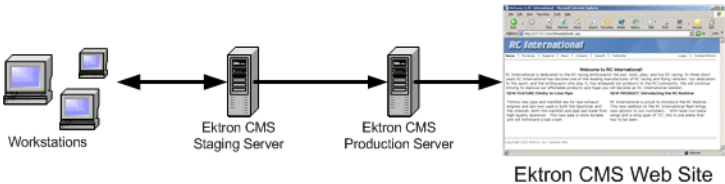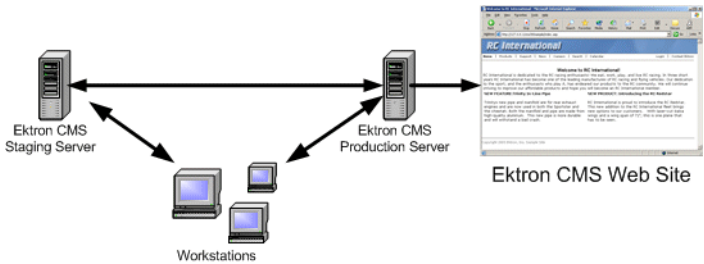
1. Hide login buttons by setting the Login Server Control's `visible` property to **false**.

2. Add a message to the login page, explaining that the system is under maintenance.

3. Apply the "denydatawriter" restriction to the database user in SQL server to actively stop any updating of the system. This restriction should even prevent updating through Web services and direct database writes.
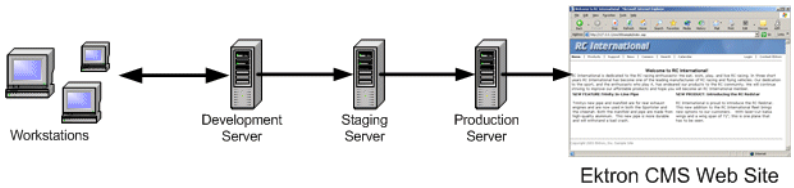
Deploying with MS Application Center

Overview

By default, Ektron CMS400.NET is installed directly on a production server and a virtual staging server manages changes to the Web site's content and assets. This model works for most users, but other methods can be used for staging.

Three major uses of staging are listed below.

Description	Flowchart
A staging to production model, where no changes are made on the production server.	
A staging to production model, where changes are made to both servers then merged.	

Description	Flowchart
A development to staging to production model.	Ektron CMS Web Site

This chapter explains how to deploy Ektron CMS400.NET in different models.

What is Deployment?

The premise of deployment is that the following can be moved from one server to another using Microsoft's Application Center:

- application files
- templates
- assets (that is, uploaded images and files)
- registry entries
- DSNs

Then, a SQL server can move the database content.

This model requires at least two servers, each having a different role. One server is a staging server, and the other is a production server that publishes files and data to the live Web site.

Displayed below is an example of this model.
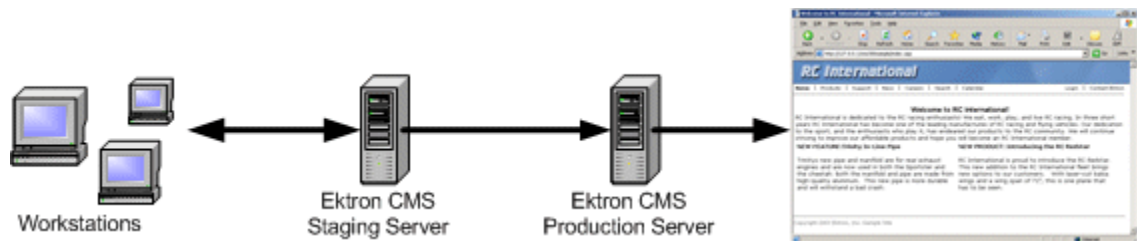
In this example, Ektron CMS400.NET users changes content and files on the staging server. When desired, the necessary files are deployed using MS Application Center, and the data stored in the database is synchronized, using MS SQL Server, to the production server to be viewed by visitors.

Other Configurations

Several staging servers could be used to further stage Web site content. Reverse publishing may also be used to make a staging server match the production server.

Audience

Since the deployment model relies heavily on Microsoft Application Center and Microsoft SQL Server, you should have some knowledge of them. Although the basic steps needed to configure the deployment model are explained in this chapter, prior experience with these applications helps you make better decisions.

Requirements

The requirements include:

- Ektron CMS400.NET
- Windows 2000 Server or Higher
- Microsoft SQL Server
- Microsoft Application Center

Prerequisites

Before you can perform the configuration, complete these tasks.

1. Obtain two similar server machines with the following configurations:

   – Pentium-compatible 400 MHz or higher processors
   – 256 MB Ram (minimum)

| NOTE | The more differences between the two machines (for example, RAM, speed, brand, etc.), the greater the chance problems may occur. |

2. Install Windows 2000+ (or higher) Server operating system on both machines.

3. Enable IIS on both servers.

4. Install MS-SQL server on both servers.

| NOTE | Be sure the security is configured properly by using either Windows or SQL Server authentication. Refer to your MS-SQL documentation for more information. |

5. Install Microsoft Application Center on both servers.

Once the prerequisites are met, you can configure staging and production servers to deploy Ektron CMS400.NET.

Deployment Model Configuration

The following section explains the steps required to successfully configure your servers for Ektron CMS400.NET deployment.

Configuration Overview

Here is an overview of the steps for configuring deployment.

1. Install Ektron CMS400.NET on the staging server.
2. Set up a MS-SQL database for Ektron CMS400.NET.
3. Configure Application Center on the staging server.
4. Configure Application Center on the production server.
5. Deploy the Files.
6. Configure MS-SQL databases.
7. Synchronize the Databases.

Installing Ektron CMS400.NET on the Staging Server

First, install Ektron CMS400.NET on the staging server. (For more information, see "Installing Ektron CMS400.NET" on page 40.) During the installation, you are given the option of creating an MS-SQL database.

Setting Up a MS-SQL Database for Ektron CMS400.NET

To create an MS-SQL database, follow these steps.

1. Create an empty MS-SQL database. See "Setting up a Database" on page 51.
2. Run the Ektron CMS400.NET SQL script against the database to create the necessary tables.
3. Move content to the new database.

Modifying web.config

After performing the above steps, update your web.config file to reflect the changes. Below is a list of changes to be made.

Line	Value
ek_dbDatabase	Replace the current DBType with **SQL**
ek_dbUsername	If required, specify the username needed to connect to the DSN
ek_dbPassword	If required, specify the password for the username given.

Configuring Staging Server's Application Center

After you install Ektron CMS400.NET and it functions properly with the MS-SQL database, configure Application Center on the staging server. To do so, follow these steps:

1. Connect to the staging server via Application Center.
2. Create a new cluster including the staging server.
3. Configure application settings on the staging server.
4. Add the production server to the cluster.
5. Push all files from the staging server to the production server.

The following sections explain these tasks.

Connecting to the Staging Server's Application Center

To connect to Application Center on the staging server, follow these steps.

1. On the staging server, open Application Center.

2. The Application Center snap-in appears.
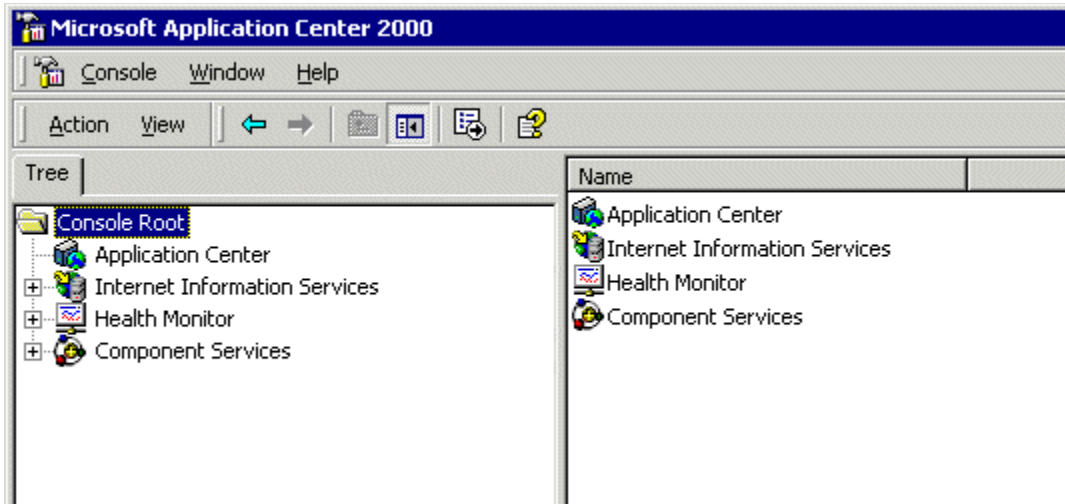
3. Right click **Application Center** and click **Connect.**
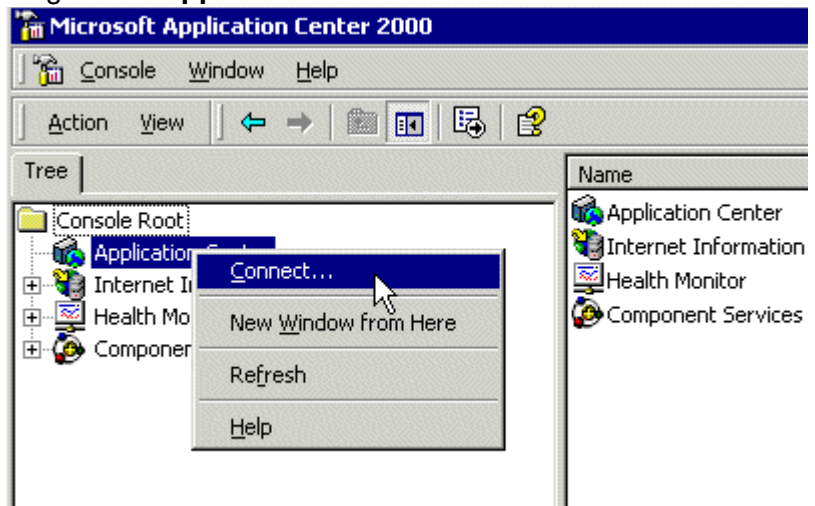
4. The Connect to Server dialog box appears.
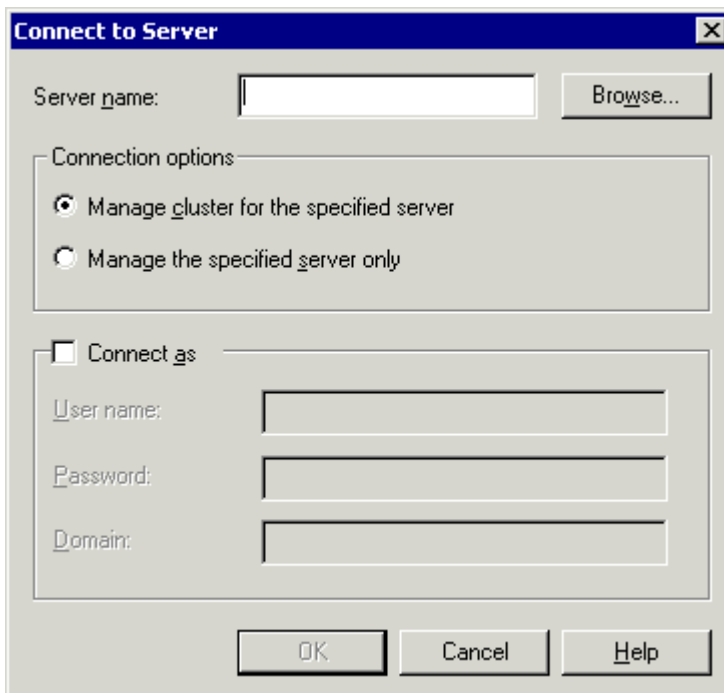
5. Click **Browse** to locate the server you want to connect to.

6. The Select Computer screen appears with a list of available servers.
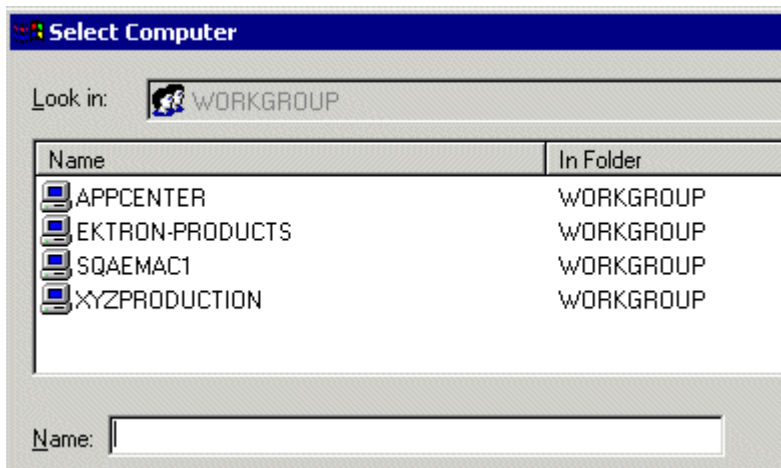
7. Select the Ektron CMS400.NET staging server, then click **OK**.

8. The select computer screen closes, and the Connect to Server screen contains the selected server's name.

9. Choose **Manage cluster for the specified server**.
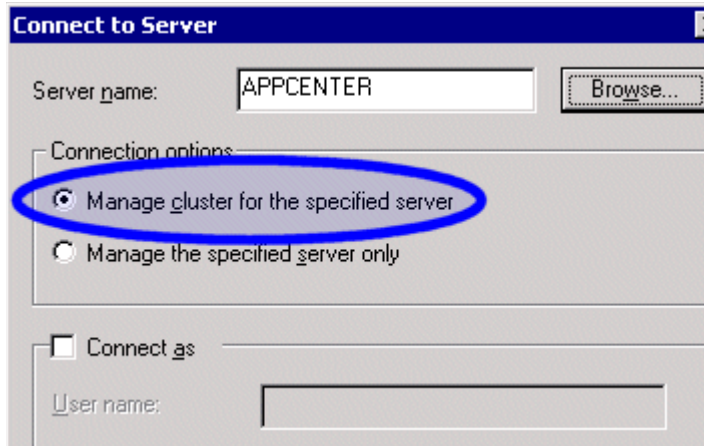
10. If needed, check the **Connect As** box and enter the proper information.

