



Ektron CMS400.NET Setup Manual

Version 7.6, Revision 5

Ektron® Inc.
542 Amherst St.
Nashua, NH 03063
Tel: +1 603-594-0249
Fax: +1 603-594-0258
Email: sales@ektron.com
<http://www.ektron.com>

To learn what's new in this release, see
<http://dev.ektron.com/cms400releasenotes.aspx>

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Securing Ektron CMS400.NET

Security Checklist

The following is a checklist of things an Administrator must do to secure **Ektron CMS400.NET**.

Change the Admin and Builtin Users' Passwords

Make sure you change the password for the Admin and Builtin user. To change the Admin user's password, navigate to .

Change Admin user password

Change the Admin user's password in the Workarea by following these steps.

1. In the Workarea, navigate to **Settings > Users**
2. Click the **Admin** user.
3. Click the **Edit Users** button.
4. In the Password and Confirm Password fields enter the new password.
5. Click the **Save** button.

Change builtin user password

IMPORTANT!

If you changed the builtin user password during the site setup, you do not need to change it again. See "Editing Builtin" on page iv for additional information.

Change the builtin user's password in the Workarea by following these steps.

1. In the Workarea, navigate to **Settings > Configurations > Setup**.

2. Click the **Edit** button.
3. Find the Built In User field.
4. In the Password and Confirm Password fields enter the new password.
5. Click the **Update** button.

Remove Sample Users and Sample Membership Users

Some sample users and sample membership users are included with CMS400.NET for evaluation and demonstration purposes. These users should be removed when they are no longer needed.

CMS users have access to the Workarea. They can be content authors, administrators or even developers who need access to information in the Workarea. These people count towards the number of users in your license.

Membership users are typically people who only interact with your Web site. Membership users are a category of users who have limited privileges to Ektron CMS400.NET. Unlike regular CMS users, they cannot use the Workarea and do not count towards the number of users in your license.

Remove Sample Users and Sample Membership Users

IMPORTANT!

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

CMS400.NET Users	Membership Users
<input type="checkbox"/> jedit <input type="checkbox"/> tbrown <input type="checkbox"/> jsmith <input type="checkbox"/> vs <p>See Also: "Managing Users & User Groups" on page 728</p>	<input type="checkbox"/> jmember <input type="checkbox"/> member@example.com <input type="checkbox"/> north <input type="checkbox"/> supermember <input type="checkbox"/> west <p>See Also: "Membership Users and Groups" on page 744</p>

Removing CMS400.NET Users

To remove CMS400.NET users in the Workarea, follow these steps.

1. In the Workarea, navigate to **Settings > Users**.
 2. Click the check box next each user you want to remove.
 3. Click the Delete button ().
 4. Click **OK** in the dialog box that appears.
- The page refreshes and the users are removed.

Removing Membership Users

To remove Membership users in the Workarea, follow these steps.

1. In the Workarea, navigate to **Modules > Community Management > Memberships > Users**.
 2. Click the check box next each user you want to remove.
 3. Click the Delete button ().
 4. Click **OK** in the dialog box that appears.
- The page refreshes and the membership users are removed.

Do Not Allow the Use of Group User Accounts

Do Not Allow the Use of Group User Accounts

A group account is an account that multiple people use to log in to CMS400.NET using the same username and password. This is a serious security issue as you lose the ability to accurately keep track of who is doing what in your Web site's environment. The use of a group user account is a violation of Ektron CMS400.NET's license agreement.

Additional Information

You *do not* need to make these changes if you are using the CMS400 for demonstration or evaluation purposes. These changes should be completed once the decision is made to purchase the product and go live with your site.

IMPORTANT! Ektron recommends creating your own Administrator user and deleting the Admin user.

IMPORTANT! Ektron recommends deleting any users from the CMS400 that are not needed on the system.

The Everyone Group

By default, the root folder in Workarea provides the Everyone Group with all permissions except Overwrite Library. Ektron Inc. recommends reviewing the permission needs of the Everyone Group when you add a folder. For information on Permissions, see the Administrator Manual section "Managing User and Permissions" > "Setting Permissions."

Editing Builtin

IMPORTANT! The "builtin" user does not appear in the Users list. This user appears on the application setup screen.

To change the builtin account information, follow these steps.

1. In the Workarea, click **Settings > Configuration > Setup**.

2. Click the Edit button ()
3. Locate the **Built In User** field.
4. Edit the built in user information by changing the username and password.
5. Click the Update button ()

NOTE If you cannot sign in to **Ektron CMS400.NET** because the builtin user password was changed and you don't know the new password, use the **BuiltInAccountReset.exe** utility. This resets your **Ektron CMS400.NET** user \ password to **Builtin \ Builtin**. This utility is located in `C:\Program Files\Ektron\CMS400versionnumber\Utilities`.

ServerControlWS.asmx

Best Practice

For improved security, Ektron recommends renaming or removing the Web services file when you move it to your production server. After installation, this file is named `ServerControlWS.asmx` and resides in the `webroot/siteroot/Workarea` folder.

`ServerControlWS.asmx` is the Web service that lets the server controls talk to **Ektron CMS400.NET**. The path is coded in the `web.config` file. This is how it appears:

```
<!-- Web Service URL for Server Controls design time --> <add key="WSPath" value="http://localhost/CMS400Developer/Workarea/ServerControlWS.asmx" />
```

You will need to edit this line if you change the location or name of the `ServerControlWS.asmx` file.

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License Keys

Introduction

Ektron controls the use of CMS400 through a license key, a unique code assigned to your domain when you purchase CMS400. Your license key is included in the email that Ektron sends when you request or purchase CMS400.

License Key Types

There are three levels of license keys available for use with Ektron CMS400.NET. The features that are available in your specific version of CMS400 depend on the license key you purchase. The table below shows the major features at each level.

Features List	Enterprise	Professional	Standard
eSync	✓	Optional	
Multisite	✓	Optional	
eCommerce	Optional	Optional	
Personalization	✓	✓	
XLIFF Support	✓	✓	
Document Management	✓	✓	

Features List	Enterprise	Professional	Standard
Social Networking	✓	✓	
URL Aliasing	✓	✓	✓
All Other Ektron CMS400.NET Features	✓	✓	✓

License Key Format

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

```
dev.mysite.com(exp-2008-10-25)(modifiers)(users-10)?51510837796786063064924334416-XX
```

License keys cannot contain spaces or line breaks.

Inserting the License Key

If you download the executable (.exe) file, you are prompted to enter a license key during installation. If you choose not to install the license key during the installation, you can enter it by navigating to Workarea > Settings > Setup and clicking the Edit button. Once you are in edit mode, add the license key to the License Key(s) text box.

Changing License Keys Upon Upgrade

If you upgrade to a new release of CMS400 and want to replace the old license key with a new one, navigate to Workarea > Settings > Setup and click the Edit button. Once you are in edit mode, add the license key to the License Key(s) text box. On the other hand, if you want to add new keys *in addition to* old keys, create a comma delimited list of keys in the License Key(s) text box.

When cutting and pasting license keys, keep the full license key intact without adding or deleting characters. License keys that are changed in any way render CMS400 inoperable.

WebImageFX License Keys

If you are installing WebImageFX with CMS400, a WebImageFX license key is included in the email you receive when you purchase CMS400. A WebImageFX key resembles a CMS400 key but includes the string `wifx`.

To add the key to CMS400, navigate to Workarea > Settings > Setup and clicking the Edit button. Once you are in edit mode, add the license key to the Module Licenses text box.

License Key Check

When you login to a Web site that contains CMS400, it checks the license key(s) against the domain.

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

If no valid license key is found for the URL of the site being accessed, CMS400 is disabled and you must log in the with Builtin account to change the License Key.

Invalid License Key Message

If you have a broken license key or a license key with an incorrect base URL, an error message appears in the CMS400 Login window. The message states, "Error: A license violation has occurred and the application is presently locked. Please see your administrator."

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

Using CMS400 without a License Key

For evaluation purposes, when you install CMS400, you do not need a license key. During the installation process, leave the License Key field blank and click the next button on the License screen. This allows you to use CMS400.NET as localhost.

Domains in which You Can Use the License Key

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

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

Register Domains, not IP Addresses

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

Although CMS400 supports IP addresses, the domain that you license becomes the required URL in the browser address. For example, if you register `192.168.0.1`, you would need to access the site as `http://192.168.0.1/somedirectory/myloginpage.aspx.`

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

More Information

Additional information about licenses is available at <http://www.ektron.com/products.aspx?id=1144>.

System Requirements

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

- "Server Requirements" on page 1
- "PC Client Requirements" on page 2
- "Apple Macintosh Client Requirements" on page 3

Server Requirements

Component	Requirements
Recommended hardware configuration	<ul style="list-style-type: none"> • Intel® Pentium® 4 supporting Hyper-Threading or Intel® Xeon® processor (with 800MHz bus) • 2 GB RAM or higher • RAID array for hard drives
Web server operating system	<p>Microsoft® Windows® Server 2003</p> <ul style="list-style-type: none"> • 32 and 64 bit versions <p>Microsoft Windows Server 2008</p> <ul style="list-style-type: none"> • 32 and 64 bit versions <p>Microsoft Windows Server 2000, XP Professional</p> <hr/> <p>Note: Only use Windows XP for testing and development. Do not use it on your production server.</p> <hr/> <p>Microsoft Windows Vista Business & Ultimate</p>

Component	Requirements
Web application server	<ul style="list-style-type: none"> • Microsoft .NET™ Framework 3.5 • Microsoft .NET™ Framework 2.0 <hr/> <p>Note: eSync and eCommerce require .NET 3.5.</p> <hr/>
Web server	Microsoft® Internet Information Server (IIS) 6.0 or higher
File System	NTFS (FAT 32 is <i>not</i> supported)
Database	<ul style="list-style-type: none"> • Microsoft SQL™ Server 2008 • Microsoft SQL™ Server 2005 SP2 and higher (including Express version) <hr/> <p>Important: Ektron CMS400.NET does not support case sensitive databases.</p> <hr/>

PC Client Requirements

Component	Requirements
Operating system	<ul style="list-style-type: none"> • Any IBM-PC compatible system running Windows, including Vista® Ultimate and Vista® Business • Mac OSX
Browsers for viewing	<p>All major browsers including:</p> <ul style="list-style-type: none"> • Mozilla Firefox • Microsoft® Internet Explorer 3.0 or higher • Apple Safari

Component	Requirements
Browsers for editing	<ul style="list-style-type: none"> • Mozilla Firefox (but see Firefox Support Summary) • Microsoft © Internet Explorer 6.0 or higher <hr/> <p>Note: Only released versions are supported.</p> <hr/> <p>Exception! When editing PageBuilder pages with Internet Explorer, only IE versions 7 and up are supported.</p> <hr/> <p>Note: If using Firefox, uncheck the Block Popup Windows setting. To access this setting, go to Tools > Options > Content.</p> <hr/>
Hardware	Suggested minimum requirements: Pentium 166 MHz or faster with at least 64MB of RAM
Web development tools	<ul style="list-style-type: none"> • Visual Studio 2005 / 2008 • Visual Web Developer 2005 / 2008 Express <p>For Web site development</p> <ul style="list-style-type: none"> • Visual C# 2005/2008 Express and Visual VB 2005 Express <p>For Plug-in Extensions creation</p> <ul style="list-style-type: none"> • Adobe Dreamweaver

Apple Macintosh Client Requirements

Component	Requirements
Operating system	MAC OS X
Browsers for viewing	<p>All major browsers including:</p> <ul style="list-style-type: none"> • Microsoft © Internet Explorer • Mozilla Firefox
Browsers for editing	<ul style="list-style-type: none"> • Mozilla Firefox

Component	Requirements
Hardware	Apple Macintosh

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

Development and Staging Configurations

This chapter presents five examples of how to configure your **Ektron CMS400.NET** Web site. Reading this will help you decide which configuration is the best fit for your particular situation.

Configuration	Properties	Implementation Guidelines
Virtual Staging	<ul style="list-style-type: none"> Use CMS400.NET's approval process and scheduled publishing of content to manage when content goes live 	"Virtual Staging" on page 7
Multiple sites, Same Server, Same Database	<ul style="list-style-type: none"> Production and development/staging sites use separate copies of Ektron CMS400.NET but reside on same server and point to same database Ektron CMS400.NET's settings, managed content, and library files are identical between sites 	"Same Server, Same Database" on page 9
Multiple sites, Same Server, Different Databases	<ul style="list-style-type: none"> Production and development/staging sites use separate copies of Ektron CMS400.NET's display layer, reside on same server, but point to different databases Changes to content, configuration, or library files made in one site must be copied to other site 	"Same Server, Different Databases" on page 8

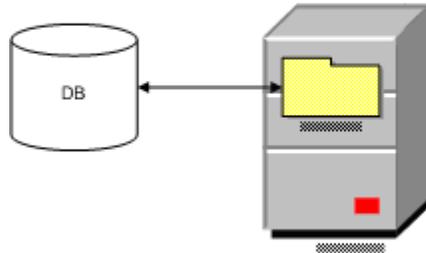
Configuration	Properties	Implementation Guidelines
Multiple sites, Separate Servers, Same Database	<ul style="list-style-type: none"> • Production and development/staging sites reside on separate servers, which point to the same database. • Ektron CMS400.NET settings, content, and library files are identical between sites. • Changes to templates must be copied between servers. 	"Separate Servers, Same Database" on page 11
Multiple sites, Separate Servers, Separate Databases	<ul style="list-style-type: none"> • Production and development/staging sites are installed to separate servers and point to different databases • Changes to content, configuration, or files must be copied between sites. 	"Separate Servers, Separate Databases" on page 12

After deciding which configuration is best, read the following sections to learn about procedures for working with multiple sites, servers, and databases.

- "Installing Ektron CMS400.NET on Several Servers" on page 13
- "Copying the Site and Database to Other Environments" on page 15

Virtual Staging

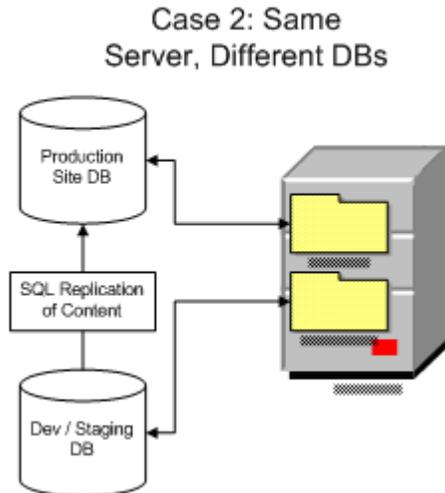
Case 1: Virtual Staging



Staging is accomplished through Ektron CMS workflow process.

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

Same Server, Different Databases

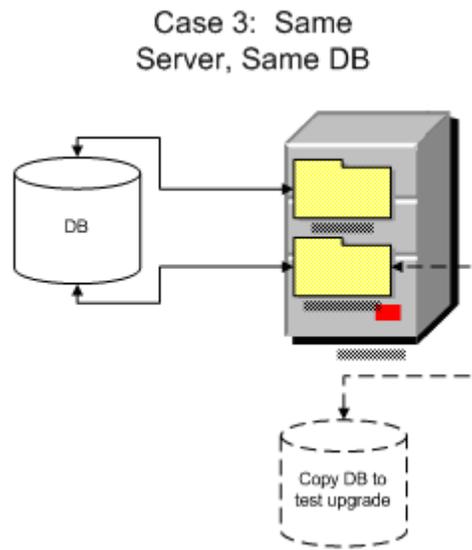


To set up this configuration, follow these guidelines.

- To maintain file paths between sites, follow these steps.
 - Create separate Web Sites in IIS.
 - Assign different ports to the production and development/staging sites. For example, the production site is `http://www.example.com`, and the development/staging site is `http://www.example.com:8080`.
 - Separate the databases for isolation.
 - * One database is the master, and the other is a copy
 - * Only edit content in the site connected to the master database
 - * Remove the **Ektron CMS400.NET** login page from the site connected to the copy database
 - To copy the **Ektron CMS400.NET** database, your best choice is Ektron's eSync feature. This is described in the **Ektron CMS400.NET** Administrator manual section "Managing Your CMS400 System" > "eSync"
- If you have not implemented eSync, copy site content using a replication tool for the database.

- **SQL Server 2000 SDK Replication** - see http://msdn.microsoft.com/library/en-us/replsql/replover_694n.asp
- Library files - Make the **Ektron CMS400.NET** `uploadedimages/` and `uploadedfiles/` folders IIS virtual directories that point to the same physical directory. This procedure is explained in the **Ektron CMS400.NET** Administrator Manual section “Load Balancing” > “Configuring Load Balancing without eSync” > “Set Up Virtual Directories for Two Web Sites.”
- Templates and other file system assets - The best way to move these is eSync. If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product such as Microsoft Application Center.
- Upgrading **Ektron CMS400.NET** - To test an upgrade, make a temporary copy of the site’s display layer on a separate server connected to the development/staging database. If the development/staging database is the master, back it up before upgrading.

Same Server, Same Database



To set up this configuration, follow these guidelines.

- To maintain file paths between sites, follow these steps.
 - Create separate Web Sites in IIS.
 - Assign different ports to the production and development/staging sites. For example, the production site is `http://www.example.com`, and the development/staging site is `http://www.example.com:8080`.
- Both sites must use the same pathing relative to the Web root. For example, `www.example.com\Workarea\applicationAPI.asp` and `dev.example.com\Workarea\applicationAPI.asp`.
- Because both sites use the same database, editing and publishing content on one site affects the other site. As a result, the development/staging server always has the freshest content.
- Make the **Ektron CMS400.NET** `uploadedimages/` and `uploadedfiles/` folders IIS virtual directories that point to the same physical directory.

This procedure is explained in the **Ektron CMS400.NET Administrator Manual** section “Load Balancing” > “Configuring Load Balancing without eSync” > “Set Up Virtual Directories for Two Web Sites.”

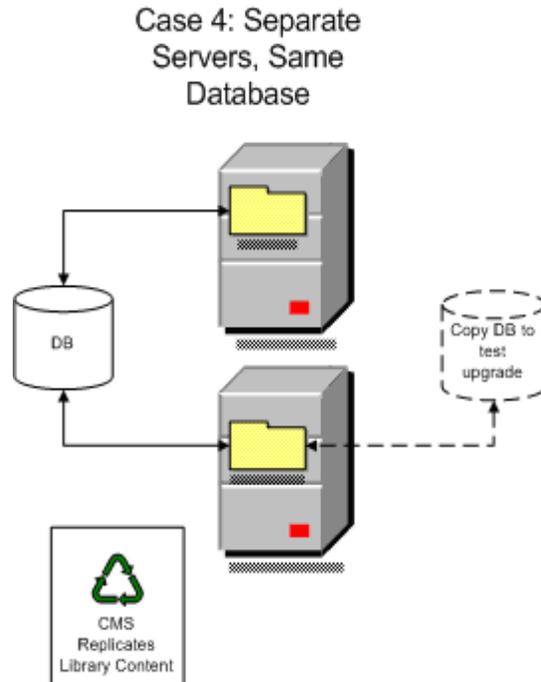
- Template changes must be copied between sites. The best way to copy site templates and other file system assets is eSync. This is described in the **Ektron CMS400.NET Administrator manual** section “Managing Your CMS400 System” > “eSync.”

If that was not implemented and changes to these items are infrequent, you can manually copy them.

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

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

Separate Servers, Same Database

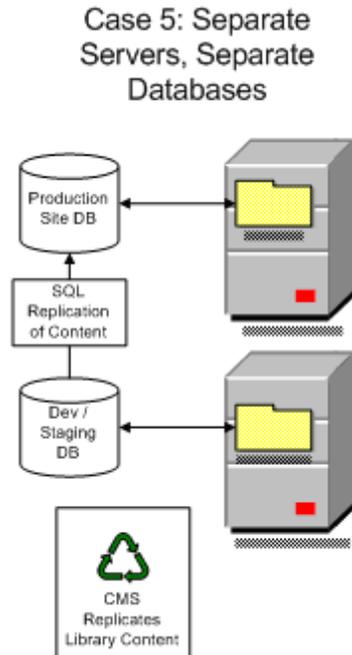


To set up this configuration, follow these guidelines.

- Configure **Ektron CMS400.NET**'s Load Balancing feature to copy uploaded images and files between the servers. This procedure is explained in the **Ektron CMS400.NET Administrator Manual** section "Load Balancing" > "Configuring Load Balancing without eSync" > "Set Up Virtual Directories for Two Web Sites."
- The best way to move site templates and other file system assets is eSync. This is described in the **Ektron CMS400.NET Administrator manual** section "Managing Your CMS400 System" > "eSync." If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product like Microsoft Application Center.
- When upgrading **Ektron CMS400.NET**, follow these steps.
 - Back up the file system of the development/staging server

- Make a temporary copy of the production server database
- Switch the development/staging site to use the copy
- Test and QA the upgrade on the development/staging server

Separate Servers, Separate Databases



To set up this configuration, follow these guidelines.

- Both sites must have the same pathing relative to the Web root, for example, `www.example.com\Workarea\applicationAPI.asp` and `dev.example.com\Workarea\applicationAPI.asp`.
- Separate the databases for isolation.
 - One database is the master, and the other is a copy
 - Only edit content in the site connected to the master database
 - Remove the **Ektron CMS400.NET** login page from the site connected to the copied database

- The best way to copy site templates and library files is eSync. This is described in the **Ektron CMS400.NET** Administrator manual section “Managing Your CMS400 System” > “eSync.” If that was not implemented and changes to these items are infrequent, you can manually copy them. For automated replication, use a product like Microsoft Application Center.
- To copy the **Ektron CMS400.NET** database (containing HTML and XML content), your best choice is Ektron’s eSync feature. If you have not implemented eSync, copy site content using a replication tool for the database.
 - **SQL Server 2000 SDK Replication** - see http://msdn.microsoft.com/library/en-us/replsql/replover_694n.asp
- Make the **Ektron CMS400.NET** `uploadedimages/` and `uploadedfiles/` folders IIS virtual directories that point to the same physical directory.

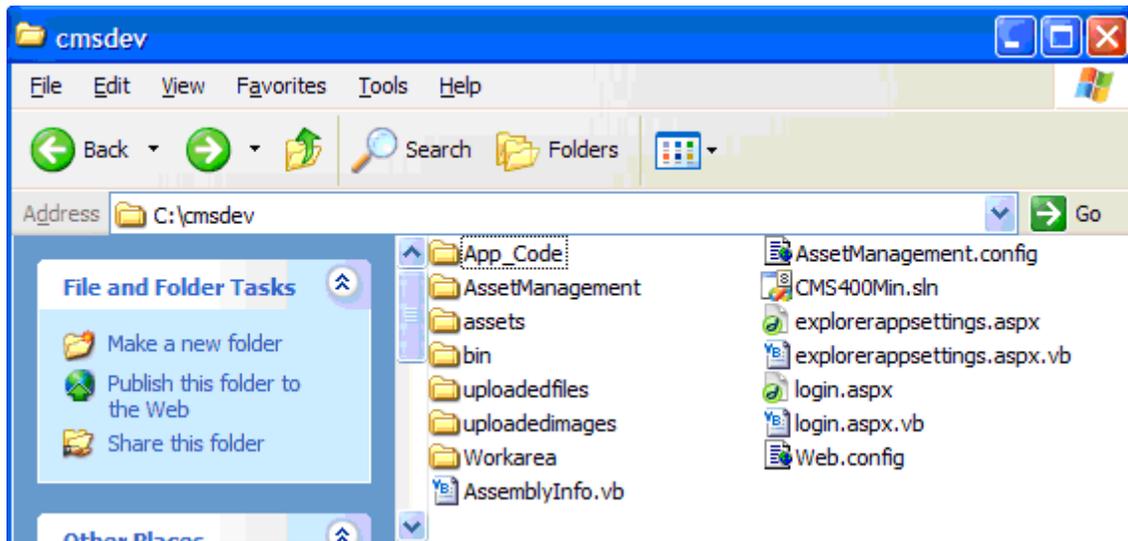
This procedure is explained in the **Ektron CMS400.NET** Administrator Manual section “Load Balancing” > “Configuring Load Balancing without eSync” > “Set Up Virtual Directories for Two Web Sites.”
- When upgrading **Ektron CMS400.NET**, follow these steps.
 - Back up the file system of the development/staging server
 - Make a temporary copy of the production server database
 - Switch the development/staging site to use the copy
 - Test and QA the upgrade on the development/staging server

Installing Ektron CMS400.NET on Several Servers

Perform these steps on the development server.

1. Download and run the **Ektron CMS400.NET** installation file, `CMS400Basev76.exe`. (This procedure is fully documented in “[Running the Installation and Setup Program](#)” on page 23.)
2. In Windows Explorer, create a folder to be used for development (for example, `c:/cmsdev`).

3. Run the Site Setup utility by clicking **Start > Programs > Ektron > Utilities > CMS400 Site Setup**. This installs the site on the development server. (This procedure is fully documented in "[Setting up a Site](#)" on page 28.)
 - At the **Setup Type** page, select **CMS 400 (Complete)**.
 - On the Site Setup screen, at the **Select Site** dropdown, select the site you created in Step 3, **dev.example.com**. At **Select Host**, select the host you entered for dev.example.com.
 - On the Site Path Directory screen, browse to the `C:\cmsdev` folder.
 - On the **Host** screen, enter **http://dev.example.com** or an IP address.
 - The following windows prompt you to define the Asset Storage Location. Enter **C:\assetlibrary\cmsdev** and **C:\assetcatalog\cmsdev**.
4. The Database Setup utility begins. (This procedure is fully documented in "[Setting up a Database](#)" on page 34.)
 - Enter your database name, **cmsdev** to continue the example. (Do not leave it as **localhost**.)
 - Enter your database server information, then the host, user and password.
 - The database is created.
5. The cmsdev folder should now look like this.