11. Click **OK** to submit the information and attempt to connect to Application Center.

12. If this is the first time you are connecting to the server, the New Server dialog box appears. Otherwise, proceed to step 15.
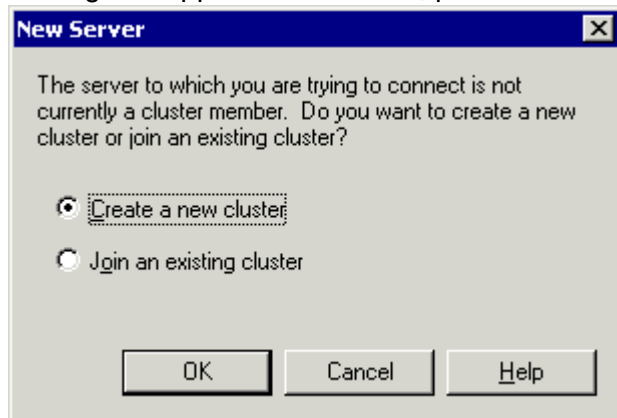
13. Choose **Create a new cluster** then click **OK.**

14. The New Cluster Wizard opens.

15. Click **Next**.

16. The wizard analyzes the server configuration and displays the Choose Name and Description screen.

17. Give the new cluster a name and description, then click **Next**.

18. The Cluster Type screen appears.
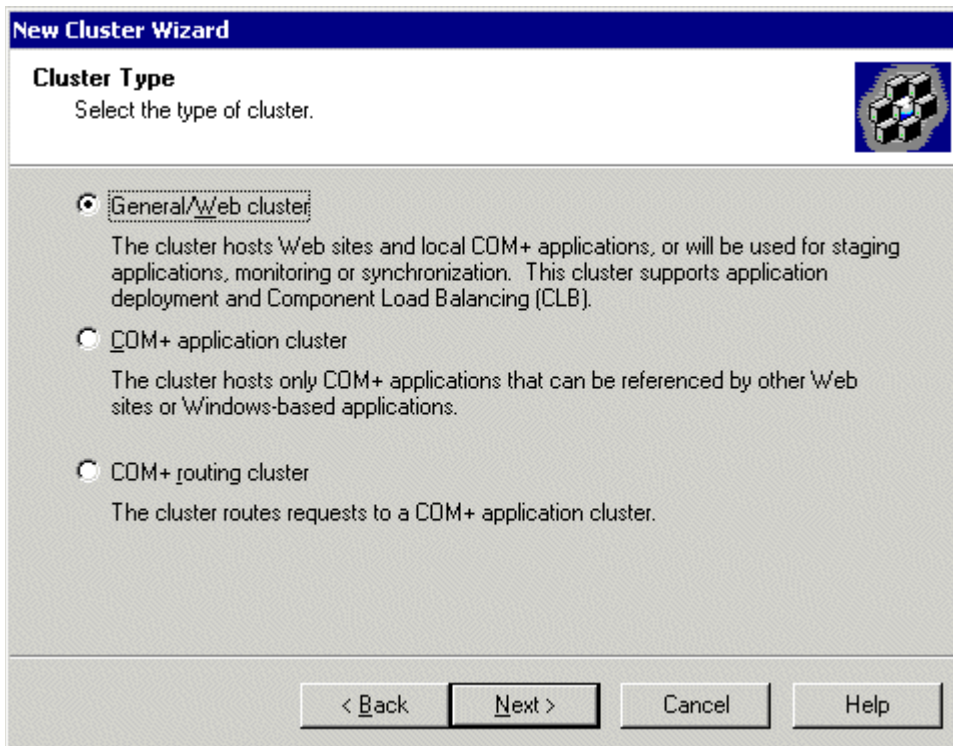
19. Select **General/Web cluster** then click **Next**.
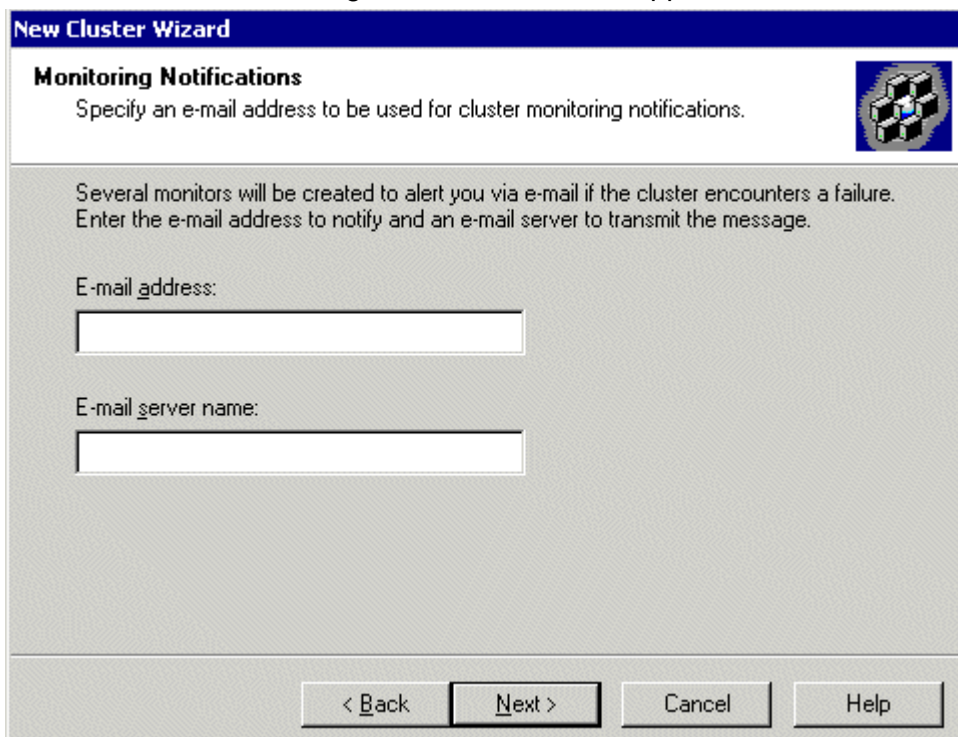
20. The Load Balancing screen appears.

New Cluster Wizard

Load Balancing
Select the type of load balancing to use for this cluster.

This setting determines if load balancing will be used to distribute incoming requests.

○ Network Load Balancing (NLB)

This option requires two network adapters in all cluster members, and a static IP address for the load-balanced adapter on the controller.

◉ Other load balancing

This option allows you to use a non-integrated load balancing service.

○ None

This option is used for stager configurations.

| < Back | Next > | Cancel | Help |

21. Since load balancing is not required for the configuration, choose **None** and click **Next**.

NOTE   If you are familiar with Load Balancing and Application Center, you may choose another option.

22. The Monitoring Notifications screen appears.

23. Enter a valid email address and server name, then click **Next**.

24. The Completing the New Cluster Wizard screen appears.

25. Click **Finish** to complete the wizard and connect to the Application Center.

26. The Application Center snap-in appears.
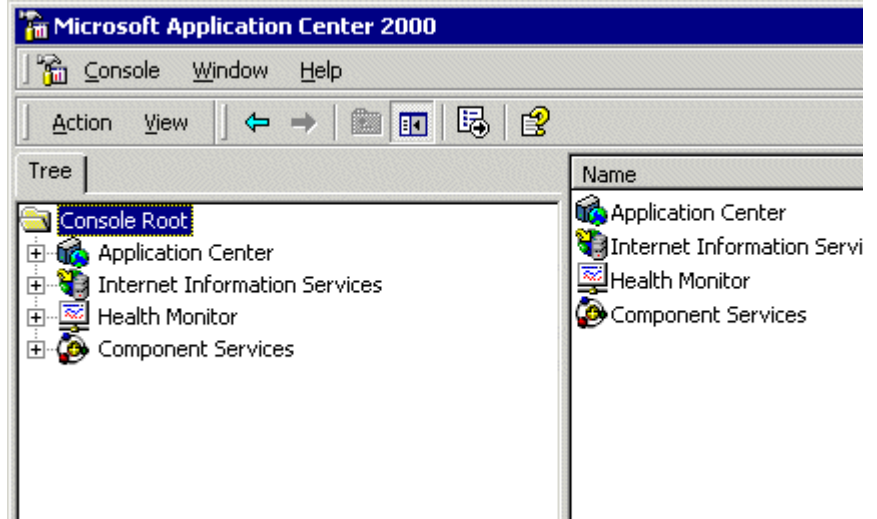
If you cannot connect, make sure all information is correct.

27. After expanding the Application Center tree, you should see a cluster with one member, the staging server.
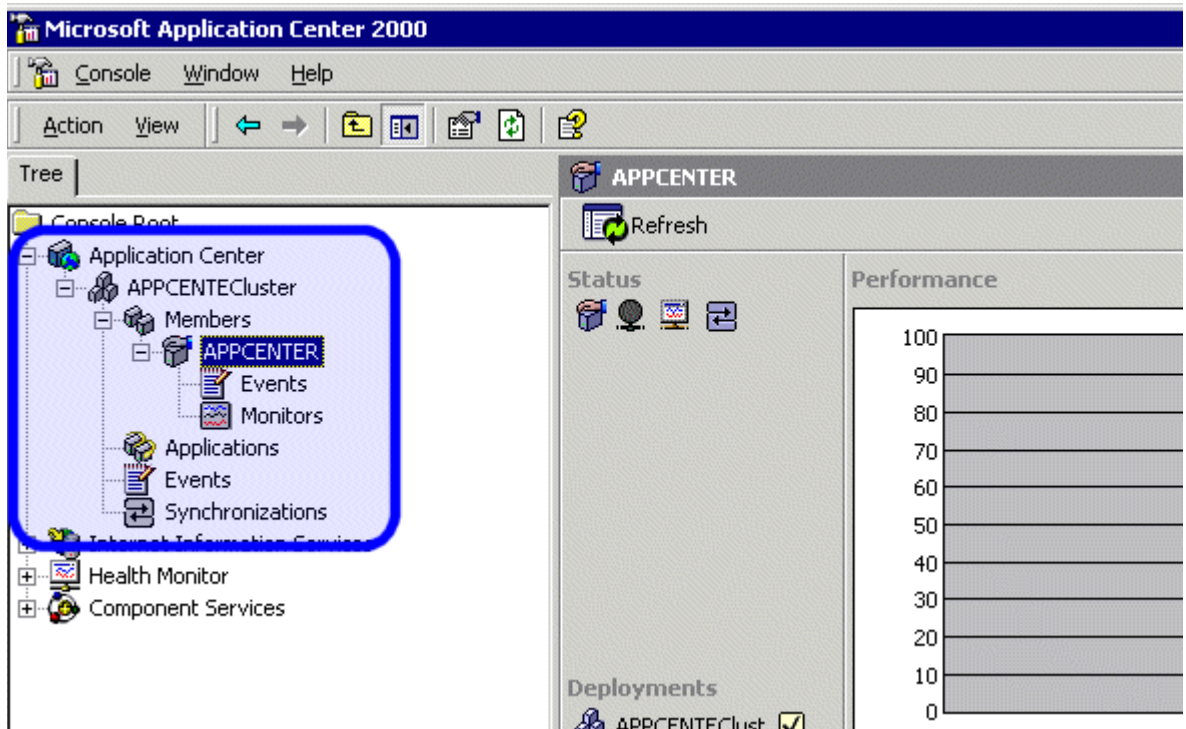
Now that you have connected to Application Center on the staging server, and created a cluster, you can configure the application settings for the cluster.

Configuring the Application Settings for the Cluster

To add Ektron CMS400.NET application information to the cluster, follow these steps.

1. Connect to the cluster you created in "Connecting to the Staging Server's Application Center" on page 161.

2. Click **Applications** in the cluster tree.
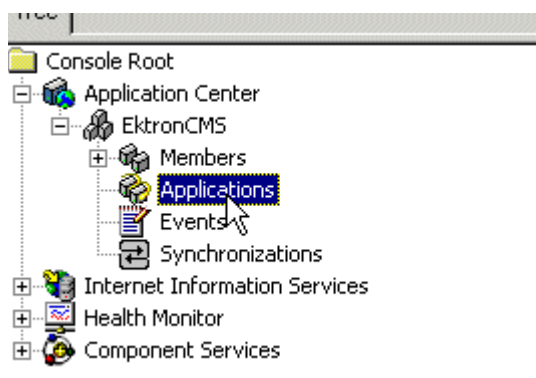
3. The applications page appears on the right side of the snap-in.
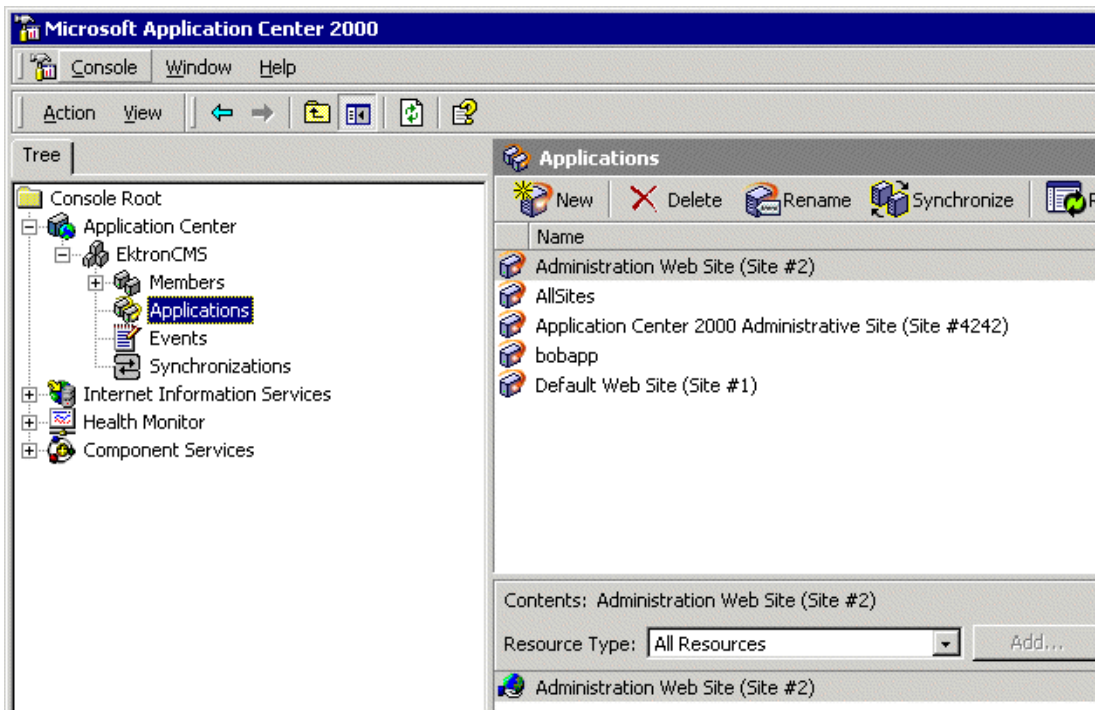
4. Click New ( ) in the toolbar at the top of the applications section.

5. The Create a New Application dialog box appears.
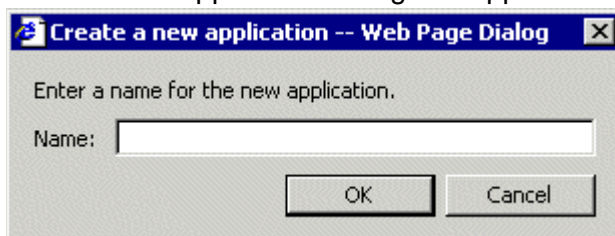
6. Enter a name for the new application and click **OK.**

7. The dialog box closes, and the applications list is updated with the new application.
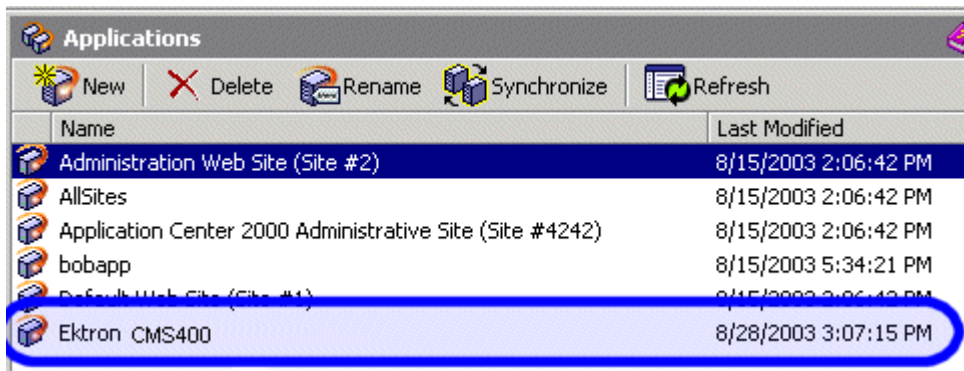
Now that the application is added, you must add resources to it.

8. Click the Ektron CMS application that you created.

9. A list of resources assigned to the application appear in the lower right pane.
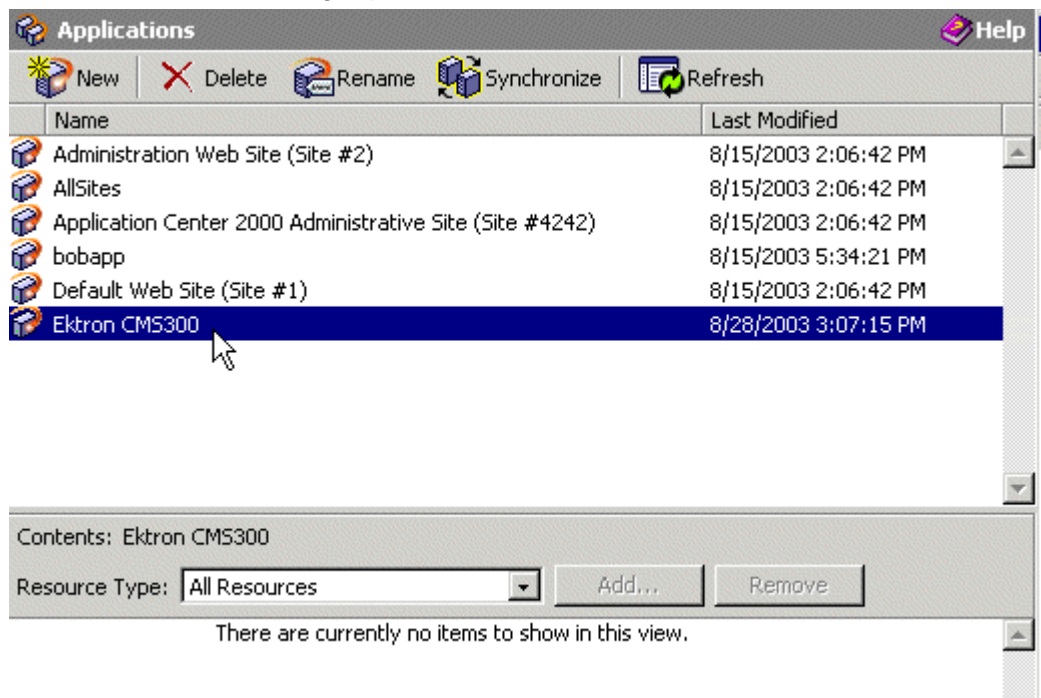
10. Use the following table to help you assign necessary resources to the application.

Resource Type	Folder Path	Description
Registry Keys	HKEY_LOCAL_MACHINE\SOFTWARE\Ektron	Registry keys for Ektron CMS400.NET to function properly.
File System Paths	C:\Inetpub\wwwroot\CMS400Example\	Location of your Ektron CMS400.NET Web site.
File System Paths	C:\Program Files\Ektron\CMS400	Location of the necessary components for Ektron CMS400.NET.

Displayed here is the result of adding these resources to the application.
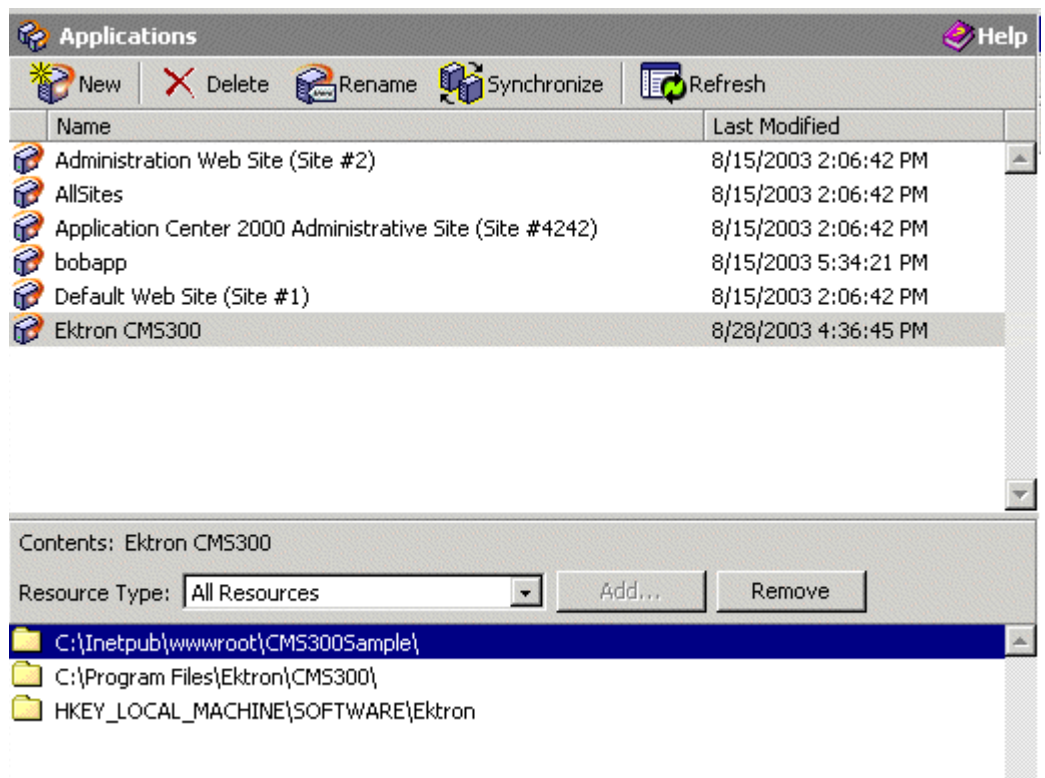
NOTE You can also add Registry keys, etc. here. The three resources listed above are *required*.

Adding the Production Server to the Cluster

The next step in configuring Application Center on your staging server is to add the production server to the cluster. To do so, follow these steps.

1. Connect to the cluster you created in .

2. Right click on **Members** in the cluster tree.

3. Click **All Tasks > Add Cluster Member**.
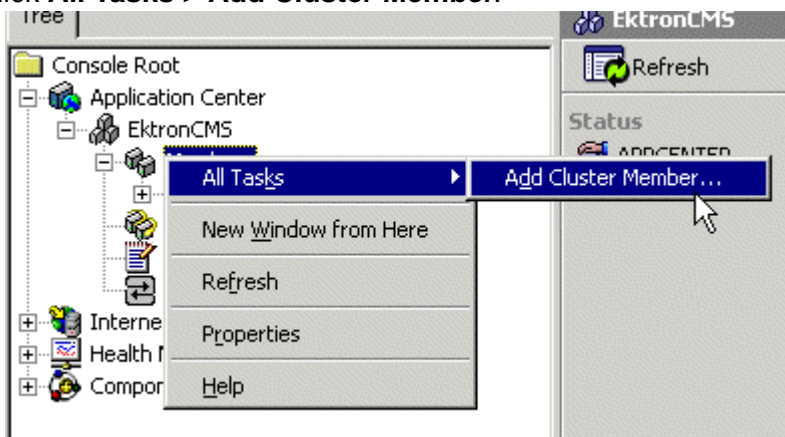
4. The Add Cluster Member Wizard opens. Click **Next** to proceed.

5. The Name and Credentials screen appears.

6. Click **Browse** to locate the server to add to the cluster.

NOTE   If you know the name of the server you want to connect to, enter the name of the server in the field and skip this step.
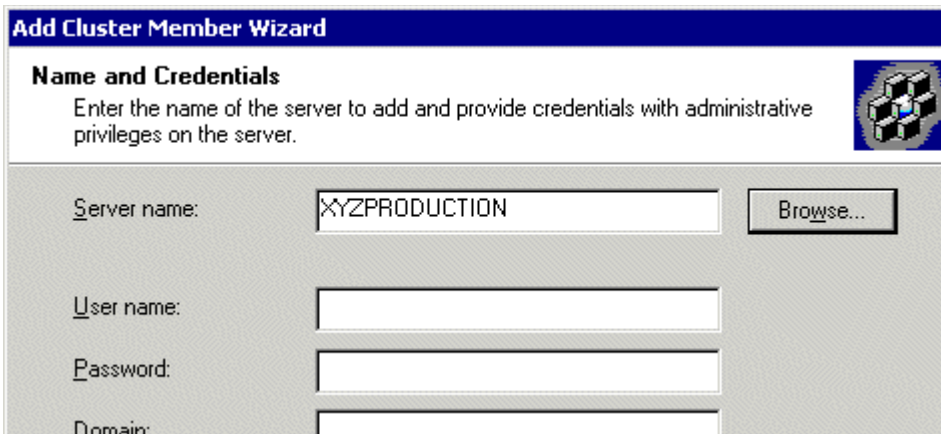
7. The Select Computer screen appears.

8. Select the Ektron CMS400.NET **Production Server** from the list, then click **OK.**

9. The select computer window closes, and the Name and Credentials screen appears with the selected computer in the **Server name** field.

Add Cluster Member Wizard

Name and Credentials
Enter the name of the server to add and provide credentials with administrative privileges on the server.
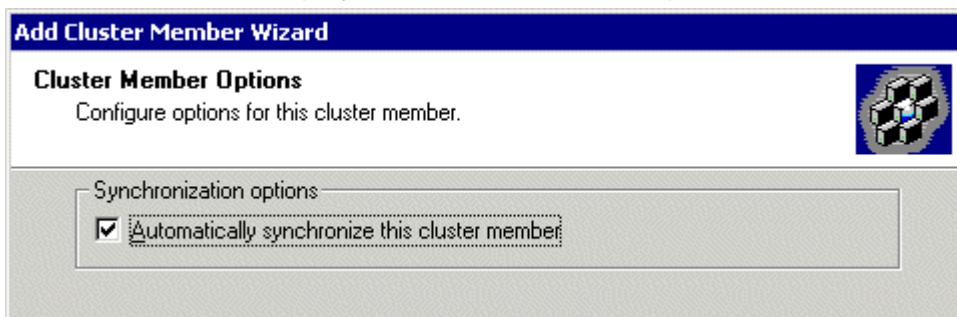
Server name:	XYZPRODUCTION	Browse...
User name:		
Password:		
Domain:		

10. Enter the required information needed to connect to the server, then click **Next.**

11. Application Center analyzes the server configuration, and displays the Cluster Member Options screen.

Add Cluster Member Wizard

Cluster Member Options
Configure options for this cluster member.

Synchronization options
☑ Automatically synchronize this cluster member

12. Leave the default and click **Next.**

13. The Completing the Add Cluster Member Wizard page appears.

14. Click **Finish** to complete the wizard and add the server to the cluster. The server is now a member of the cluster.
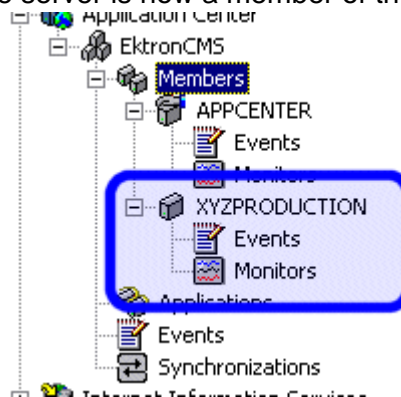
Now that the cluster is complete, you can now "push" files from the staging to the production server.

Deploying the Files

Once the cluster is configured, you can deploy Ektron CMS400.NET from the staging to production server. To create a new deployment, follow these steps,

1. Connect to the cluster you created in "Connecting to the Staging Server's Application Center" on page 161.

2. Right click the cluster member acting as the cluster controller (which is the staging server) and click **New Deployment...**
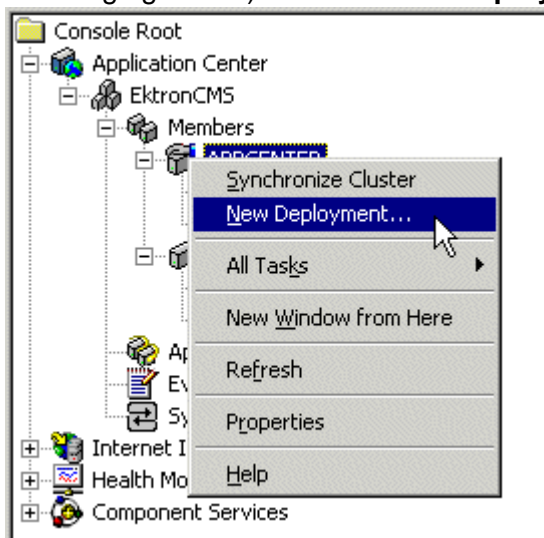
3. The New Deployment Wizard opens.

4. Click **Next** to proceed.

5. The Deployment Target Options screen appears.

New Deployment Wizard

Deployment Target Options
Enter a name for this deployment and select its type.

Source server:	appcenter

Deployment name: `04:55:29 PM 08/28/2003`

⦿ Deploy content inside the current cluster

Deploy content to one or more cluster members within the current cluster.

◯ Deploy content outside the current cluster

Deploy content to one or more Application Center clusters or members outside the current cluster.