The site is ready for use. Open Internet Explorer and go to <http://dev.example.com/login.aspx> to test the site. Log in to make sure the database is working.

6. Using steps 1 through 5 above, install sites to your staging and production servers.

Copying the Site and Database to Other Environments

Once your project is ready to be tested in house, move the site to a staging server. When the project is ready to go live, move the site to a production (live) server.

You can use the same database for all environments. Back up that database often to keep it safe. Alternatively, create a separate database for each server. For more information about how to configure your **Ektron CMS400.NET** Web site, see "[Development and Staging Configurations](#)" on page 5.

Tips on Creating Additional Environments

To create new environments, follow these steps.

1. On the same server or a separate server, create new folders for **Ektron CMS400.NET**: `C:/cmsstage` and/or `C:/cmsproduct`.
2. In IIS, create a new domain for each server. `http://stage.example.com` points to `c:/cmsstage` and `http://www.example.com` points to `c:/cmsproduct`.
3. If all environments are on the same server, you don't need to copy other folders. But, if you are using a separate server for each environment, copy the `c:/assetcatalog` and `c:/assetlibrary` folders to the other servers.
4. For the database, access the SQL manager and make a backup of the development database. Then, create new databases for staging and production. Finally, restore the backup of the development database to the staging and production databases.
5. In the staging and production environments, open `web.config`. Then, update the database connection information so that it points to the new databases.
6. Test the staging and production environments.

Installing Ektron CMS400.NET

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

- ["Before You Install" on page 17](#)
- ["Performing the Installation" on page 22](#)
- ["Document Management Client Install for Firefox" on page 48](#)
- ["eWebEditPro+XML Client Install" on page 48](#)
- ["Results of Installation" on page 50](#)
- ["Changes to the CMS400 web.config File" on page 51](#)
- ["After Installation" on page 51](#)
- ["Setting Up an Additional Site" on page 51](#)
- ["Moving a Site to Another Directory or Server" on page 54](#)

Before You Install

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

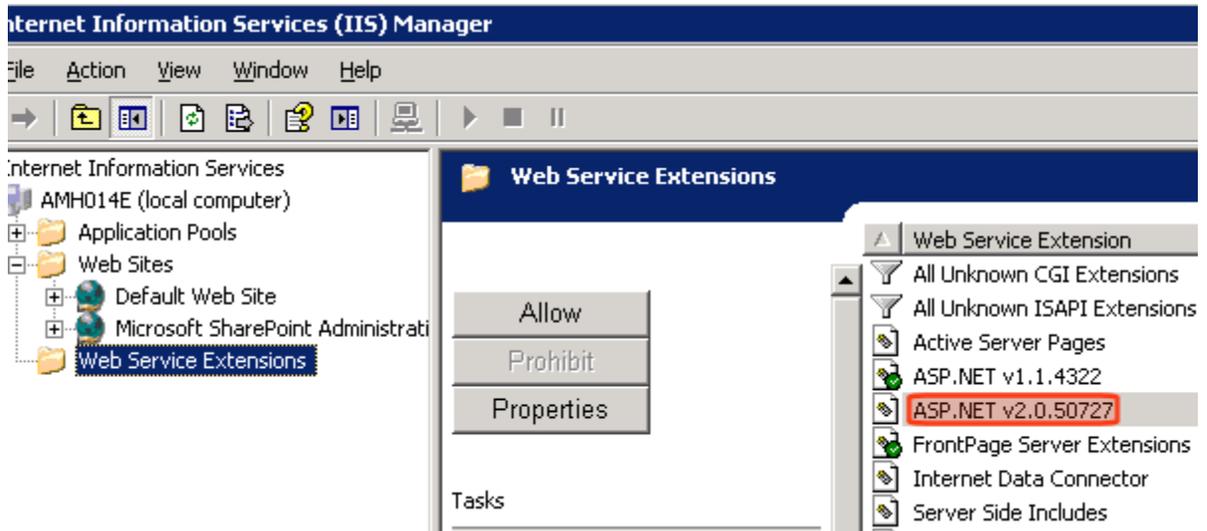
1. Create a folder for the site. Make sure the drive and folder to which you install your **Ektron CMS400.NET** Web site have sufficient space. Anticipate future needs, since the site is likely to grow over time.
2. Make sure that Internet Information Server (IIS) is installed in your server. See ["Appendix A: Creating a Web Site in IIS" on page 188](#)
3. Make sure your server is using version 2 or higher of the Microsoft .NET Framework.

NOTE [Note: eSync and eCommerce require .NET 3.5.](#)

4. To verify, open the `C:\WINDOWS\Microsoft.NET\Framework` folder and look at the numbered folders. You must have one that begins with 2 or 3.5.

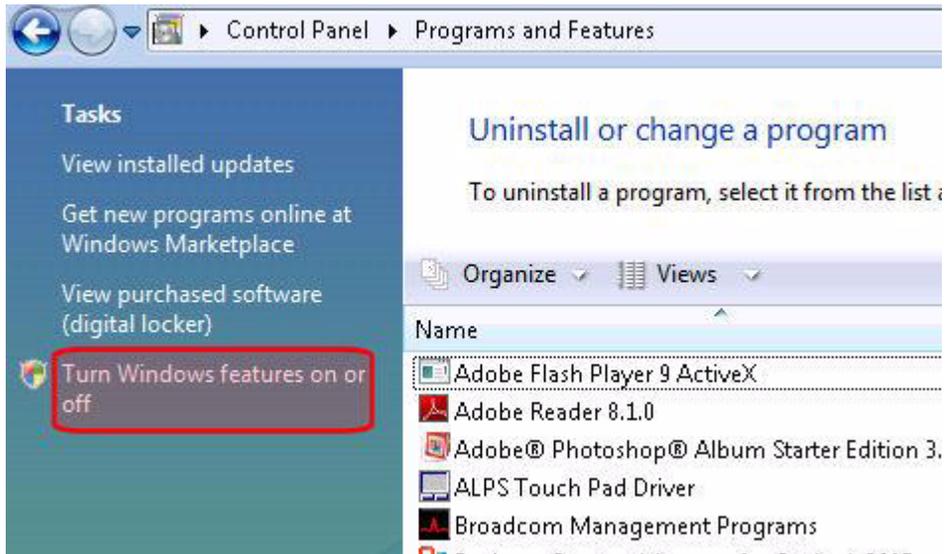
If not, go to <http://msdn.microsoft.com/en-us/netframework/aa569263.aspx>. Then, download and install the correct version of the Microsoft .NET Framework.

5. Enable the ASP.NET 2 Web Service Extensions. To do this, open IIS Manager, and click the Web Service Extensions folder. Then, click ASP.NET v2.0 and **Allow** (as shown below).

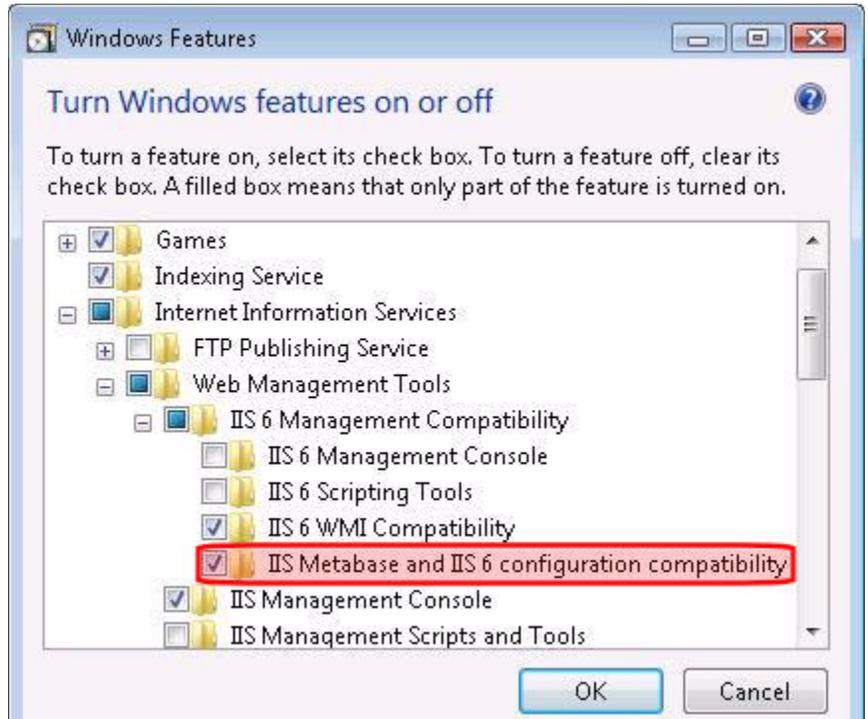


6. Install and configure your Web Application Server. For more information, see <http://www.asp.net>.
7. If you are setting up one Web site that uses multiple CMS servers and points to a single database server, make sure both servers connect to the same database. This configuration ensures that membership user registrations, forum/blog posts, statistics, etc., are the same on both servers. For more information, see "[Moving a Site to Another Directory or Server](#)" on page 54.
8. If the server to which you are installing has IIS7 (that is, it's running Windows Vista or Server 2008), enable IIS 6 metabase compatibility. To do that, follow these steps.
 - Open the Control Panel.
 - Click **Programs and Features**.

- From the left panel, click **Turn Windows Features On or Off**.



- Click to open **Internet Information Services > Web Management Tools > IIS 6 Management Compatibility**.
- Check **IIS Metabase and IIS 6 configuration compatibility**.



- Press **OK**.

Installing the Minimum and Starter Sites

The installation scheme has changed for version 7.0.2 or higher. Previously, when you installed **Ektron CMS400.NET**, the installation created a site with sample content. (Sample content provides an example of how **Ektron CMS400.NET**'s features can be implemented.) Beginning with 7.0.2, however, the base installation file provides no sample content.

To supplement the base installation, Ektron provides several sample sites. You can install as many as you wish. Many customers install sample content that resembles their environment. For example, a legal practice might install the legal starter site. Sample sites are available from <http://www.ektron.com/cms400-web-cms.aspx?id=4189>.

NOTE To get the technical information for developers, which was previously available on the Developer's Sample page, install the developer starter site.

Installing a Starter Site

No Current Ektron CMS400.NET Installation

To install one or more sample sites, download them plus the base install file (CMS400Basev76.exe) from www.ektron.com to the same folder on your Web server. Then, click a starter site's .exe file, such as Legal.exe. When you do, it copies the templates and database to your machine. Next, the base install runs until it completes phase 1 of the installation steps listed in "[Performing the Installation](#)" on page 22.

Once the base installation is complete, the Site Setup portion of the install is run. Once the setup is complete, you can install any number of additional sample sites by downloading and clicking them.

If you want to re-install a Starter Site, click the Site Setup link in **Start > Programs > Ektron > CMS400vXX > Utilities > CMS400 Site Setup**.

If you are familiar with **Ektron CMS400.NET**, you do not need to install a starter site. Simply use the base installation and proceed with site development.

Upgrading an Existing Installation

If you have an earlier version of **Ektron CMS400.NET**, first upgrade to Release 7.6. Then, select one or more starter sites and install them.

Starter Applications

Ektron has also developed several *starter applications* that you can install to better learn **Ektron CMS400.NET**'s capabilities. Starter applications are built on the **Ektron CMS400.NET** engine and leverage **Ektron CMS400.NET**'s flexible API made available via its SDK. Starter applications are tailored to address the needs and requirements for specific business processes for organizations of

any size, but are flexible enough to meet your custom requirements.

Starter applications are shipped open source and are free of charge. They work out of the box and, if needed, can easily be extended. Starter applications are a perfect starting point for building your own web application. The only requirement is that a **Ektron CMS400.NET** base install exist on your server.

If you install the legal starter site, the Case Management Starter App is automatically installed. If you install any other starter site, the Project Management Starter App is automatically installed.

Starter Applications are available from <http://www.ektron.com/products.aspx?id=5948>.

Performing the Installation

NOTE The installation program checks for an installation of MSSQL on your server. If it is not installed, it will attempt to install SQL Express.

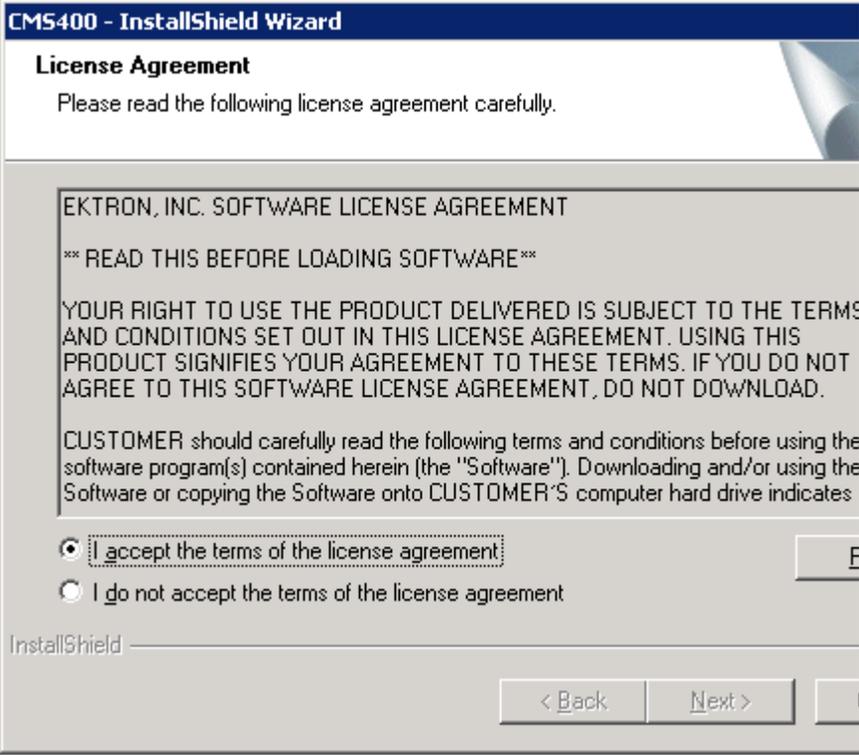
Installing **Ektron CMS400.NET** involves these actions. The installation program guides you through them.

Phase	Action	What it does	For details, see
1	Copy installation files to C:\Program Files	<ul style="list-style-type: none"> ensures system requirements installs non-working copy of files needed to set up site 	"A screen displays Ektron's License Agreement. Please read the agreement." on page 24
2	Set up a site - (can be started any time after Phase 1)	<ul style="list-style-type: none"> 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 28

Phase	Action	What it does	For details, see
3	Set up a database	<ul style="list-style-type: none"> 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 	<p>"Setting up a Database" on page 34</p> <p>"Set Up a User for the CMS400 Database" on page 41</p>

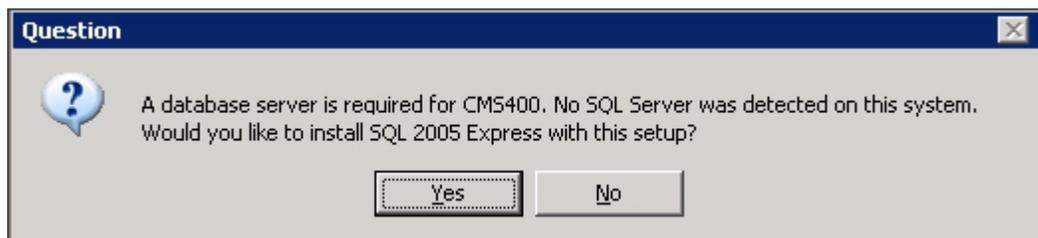
Running the Installation and Setup Program

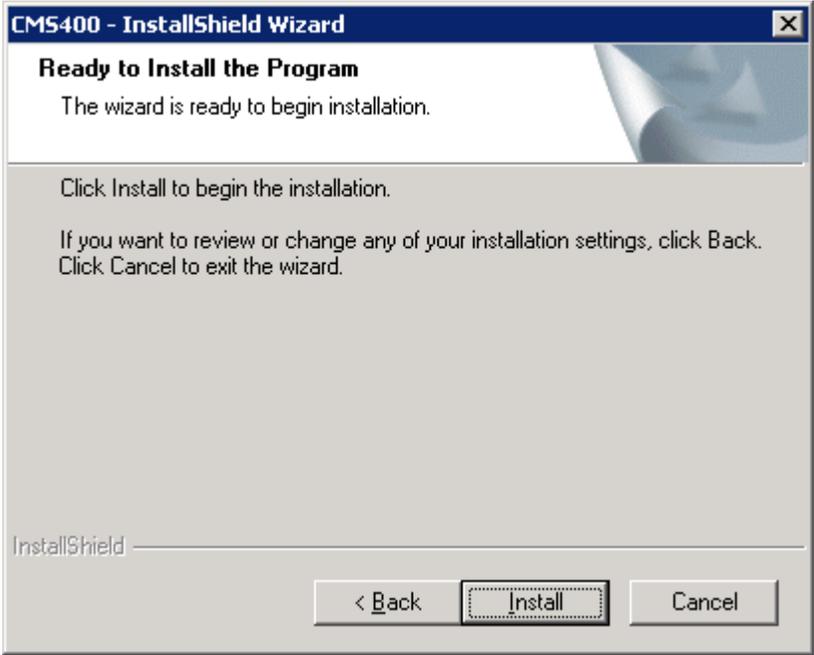
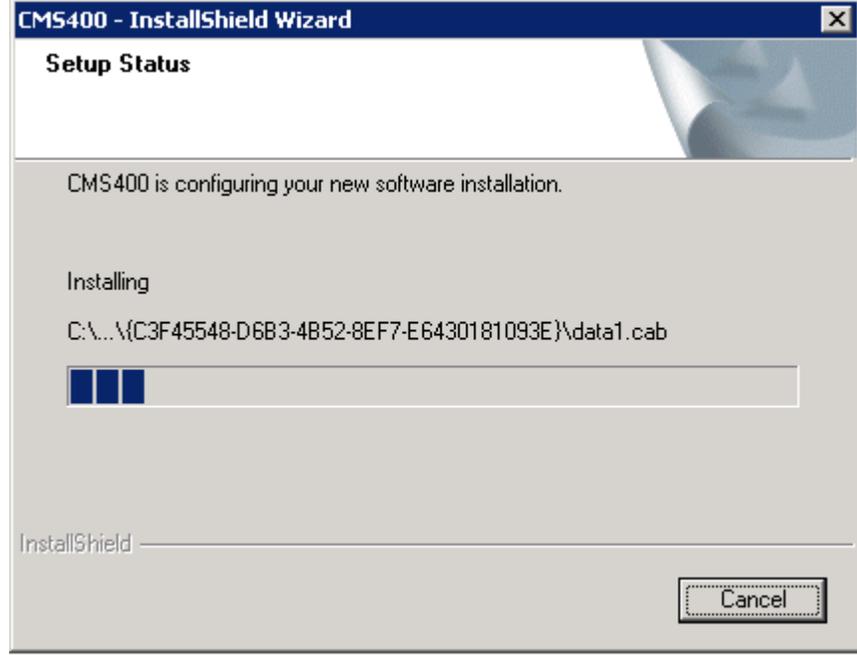
Step	Setup Screen
1.	Go to the Ektron Web site (http://www.ektron.com/download.cfm?product_id=342&purchase=0) and download Version 7.6 of Ektron CMS400.NET .
2.	Double click the downloaded CMS400Basev76.exe file. 

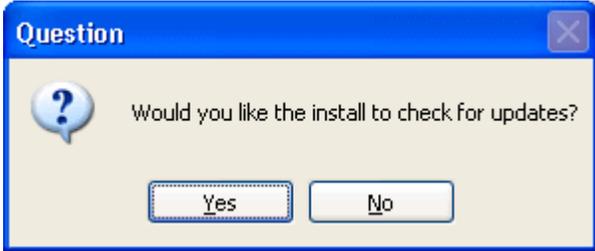
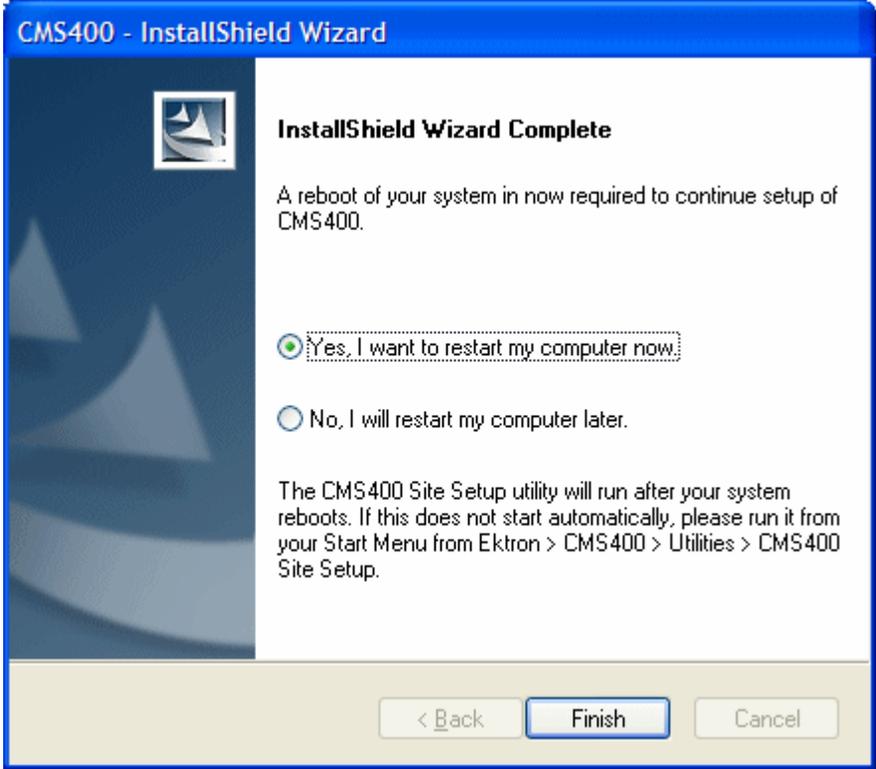
Step	Setup Screen
<p>3. A screen displays Ektron's License Agreement. Please read the agreement.</p> <ul style="list-style-type: none"> • Click I Accept... to accept the agreement. • Click I do not accept. If you do not accept the agreement, this action ends the setup. 	 <p>CMS400 - InstallShield Wizard</p> <p>License Agreement Please read the following license agreement carefully.</p> <p>EKTRON, INC. SOFTWARE LICENSE AGREEMENT</p> <p>** READ THIS BEFORE LOADING SOFTWARE**</p> <p>YOUR RIGHT TO USE THE PRODUCT DELIVERED IS SUBJECT TO THE TERMS AND CONDITIONS SET OUT IN THIS LICENSE AGREEMENT. USING THIS PRODUCT SIGNIFIES YOUR AGREEMENT TO THESE TERMS. IF YOU DO NOT AGREE TO THIS SOFTWARE LICENSE AGREEMENT, DO NOT DOWNLOAD.</p> <p>CUSTOMER should carefully read the following terms and conditions before using the software program(s) contained herein (the "Software"). Downloading and/or using the Software or copying the Software onto CUSTOMER'S computer hard drive indicates</p> <p><input checked="" type="radio"/> I accept the terms of the license agreement</p> <p><input type="radio"/> I do not accept the terms of the license agreement</p> <p>InstallShield</p> <p>< Back Next ></p>

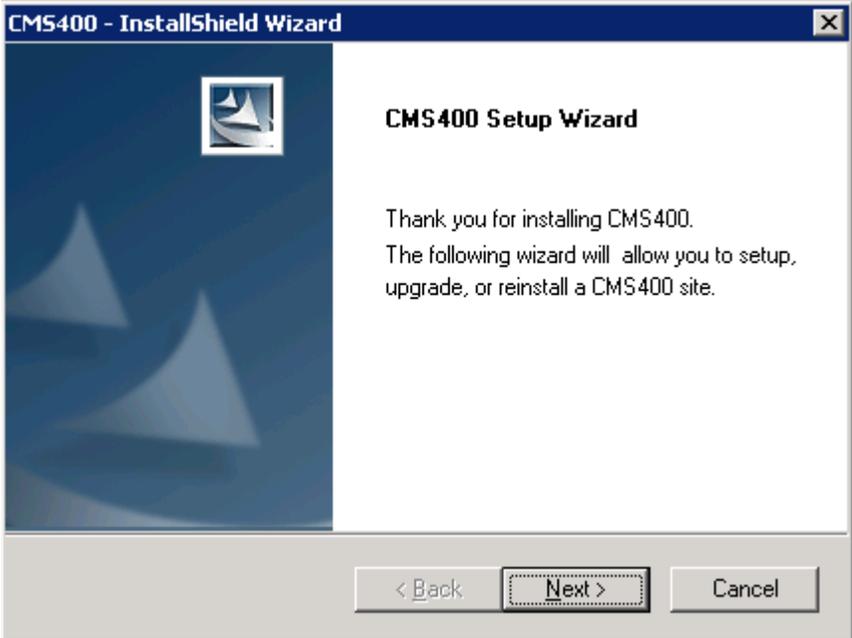
Step	Setup Screen
<p>4. Select Complete to install all components.</p> <p>Or, select Custom to choose which components to install. You can also choose where the components are installed.</p>	

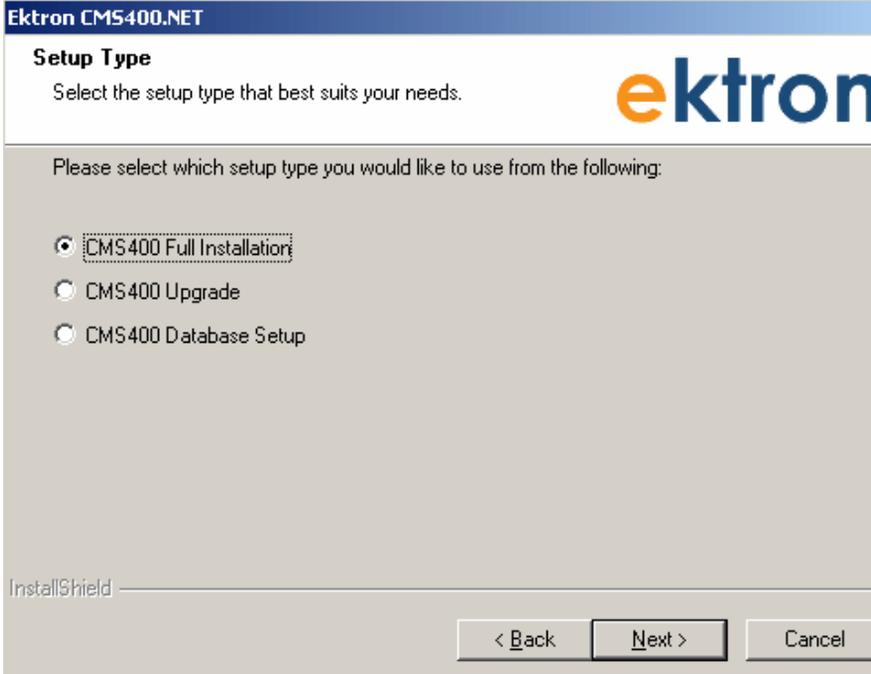
Note: Once you click next, the install checks to see if you have SQL or SQL 2005 Express installed on the server. If you do not, a dialog appears asking if you would like to install SQL 2005 Express.