[< Back]   [Next >]   [Cancel]   [Help]

6. Enter a name for the deployment, or leave the default.

7. Choose the **Deploy content inside the current cluster** option.

8. Click **Next**.

9. The Deployment Targets Within the Cluster screen appears.

New Deployment Wizard

Deployment Targets Within the Cluster
Select one or more cluster members.

To deploy to one or more members, select each member. To deploy to the entire cluster from a member, select the controller. COM+ applications and ISAPI filters must be deployed manually throughout the cluster.

Targets:

XYZPRODUCTION

10. Select the targets to which to deploy the content, then click **Next**.

11. The Deployment Content page appears.
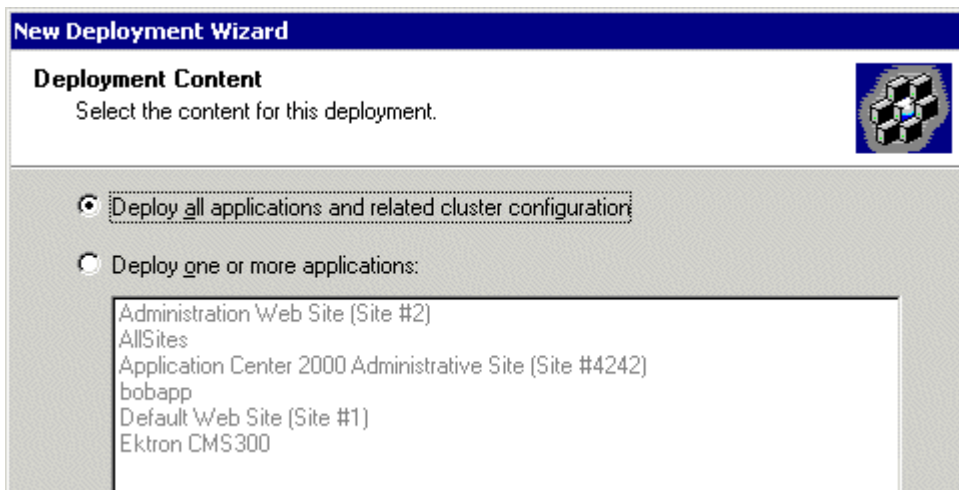
12. Either choose to **deploy All Applications** or choose the **One or More** option and select the Ektron CMS400.NET application from the list. Then click **Next**.

13. The Deployment Options screen appears.
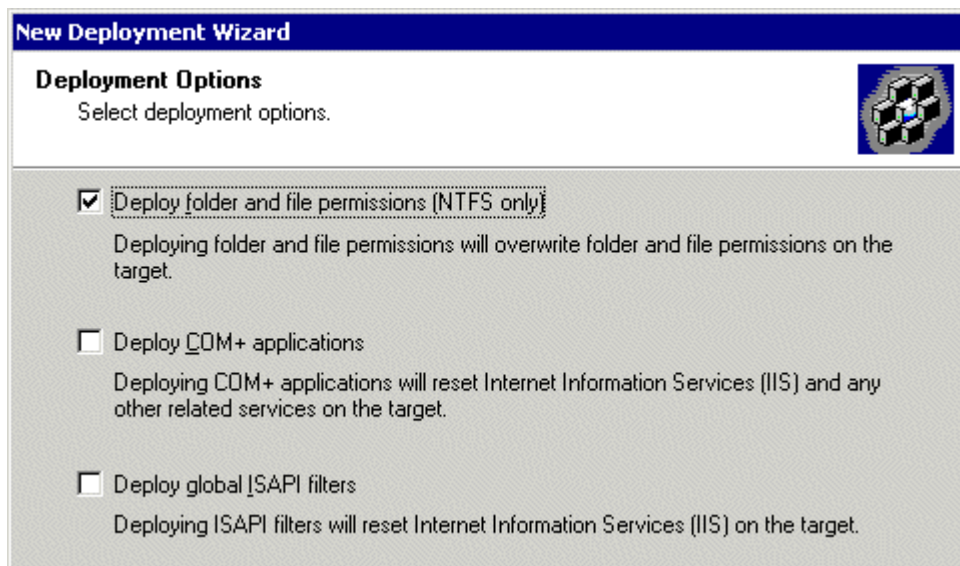
14. Check off **Deploy Folder and File Permissions (NTFS Only)**, then click **Next.**

NOTE   If desired, you can choose other options. However, you *must* choose the first one.

---

15. The Completing the New Deployment Wizard screen appears.

16. Click **Finish**.

After you complete this initial deployment, all necessary files, registry keys, and DSNs are copied to the production server in our cluster.

Viewing The Results

Each time an event occurs, a log is created in the Synchronizations section of Application Center. To view the results of the initial deployment, follow these steps.

1. Connect to the cluster you performed the initial deployment on.
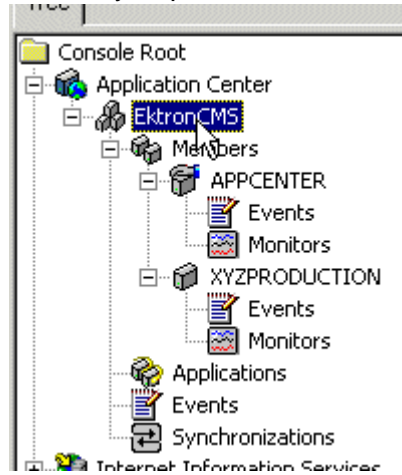
2. Click **Synchronizations** on the cluster tree.
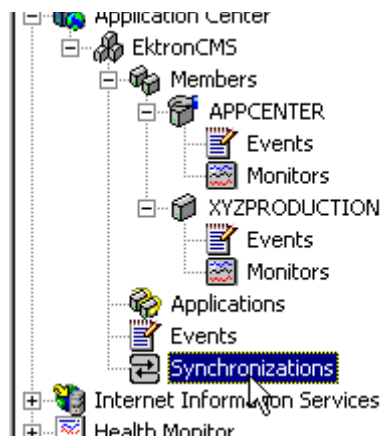
3. The synchronization information appears on the right side of the screen.
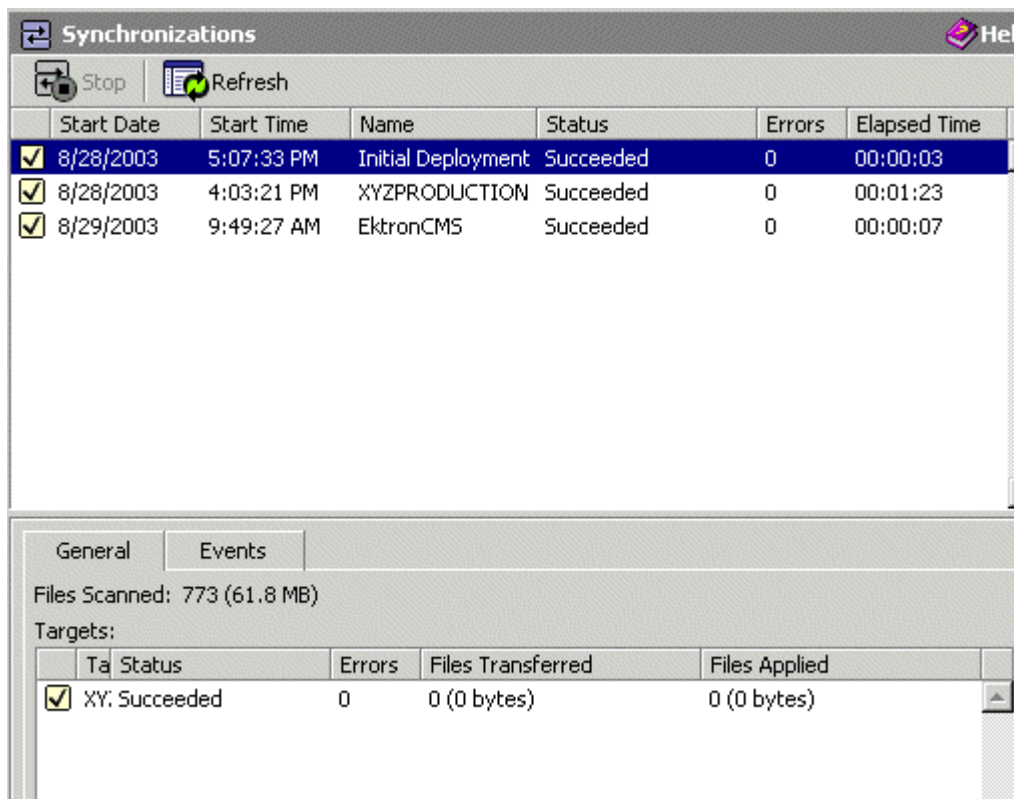
4. The most recent record shows that the initial deployment task completed successfully.
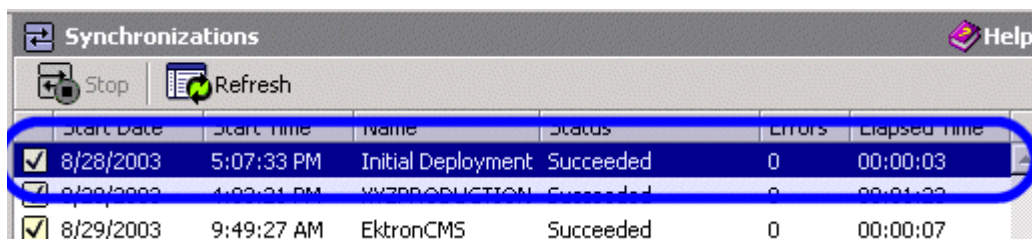
Configuring the Production Server

Now that the staging server has been configured, and the initial deployment performed, you must perform these tasks to the Production server in the cluster:

- Create a blank MS-SQL database for Ektron CMS400.NET

- Create a DSN for MS-SQL database

The following sections explain how to perform these tasks.

Before You Configure the Production Server

Before you configure the production server, be sure the following directories have been copied during the initial deployment:

- `C:\Inetpub\wwwroot\CMS400Example`
- `C:\Program Files\Ektron\CMS400v50`

Creating Blank MS-SQL Database

You need to create a blank MS-SQL database for Ektron CMS400.NET on the production server. When the deployment configuration is complete, this database has a pull subscription to the database on the staging server.

For information about creating a blank database on the production server, use the steps in "Setting up a Database" on page 51. In step 4, choose **Minimal**.

NOTE   The database name does not have to match the database name of the staging server.

Configuring MS-SQL Database

The last step in setting up the deployment model is to configure the MS-SQL databases on the staging and production servers. In our model, the staging server's database publishes content to which the production server subscribes.

Complete the following tasks to configure the MS-SQL databases.

1. Register the production MS-SQL in the MS-SQL Enterprise Manager on the staging server (optional)

NOTE   This step is not required, but is recommended to make managing the databases easier.

2. Configure the staging server's database to be a publication database.

3. Configure the production server's database to subscribe to the staging server's database.

4. Perform an initial synchronization.

These steps are explained below.

Registering Production Server's MS-SQL Server

By registering the production server's MS-SQL server in the staging server's MS-SQL Enterprise Manager, you can perform tasks on both services from one area instead of accessing both machines. To do so, follow these steps.

1. On the staging server, access the MS-SQL Enterprise manager.
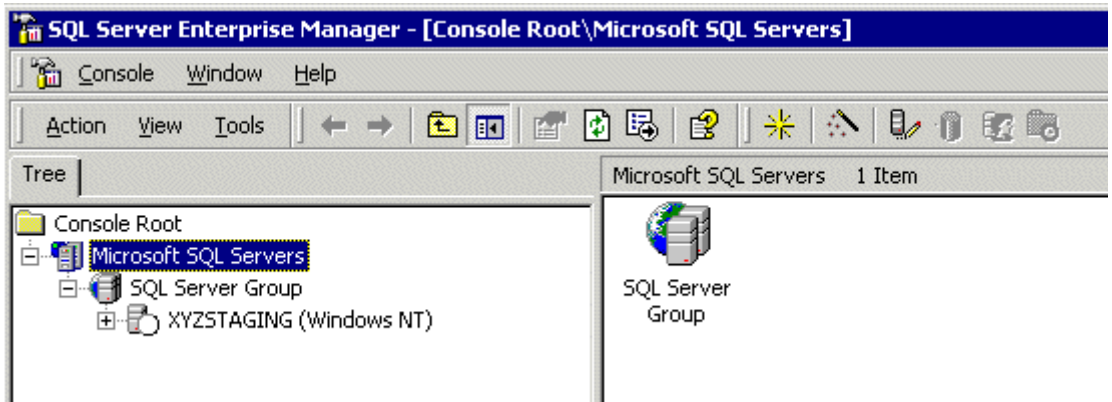
2. Right click on **SQL Server Group** and click **New SQL Server Registration.**
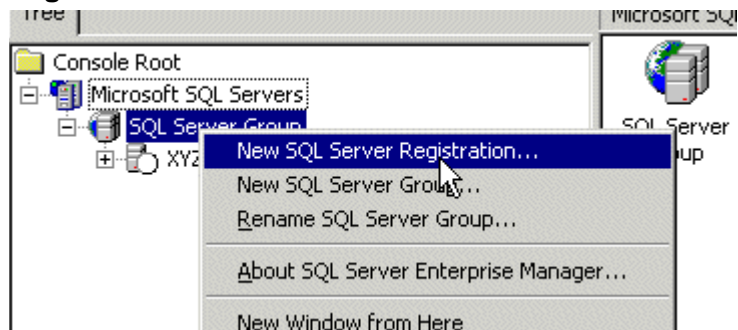
3. The Register SQL Server Wizard opens.

4. Click **Next**.

5. The Select SQL Server screen appears.
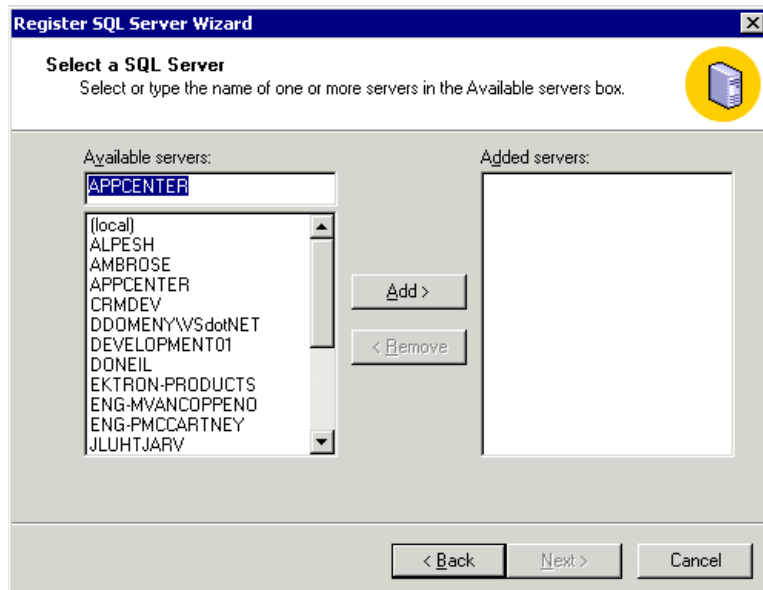
6. In the Available Servers list, select the name of the production server. Then, click **Add.**

7. The production server appears in the Added Servers column.
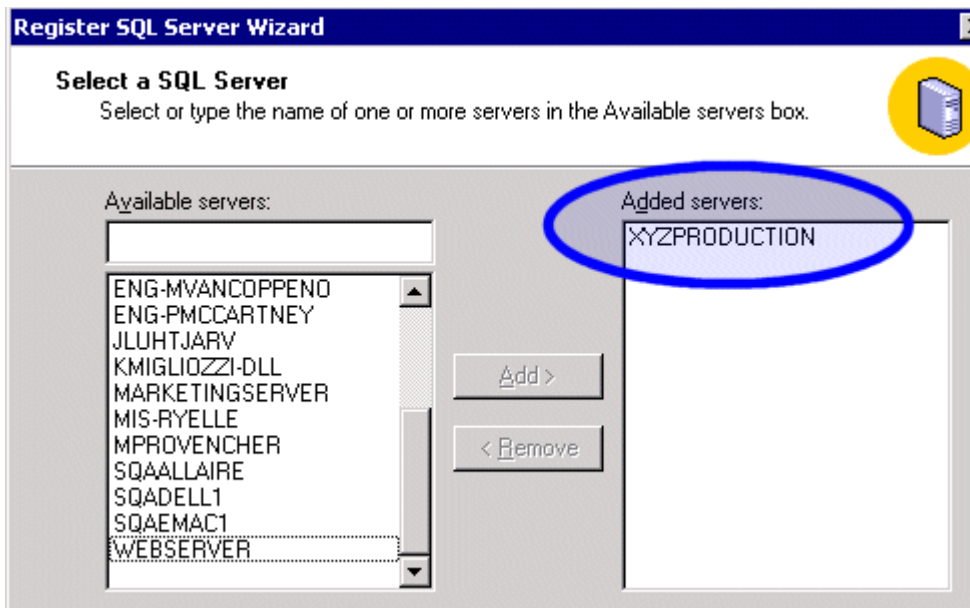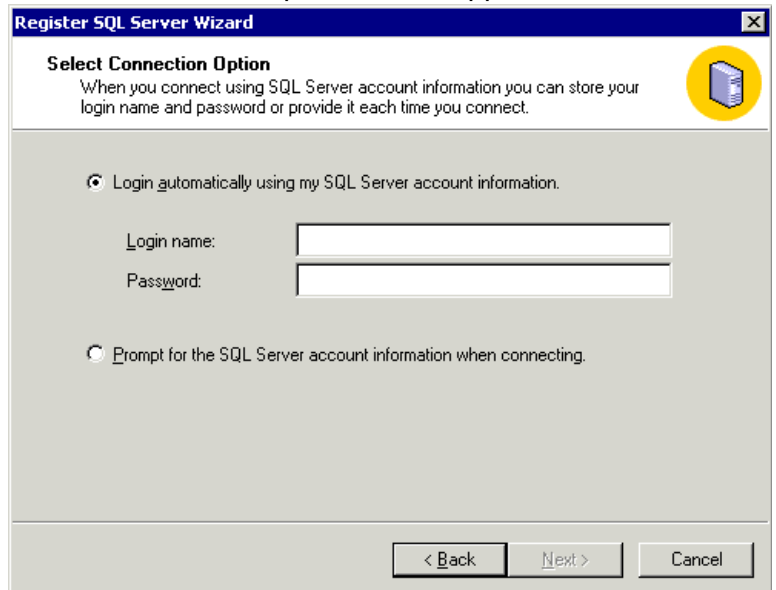
8. Click **Next**.

9. The Select Authentication Mode screen appears.
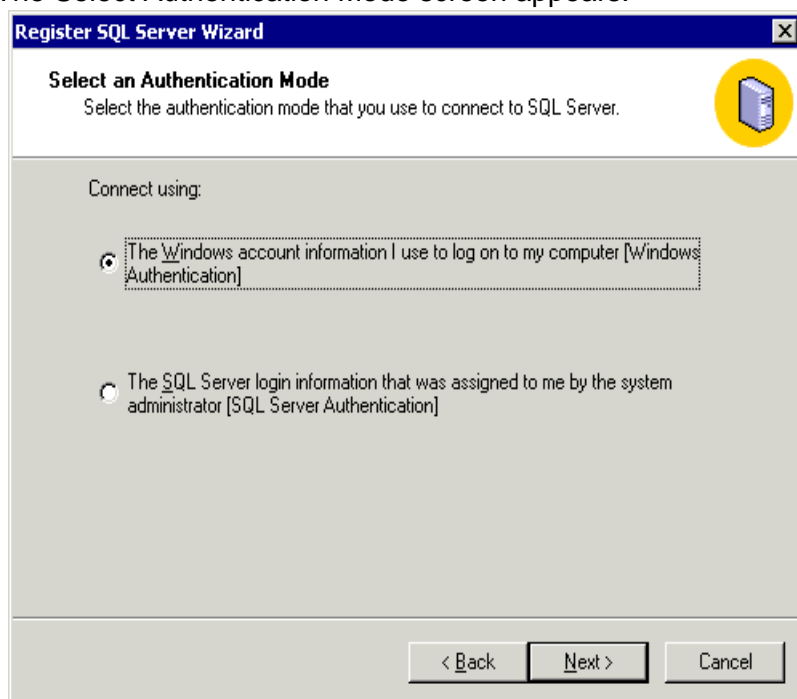
10. Choose the authentication mode you want to use. Then, click **Next**.

This example uses SQL Server authentication. If you chose Windows Authentication, skip to step 14.
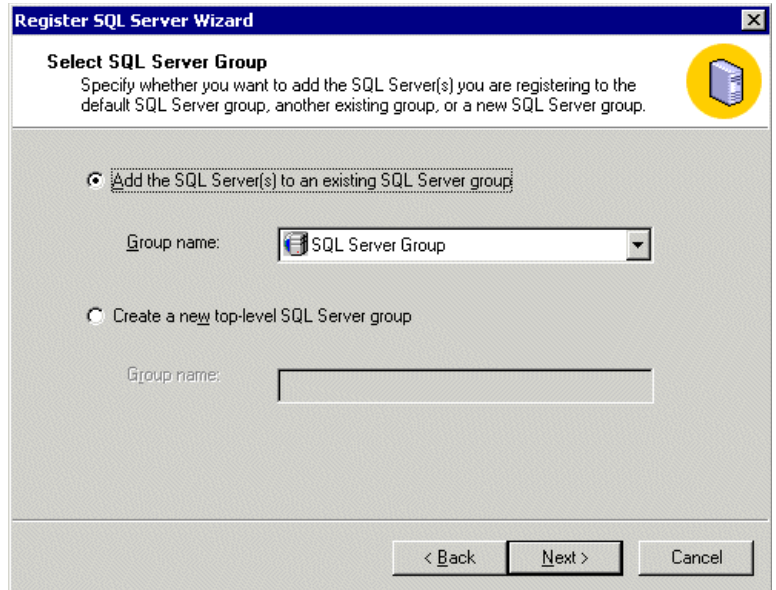
11. The Select Connection Option screen appears.

12. Choose the type of connection you want. Then, click **Next**.

13. The Select SQL Group screen appears.

14. Choose the SQL Server group, or add a new one you want to register the new SQL server to. Then click **Next.**

15. The Completing the Register SQL Server WIzard screen appears.
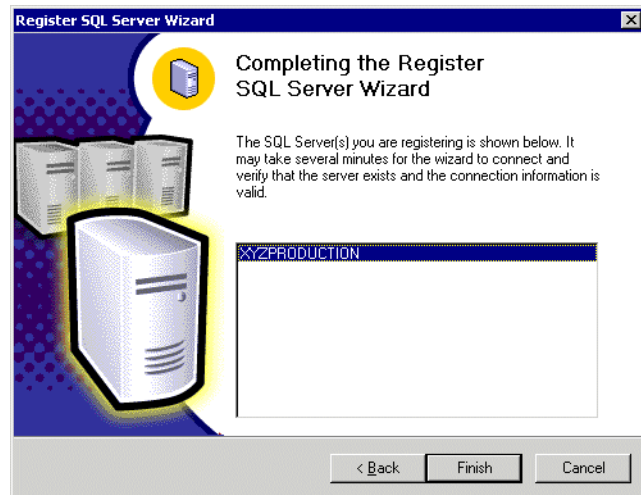
16. Click **Finish**.

17. The SQL Server is registered and a confirmation message appears.

18. Click **Close**.

19. The confirmation closes, and the new SQL Server is registered to the SQL Enterprise Manager
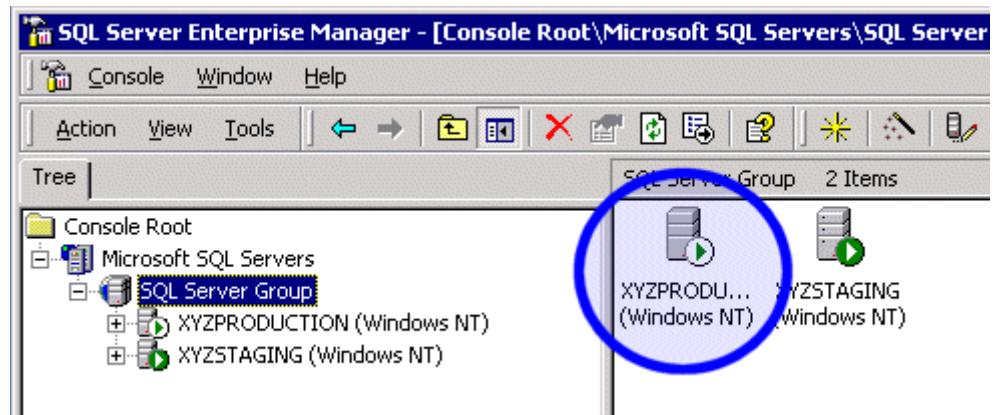
Now that the production server is registered, we can configure the two databases.

Configuring the Staging Server's Database

The staging server's database publishes all content in the Ektron CMS400.NET Web site. The production server's database pulls data from that database and stores it as well.

To configure the staging server's database to publish the data, follow these steps.

1. In the SQL Enterprise Manager on the staging server, connect to the staging server's SQL server and access the Databases folder.
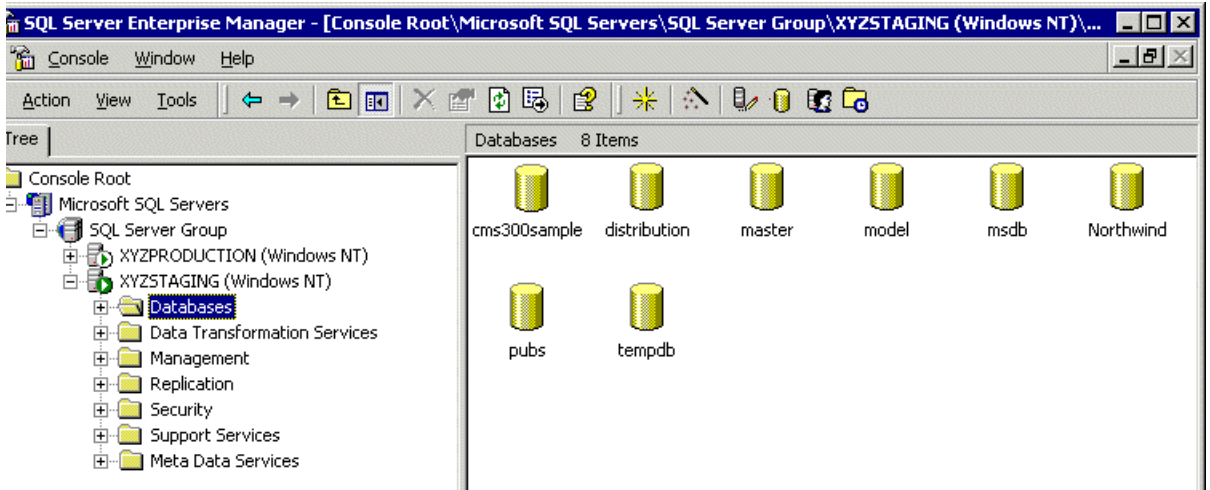
2. Right click the **CMS400Sample** database and click
   New > Publication...
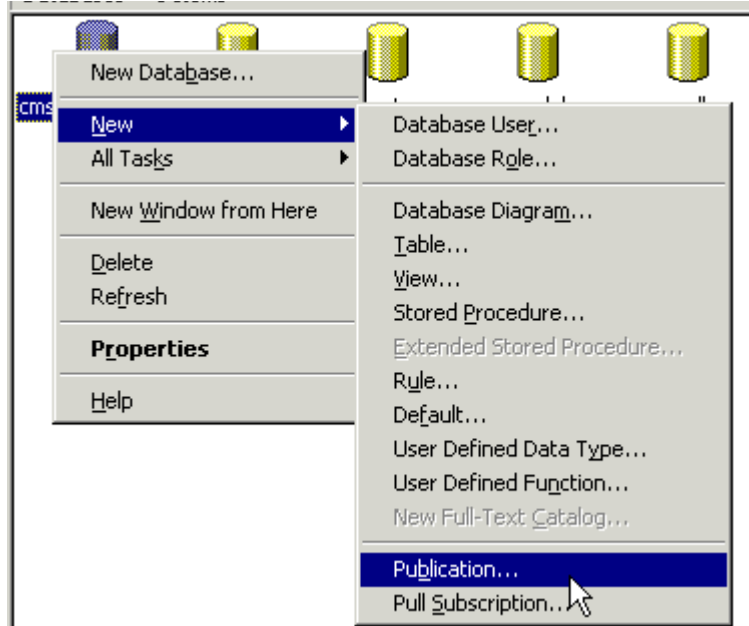
3. The Create Publication Wizard opens.

4. Click **Next** to begin.

5. The Choose Publication Database screen appears.

Create Publication Wizard

Choose Publication Database
Choose the database that contains the data or objects you want to publish.