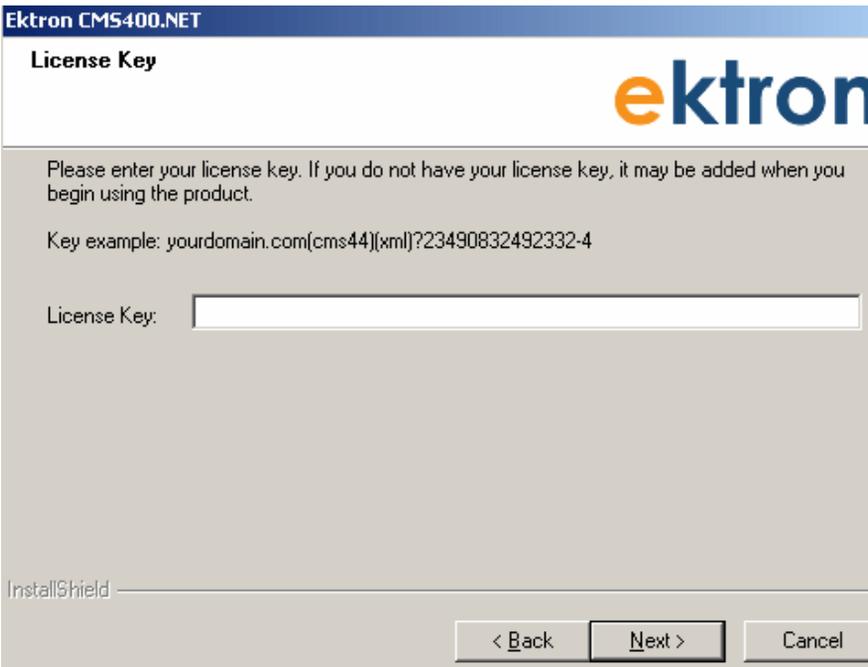


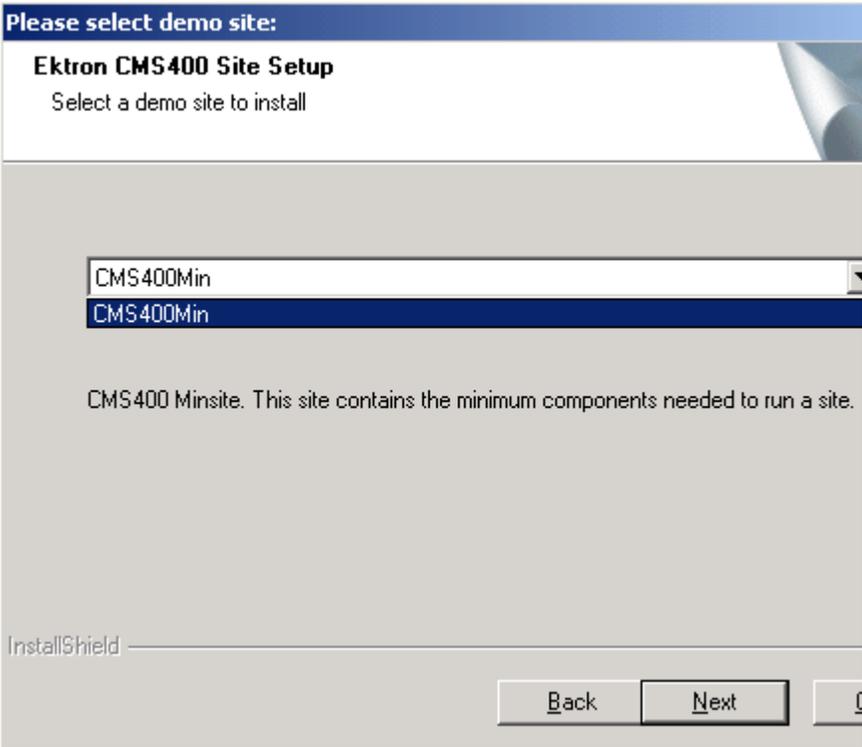
Step	Setup Screen
<p>5. The Ready to Install the Program screen appears. Click Install.</p>	
<p>6. The installation program copies the necessary files to the C:\Program Files folder.</p> <p>Important! - After completing the installation, you should further configure your permissions based on your network security model before using Ektron CMS400.NET.</p>	

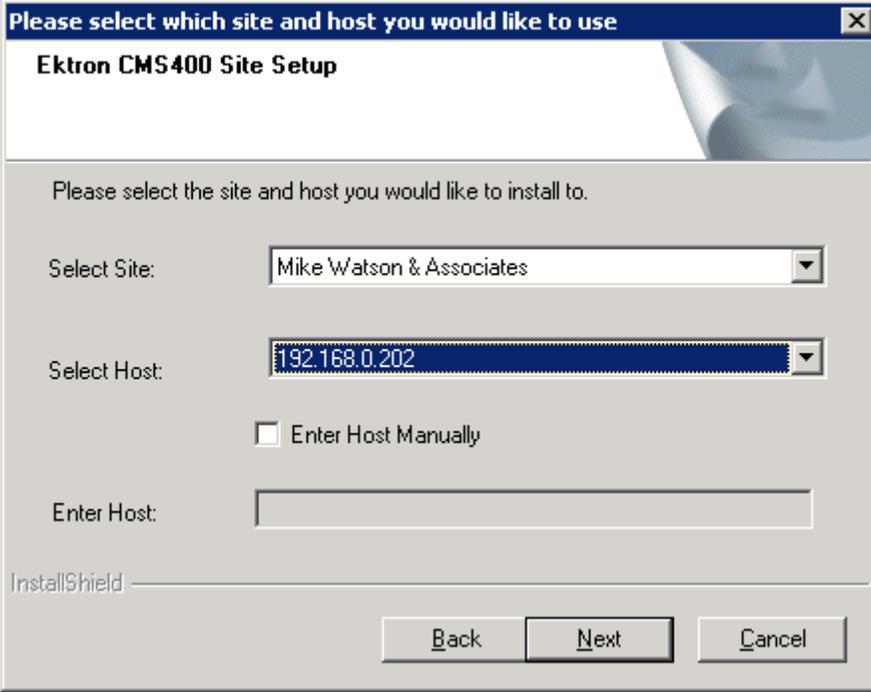
Step	Setup Screen
<p>7. Click Yes to check for updates. This verifies that you have the latest version of CMS400.NET.</p>	 <p>The screenshot shows a Windows-style dialog box titled "Question". It contains a question mark icon and the text "Would you like the install to check for updates?". Below the text are two buttons: "Yes" and "No".</p>
<p>8. You might be prompted to restart your server. If so, Ektron recommends doing a restart now.</p>	 <p>The screenshot shows the "CMS400 - InstallShield Wizard" dialog box. The title bar reads "CMS400 - InstallShield Wizard". The main content area has a blue background with a white square icon containing a sailboat. The text reads "InstallShield Wizard Complete" followed by "A reboot of your system is now required to continue setup of CMS400." There are two radio button options: "Yes, I want to restart my computer now." (which is selected) and "No, I will restart my computer later." Below this, it says "The CMS400 Site Setup utility will run after your system reboots. If this does not start automatically, please run it from your Start Menu from Ektron > CMS400 > Utilities > CMS400 Site Setup." At the bottom, there are three buttons: "< Back", "Finish", and "Cancel".</p>
<p>Once you restart, the site setup procedure begins upon completing the restart.</p> <p>If the site setup does not start once the restart is complete, you can launch the site setup from Start > Programs > Ektron > CMS400 > Utilities > CMS400 Site Setup.</p> <hr/> <p>Important: If the above dialog appears, do not run the site setup until the system has been rebooted.</p> <hr/>	

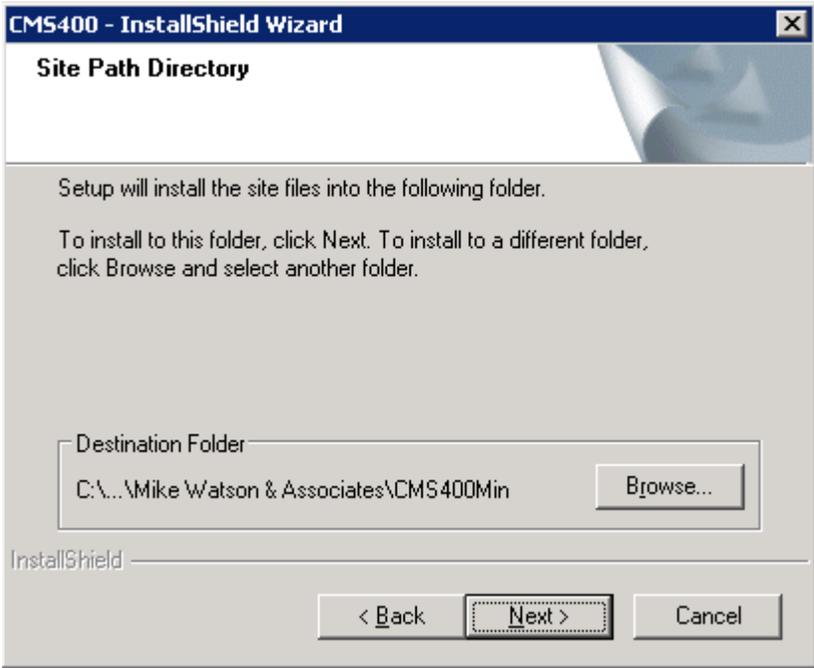
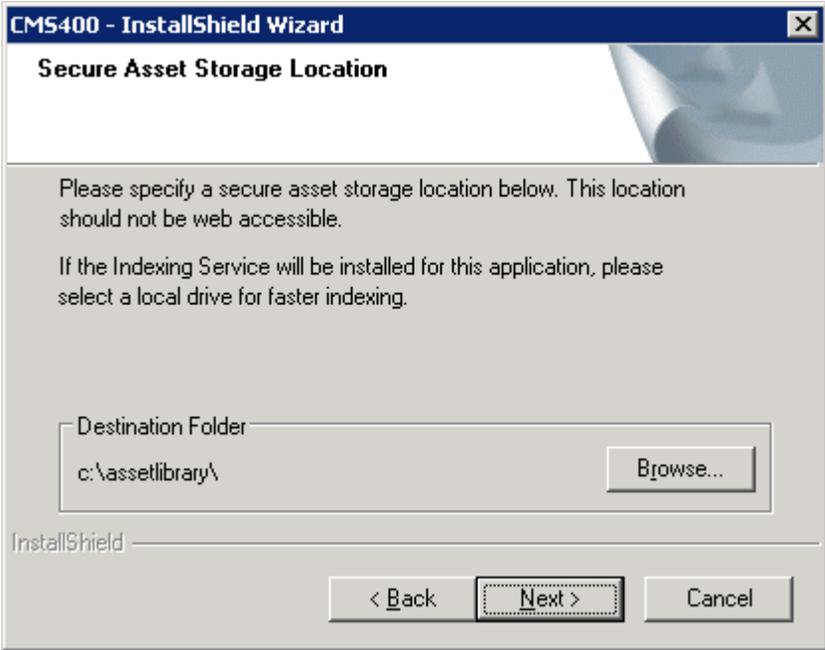
Step	Setup Screen
	<p style="text-align: center;">Setting up a Site</p> <p>This section allows you to setup a CMS400.NET site. The installation copies the following folders from C:\Program Files\Ektron\CMS400v7x to the Web root folder you specify:</p> <ul style="list-style-type: none">• BIN• workarea• documentation• uploaded files and uploaded images• a login page• the VS 2005 solution file <p>The site setup can be run manually by clicking the cms400sitesetup.exe file located in C:\Program Files\Ektron\CMS400v76\Utilities\SiteSetup or by clicking Start > Programs > Ektron > CMS400vXX Utilities > CMS400 Site Setup.</p>
9. This is the Site Setup Welcome screen. It lets you set up a Web site.	

Step	Setup Screen
<p>10. The Setup Type screen appears. Choose an option and click Next.</p> <ul style="list-style-type: none">• CMS400 Full Installation - For setting up a new site installation.• CMS400 Upgrade - For upgrading existing site. Upgrades the database and site files as necessary.• CMS400 Database Setup - For setting up a new site database. Site files, such as .aspx pages are not included in this setup.	

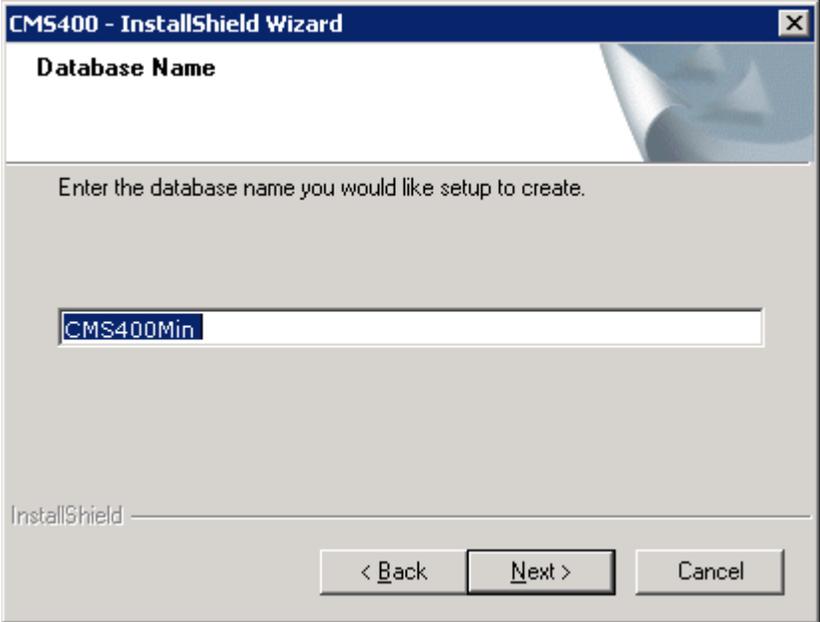
Step	Setup Screen
<p>11. In the License Key field, enter your primary license key for Ektron CMS400.NET. License keys are typically emailed to your organization when you request a copy of the application.</p> <p>When cutting and pasting a license key, keep the full license key intact without adding or deleting characters.</p> <p>If you do not have license keys now, you can insert them later. See “Configuring Ektron CMS400.NET” in the Administrator manual for details.</p>	

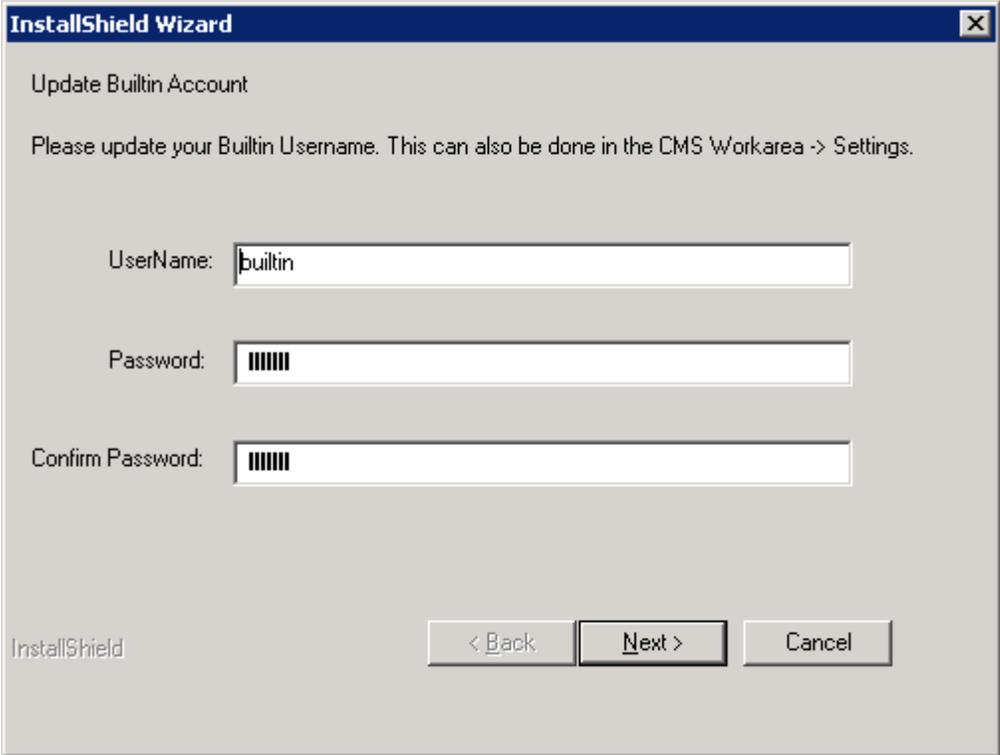
Step	Setup Screen
<p>12. This dialog box allows you select which site you want to install. This screen does not appear the first time you run the site setup for a starter site. If you run it again and have multiple sites, this dialog box will appear.</p>	 <p>Please select demo site:</p> <p>Ektron CMS400 Site Setup Select a demo site to install</p> <p>CMS400Min CMS400Min</p> <p>CMS400 Minsite. This site contains the minimum components needed to run a site.</p> <p>InstallShield</p> <p>Back Next</p>

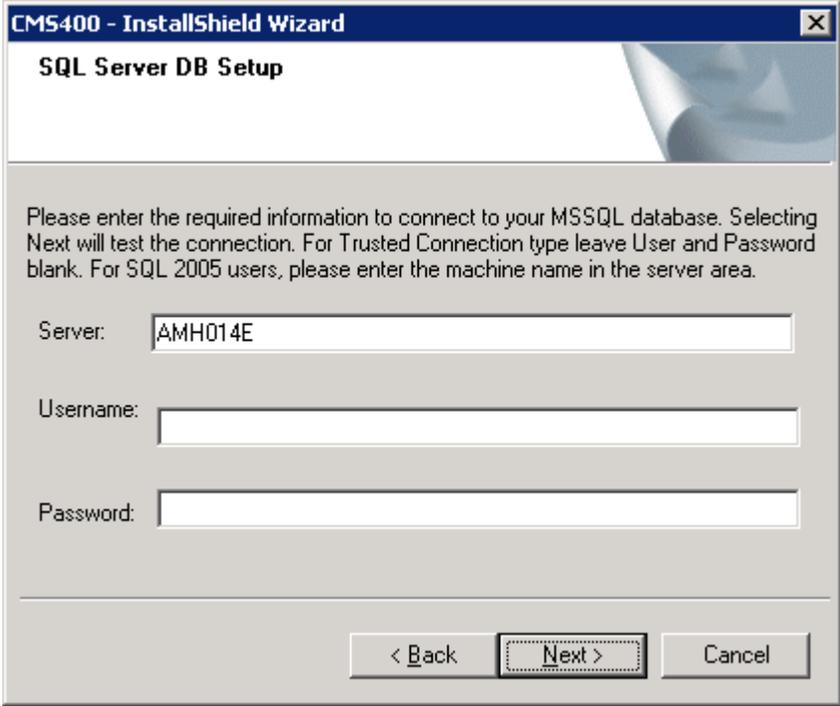
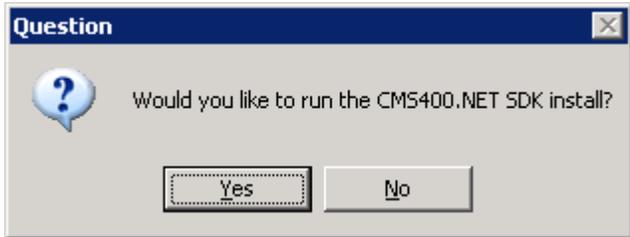
Step	Setup Screen
<p>13. If your server operating system accommodates multiple Web sites (for example, Windows Server 2003), select the site to which you want to install Ektron CMS400.NET from the dropdown list. Otherwise, accept the default.</p>	 <p>Please select which site and host you would like to use</p> <p>Ektron CMS400 Site Setup</p> <p>Please select the site and host you would like to install to.</p> <p>Select Site: Mike Watson & Associates</p> <p>Select Host: 192.168.0.202</p> <p><input type="checkbox"/> Enter Host Manually</p> <p>Enter Host:</p> <p>InstallShield</p> <p>Back Next Cancel</p>

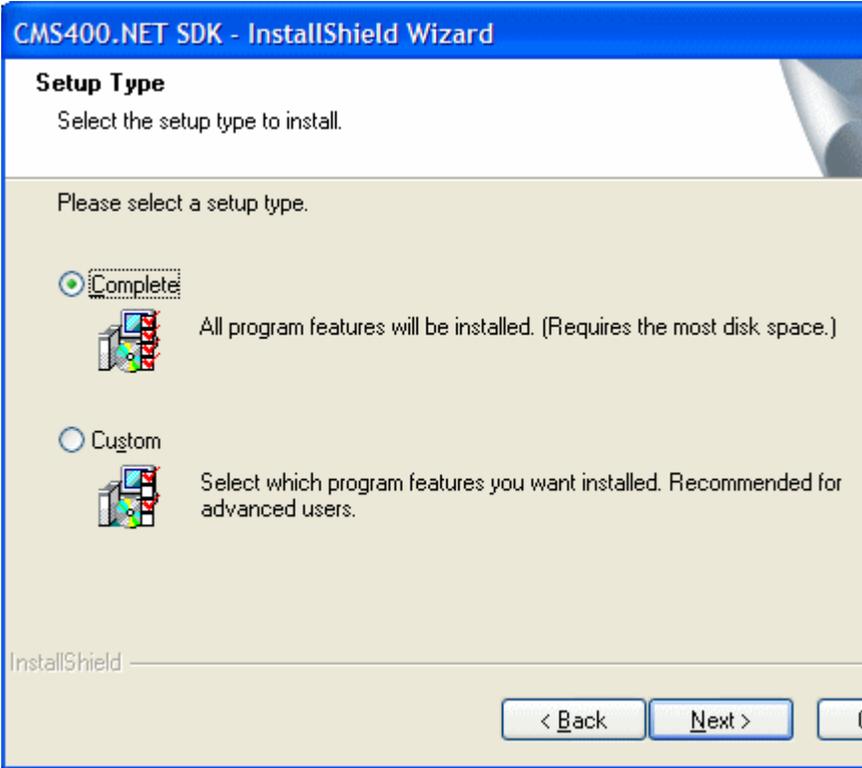
Step	Setup Screen
<p>14. Enter the destination folder for the site.</p> <p>If your Web site resides in a folder other than the default, click Browse and navigate to the correct folder. The default reflects your selection in the previous dialog.</p> <hr/> <p>Important! Do not install under another application's folder within the Web root.</p> <hr/>	 <p>CMS400 - InstallShield Wizard</p> <p>Site Path Directory</p> <p>Setup will install the site files into the following folder.</p> <p>To install to this folder, click Next. To install to a different folder, click Browse and select another folder.</p> <p>Destination Folder C:\...\Mike Watson & Associates\CMS400Min Browse...</p> <p>InstallShield</p> <p style="text-align: center;">< Back Next > Cancel</p>
<p>15. Enter the path of the Secure Asset Location.</p> <hr/> <p>Note: Be sure the drive to which you install the asset library has sufficient storage space plus room for growth.</p> <hr/>	 <p>CMS400 - InstallShield Wizard</p> <p>Secure Asset Storage Location</p> <p>Please specify a secure asset storage location below. This location should not be web accessible.</p> <p>If the Indexing Service will be installed for this application, please select a local drive for faster indexing.</p> <p>Destination Folder c:\assetlibrary\ Browse...</p> <p>InstallShield</p> <p style="text-align: center;">< Back Next > Cancel</p>