Databases:
cms300sample
Northwind
pubs
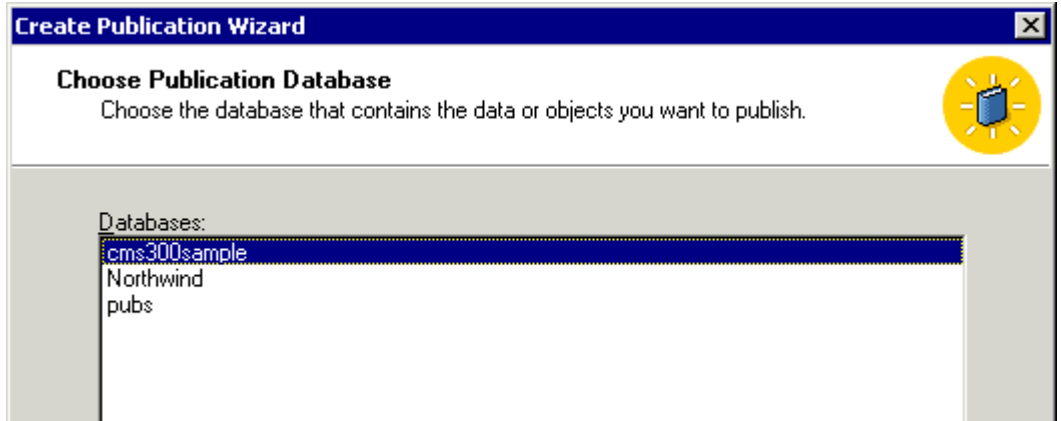
6. Choose the Ektron CMS400.NET database and click **Next.**

7. The Select Publication Type screen appears.

Create Publication Wizard

Select Publication Type
Select the publication type that best supports the requirements of your application.

- Snapshot publication -- The Publisher periodically replaces Subscriber data with an updated snapshot. This is appropriate when the Subscriber data need not be constantly up-to-date.

- Transactional publication -- Data is usually updated at the Publisher, and changes are sent incrementally to Subscribers. Updates to Subscribers preserve transactional consistency and atomicity.

- Merge publication -- Data can be updated at the Publisher or any Subscriber. Changes are merged periodically at the Publisher. This supports mobile, occasionally connected Subscribers.

< Back   Next >   Cancel   Help

8. Choose **Snapshot Publication** then click **Next**.

9. The Specify Subscriber Types screen appears.
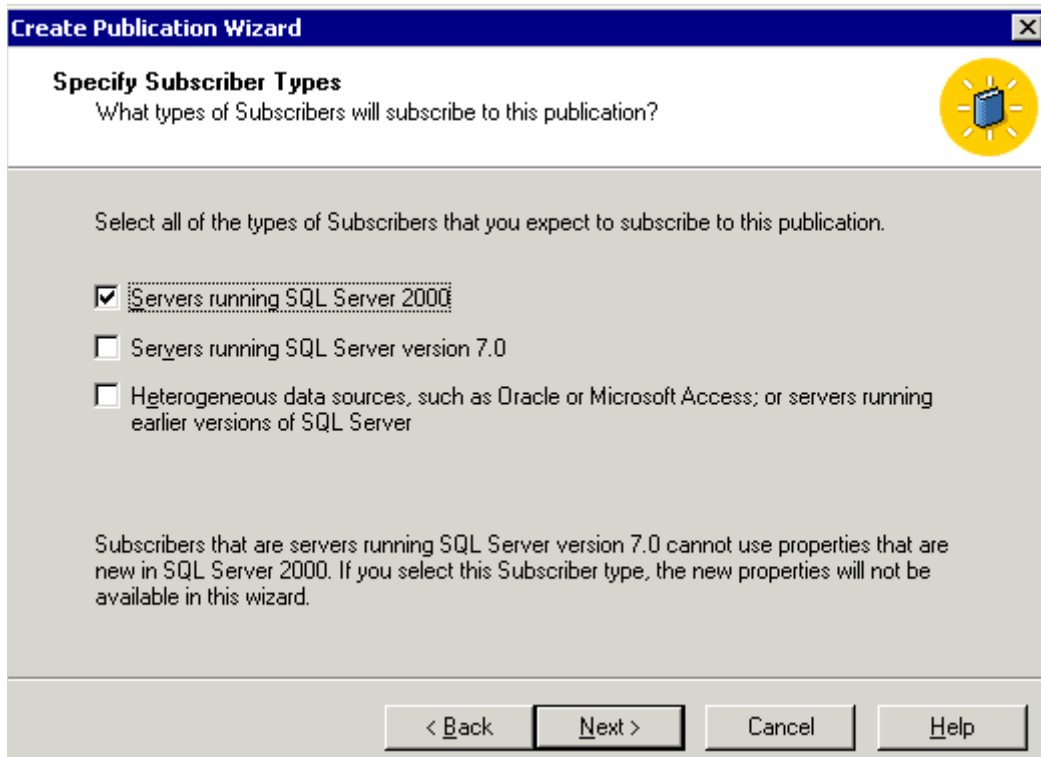
10. Check the box next to the version of MS-SQL that the production server is running and click **Next**.

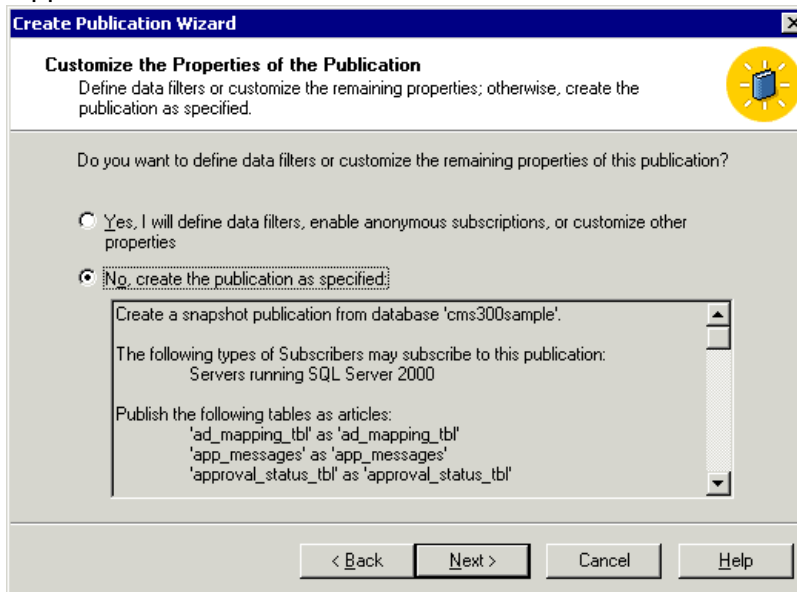11. The Specify Articles screen appears. Check the **Publish All** option.
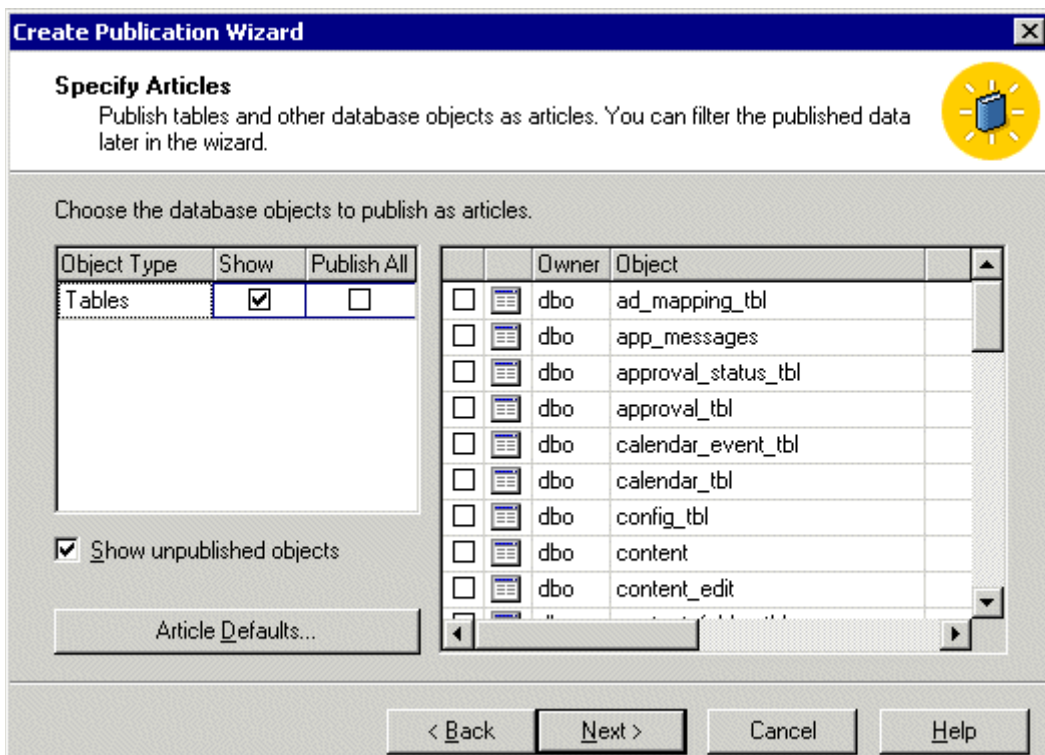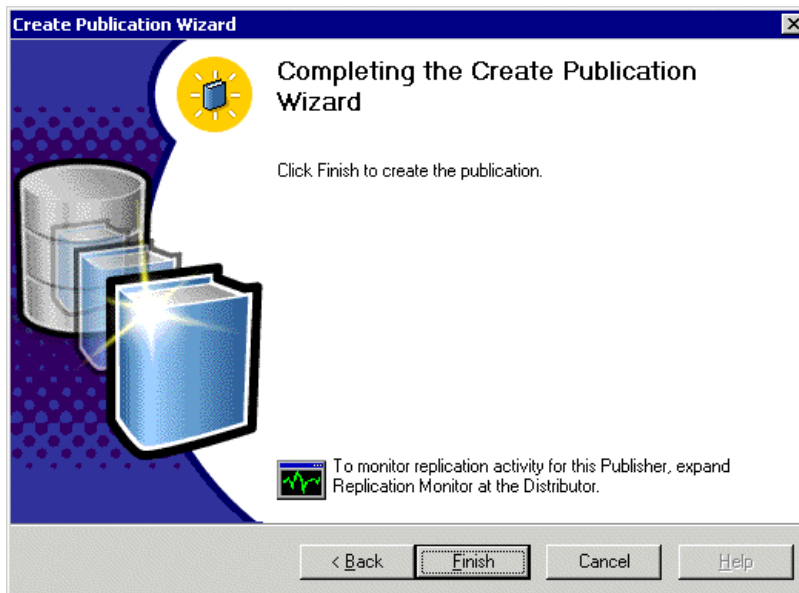

12. Click **Next** to continue.

13. The Select Publication Name and Description page appears.
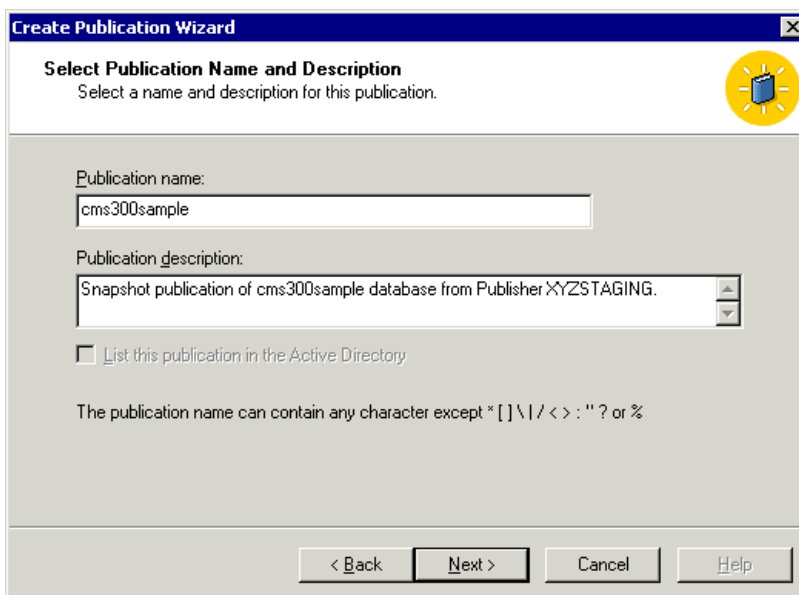
14. Enter a name and description for the publication, then click **Next**.

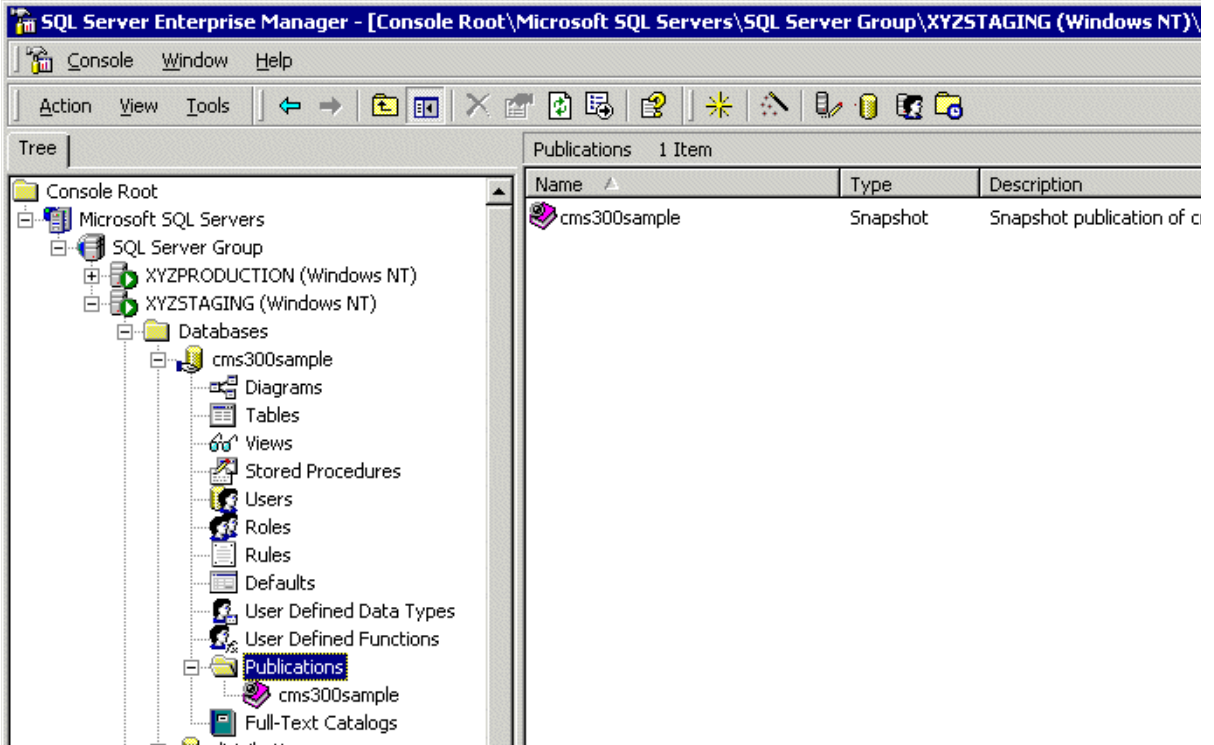15. The Customize the Properties of the Publication screen appears.