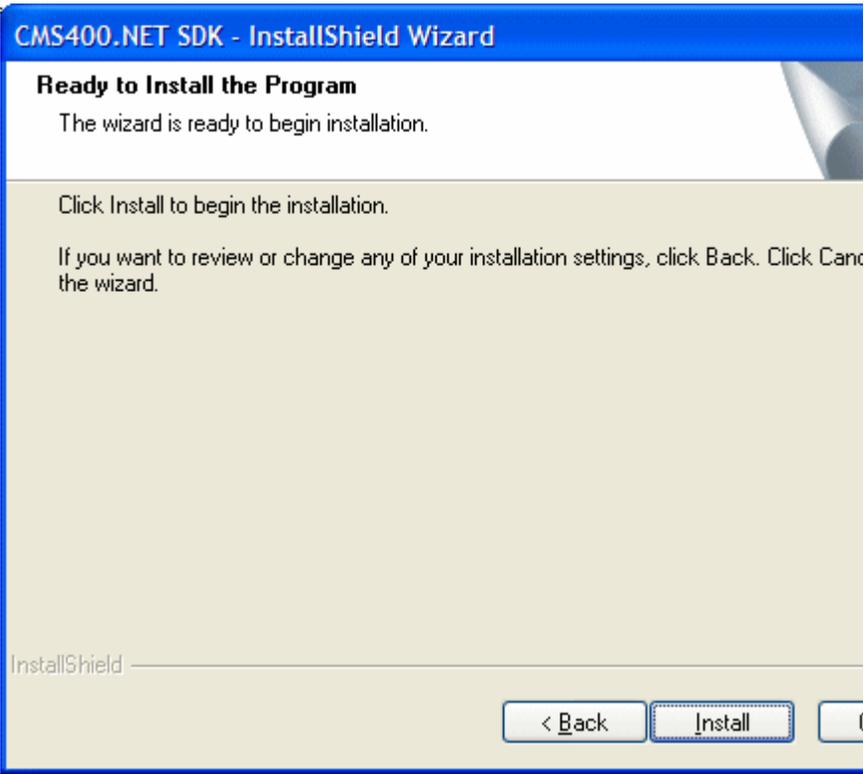
Step	Setup Screen
<p>16. Next, the Moving Files dialog appears and the following things happen.</p>	<div data-bbox="468 280 1005 502" data-label="Image"> </div> <ul style="list-style-type: none"> • files are copied to the site • permissions are set for the site's directories • ASPNET or IIS_WPG and IUSE are given permissions to the directories. • the indexing catalogs are setup • the site is set up to use .NET 2.0 or 3.5 • web.config settings are configured • IIS is configured
	<p>Setting up a Database</p> <p>Your database contains information such as users and content blocks. See Also: "Database" on page 2</p> <p>The database setup program:</p> <ul style="list-style-type: none"> • checks for SQL or SQL Express server. If SQL is installed on your server, a SQL database is set up. If SQL Express is installed, an SQL Express database is set up. • loads database tables • updates the web.config file with information about your database connection, based on your responses
<p>17. You are asked if you want to set up a database. Click Yes.</p>	<div data-bbox="445 1241 1333 1470" data-label="Image"> </div>

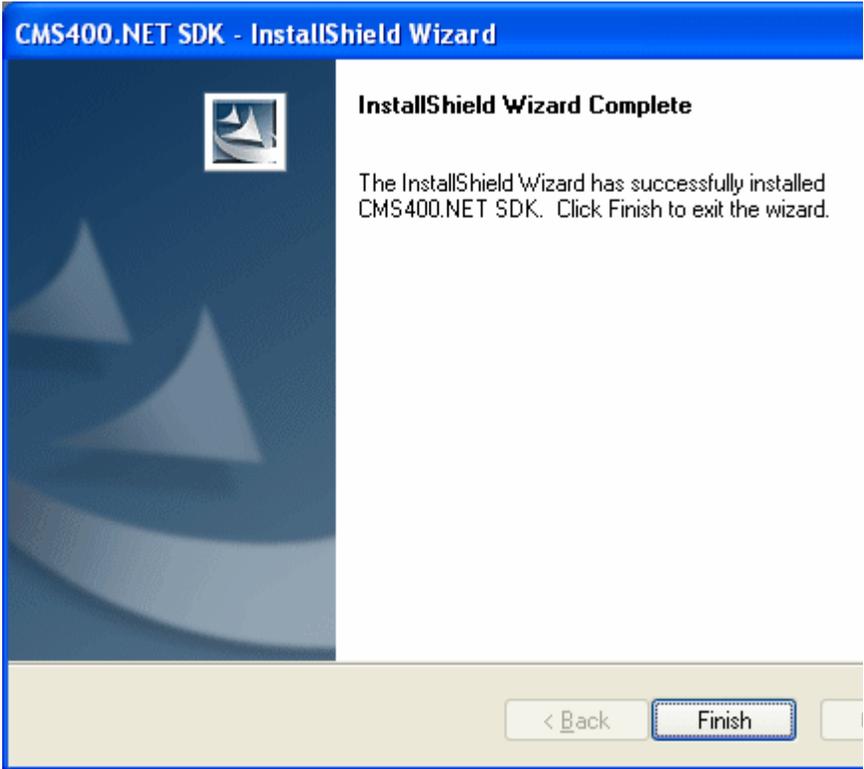
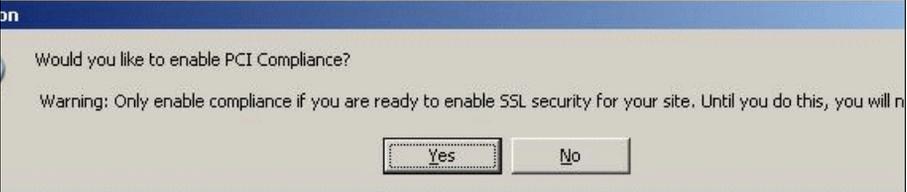
Step	Setup Screen
	<p>If you are using a separate database server, you need the following information</p> <ul style="list-style-type: none">• database server host name or IP address• if the database server is on the same domain as the application server, it must support NT or SQL authentication• if the database server is on a separate domain from the application server, it must support SQL authentication• you must have database administrator or database creator privileges
18. Enter the name of the database you are creating.	

Step	Setup Screen
<p data-bbox="159 251 1215 282">IMPORTANT! Ektron strongly urges you to change the user name and password for the builtin user.</p> <p data-bbox="159 318 1243 378">19. Change the builtin user's name and password. For instructions on editing the builtin account in the Workarea, see "Editing Builtin" on page iv</p> <div data-bbox="239 391 1239 1146"><p>The screenshot shows a dialog box titled "InstallShield Wizard" with a close button (X) in the top right corner. The main text reads "Update Builtin Account" followed by "Please update your Builtin Username. This can also be done in the CMS Workarea -> Settings." Below this are three input fields: "UserName:" containing the text "builtin", "Password:" with masked characters, and "Confirm Password:" also with masked characters. At the bottom left is the text "InstallShield". At the bottom right are three buttons: "< Back", "Next >", and "Cancel".</p></div>	

Step	Setup Screen
<p>20. This screen prompts for database connection information.</p> <p>Server - List the database server on this system. To setup the database on this server, accept the default.</p> <p>Otherwise, enter a SQL or SQL Express server that already exists. For SQL, this would typically be (local) if it's installed on the local server. Otherwise, enter the Server's name. For SQL Express enter (local)\SQLEXPRESS.</p>	
<p>Username - Enter the username you will use to access the database.</p> <p>Password - Enter the password you will use to access the database.</p> <hr/> <p>Note: If you want to use NT authentication, leave the username and password blank. This will set up a trusted connection.</p> <hr/> <p>After you complete the screen, the setup tests the database connection to verify the information is valid. If the database name already exists, you are asked to assign a different name. Once a connection is made and the name is available, the installation program creates a database using the provided information.</p>	
<p>21. If your server has Visual Studio.NET installed, the following prompt appears.</p>	

Step	Setup Screen
22. If you want to install Ektron CMS400.NET 's Software Developer's Kit (SDK), click Yes . Otherwise, click No . If you click No , skip to "The site and database setup portion of the install is complete." on page 40. To learn about the SDK, see the CMS400.NET Developer Manual section "Ektron's Developer SDK."	
23. Choose the type of Setup for the CMS400.NET SDK. Click Next .	

Step	Setup Screen
<p>24. Click Install to begin the installation.</p> <p>25. The Setup Status screen appears.</p>	 <p>The screenshot shows a window titled "CMS400.NET SDK - InstallShield Wizard". The main heading is "Ready to Install the Program". Below this, it states "The wizard is ready to begin installation." and "Click Install to begin the installation." It also provides instructions: "If you want to review or change any of your installation settings, click Back. Click Cancel to cancel the wizard." At the bottom, there are three buttons: "< Back", "Install", and "Cancel". The "Install" button is highlighted with a dashed border. The "InstallShield" logo is visible in the bottom left corner of the window.</p>

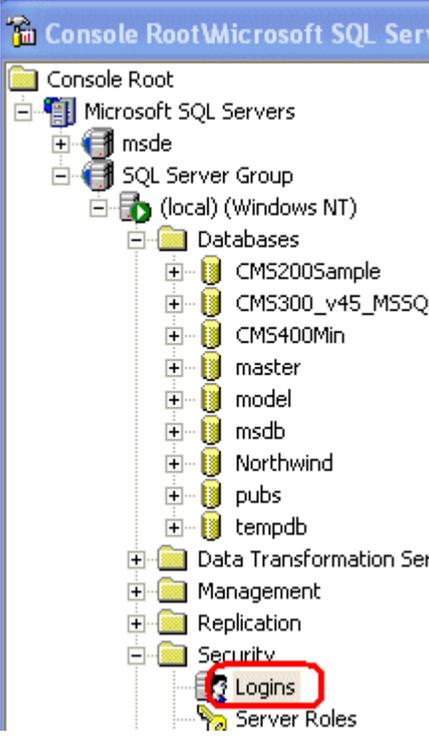
Step	Setup Screen
<p>26. When the SDK install is finished, the following screen appears. Click Finish.</p> <p>The site and database setup portion of the install is complete.</p>	
<p>27. If your license key supports eCommerce, this screen appears. To learn more about PCI Compliance, see the following KB article: http://dev.ektron.com/kb_article.aspx?id=26304</p>	

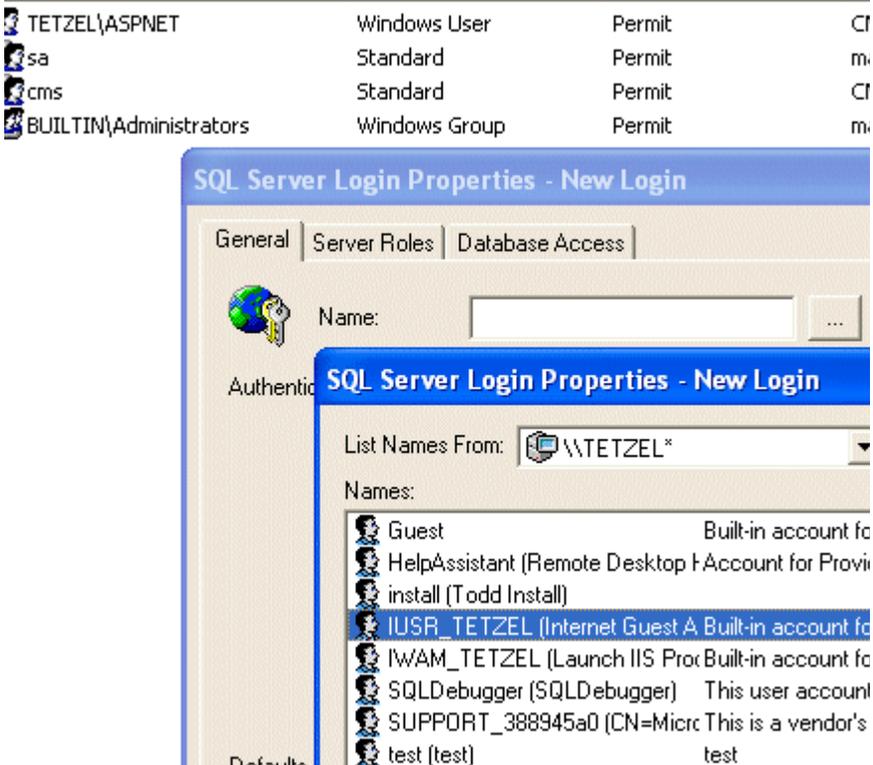
Step	Setup Screen
<p>28. If your license key is Enterprise-level or Professional with an eSync modifier, this screen appears.</p> <p>For details on how to complete it, see the CMS400.NET Administrator Manual section "Managing Ektron CMS400.NET > eSync > Managing eSync Security Certificates"</p>	

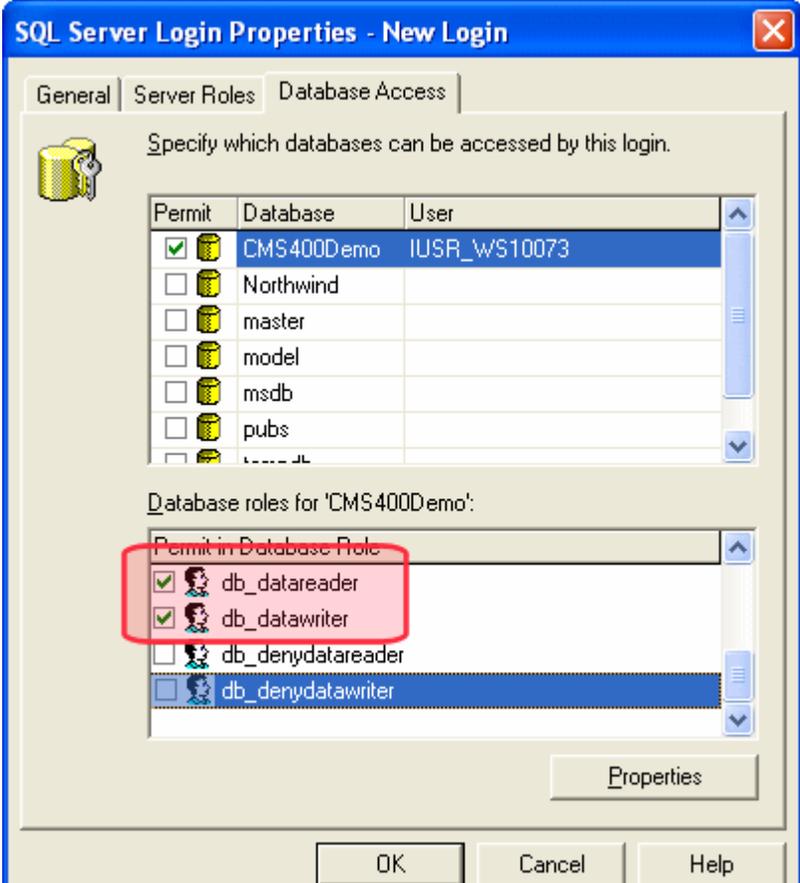
Set Up a User for the CMS400 Database

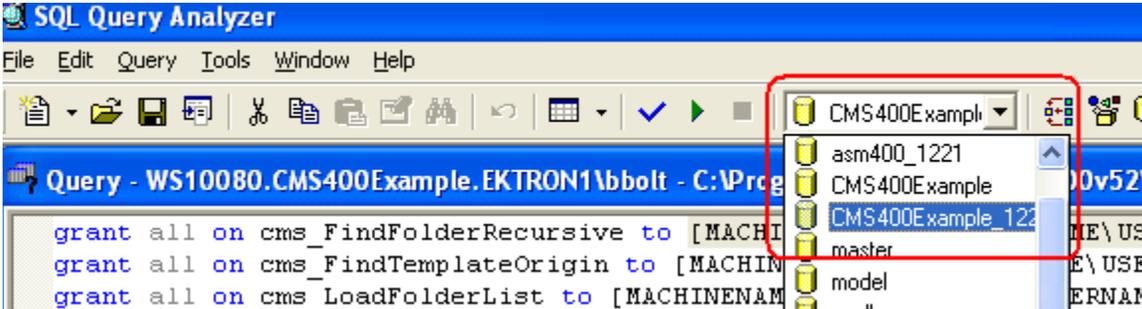
The installation automatically sets up user permissions based on data collected during setup. However, if there is a problem setting permissions for the user, this section describes how to set the permissions manually.

NOTE If you are using SQL Authentication, you only need to set up the SQL user. If you are using Windows Authentication, you need to set up IUSR and an ASPNET or IIS_WPG user. The IIS_WPG user is used instead of the ASPNET user in Microsoft Windows 2003 server and Microsoft Windows Vista.

Step	Setup Screen
1. In the SQL Enterprise manager, select Security > Logins .	 <p>The screenshot shows the SQL Enterprise Manager console tree. The tree is expanded to show the 'Security' folder under the '(local) (Windows NT)' server. The 'Logins' folder is highlighted with a red rectangle. The tree structure is as follows:</p> <ul style="list-style-type: none">Console RootMicrosoft SQL Servers<ul style="list-style-type: none">msdeSQL Server Group<ul style="list-style-type: none">(local) (Windows NT)<ul style="list-style-type: none">Databases<ul style="list-style-type: none">CMS200SampleCMS300_v45_MSSQLCMS400MinmastermodelmsdbNorthwindpubstempdbData Transformation SerManagementReplicationSecurity<ul style="list-style-type: none">LoginsServer Roles

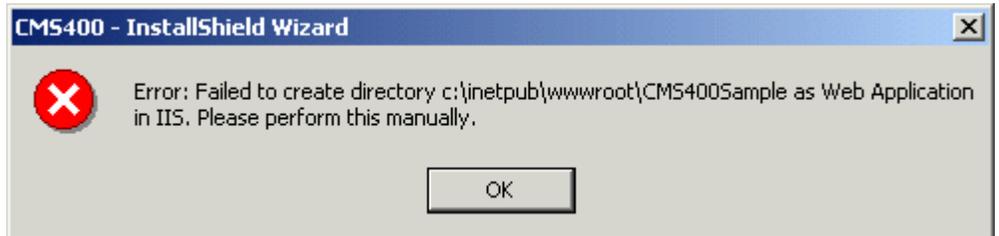
Step	Setup Screen																				
<ol style="list-style-type: none"> 2. Right click the mouse and select New Login. 3. On the Login Properties dialog, click the button to the right of the Name field. 4. Select your server. 5. From the user list select the ASPNET user or IIS_WPG and IUSR user. 6. Click Add then OK. 	 <p>The screenshot displays the SQL Server Enterprise Manager interface. At the top, a list of logins is shown with columns for Name, Type, Authentication, and Permissions. Below this, the 'SQL Server Login Properties - New Login' dialog box is open, showing the 'General' tab. The 'Name' field is empty, and the 'List Names From' dropdown is set to 'TETZEL*'. A list of available users is shown, with 'IUSR_TETZEL (Internet Guest A Built-in account for...)' highlighted.</p> <table border="1" data-bbox="445 236 1318 373"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Authentication</th> <th>Permissions</th> </tr> </thead> <tbody> <tr> <td>TETZEL\ASPNET</td> <td>Windows User</td> <td>Permit</td> <td>CF</td> </tr> <tr> <td>sa</td> <td>Standard</td> <td>Permit</td> <td>m</td> </tr> <tr> <td>cms</td> <td>Standard</td> <td>Permit</td> <td>CF</td> </tr> <tr> <td>BUILTIN\Administrators</td> <td>Windows Group</td> <td>Permit</td> <td>m</td> </tr> </tbody> </table>	Name	Type	Authentication	Permissions	TETZEL\ASPNET	Windows User	Permit	CF	sa	Standard	Permit	m	cms	Standard	Permit	CF	BUILTIN\Administrators	Windows Group	Permit	m
Name	Type	Authentication	Permissions																		
TETZEL\ASPNET	Windows User	Permit	CF																		
sa	Standard	Permit	m																		
cms	Standard	Permit	CF																		
BUILTIN\Administrators	Windows Group	Permit	m																		

Step	Setup Screen																																		
7. On the Database Access tab, select your CMS400.NET database. Then, assign permission to read and write to that database (as illustrated).	 <p>SQL Server Login Properties - New Login</p> <p>General Server Roles Database Access</p> <p>Specify which databases can be accessed by this login.</p> <table border="1"><thead><tr><th>Permit</th><th>Database</th><th>User</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/></td><td>CMS400demo</td><td>IUSR_WS10073</td></tr><tr><td><input type="checkbox"/></td><td>Northwind</td><td></td></tr><tr><td><input type="checkbox"/></td><td>master</td><td></td></tr><tr><td><input type="checkbox"/></td><td>model</td><td></td></tr><tr><td><input type="checkbox"/></td><td>msdb</td><td></td></tr><tr><td><input type="checkbox"/></td><td>pubs</td><td></td></tr><tr><td><input type="checkbox"/></td><td>tempdb</td><td></td></tr></tbody></table> <p>Database roles for 'CMS400Demo':</p> <table border="1"><thead><tr><th>Permit in Database Role</th><th>Role</th></tr></thead><tbody><tr><td><input checked="" type="checkbox"/></td><td>db_datareader</td></tr><tr><td><input checked="" type="checkbox"/></td><td>db_datawriter</td></tr><tr><td><input type="checkbox"/></td><td>db_denysdatareader</td></tr><tr><td><input type="checkbox"/></td><td>db_denysdatawriter</td></tr></tbody></table> <p>Properties</p> <p>OK Cancel Help</p>	Permit	Database	User	<input checked="" type="checkbox"/>	CMS400demo	IUSR_WS10073	<input type="checkbox"/>	Northwind		<input type="checkbox"/>	master		<input type="checkbox"/>	model		<input type="checkbox"/>	msdb		<input type="checkbox"/>	pubs		<input type="checkbox"/>	tempdb		Permit in Database Role	Role	<input checked="" type="checkbox"/>	db_datareader	<input checked="" type="checkbox"/>	db_datawriter	<input type="checkbox"/>	db_denysdatareader	<input type="checkbox"/>	db_denysdatawriter
Permit	Database	User																																	
<input checked="" type="checkbox"/>	CMS400demo	IUSR_WS10073																																	
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<input type="checkbox"/>	model																																		
<input type="checkbox"/>	msdb																																		
<input type="checkbox"/>	pubs																																		
<input type="checkbox"/>	tempdb																																		
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<input checked="" type="checkbox"/>	db_datareader																																		
<input checked="" type="checkbox"/>	db_datawriter																																		
<input type="checkbox"/>	db_denysdatareader																																		
<input type="checkbox"/>	db_denysdatawriter																																		

Step	Setup Screen
8.	<p>Run the grant permission script.</p> <hr/> <p>Note: Before doing this, review your users and their permissions. Adjust as necessary for your configuration. Also, if you use Windows Authentication and all users are domain users (and the database administrator wants it this way), you may not have to perform this step.</p> <hr/> <p>Follow these steps to do that.</p> <ul style="list-style-type: none"> • Open the SQL Query Analyzer. • From the dropdown list, select the CMS400.NET database.  <p>The screenshot shows the SQL Query Analyzer interface. The title bar reads 'SQL Query Analyzer'. The menu bar includes 'File', 'Edit', 'Query', 'Tools', 'Window', and 'Help'. The toolbar contains various icons for file operations and execution. The main window title is 'Query - WS10080.CMS400Example.EKTRON1\bolt - C:\Program Files\Microsoft SQL Server\80\Tools\Binn\SQL Enterprise Manager\SQL Query Analyzer\'. The database dropdown menu is open, showing a list of databases: 'asm400_1221', 'CMS400example', 'CMS400example_1221', 'master', and 'model'. The 'CMS400example_1221' database is highlighted with a blue selection bar. A red rectangle is drawn around the dropdown menu.</p> <ul style="list-style-type: none"> • Click File > Open. • Open C:\Program Files\Ektron\CMS400vnn\Utilities\SiteSetup\Database\CMS400_permissions.sql. (<i>nn</i> represents the release number) • Within that file, replace [MACHINENAME or DOMAINNAME\USERNAME] with your domain name, backslash (\), and ASPNET (the ASP.NET machine account). For example, [ws10080\ASPNET]. Note: If you are using Microsoft Windows 2003 Server or Microsoft Widows Vista, the user is IIS_WPG. For example, [ws10080\IIS_WPG]. • Click the Execute Query button (). • Replace the text between square brackets with your domain name, backslash (\), and the IIS Internet Guest Account. For example, [ws10080\IUSR_ws10080]. Click the Execute Query button. • If using SQL server authentication, replace the text between square brackets with the SQL server authentication name only. Do not include the domain name. Click the Execute Query button.

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/iidfpvc.htm
IIS is not installed	Make sure IIS is installed on the server.
Host is not localhost	Install Ektron CMS400.NET on localhost machine only.

Error

Server Error in '/CMS400Example' Application.

Parser Error

Description: An error occurred during the parsing of a resource required to service this request. Please review the following error message and code changes that caused this error.

Parser Error Message: The format of the file 'Ektron.Cms.Controls' is invalid.

Source Error:

```
Line 1: <%@ Register TagPrefix="cms" Namespace="Ektron.Cms.Controls" Assembly="Ektron.Cms.Controls" %>
Line 2: <%@ Page Language="vb" AutoEventWireup="false" Inherits="index21" CodeFile="index21.vb" %>
Line 3: <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
```

Source File: c:\inetpub\wwwroot\cms400example\intranetbasic\index.aspx **Line:** 1

Assembly Load Trace: The following information can be helpful to determine why the assembly 'Ektron.Cms.Controls' could not be loaded.

```
=== Pre-bind state information ===
LOG: DisplayName = Ektron.Cms.Controls
(Partial)
LOG: Appbase = file:///c:/inetpub/wwwroot/CMS400Example
LOG: Initial PrivatePath = bin
Calling assembly : (Unknown).
===

LOG: Policy not being applied to reference at this time (private, custom, partial, or assembly-name).
LOG: Post-policy reference: Ektron.Cms.Controls
LOG: Attempting download of new URL file:///c:/winnt/microsoft.net/framework/v1.1.4322.2032/ektron.cms.controls.dll
LOG: Attempting download of new URL file:///c:/winnt/microsoft.net/framework/v1.1.4322.2032/ektron.cms.controls.dll
LOG: Attempting download of new URL file:///c:/inetpub/wwwroot/CMS400Example/bin/Ektron.Cms.Controls.dll
```

Version Information: Microsoft .NET Framework Version:1.1.4322.2032; ASP.NET Version:1.1.4322.2032

Cause and Solution

Cause	Solution
You installed Ektron CMS400.NET for .NET 2.0 but have the 1.1 .NET framework.	Install the .NET 2.0 framework. Or, install the version of Ektron CMS400.NET for the 1.1 .NET framework.

Document Management Client Install for Firefox

See the **Ektron CMS400.NET** User Manual section “Using the Document Management System” > “Software Requirements” > “Installing FireFox Plug In.”

eWebEditPro+XML Client Install

NOTE If you are using eWebEdit400 as the default editor, you do not need to deploy anything. See the **Ektron CMS400.NET** User Manual section “Introduction to eWebEdit400.”

There are two options for deploying **Ektron CMS400.NET**’s editor, eWebEditPro+XML, to client machines.

- Silently deploy the ewebeditproclient.msi file, which is installed to C:\Program Files\Ektron\CMS400v7x\workarea\ewebeditpro\clientinstall. To do this, use this command-line:

```
msiexec /i "c:\Program Files\Ektron\CMS400v7x\workarea\ewebeditpro\clientinstall\ewebeditproclient.msi" /qn
```

The command line parameters are explained on this Web page: <http://helpnet.installshield.com/robo/projects/HelpLibDevStudio9/IHelpCmdLineMSI.htm>.

- Each time a user connects to **Ektron CMS400.NET**, his PC is checked for eWebEditPro+XML. If an older version or no version exists, the user is prompted to download

ewebeditproclient.exe from the server's C:\Program Files\Ektron\CMS400v7x\workarea\ewebeditpro\clientinstall folder.

eWebEditPro with WebImageFX Automatic Download and Installation

The page you are trying to view contains Ektron's eWebEditPro with WebImageFX editor. It will appear within your browser. It allows you to enter content for web pages as easily as using a word processor.

Before you can use eWebEditPro with WebImageFX, it must be downloaded into your browser. When you click the **Install Now** button at the bottom of this page, eWebEditPro with WebImageFX will be automatically downloaded and installed. This process may take several minutes depending on the speed of your network connection. Once downloaded, eWebEditPro with WebImageFX will *not need to download again* unless upgrading to a newer version.

You must have authorization to install programs on your computer.

By default, Internet Explorer prevents ActiveX control installation on your computer. To install eWebEditPro, click on the control or the Information Bar and select Install ActiveX Control.



The user clicks **Install Now** to install eWebEditPro+XML.

To use this procedure, the user must be authorized to install programs on his computer.

Results of Installation

File Locations

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

- C:\Program Files\Ektron\CMS400vXX: sample and minimal databases, documentation, utilities, site setup files (for creating additional sites)
- C:\Inetpub\wwwroot\cms400Min: 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 ASPNET or IIS_WPG and IUSR users are given permission to create folders in the following directories:

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

Indexing Service

The installation automatically starts the Indexing service. **Ektron CMS400.NET's** search uses this service.

If you want the Indexing service to work manually, you need to change the settings. These steps explain how to disable Indexing of the site.

1. Navigate to **Administrator Tools > Internet Information Services**.
2. In the IIS window, find the Web site.
3. Right click the site and choose **properties**.
4. On the Directories tab, uncheck the **Index this resource** box.
5. Click **OK**.

Changes to the CMS400 web.config File

See Also: ["Managing the web.config File" on page 95](#)

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

web.config setting	Assigned this value by installation
ek_sitePath	<i>webroot/siteroot</i>
ek_buildNumber	current build number of Ektron CMS400.NET
ek_version	current version of Ektron CMS400.NET
Connection String	Information about the how the database is connected to Ektron CMS400.NET .

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 133](#) 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.

NOTE Because of Windows Indexing Service limitation, your server can support eight **Ektron CMS400.NET** Web sites. If you want to install more than 8, you must merge the Indexing Service catalogs. This is documented in the **Ektron CMS400.NET** Administrator Manual section "Managing Assets" > "Merging Indexing Service Catalogs."

To set up an additional site, follow these steps.

- ["Step 1: Set up New Site" on page 52](#)
- ["Step 2: Set up New Database" on page 52](#)
- ["Step 3: Create Project in Visual Studio.NET" on page 53](#)

Step 1: Set up New Site

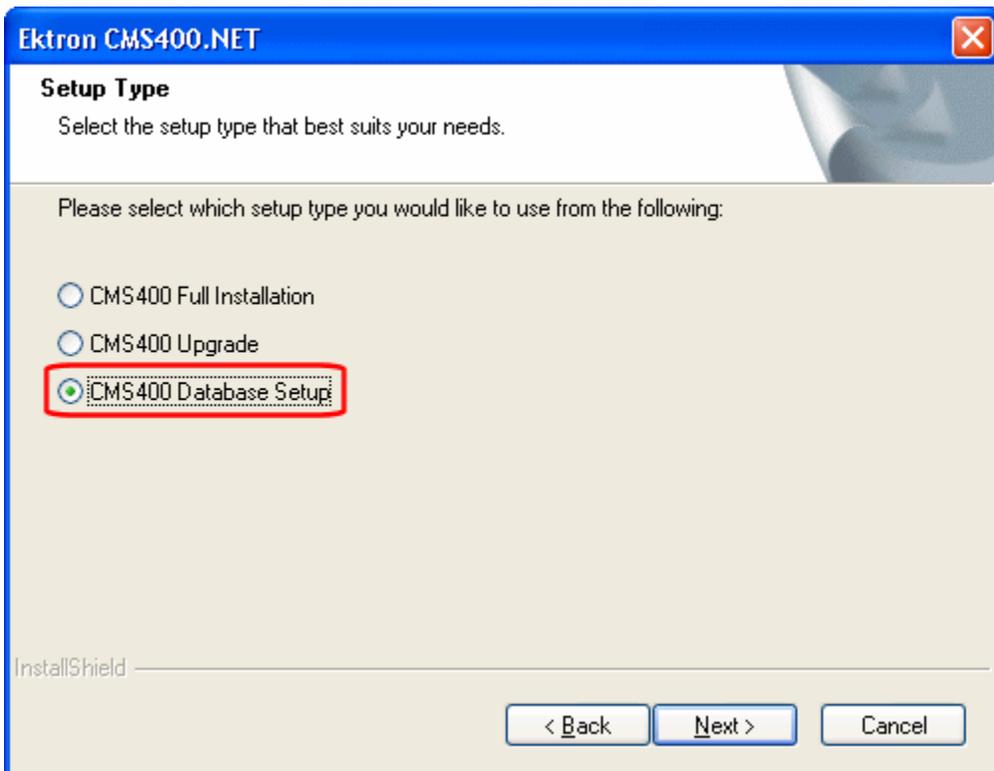
1. Create a new folder in the Web root folder to contain the site files.
2. From the Windows Start menu, follow this path:
Start > Programs > Ektron > CMS400 > Utilities > SiteSetup
3. Follow the steps for creating a new site, as described in ["Setting up a Site" on page 28](#). When prompted to select 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 database. You can create either a sample or minimal database. When creating 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 Setup Type screen, choose **Database Setup only**.



3. Follow the steps for creating a new database, as described in ["Setting up a Database" on page 34.](#)

Step 3: Create Project in Visual Studio.NET

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

1. Navigate to the folder that contains the new site.
2. Double click **Ektron CMS400.NET**'s solution file. If you are using the minimal database, the file is `CMS400Min.sln`.

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

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.

- "Step 1: Set up an IIS Site on the Destination Server" on page 55
- "Step 2: Copy Files to Destination Directory" on page 56
- "Step 3: Set Permissions on the New CMS Web Site" on page 56
- "Step 4: Make the New Directory an IIS Application" on page 57
- "Step 5: Back up the Database" on page 57
- "Step 6: Create a New Database" on page 58
- "Step 7: Restore the Database" on page 59
- "Step 8: Set Security on the Copied Database" on page 61
- "Step 9: Update web.config on the Destination Site" on page 61

Moving a Site vs. Using the eSync Feature

In addition to the Site Move procedure described below, **Ektron CMS400.NET** offers an eSync feature. That feature automatically pushes new and updated site files to a production server. eSync 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 “eSync.”

When You Would Use the eSync feature

You'd use the eSync 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 cases listed below. Additional information that may help you move your site manually can be found at http://dev.ektron.com/kb_article.aspx?id=16408

- You do not have the eSync 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 eSync if you have it.
- 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 > 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 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 does 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** 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.

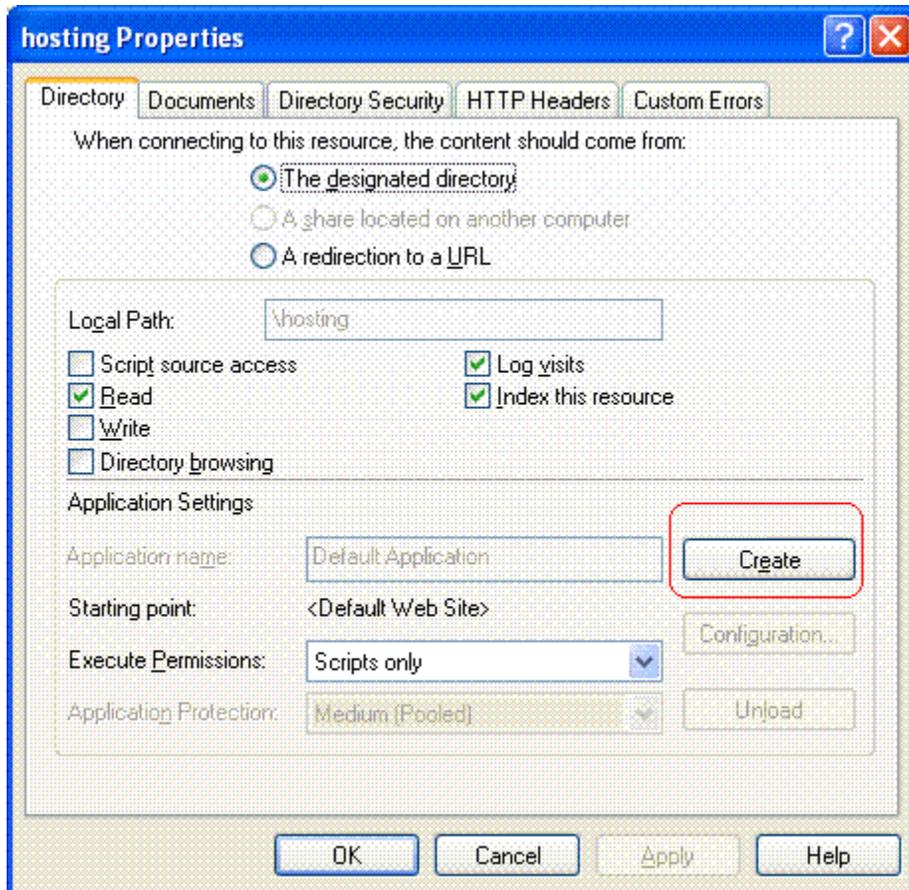
2. Copy all files in the source directory to the destination directory.

Step 3: Set Permissions on the New CMS Web Site

1. Open Windows Explorer.
2. Navigate to new Web site's folder.
3. Right click the `uploadedfiles` directory, and choose **Properties**.
4. On the **General** tab of the properties dialog, ensure the Read-Only attribute is not checked.
5. On the **Security** tab of the properties dialog, ensure that the IIS anonymous user (usually named "IUSR_COMPUTERNAME") has Write permission.
6. Right click the `uploadedimages` directory, and choose **Properties**.
7. Repeat steps 4 and 5 for the `uploadedimages` directory.

Step 4: Make the New Directory an IIS Application

1. Within IIS manager, right mouse click the folder created in "Step 2: Copy Files to Destination Directory" on page 56.
2. Select **Properties**.
3. In the **Application Settings** area, click **Create**.



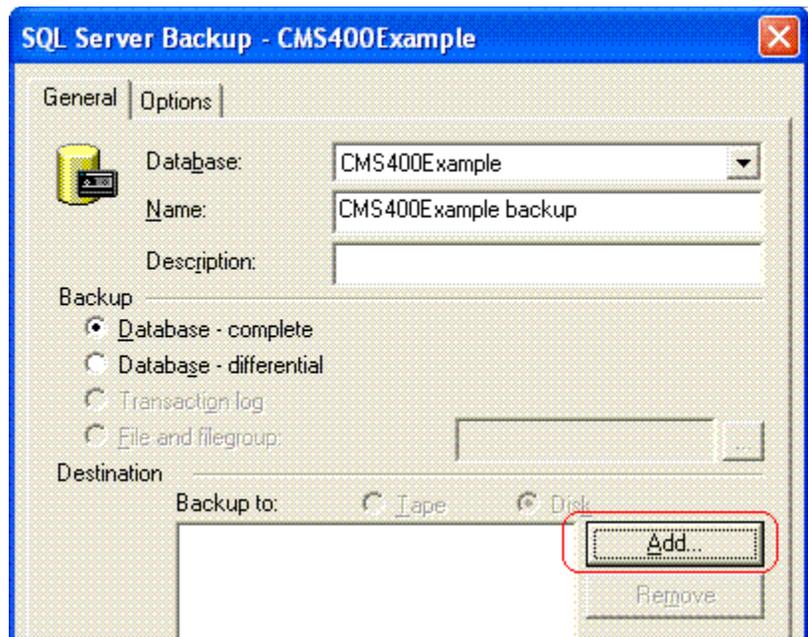
4. Click **OK**.

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

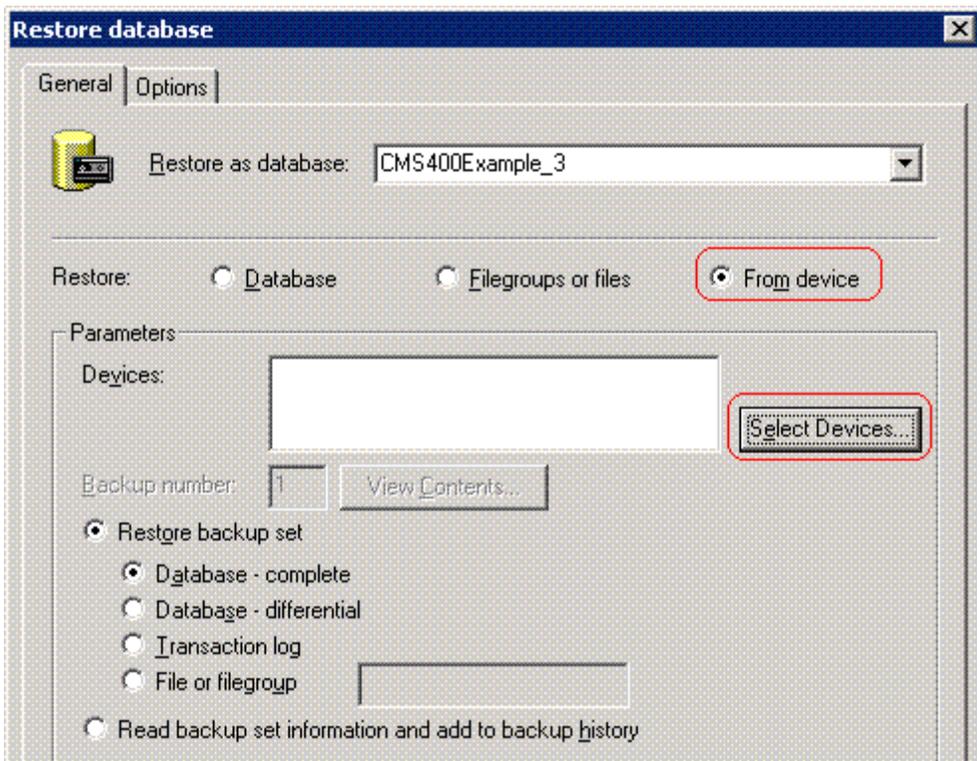
1. On the Destination server, open SQL Enterprise Manager.
2. Expand the display until you see the Databases folder.
3. Right click the Databases folder.
4. Choose **New Database....**
5. Assign a name to the database.

- The remaining options can remain as defaults, or you can edit them as needed.

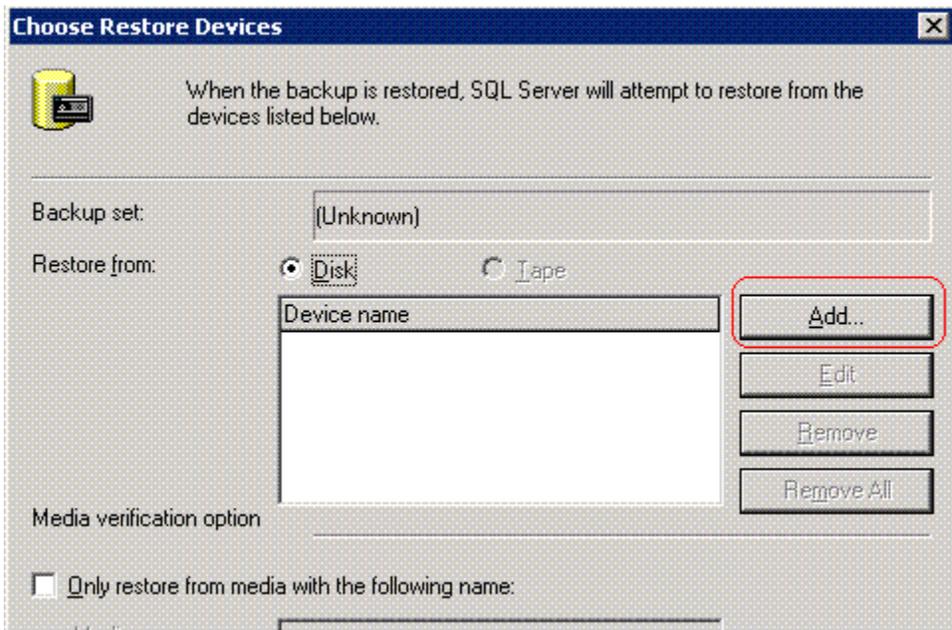
Step 7: Restore the Database

Restore the database to the new destination folder. To do this, follow these steps.

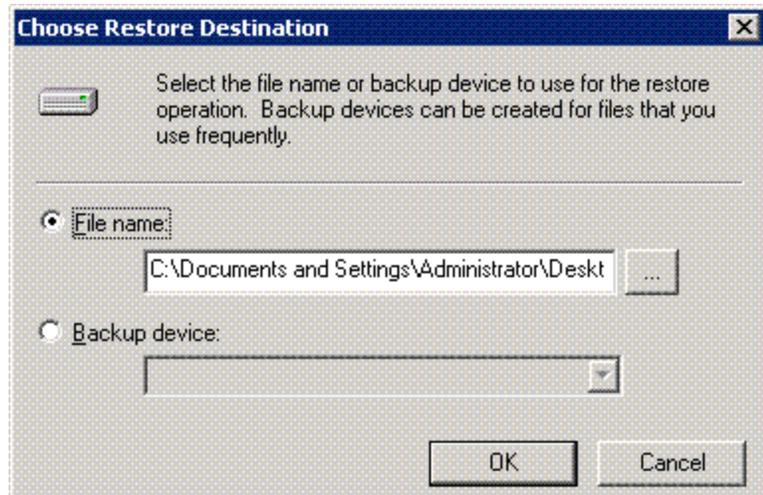
- Right click the database you created in "Step 6: Create a New Database" on page 58.
- Select **All Tasks > Restore database**.



- In the **Restore as database** field, verify that the database you created in Step 6 appears.
- In the **Restore** section, click **From device** (circled above).
- Click the **Select Devices** button (circled above).
- 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. Click **OK** three times. SQL copies the data to the database you created in "Step 6: Create a New Database" on page 58.

Step 8: Set Security on the Copied Database

1. This procedure is described in "[Set Up a User for the CMS400 Database](#)" on page 41. 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. Update your connection string values (see example below).

```
<connectionStrings>
```

```
<add name="Ektron.DbConnection" providerName="System.Data.SqlClient"
connectionString="server=1ER80\SQLExpress;database=CMS400Developer;Integrated
Security=TRUE;user=;pwd=;" />
```

```
</connectionStrings>
```

3. Modify the following values as needed.

Web.config element	How to modify
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.

Upgrading Ektron CMS400.NET

IMPORTANT!

After upgrading to version 7.6, run Ektron's Big Int Utility on all Web sites you want to upgrade. If you do not run this utility, your Web site will not compile, and you receive errors related to the *int* (VB) or *int32* (C#) data type. See "Using the Big Int Utility" on page 80

Upgrading From Version 6 or higher to Version 7.X

The upgrade procedure copies **Ektron CMS400.NET**'s latest features to your Web server. **CMS400.NET** is installed to its own folder, *CMS400v7x*. This means it can coexist on the same machine with previous versions -- the template directories are independent.

IMPORTANT!

During the upgrade procedure, your Web site's Bin, Workarea and Documentation folders are removed. Any customized files in these folders will be lost. So, only store custom files in these folders when absolutely necessary. Even then, you should keep a back-up file in another folder.

The Base Folder

The upgrade installs a base folder (*C:\Program Files\Ektron\CMS400v7x*), 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
AssetManagement	Folders and files for the Document Management Functionality
Bin	Required .NET assemblies for Ektron CMS400.NET
CommonFiles	Location for application Global Resources, Web References and Starter Application files.

Subfolder	Includes
Documentation	Documentation. The site setup procedure copies this directory to the <code>workarea</code> directory when setting up a site.
EktronAsyncProcessor_Service	Files needed to add Asynchronous Processor for Web Alerts
StarterSites	Files for any starter sites that have been added.
StudioHelp	Files necessary for adding the API help to Visual Studio 2005
Utilities	Utilities for <ul style="list-style-type: none"> • database upgrade • database application strings update • email encrypt password tool • a setup Sharepoint Portal • Document Management Registration tool • Load Balancing service files
Workarea	Scripts used for the Workarea <hr/> <p>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.</p> <hr/>

The Upgrade Procedure

Upgrading involves the following tasks.

1. Install new files to the new directories. See Also: "[Running the Installation and Setup Program](#)" on page 23
2. Remove the following folders (and their subfolder) from your site's directory and copy the new folders to the site directory.
 - bin

- workarea
- Documentation

IMPORTANT!

The upgrade procedure removes these folders. Any customized files in these folders will be lost. So, only store custom files in these folders when absolutely necessary. Even then, you should keep a back-up file in another folder.

3. Update the web.config file with new settings.
4. Update your databases using the upgrade and language update utilities. See *A/so: "Performing the Upgrade" on page 64*
5. If needed, modify the site to use the server controls. See *A/so: Ektron CMS400.NET Developer Manual section "Ektron CMS400.NET Server Controls" > "Making the Server Controls Available" > "Updating the Server Controls"*

NOTE

After you upgrade **Ektron CMS400.NET**, you may notice that, for some content that inherits the following property from their folders, the field is not checked: **The content in this folder is private and can only be viewed by authorized users and members**. To resolve this problem, edit the content's **View Permissions for Content** screen and manually check the box.

Before you can check the checkbox, you must disable inheritance. After checking the box, enable inheritance.

NOTE

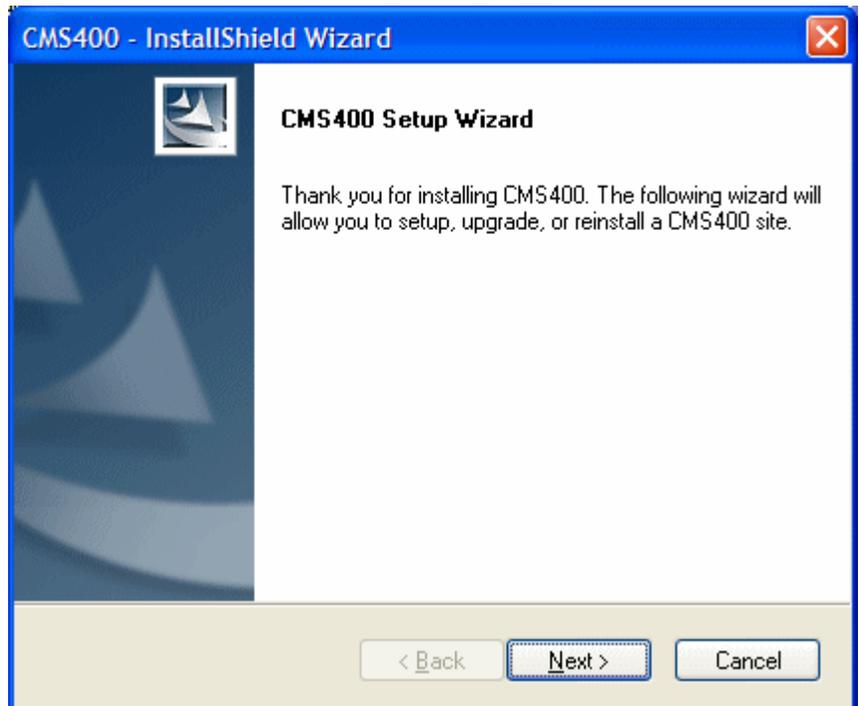
The upgrade automatically starts the IIS and Indexing services.