16. Choose **No, Create the publication as specified** then click **Next.**

17. The Completing the Create Publication Wizard screen appears.

18. Click **Finish.**

19. A Publications folder is added to the database tree, and the new publication is added to it.

Now that the staging server's database is configured as a publication database, we can configure the production database to subscribe to it.

Configuring the Production Server's Database

To configure the production server's database to subscribe to the staging server's database, follow these steps.

1. On the staging server's SQL Server Manager, connect to the production server's SQL server and access the databases folder.
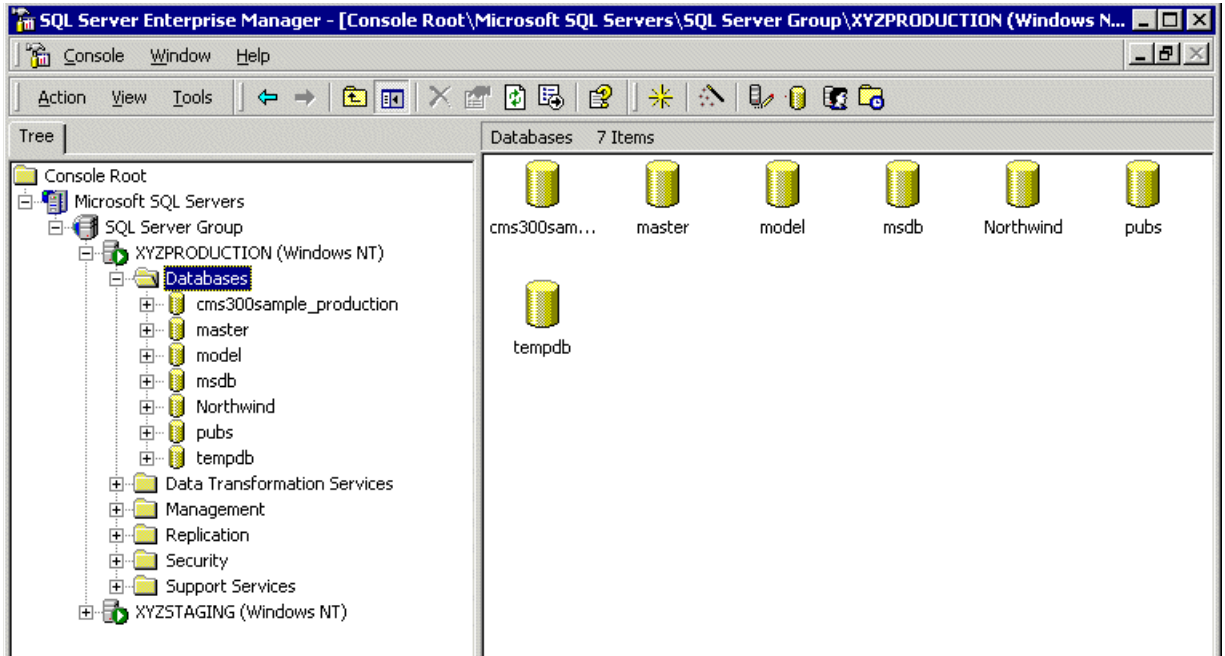
2. Right click the blank Ektron CMS400.NET database and click **New > Pull Subscription...**
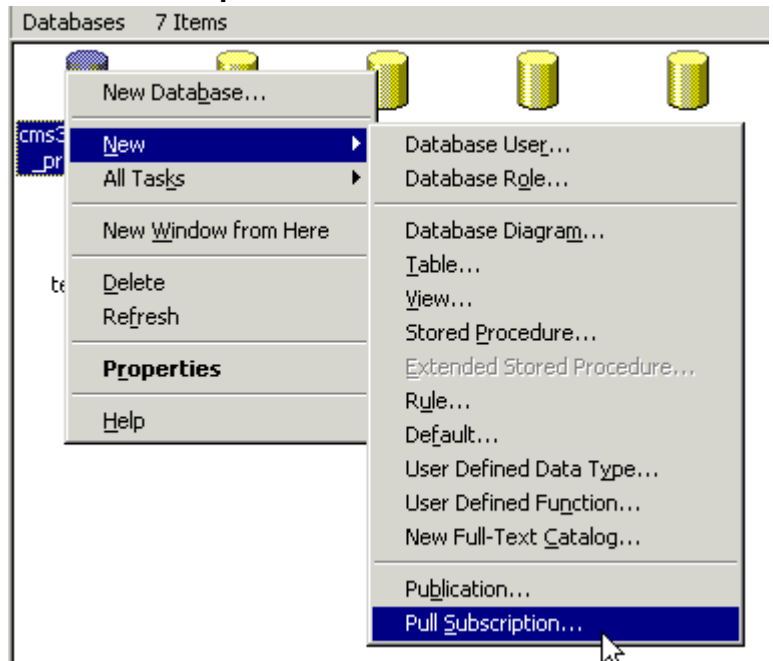
3. The Pull Subscription Wizard opens. Click **Next** to begin.

4. The Look for Publications screen appears.

Pull Subscription Wizard ✕

Look for Publications
Where do you want to look for a publication?

Where do you want to look for the publication to which you want to subscribe?

⦿ Look at publications from registered servers

○ Look at publications in the Active Directory or specify publication information. This option is for Publishers running SQL Server 2000 or later.

| < Back | Next > | Cancel | Help |

5. Choose **Look at publications from registered servers** and click **Next**.

6. The Choose Publication screen appears.
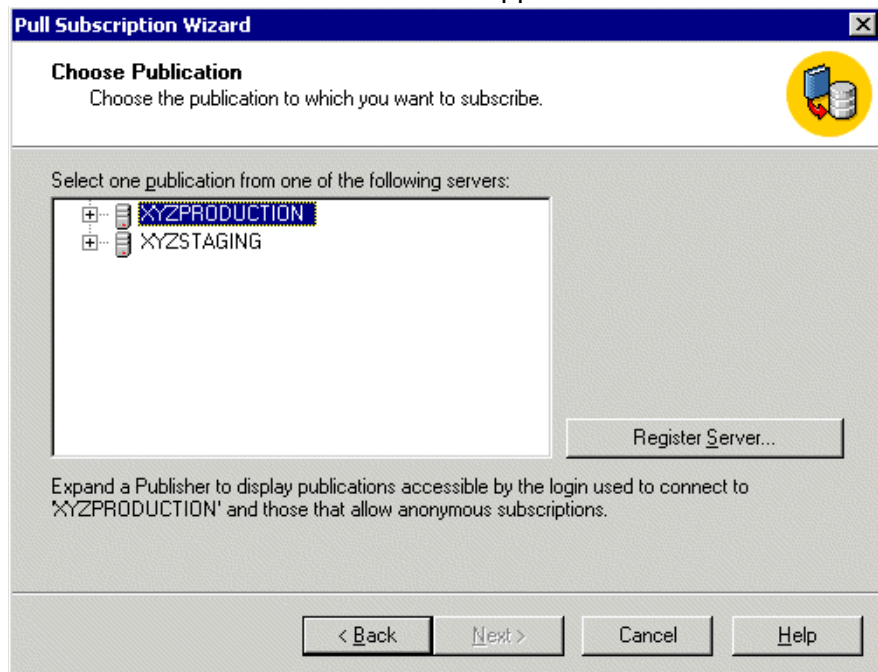
7. Expand the Staging Server's tree and select the Ektron
   CMS400.NET Publication that was created in "Configuring the
   Staging Server's Database" on page 189.
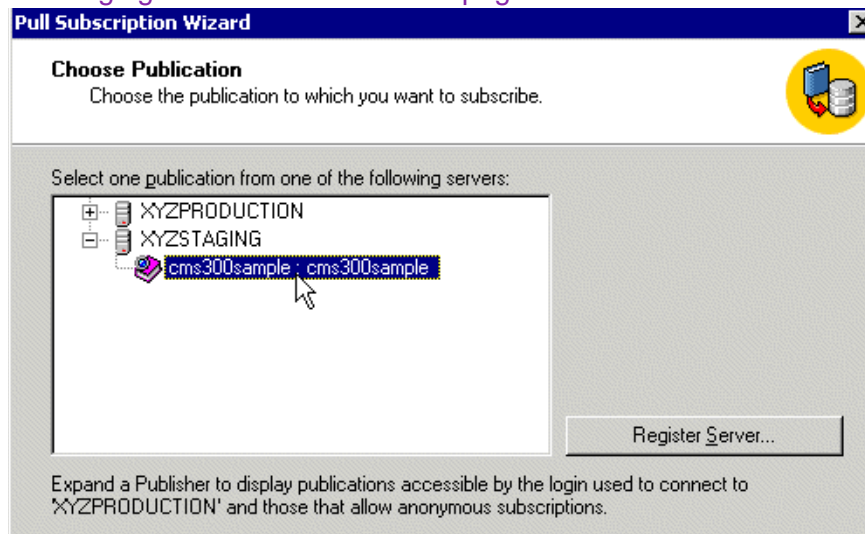
NOTE If the Ektron CMS400.NET publication does not appear under the staging server,
make sure the publication was created properly.

8. Click **Next** to continue.

9. The Specify Synchronization Agent Login screen appears.

10. Choose which option you want to use to connect to the publisher. Then, click **Next**.

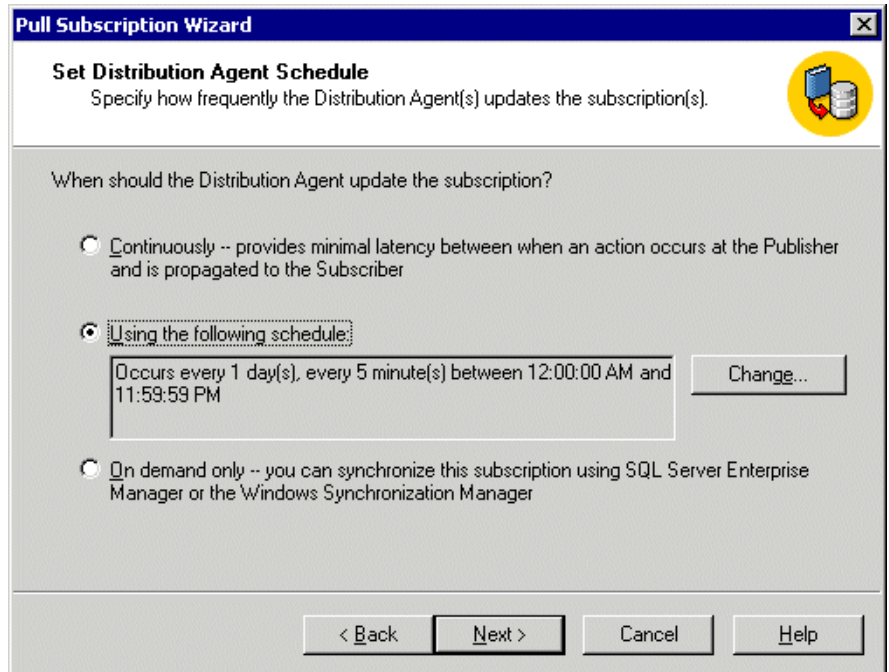11. The Initialize Subscription screen appears.

12. Choose **Yes, initialize the schema and data**, then click **Next.**

13. The Snapshot Delivery screen appears.
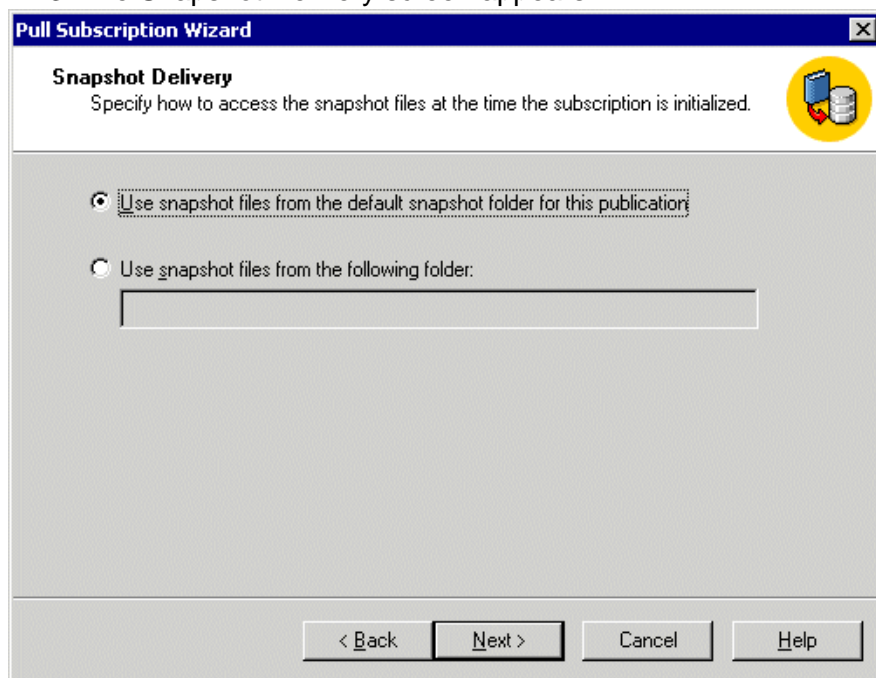
14. Choose **Use snapshot files from the default snapshot folder for this publication.** Then, click **Next**.

15. The Set Distribution Agent Schedule screen appears.

16. Choose an option using the following table for reference.

Option	Result
Continuously	Propagates data modifications between Publisher and Subscriber immediately.
Schedule	Runs the Distribution Agent hourly (default), or daily, weekly, or monthly. Choosing a frequency other than **Continuously** increases the latency between the Subscriber and Publisher.
On-Demand	Run the Distribution Agent only when specifically requested.

For demonstration purposes, we choose **On-Demand** so we can synchronize the databases with a click of a button
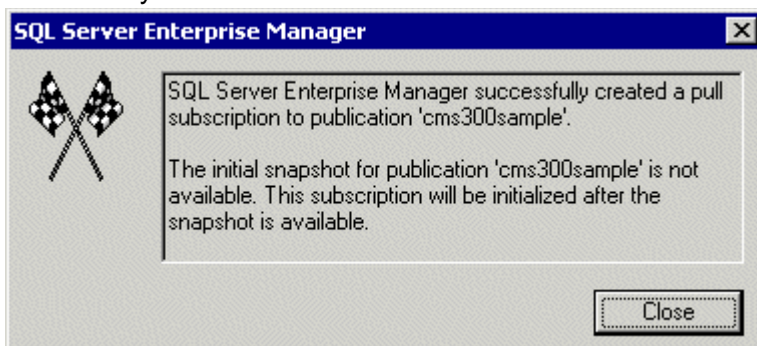
17. Click **Next** to continue.