This chapter walks you through the upgrade process.

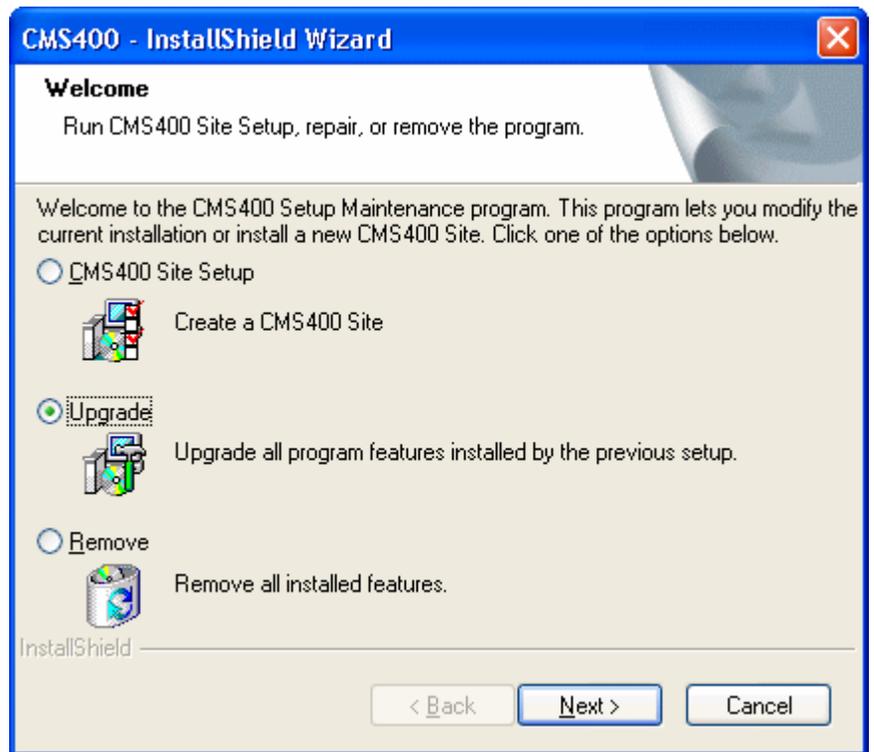
Performing the Upgrade

1. Follow the steps of the installation procedure, *"Running the Installation and Setup Program" on page 23*. 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.
(If this screen does not appear, launch it by following this path from the Windows Start menu:
Start > Programs > Ektron > CMS400 > Utilities > Site Setup)

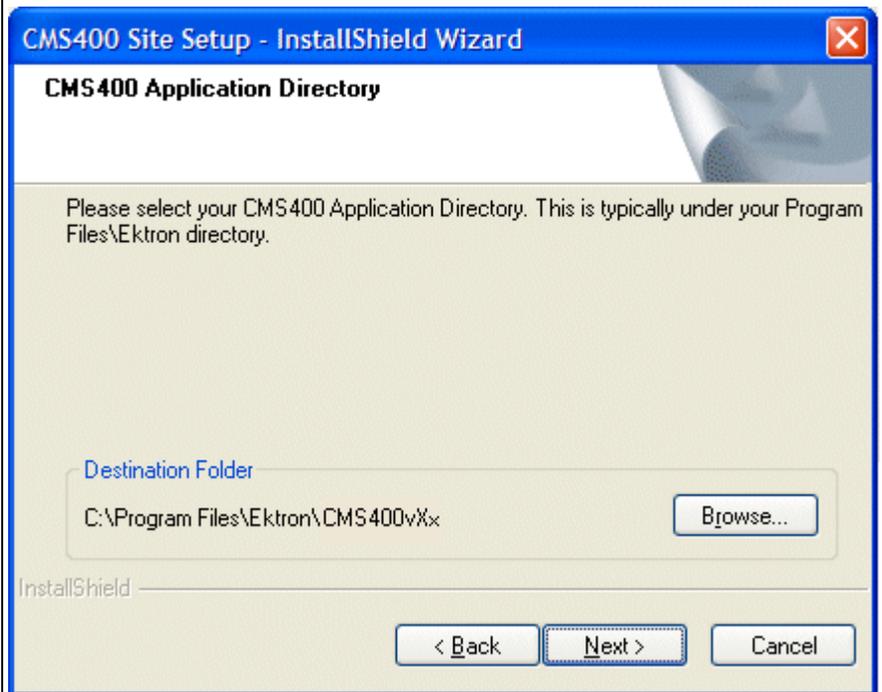


3. The Setup Type screen appears. Choose the **Upgrade** radio button, and click **Next**.

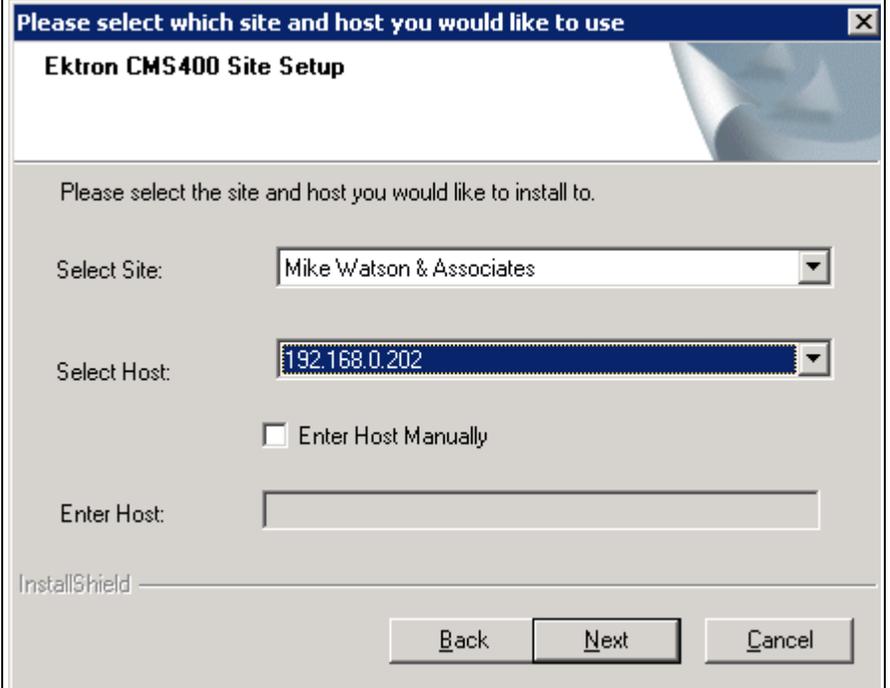


4. Choose an application directory. If you are not sure, use the default (C:\Program Files\Ektron\CMS400v7x). This directory stores **Ektron CMS400.NET** components and utilities.

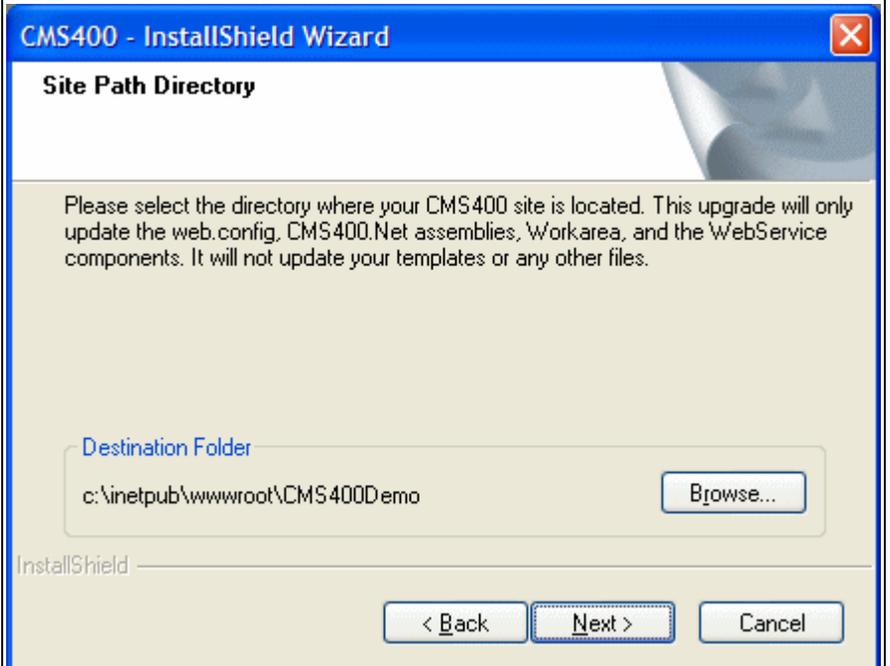
Important: This dialog appears only when the Setup cannot detect where the site's application is directory located.



5. If your server operating system accommodates multiple Web sites, select the site to which you want to install **Ektron CMS400.NET** from the dropdown list. Otherwise, accept the default.

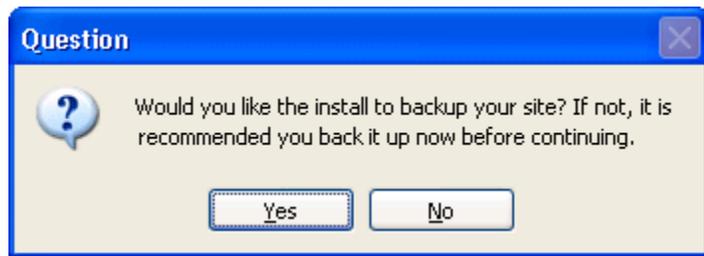


6. Select the path of the Web site you are upgrading. Note that the upgrade only updates the web.config file, **Ektron CMS400.NET** assembly files, and Web Service components. It does not update your templates nor other files not mentioned above.

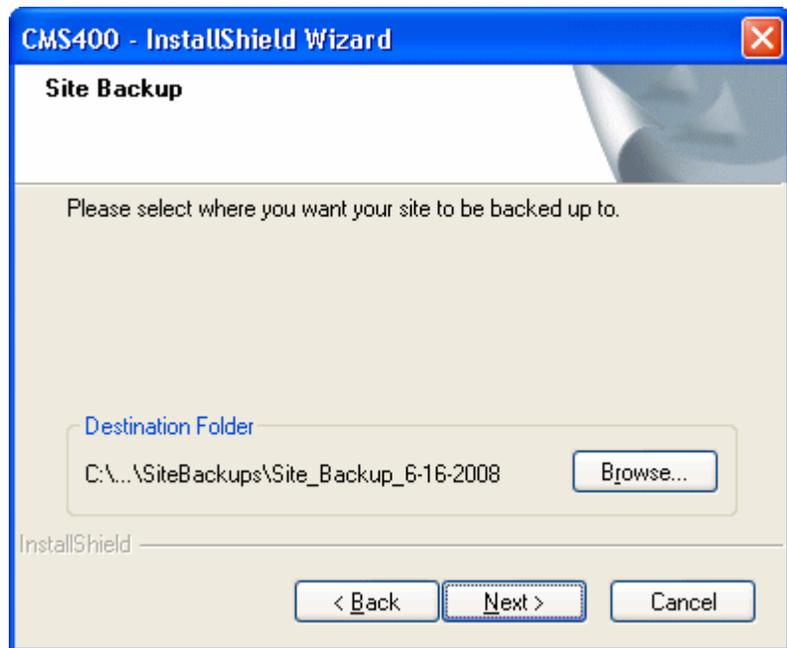


7. Select Yes to backup your site.

Important: Ektron strongly recommends backing up your site before continuing the upgrade. If you choose No and the upgrade fails, you will not be able to revert the files back.

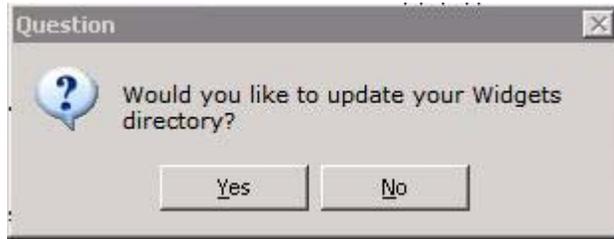


8. If you choose to backup your site, a dialog asks where to store the backup.



9. You are asked if you want to update your siteroot/widgets directory.

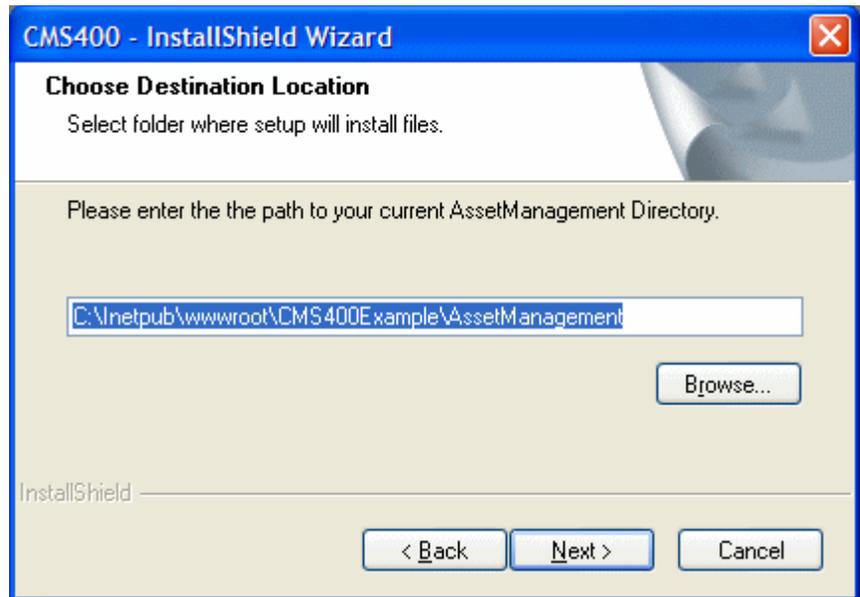
Click **Yes** if you want to install the latest widgets. However, if you customized widgets in that folder and not renamed them, the customized versions will be overwritten. To prevent this, rename any widgets that you customize.



10. You are notified that files are moving to the starter site directory.

11. The Choose Destination Location screen appears. Enter the path to your AssetManagement Directory.

Important: This dialog appears only when the Setup cannot find the AssetManagement directory.



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

Important: The previous version's bin and Workarea folders will be removed from your Web site. Any customized files within these folders are lost. If possible, do not store custom files in them unless absolutely necessary. Even then, you should always keep a separate back-up file in another folder.

13. Your web.config file is updated with information needed to run **Ektron CMS400.NET**.
If other applications use the web.config file, the upgrade does not affect their sections.

14. A dialog box appears asking if you want to upgrade the database. Select **Yes** to upgrade. If you select **No**, the site will not work properly until the database upgrade has been run. To upgrade the database at a later time, run the Site Setup and select **Database Upgrade**. The site setup is located in **Start > Programs > Ektron > CMS400vXx > Utilities > CMS400 Site Setup**.



15. If you selected yes, the Database Upgrade Wizard starts.



16. This screen prompts for database connection information.

Server - List the database server on this system. To setup the database on this server, accept the default.

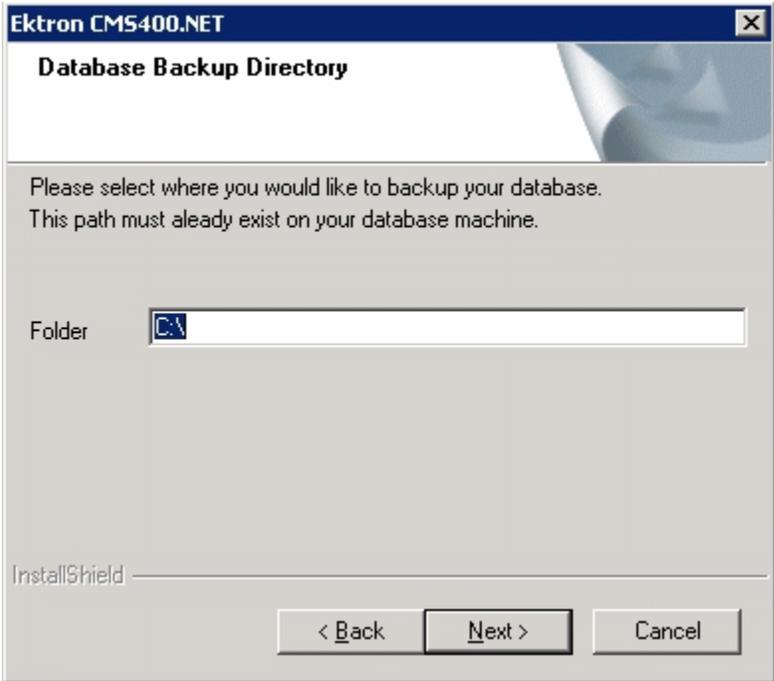
Otherwise, enter a SQL or SQL Express server that already exists. For SQL, this would typically be **(local)** if it's installed on the local server. Otherwise, enter the Server's name. For SQL Express enter **(local)SQLEXPRESS**.

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

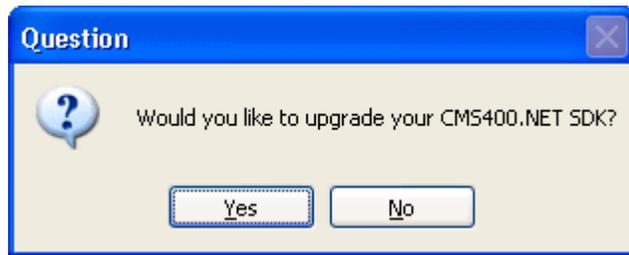
The screenshot shows a dialog box titled "CMS400 - InstallShield Wizard" with a sub-header "SQL Server DB Setup". The main text reads: "Please enter the required information to connect to your MSSQL database. Selecting Next will test the connection. For Trusted Connection type leave User and Password blank. For SQL 2005 users, please enter the machine name in the server area." Below this text are three input fields: "Server:" containing "AMH014E", "Username:" which is empty, and "Password:" which is empty. At the bottom, there are three buttons: "< Back", "Next >" (highlighted with a dashed border), and "Cancel".

17. A dialog box appears asking you to backup your database.

The screenshot shows a dialog box titled "CMS400 - InstallShield Wizard" with a blue header bar. On the left is an information icon (a lowercase 'i' in a blue circle). The main text asks: "Would you like to backup your database." At the bottom, there are two buttons: "Yes" and "No".

<p>18. If you clicked Yes in the previous step, select the location of your database backup. If this path does not exist on your database machine, the backup will fail. Otherwise, skip to the next step.</p>	
<p>If the backup fails, the following message appears.</p> <p>Important: In this case, you should manually back up your database before clicking OK. See Also: "Backing Up Databases" on page 87</p>	
<p>19. Select whether to generate a summary for all content blocks.</p>	

20. If it is installed, select whether to upgrade you **CMS400.NET SDK**.



21. Once the SDK is installed, click **Finish** on the final screens to complete the upgrade.

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 within the Site Setup utility to do so.

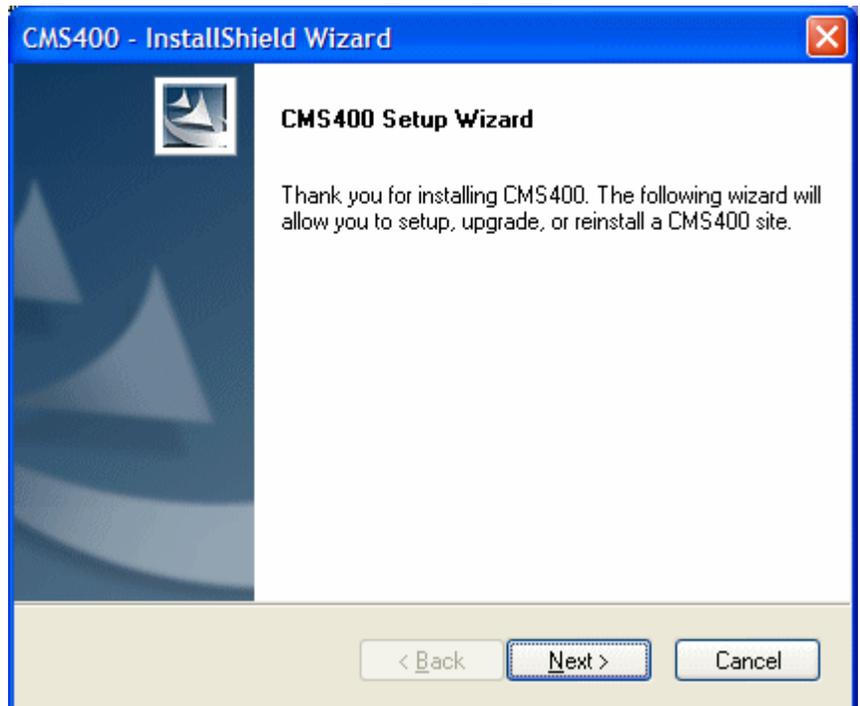
Performing the Database Upgrade

WARNING! Ektron recommends backing up your database before performing an upgrade. For information on backing up a database, see ["Backing Up Databases"](#) on page 87.

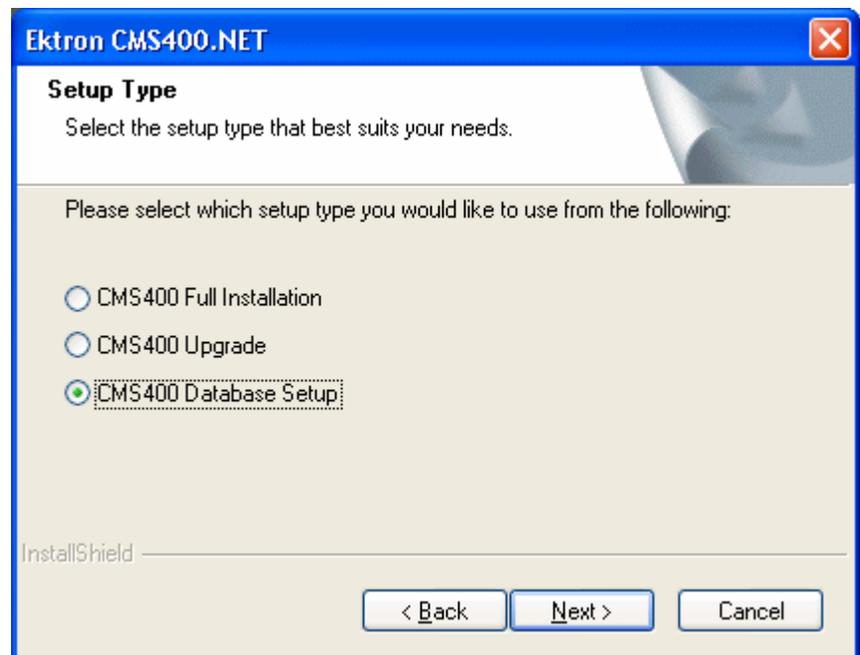
To perform the database upgrade, follow these steps.

1. Click the Windows Start button then follow this path: **Programs > Ektron > CMS400 > Utilities > CMS400 Site Setup**. (If this path does not work, click the cms400sitesetup.exe file, located under the C:\Program Files\Ektron\CMS400v7x\Utilities\SiteSetup folder.)

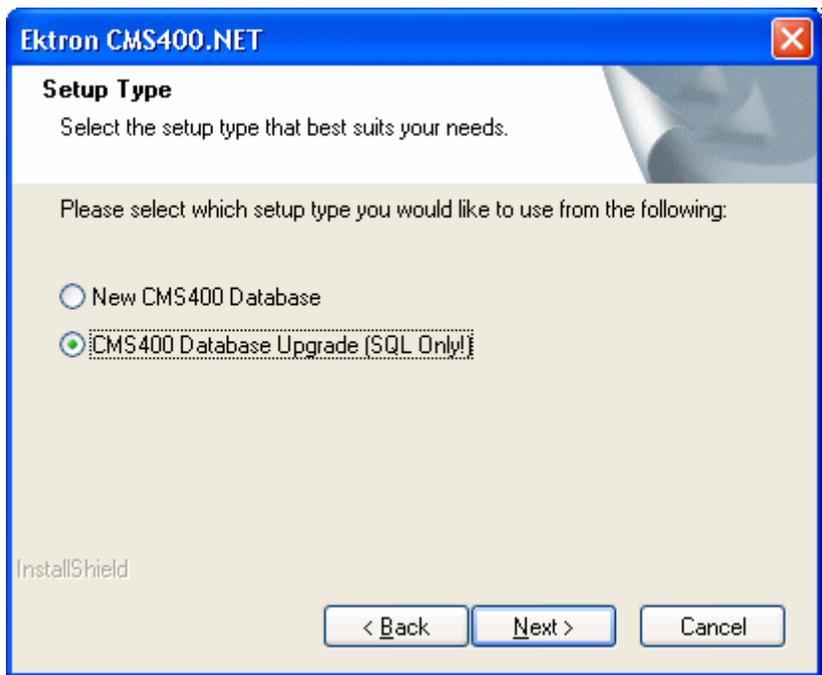
2. The Welcome screen appears. Click **Next**.