18. The Specify Subscriber Security screen appears.

19. Specify the login used by the synchronization agent to the subscriber. Then, click **Next**.

20. The Completing the Pull Subscription Wizard appears.

21. Click **Finish** to complete the wizard.

22. A message informs you that the pull subscription was created successfully.

23. Click **Close** to close the dialog box.

24. A Pull Subscription folder appears on the database's data tree with the new pull subscription added.
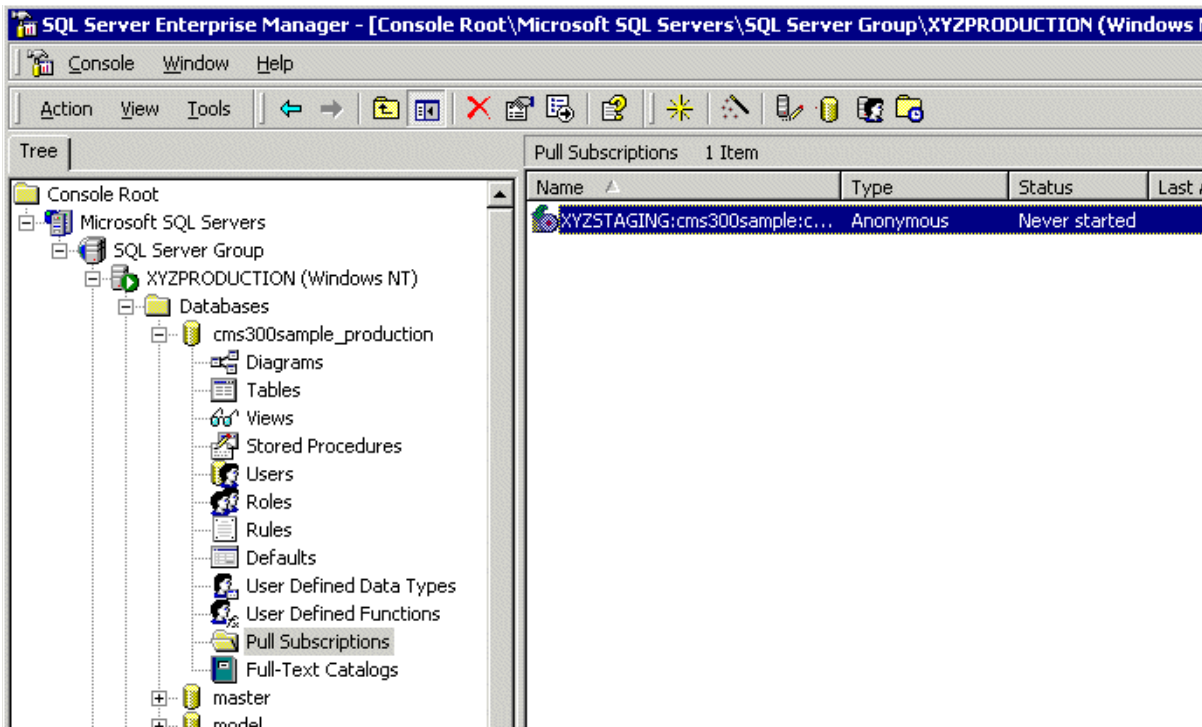

Now that the publication and subscription have been created, we can perform our initial synchronization for the databases.

Synchronizing the Databases

The initial synchronization moves all data from the publication database (staging server) to the subscribing database (production server).

To perform the initial synchronization, follow these steps.

1. In SQL Enterprise manager, connect to the production server's database and locate the pull subscription that was created in .
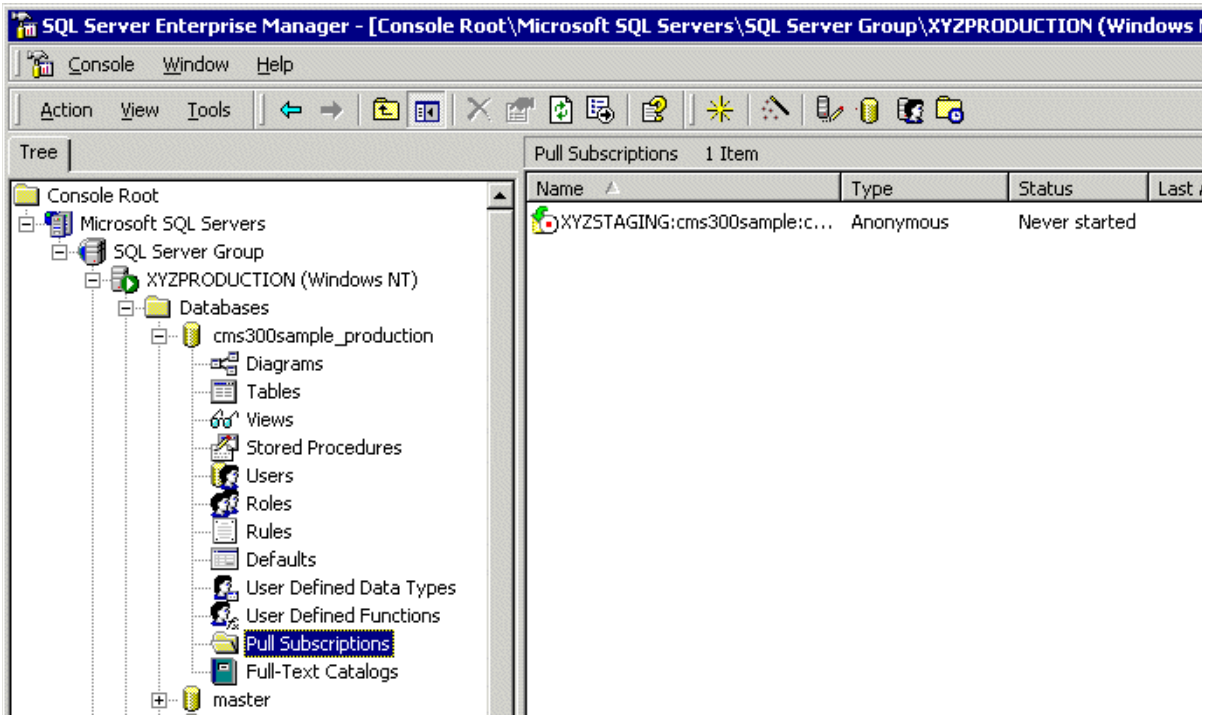
2. Right click the pull subscription record and click **Start Synchronizing.**
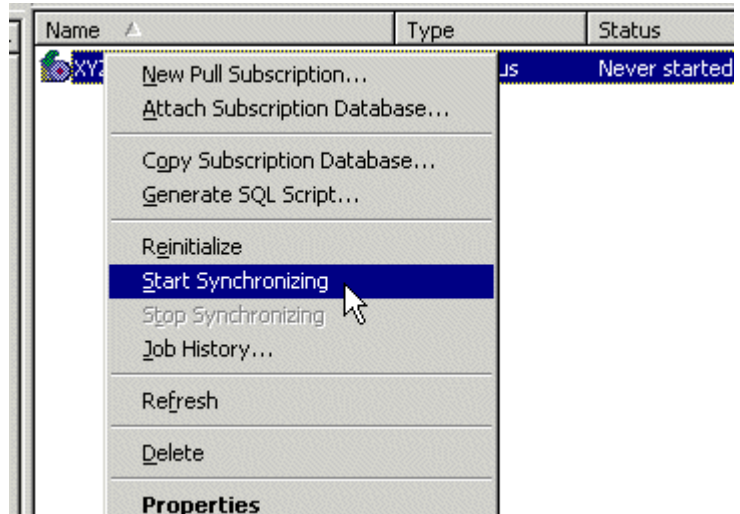
3. The synchronization is performed.

4. To view results of the initial synchronization, right click on the pull subscription and click **Job History**.

5. The Job History dialog box appears.
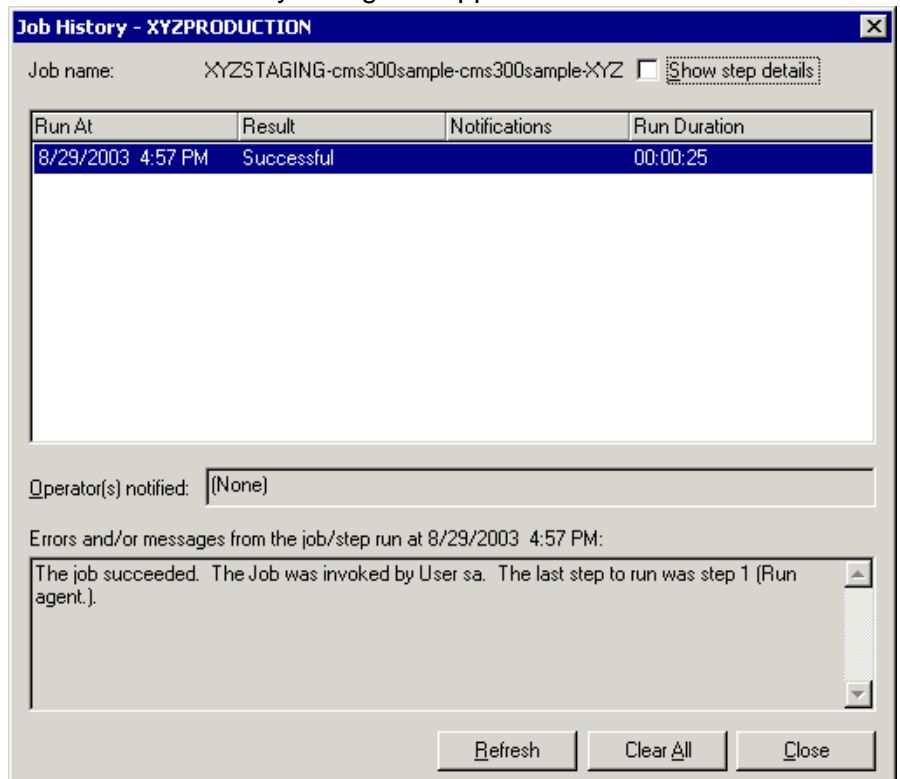
If you receive a message other than a successful notification, re-check the
settings and try again.

Also, the Ektron CMS400.NET tables from the staging server
are included in the production
database.
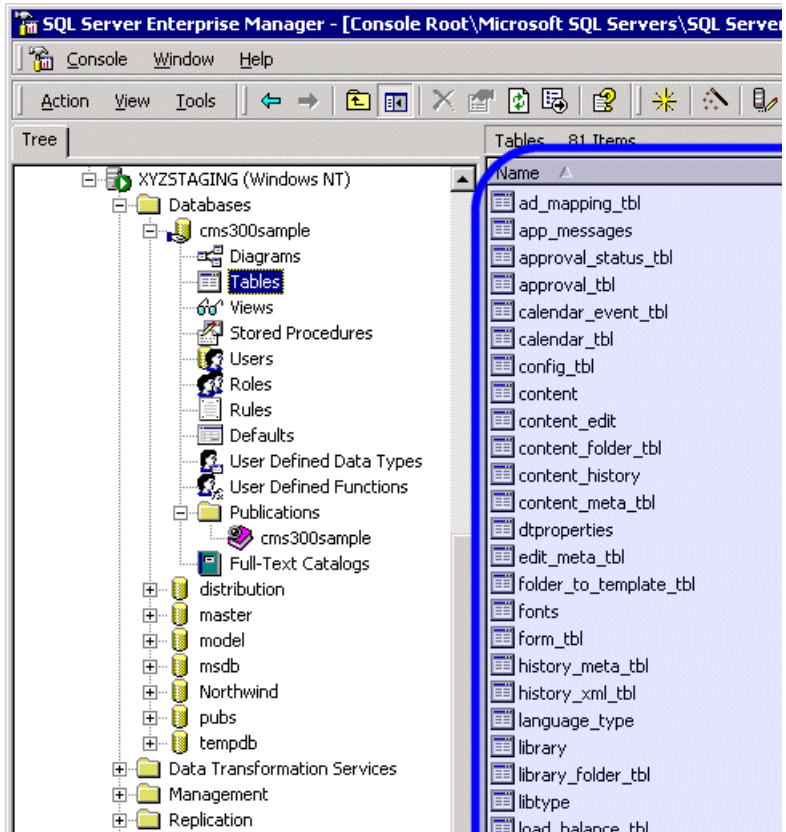
What's Next?

The deployment configuration is complete! The next section
explains how to use it.

Using the Deployment Model

Now that the deployment model has been configured, you can
easily make changes on your staging server and move the
contents to the production server with a click of the mouse.

The following two tasks must be performed to use the deployment model.

Task...	Use...~	More Information...
Deploy Files	MS Application Center	”Deploying the Files” on page 176
Synchronize Databases	MS SQL Server	”Synchronizing the Databases” on page 205

Macintosh Editor License

IMPORTANT!	For additional information on using the Apple Macintosh as a client, see the User Manual section "Macintosh Support for Ektron CMS400.NET Clients"

The Integrated Macintosh Editor License

When using a Macintosh, an additional separate license is needed for the Integrated Macintosh Editor (IME). This editor only works when using the Safari browser.

The first time you edit content on an Apple Macintosh, the Integrated Macintosh Editor is installed. With the installation, there is a thirty day trial license. After the trial license expires, you must purchase a full license.

The license for the IME is purchased through Ektron. Contact Ektron licensing for more information on purchasing a license.

Adding the Integrated Macintosh Editor License to Ektron CMS400.NET

When you add the license for the Integrated Macintosh Editor (IME), you add it to the Ektron CMS400.NET server where your site is hosted. This might be a production or development server depending on your business model.

The following steps explain how to add the IME license to Ektron CMS400.NET.

1. Copy the **editlive.lic** file that you were sent when you requested a full license.
2. On the Ektron CMS400.NET server, navigate to the following location and paste the **editlive.lic** file.
   `C:\Inetpub\wwwroot\CMS400Example\Workarea\ewebeditpro\editlivejava`
3. Click **Yes**, when the server asks if you want to overwrite the existing file.

Macintosh users should now be able to edit content using the IME in the Safari browser.

Additional Information

Supporting Documents

You can find more detailed information about Ektron CMS400.NET in the following documents:

- *Ektron CMS400.NET Administrator Manual, Version 5.1*
- *Ektron CMS400.NET Developers Reference Manual, Version 5.1*
- *Ektron CMS400.NET User Manual, Version 5.1*

Support

If you are experiencing trouble with any aspect of Ektron CMS400.NET, please contact the Ektron Support Team via our Web Site, or by e-mail:

support@ektron.com

http://www.ektron.com/support/index.aspx

Sales

For questions and answers about purchasing Ektron CMS400.NET from Ektron, contact the sales department by sending an e-mail to:

sales@ektron.com

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