3. The Setup Type screen appears. Select **CMS400 Database Setup** and click **Next**.

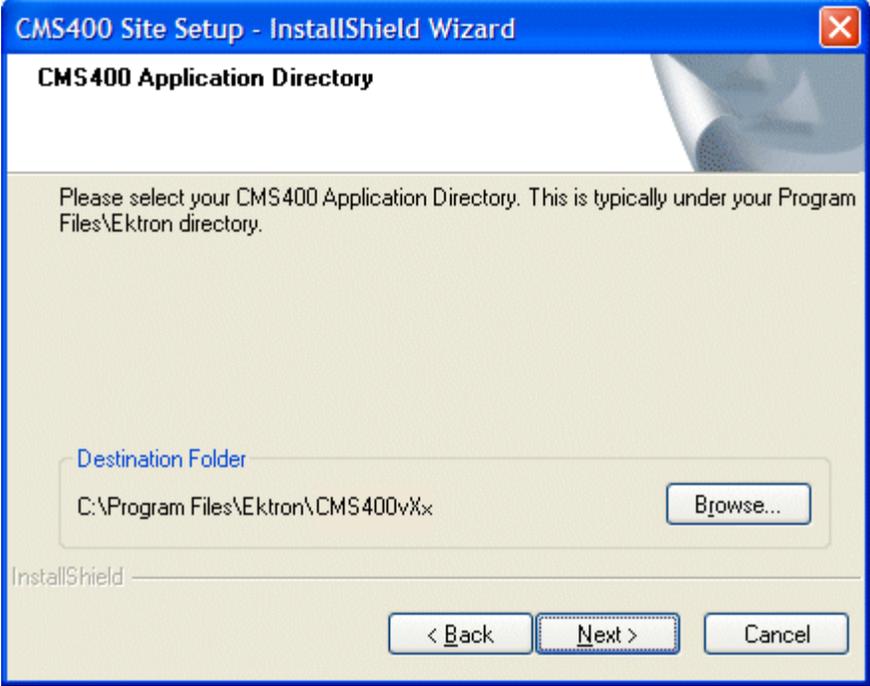


4. Select **CMS400 Database Upgrade (SQL Only!)** from the Setup Type screen.

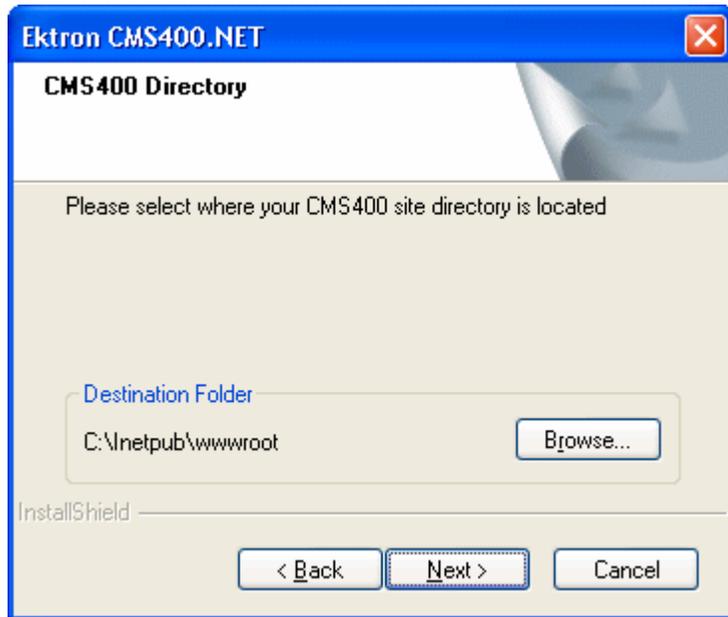


5. A dialog warns you to upgrade your site files before you perform the database upgrade. Click **OK**.



<p>6. If you selected yes to the database upgrade, the Database Upgrade Wizard starts.</p>	
<p>7. Choose an application directory. If you are not sure, use the default (C:\Program Files\Ektron\CMS400v7x). This directory stores Ektron CMS400.NET components and utilities.</p>	

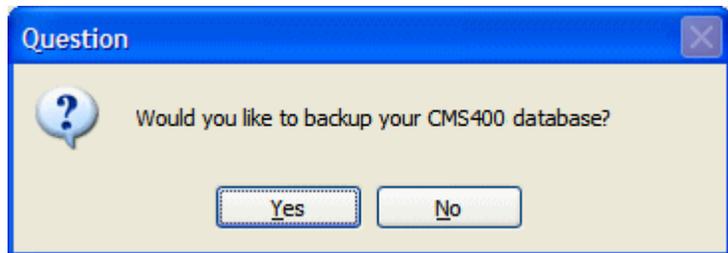
8. Choose the path to your Web site's directory.



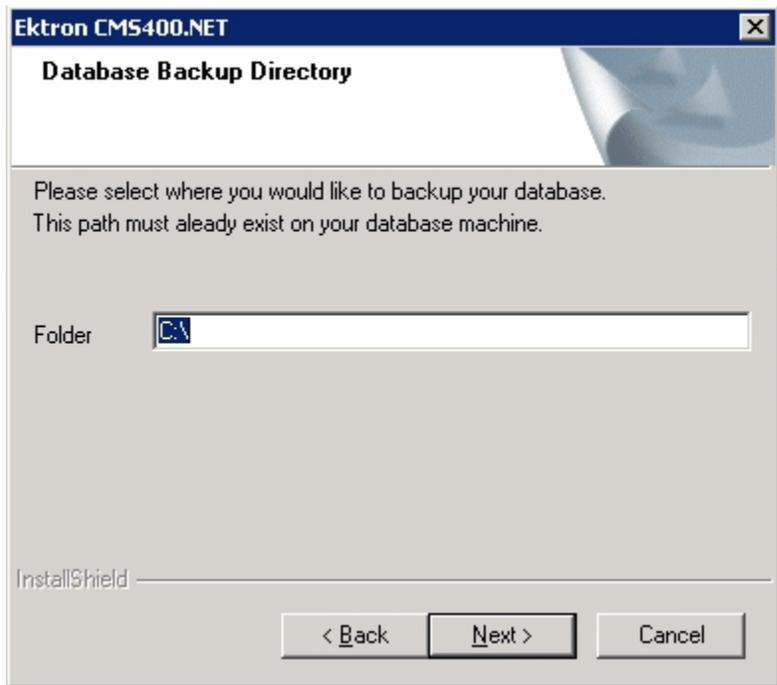
9. The upgrade process checks the connection to your database. If it connects, continue on to the next step. Otherwise, a connection dialog appears.

10. A dialog box appears asking if you want to upgrade your database.

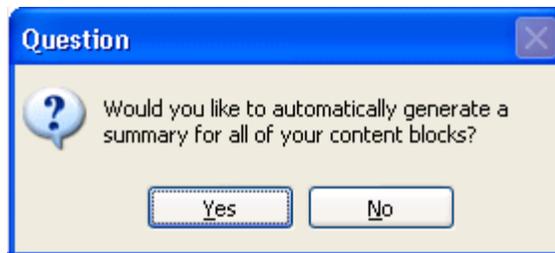
Important: Ektron strongly recommends backing up the CMS database.



11. If you choose to backup your database, a dialog appears asking you where you to store the backup. If you chose not to upgrade, proceed to the next step.



12. Select whether to generate a summary for all content blocks.



13. After the your database is backed up and updated the **Database Upgrade Complete** screen appears. Click **Finish**.

Using the Big Int Utility

IMPORTANT!

If you are not upgrading a Web site from a previous version to 7.6, you do not need to use this utility.

The Big Int Utility changes certain references of the Data Type *int* (VB) or *int32* (C#) to *long* (VB) or *int64* (C#) inside Ektron methods used in your Web site. See Also: "[Why Ektron Changed the Data Type](#)" on page 80.

It is important to note that this utility might not catch all instances that need to be changed. After running the Big Int Utility, you should precompile your Web site. Next, check for error messages that state: during the compile process, the system cannot convert *int* (VB) or *int32* (C#).

If these messages appear, go to the line of code and change the data type to *long* (VB) or *int64* (C#). For example, The Big Int Utility will not change the Return Type of a function. For information on scenarios where the Big Int Utility does not change a data type, view the following KB article.

http://dev.ektron.com/kb_article.aspx?id=21436

Another way to verify that all the necessary *int* and *int32* references have been changed to *long* and *int64* is to run the Bad link checker located in Workarea > Smart Desktop > Reports > Bad Link Report.

Why Ektron Changed the Data Type

In version 7.6 of Ektron CMS400.NET, Ektron changed the Data Type for its primary IDs from *int* (VB) or *int32* (C#) to *long* (VB) or *int64* (C#). For example, Ektron now uses the *long* or *int64* data type for user IDs and content IDs.

This change was implemented to handle the larger IDs needed for eSync. From the **eSync > Unique ID Numbering** section in the Administrator Manual:

"When you create a sync relationship, Ektron CMS400.NET applies to each server a new ID numbering range to ensure that, from then on, objects created on either server have a unique ID. This prevents collisions when syncing between servers. For

example, since membership users created on a production server have a different ID number range from those created on the staging server, eSync does not overwrite them.

To view a server's ID number range, open its `serverinfo.xml` file, located in the `c:\sync\inetpub\wwwroot\literoot` folder, and check the `MaxId` value (highlighted in red below).

```
<SyncServerInfoList>
<SyncServerInfo IsSyncRunning="true" MaxId="1" ServerNumber="1" IsMultisiteStaged="false">
<ServerId>b0cccb5a-1d45-4262-8857-79f1333696dc</ServerId>
<ServerUrl>http://localhost:8732/Ektron.Sync.Communication/
SyncCommunicationScheduleService.svc</ServerUrl>
<ConnectionInfo>server=WS10080\SQLExpress;database=CMS400Developer;Integrated
Security=TRUE;user=;pwd=;</ConnectionInfo>
</SyncServerInfo>
</SyncServerInfoList>
```

Multiply that number by 1 trillion to get the largest ID number which that server can assign. So for example, if `MaxId = 3`, possible ID numbers range from 2,000,000,000,001 to 3,000,000,000,000."

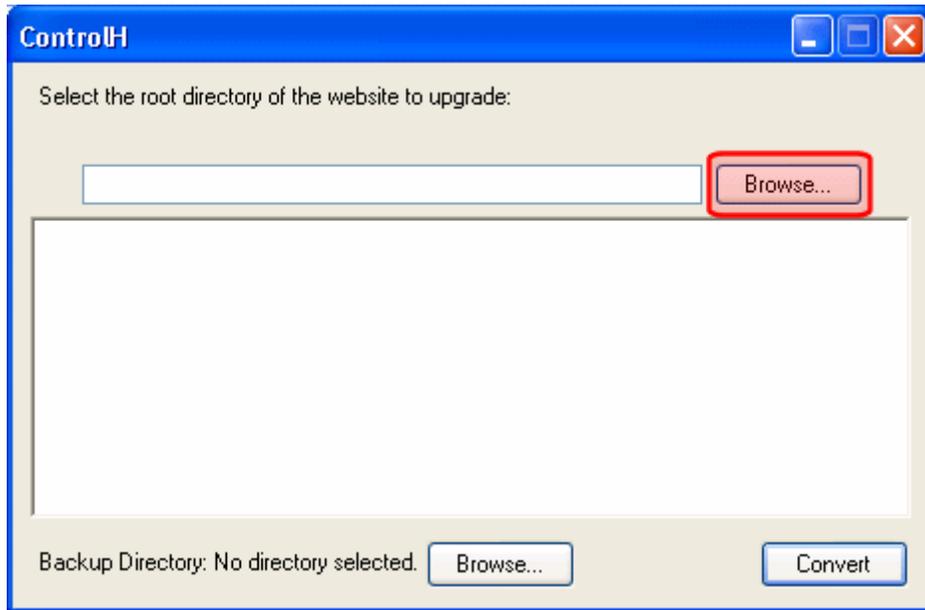
For additional information, see the eSync section in the Administrator Manual.

While Ektron made this change to accommodate the new eSync feature, the change affects all Ektron CMS400.NET sites being upgraded to version 7.6.

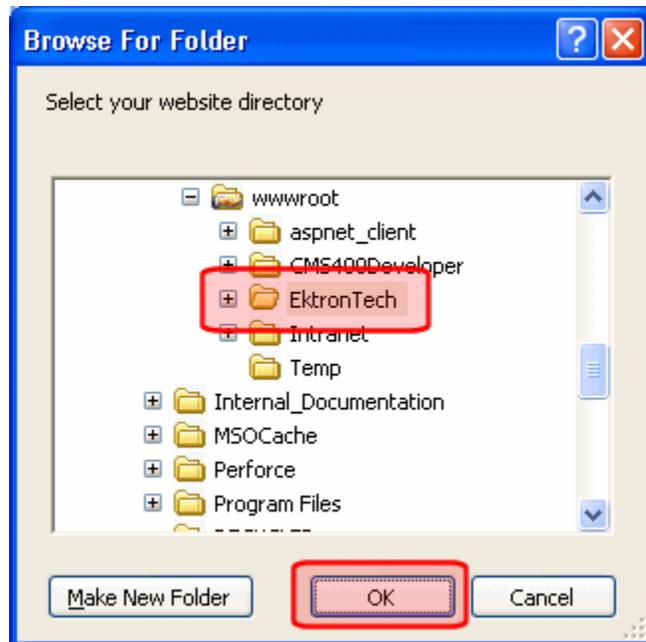
Running the Big Int Utility

1. Navigate to
C:\Program Files\Ektron\CMS400v76\Utilities\BigIntUtility
2. Double click **CtrlH.exe**.

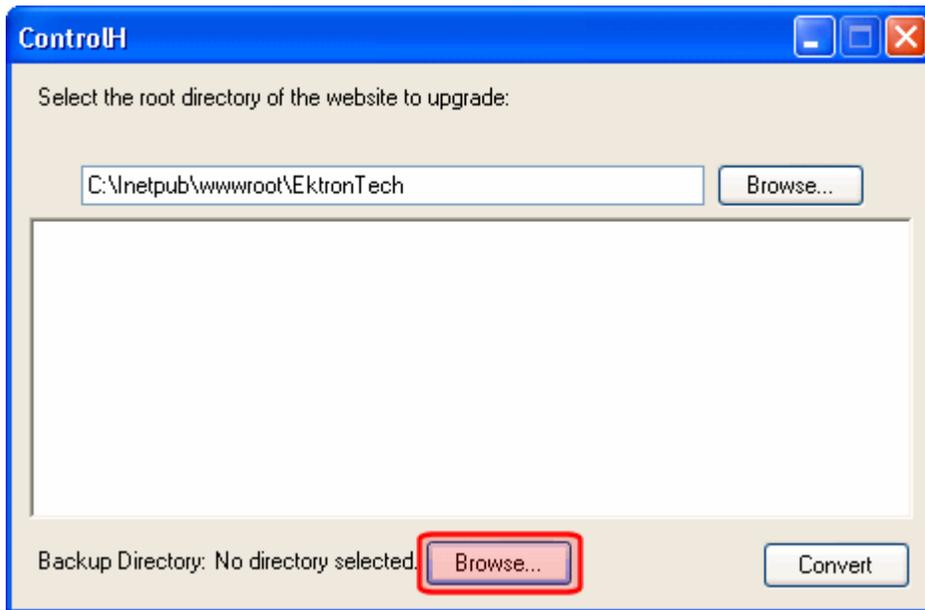
3. The Big Int Utility screen appears.



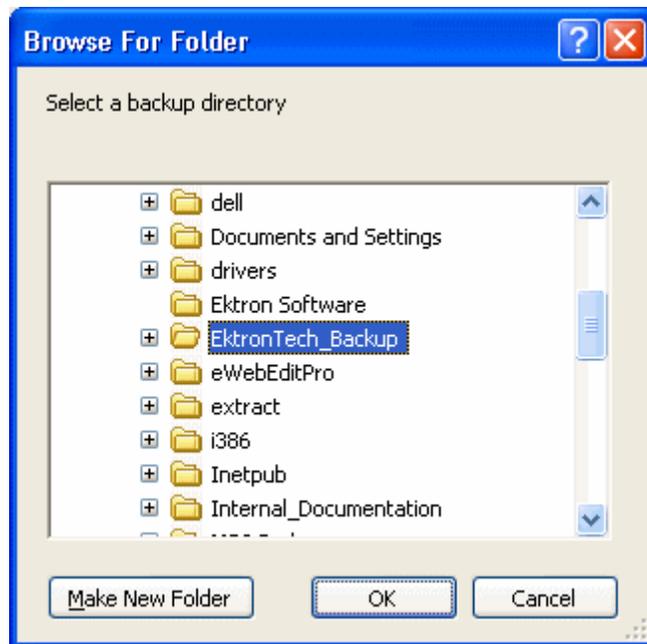
4. Click the **Browse** button.
5. Select the site root folder and click **OK**.



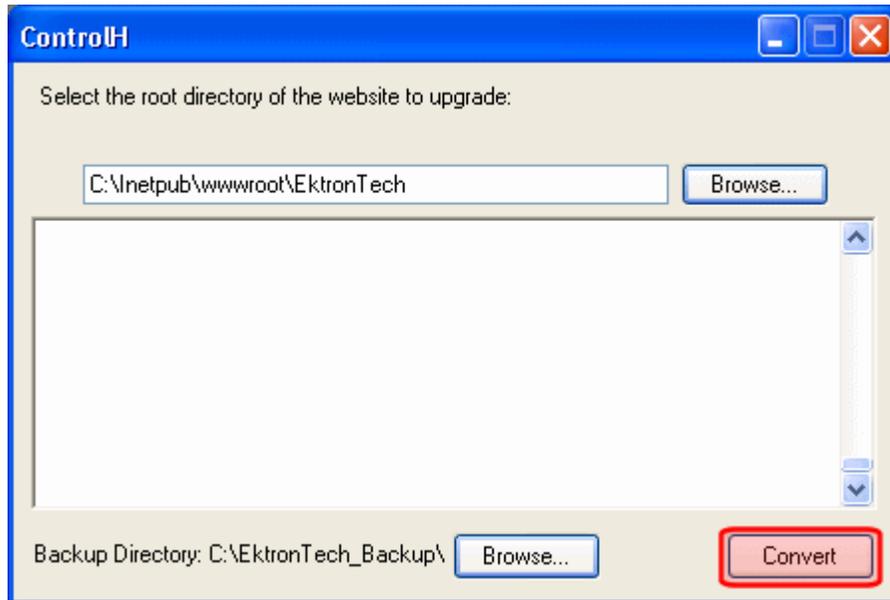
- Next, click the other **Browse** button to select a location to store the backup.



- Select the folder where your site will be backed up. If you want to create a new folder, click **Make New Folder**.

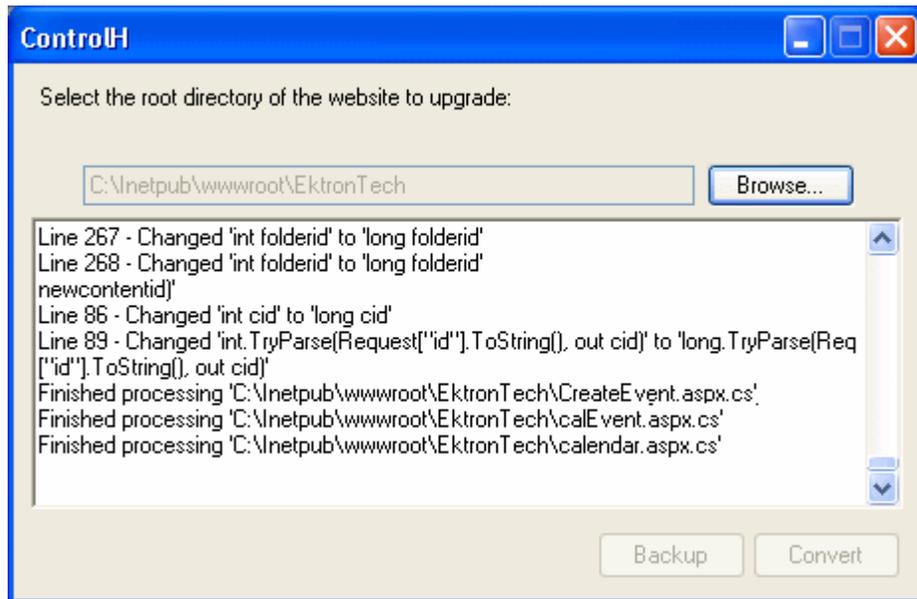


8. Click the **Convert** button.



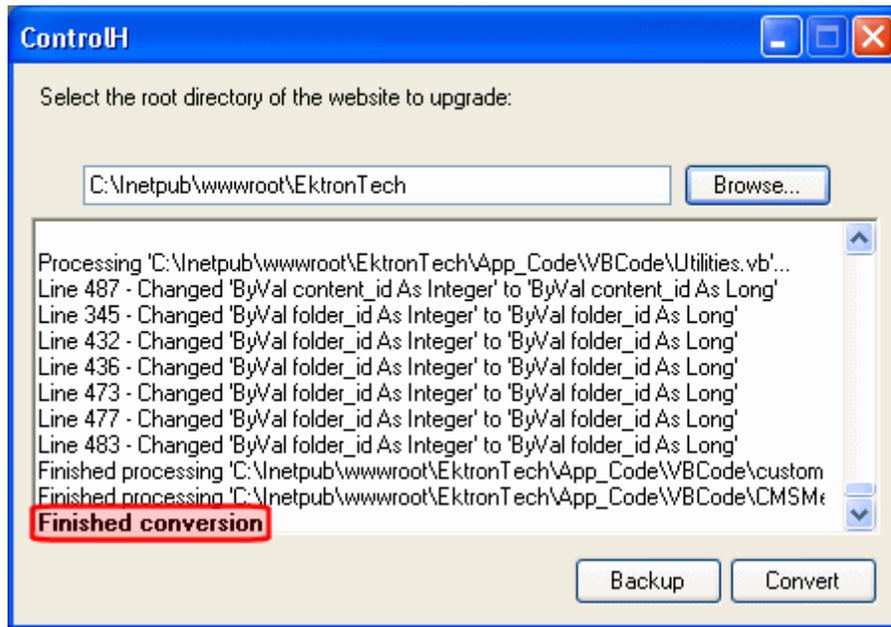
9. The utility goes through your Web site's files, finds references to *int* (VB) or *int32* (C#) in your Ektron methods, and changes them to *long* (VB) or *int64* (C#). An *int* or *int32* is changed only when used inside an Ektron method.

IMPORTANT! Whenever a file is changed, a copy of the original is added to the backup directory.



NOTE Depending on the size of your Web site, the conversion might take a while to complete.

- Once the conversion is complete, close the utility by clicking the red X in the upper right corner. Your site has been updated to use *long* (VB) or *int64* (C#) instead of *int* (VB) or *int32* (C#) in Ektron methods.



- Precompile your Web site.
- After compiling, check for error messages that state: during the compile process, the system cannot convert *int* (VB) or *int32* (C#). If these messages appear, go to the line of code and change the data type to *long* (VB) or *int64* (C#).
Another way to verify that all the necessary *int* and *int32* references have been changed to *long* and *int64*, is to run the Bad link checker located in Workarea > Smart Desktop > Reports > Bad Link Report.

The Log File

A log file of the changes is located in `C:\Program Files\Ektron\CMS400v76\Utilities\BigIntUtility`. The log file's name is based on the date and a series of numbers.

This log contains a list of files that were processed. If a file was changed, the log lists the line number and what was changed. For example:

```
Line 487 - Changed 'ByVal content_id As Integer' to 'ByVal
content_id As Long'.
```

Backing Up Databases

To protect the information in your database, Ektron recommends backing it up before upgrading. During the upgrade, **Ektron CMS400.NET** attempts to create a backup of your database. If that fails, use the following MSDN links for instructions on backing up and restoring your database via SQL Server.

To work with this database version	See this MSDN article
Backup SQL Server 2008	http://msdn.microsoft.com/en-us/library/ms187510.aspx <hr/> Note: The bottom of the above page provides links to options for restoring the backed-up database.
Backup SQL Server 2005	http://msdn.microsoft.com/en-us/library/ms187510(SQL.90).aspx <hr/> Note: The bottom of the above page provides links to options for restoring the backed-up database.

WARNING! Before restoring an SQL database, either stop the Ektron Windows service or force all connections closed. You need to do this because the Ektron Windows Service accesses the database. To view and update the status of the service, go to Computer Management > Services and Applications > Services. For more information, see the **Ektron CMS400.NET** Administrator Manual section "Ektron Windows Service."

Updating Application Messages

WARNING! If upgrading from version 5.0 or later, this section does not need to be completed.

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

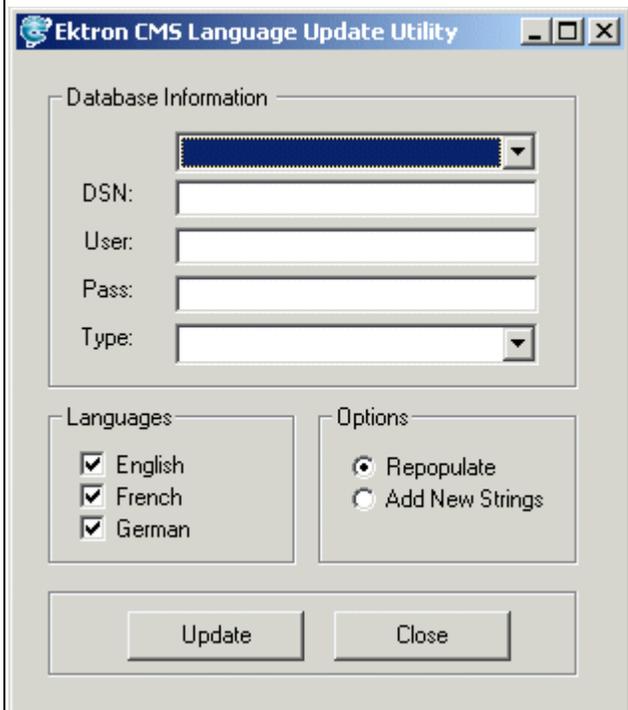
Before using the language upgrade utility, you must upgrade your version of Ektron CMS400.NET. For information on this, see ["Performing the Upgrade" on page 64](#). During the upgrade, if you opt to keep your previous database, proceed with this section.

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**.

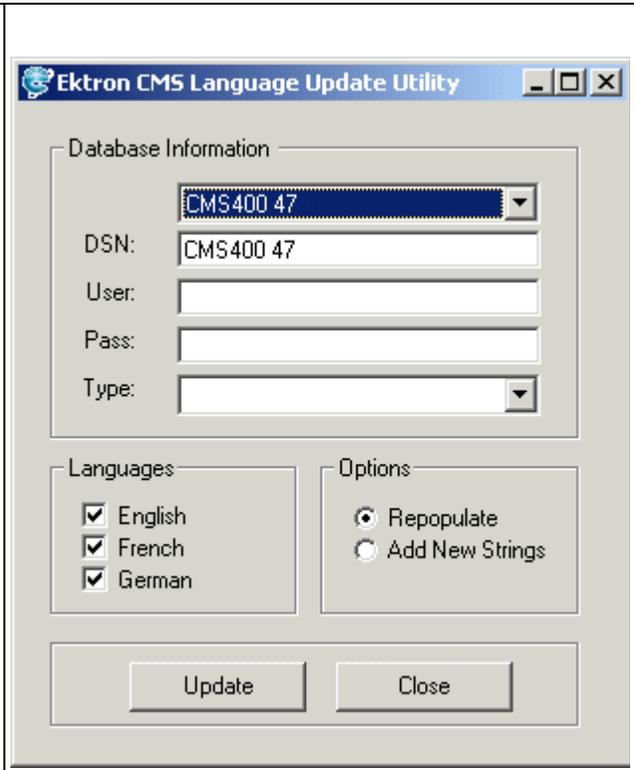
2. The Language Update Utility opens.



The screenshot shows the 'Ektron CMS Language Update Utility' dialog box. It is divided into several sections:

- Database Information:** A dropdown menu for selecting a database, followed by text boxes for 'DSN:', 'User:', 'Pass:', and a dropdown for 'Type:'.
- Languages:** A group box containing three checked checkboxes: 'English', 'French', and 'German'.
- Options:** A group box containing two radio buttons: 'Repopulate' (which is selected) and 'Add New Strings'.
- Buttons:** Two buttons at the bottom: 'Update' and 'Close'.

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



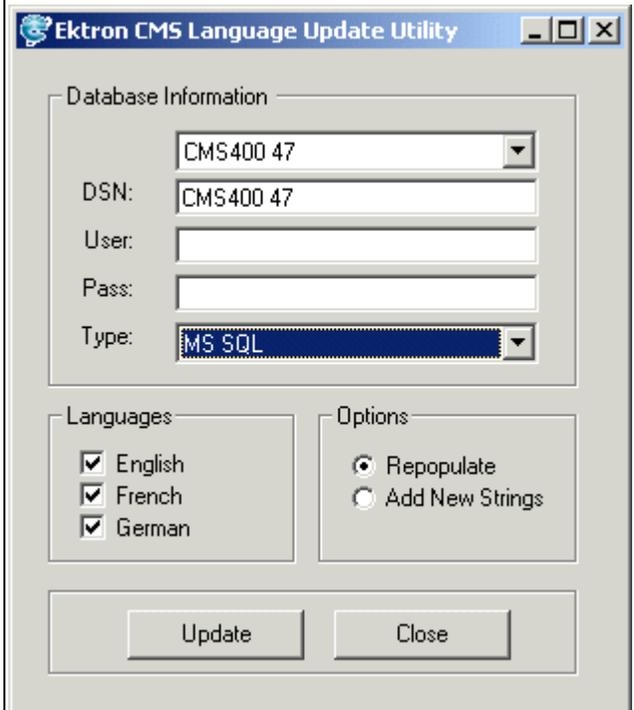
The screenshot shows a dialog box titled "Ektron CMS Language Update Utility". It contains the following fields and options:

- Database Information:**
 - A dropdown menu with "CMS400 47" selected.
 - DSN: CMS400 47
 - User: (empty text box)
 - Pass: (empty text box)
 - Type: (empty dropdown menu)
- Languages:**
 - English
 - French
 - German
- Options:**
 - Repopulate
 - Add New Strings

At the bottom of the dialog are two buttons: "Update" and "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.



The screenshot shows the 'Ektron CMS Language Update Utility' dialog box. It is divided into several sections:

- Database Information:** A dropdown menu is set to 'CMS400 47'. Below it are text boxes for 'DSN:' (containing 'CMS400 47'), 'User:', and 'Pass:'. At the bottom of this section is a dropdown menu for 'Type:' set to 'MS SQL'.
- Languages:** Three checkboxes are checked: 'English', 'French', and 'German'.
- Options:** Two radio buttons are present: 'Repopulate' (which is selected) and 'Add New Strings'.
- Buttons:** At the bottom are two buttons: 'Update' and 'Close'.

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)

Ektron CMS Language Update Utility

Database Information

CMS400 47

DSN: CMS400 47

User:

Pass:

Type:

Languages

English

French

German

Options

Repopulate

Add New Strings

Update Close

7. Select the languages that you would like to be updated/added to the database.



8. Click the **Update** button.

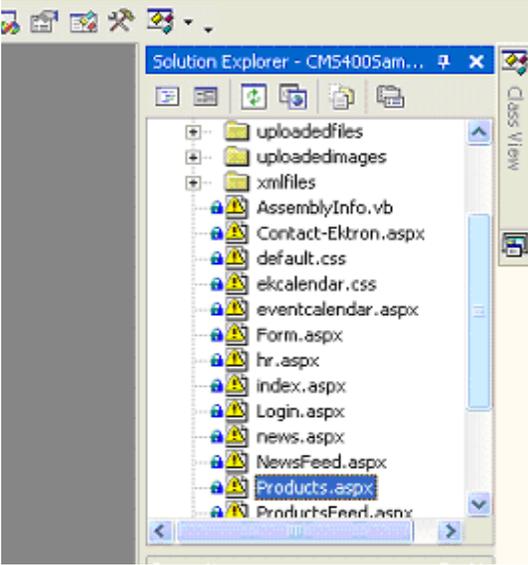
9. When the language update is complete, the following screen appears.



10. Click **OK** to close the window.

11. Click **Close** on the Languages Update Utility window.

Troubleshooting Upgrade Problems

Problem	Solution
<p>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.</p> <p>The problem is that your .NET references need to be updated.</p>  <p>The screenshot shows the Solution Explorer for a project named 'CMS4005am...'. The file list includes folders like 'uploadedfiles', 'uploadedimages', and 'xmlfiles', and various files such as 'AssemblyInfo.vb', 'Contact-Ektron.aspx', 'default.css', 'ekcalendar.css', 'eventcalendar.aspx', 'Form.aspx', 'hr.aspx', 'index.aspx', 'Login.aspx', 'news.aspx', 'NewsFeed.aspx', 'Products.aspx', and 'ProductsFeed.aspx'. The 'Products.aspx' file has a broken reference icon (a yellow triangle with a red 'X') next to it, indicating a problem with its .NET references.</p>	<p>To verify the problem, open the Ektron CMS400.NET solution file in Visual Studio.NET (<code>webroot\siteroot\cms400sitename.sln</code>; for example, <code>cms400Intranet.sln</code>) and look at the template files.</p> <p>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 <code>webroot\siteroot\bin</code> folder.</p>
<p>When viewing a page containing CMS400.NET Server controls or API calls, the page returns a fatal error Compiler failed with Error Code 2000.</p> <p>Detailed compiler output may say Fatal error BC2000: compiler initialization failed unexpectedly: The filename, directory name, or volume label syntax is incorrect.</p> <p>This error message might appear after an upgrade.</p>	<p>See Ektron Knowledge Base article "ERRMSG: Compiler failed with Error Code 2000" (http://dev.ektron.com/kb_article.aspx?id=2029)</p>

Problem	Solution
<p>After upgrading from Ektron CMS400.NET version 4.8 or earlier, Metadata is no longer applied or required when adding or editing content.</p>	<p>In Ektron CMS400.NET version 4.8 or earlier, Metadata is applied globally. In later versions, metadata is applied to each folder individually. Child folders can inherit the metadata from a parent folder or they can have their own metadata settings.</p> <p>To set the metadata settings back to global, follow these steps.</p> <ol style="list-style-type: none"> 1. In the Workarea, click on the site's root folder. 2. Next, click View > Folder Properties. 3. Click the Edit Properties button (). 4. Click the Metadata tab. 5. Check the all of the appropriate check boxes for Assigned and Required Metadata. 6. Click the Save button (). <p>If you have not broken inheritance on any of the folders, your metadata settings are applied globally.</p> <p>For additional information on Metadata, see the Administrator Manual section "Managing Content" > "Managing HTML Content" > "Metadata" > "Working with Metadata Definitions" > "Assigning Metadata to a Folder"</p>

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/siteroot*.

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

If your server is currently running another .NET application, you must merge that web.config file with this one. To distinguish **Ektron CMS400.NET's** tags from others, all **Ektron CMS400.NET** settings begin with `ek_` and reside within the `<appSettings>` tags of the web.config file.

Settings in the web.config File

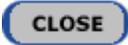
Setting	Description
Analytics	
enableAnalytics	<p>Determines whether Ektron CMS400.NET tracks content analytics statistics in the database.</p> <p>For more information, see the Ektron CMS400.NET Administrator manual > "Content Analytics Feature" > "Enabling the Content Analytics Feature."</p> <p>Possible values are <code>true</code> and <code>false</code>.</p>
appendToIISLog	<p>Determines whether Ektron CMS400.NET tracks content analytics statistics in the IIS Log.</p> <p>For more information, see the Ektron CMS400.NET Administrator manual > "Content Analytics Feature" > "Writing to the IIS Log."</p> <p>Possible values are <code>true</code> and <code>false</code>.</p>

Setting	Description
recordsBeforeWrite	<p>Used to determine the frequency of writing content analytics statistics to the database (in number of page views).</p> <p>For more information, see the Ektron CMS400.NET Administrator manual > “Content Analytics Feature” > “Specifying the Frequency of Writing to the Database.”</p>
timeBeforeWrite	<p>Used to determine the frequency of writing content analytics statistics to the database (in seconds).</p> <p>For more information, see the Ektron CMS400.NET Administrator manual > “Content Analytics Feature” > “Specifying the Frequency of Writing to the Database.”</p>
<p>Connections Strings</p>	

Setting	Description
For SQL Server	<p>Use this connection string to define an SQL server.</p> <p>name="Ektron.DbConnection"</p> <p>providerName="System.Data.SqlClient"</p> <p>connectionString - this part of the connection string contains the following element.</p> <ul style="list-style-type: none"> • server - 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. • database - use the name of the database. • Integrated Security - use True or False. True - use integrated security. • user - If required, specify the username used to connect to the DSN. This user account must have at least read and write permissions to the database. <hr/> <p>Note: This value can be blank if you are using Windows authentication.</p> <hr/> <ul style="list-style-type: none"> • pwd - If required, specify the password for the username given. It should match your database name. <hr/> <p>Note: This value can be blank if you are using Windows authentication.</p> <hr/> <p>Important! - After changing any database settings, you must stop and restart the Ektron Windows Service. See Also: Ektron CMS400.NET Administrator Manual section "Ektron Windows Service."</p> <hr/>
appSettings	

Setting	Description
ek_RedirectFromLoginKeyName	<p>Provides a mechanism to return from the login page to the previous page, specify the query string key-name. By default the value is RedirectUrl.</p> <p>Currently, the redirect works in two instances.</p> <p>The first, when a user tries to use a forum but is not logged in, it sends them to a login page and returns them. The value in this key used in conjunction with the <code>ek_RedirectToLoginURL</code> key sends the user from a forum page to a login page and back to the previous page. For example, a user tries to reply to a forum post, but he is not logged in. He is sent to the login page and then returned to the original page.</p> <p>The second, when a user sends a private message to another user or group administrator from the SocialBar server control, he is returned to the page where he clicked private message once the message is sent. For example, a user visits a community group's page and clicks Private Message Admin. The user is taken to the private message screen and once he clicks post, he is returned to the community group's page. For additional information on sending Private Messages from the Social Bar, see the Developer Manual section "SocialBar Server Control"</p>
ek_RedirectToLoginURL	The URL of the login page to automatically redirect to when a site visitor is not logged in as a user or membership user.
GoogleMap	Enter connection information for using Google Maps with the Mapping feature in Ektron CMS400.NET .
VirtualEarthMap	Enter connection information for using Virtual Earth maps with the Mapping feature in Ektron CMS400.NET .
ek_TreeModel	<p>Choose whether or not to use Ajax for the folder tree in the Workarea.</p> <ul style="list-style-type: none"> • 0 - use the legacy folder tree in the Workarea. • 1 - use Ajax for the folder tree in the Workarea. <hr/> <p>Important: This key has been removed from the Web.config file. However, you can still use this key by adding it between the <code><appSettings></code> tags. For example, <code><add key="ek_TreeModel" value="0"></code> changes the folder tree in the Workarea back to legacy.</p> <hr/>

Setting	Description
ek_workareaDateFormat	<p>Choose how you want to display dates in some areas of the Workarea.</p> <ul style="list-style-type: none"> • long - for example, Saturday May 21, 2005 • short - for example, 5/21/2005
ek_sitePath	<p>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.</p>
ek_buildNumber	<p>This value is set by the installation program. You typically would not change it.</p>
ek_version	<p>This value is set by the installation program. You typically would not change it.</p>
ek_appPath	<p>This element is prefixed by the ek_sitePath value and describes the location of the workarea folder. This file stores external applications (such as eWebEditPro and eWebDiff), templates, and the images folder.</p>
ek_xmlPath	<p>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.</p>
ek_pluginDir	<p>not used currently -- for future use</p>
ek_appName	<p>The name of the application, CMS400. You typically would not change this value.</p>
ek_RedirectorInstalled	<p>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.</p> <ul style="list-style-type: none"> • True = Aliasing turned on • False = Aliasing turned off <p>See Also: The Administrator's Manual section "URL Aliasing".</p>

Setting	Description
ek_RedirectorManualExt	<p>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.</p> <hr/> <p>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 (.).</p> <hr/> <p>See Also: The Administrator's Manual section “URL Aliasing”.</p>
ek_LDAPMembershipUser	<p>Integrate membership users with LDAP or Active Directory. Set the value to True for Membership Users to be authenticated using LDAP/AD.</p>
ek_applImagePath	<p>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.</p> <p>Note that this value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to <i>webroot/cms400Min/workarea/</i>. So, by default, this folder is set to <i>webroot/cms400Min/workarea/images/application/</i>.</p>
ek_appWebPath	<p>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.</p> <p>Note that this value is prefixed by the value set in the ek_appWebPath variable. By default, ek_appWebPath is set to <i>webroot/CMS400Min/workarea/</i>. So, by default, this folder is set to <i>webroot/CMS400Min/workarea/ewebeditpro</i>.</p>
ek_appXSLTPath	<p>The folder that stores XSLTs. You would only change this value if you need to move the XSLT folder to another location.</p> <p>Note that this value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to <i>webroot/CMS400Min/workarea/</i>. So, by default, this folder is set to <i>webroot/CMS400Min/workarea/Xslt</i>.</p>
<p>Images - These images appear before the user signs in, so cannot be stored in the database. Update as needed.</p> <p>Their location is set in the ek_applImagePath variable. See Also: "ek_applImagePath" on page 100</p>	
ek_Image_1	<p>close button </p>

Setting	Description
ek_Image_2	small login button 
ek_Image_3	big login button 
SMTP server configuration - See "Configuring SMTP Settings" on page 115	
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 136	
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.
ek_ADAdvancedConfig	Enable Active Directory advanced configuration.
ek_ADUsername	User name for the Active Directory server.
ek_ADPassword	Password for the Active Directory server.
ek_AUTH_Protocol	The directory access protocol used with the Active Directory feature. The default value is LDAP. Other protocols are GC (global catalog) and WINNT.
Menu Settings	

Setting	Description
ek_UserMenuType	<p>Determines the appearance of the menu that appears within every content block after the user signs in.</p> <ul style="list-style-type: none"> • 0 - New dynamic menu - menu only appears when user moves cursor over content block • 1 - Old classic menu - menu always appears • 2 - Menu without borders - a silver pin head appears above content that has a menu available. Hovering over this pin produces a menu. <p>See Also: Ektron CMS400.NET Administrator Manual section "Introduction to Ektron CMS400" > "Getting Started" > "Recognizing Content Blocks" > "The Floating Toolbar"</p>
ek_MenuDisplayType	<hr/> <p><u>This setting only works if ek_UserMenuType is set to zero (0).</u></p> <hr/> <p>Determines the appearance of the menu that appears within every content block after the user signs in.</p> <ul style="list-style-type: none"> • 0 - Horizontal - menu icons are arranged horizontally • 1 - Vertical - menu icons are arranged vertically and include the tooltip text <p>See Also: Ektron CMS400.NET Administrator Manual section "Introduction to Ektron CMS400" > "Getting Started" > "Recognizing Content Blocks" > "The Floating Toolbar"</p>
Multilingual Settings	
ek_EnableMultilingual	<p>Enable or disable support for multilingual content</p> <ul style="list-style-type: none"> • 1 - enable • 0 - disable <p>See Also: Ektron CMS400.NET Administrator Manual section "Multi-Language Support" > "Working with Multi-Language Content" > "Enabling/Disabling Support for Multiple Language Content"</p>
ek_DefaultContentLanguage	<p>Sets the four-digit, decimal representation of the default content language. For example, American English is 1033.</p> <p>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.</p> <p>See Also: Ektron CMS400.NET Administrator Manual section "Multi-Language Support" > "Working with Multi-Language Content" > "The Default Language"</p>

Setting	Description
ek_ServerURL	<p>Mainly used in Web services to determine the location of a remote server.</p> <p>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 <code></code> and <code><href...</code> references point to server named here instead of the local one.</p>
Miscellaneous Settings	
WSPath	Determines the location of the Web services page used by the server controls at design time.
ek_BatchSize	<p>The amount of files that can be uploaded at the same time. The default is 4, but it can be any non negative number.</p> <hr/> <p>Note: Users can upload any amount of files. The system handles them four at a time.</p> <hr/>
ek_CacheControls	<p>Choose whether to enable caching for Ektron CMS400.NET server controls or not. For information on Caching with Ektron CMS400.NET server controls, see the Developer Manual section > "Introduction to Ektron CMS400.NET Server Controls" > "Caching with Server Controls".</p> <ul style="list-style-type: none"> • 0 - Disable • 1 - Enable
ek_WorkareaSearchResultMode	<p>Sets the Workarea search-results mode.</p> <ul style="list-style-type: none"> • text - returns a text only version of the search results. • mixed - returns text and images associated with search results. • graphical - returns a images associated with search results.
ek_WorkareaLibSearchResultMode	<p>Sets the Workarea Library search-results mode.</p> <ul style="list-style-type: none"> • text - returns a text only version of the library search results. • mixed - returns text and images associated with library search results. • graphical - returns a images associated with library search results.

Setting	Description
ek_ShowWorkareaRetErrorReferrer	<p>Choose whether to enable referrer debug information on the RetError.aspx page.</p> <ul style="list-style-type: none"> • True - enable • False - disable
ek_QueueName	Path to the message queue.
ek_LogFileName	Path to the log file name for the message queue
ek_loginAttempts	<p>Ektron CMS400.NET has a login security feature that, by default, locks out a user after five unsuccessful attempts to log in. That feature is controlled by this element.</p> <p>For details, see the Ektron CMS400.NET Administrator Manual section “Getting Started” > “Logging Into an Ektron CMS400.NET Web Site” > “Restricting Login Attempts.”</p>
ek_passwordCaseSensitive	<p>By default, passwords are case insensitive. So for example, if the password is TOKEN and the user enters token, the sign-on is successful.</p> <p>If you want to make passwords case sensitive, change the value of this element from false to true.</p> <p>If you do, and the password is TOKEN and the user enters token, the sign-on is unsuccessful. The user would have to enter TOKEN to sign on.</p>
ek_LinkManagement	<p>This setting determines if Ektron CMS400.NET uses linkit.aspx when inserting a quicklink. By default, it is set to <code>true</code>.</p> <p>If set to <code>true</code>, when a user inserts a quicklink, Ektron CMS400.NET inserts a <i>special link</i> instead of a quicklink. A special link determines the correct quicklink to use when a site visitor clicks it.</p> <p>For example, a user adds a content block to folder A. A quicklink to that content is <code>a.aspx?id=10</code>. Later, if an administrator changes the folder’s template but doesn’t update the quicklink within the content block, the quicklink is broken.</p> <p>To avoid this problem, enable link management.</p>
ek_LoginScreenWidth	The width of the login screen in pixels. You may need to widen the screen if you are using Active Directory and the database names are long.

Setting	Description
ek_ToolBarFormatTag	<hr/> <p data-bbox="589 256 1253 283">Note: This setting only applies <i>after</i> a user signs in to your site.</p> <hr/> <p data-bbox="589 320 1308 374">Change this setting if the colored border that surrounds content looks wrong. (The border color indicates the content's status.)</p> <p data-bbox="589 384 1308 469">By default, <code><table></code> tags create the border. If the border looks wrong or inappropriate, change setting to div. If you do, <code><div></code> tags are used to draw the border instead of <code><table></code> tags.</p> <p data-bbox="589 478 1025 505">This change typically solves the problem.</p>
ek_PageSize	<p data-bbox="589 551 1308 660">This setting determines the maximum number of items that can appear on a page before it “breaks.” When a page breaks, additional entries appear on another screen, and the following text appears near the bottom of the items list:</p> <p data-bbox="589 669 1182 733">Page 1 of 2 [First Page] [Previous Page] [Next Page] [Last Page]</p> <hr/> <p data-bbox="589 769 1246 824">Note: The above text changes depending on the page you are viewing.</p> <hr/> <p data-bbox="589 860 1265 888">You must click an option to see and update the remaining items.</p> <p data-bbox="589 897 1236 924">This setting affects pages that let you edit the following items:</p> <ul data-bbox="589 942 958 1261" style="list-style-type: none"> ● content ● library items ● menu items ● collection items ● membership users ● membership users not verified ● forums
ek_XliffVersion	<p data-bbox="589 1301 1308 1386">Define the XLIFF version to use when exporting files. See <i>Also:</i> the Administrator Manual section “Multi-Language Support” > “Using the Language Export Feature” > “What is XLIFF?”</p>
ek_extensionServiceEnabled	<p data-bbox="589 1423 1293 1477">Enable Extensibility Plug-in service. For more information on Plug-ins, See <i>Also:</i> The Developer Manual section “Plug-in Extension”</p>

Setting	Description
ek_EnableDeveloperSamples	<p>Enable the API developer samples on the Developer demo site shipped with CMS400.NET.</p> <ul style="list-style-type: none"> • True - enable developer samples • False - disable developer samples
ek_assetPath	<p>The folder that stores Assets. You would only change this value if you need to move the Assets folder to another location.</p> <p>Note that this value is prefixed by the value set in the ek_appPath variable. By default, ek_appPath is set to <i>webroot/CMS400Min</i>. So, by default, this folder is set to <i>webroot/CMS400Min/assets</i>.</p>
ek_InvitationFromEmail	<p>The “From” email address the system uses when a user sends an Invitation. Invitations are emails that are sent to non-system users asking them to join your site. See <i>Also</i>:</p> <ul style="list-style-type: none"> • User Manual section “Colleagues” > “Managing Existing Colleagues” > “Inviting Non-Site Users to Become Colleagues and Join the Site” • Developer Manual section “Community Platform Server Controls” > “Invite Server Control”
ek_EnableMessageBoardEmail	<p>Setting this key to True enables the system to send e-mail notifications when a user posts a message to a user or community group’s message board. When a user posts a message to another user’s message board, the user who owns the board receives a notification stating a message has been posted. When a user posts a message to a community group’s message board, all members of the group receive e-mail notifications. It is important to note that when this key is set to True, it activates e-mail notifications for all user and community message boards. However, content message boards are not affected. See <i>Also</i>: The Developer Manual section “Community Platform Server Controls” > “MessageBoard Server Control” > “Message Board Notifications.”</p>
ek_EditControlWin	<p>Select which editor will be used by Microsoft Windows operating system users. Choice are:</p> <p>ContentDesigner - Use the eWebEdit400 editor. This editor does not require an ActiveX installation on the user’s computer.</p> <p>eWebEditPro - Use the eWebEditPro editor. This editor requires an ActiveX install on the user’s computer.</p>
ek_EditControlMac	<p>Defines the editor that is used Macintosh operating system user. This must be ContentDesigner.</p>

Setting	Description
system.diagnostics	
LogLevel	Enter a numeric value that determines the level of message logging. By default, diagnostic messages are logged in the Event Log. Choices are: 1 = Error: log errors. 2 = Warning: log errors and warnings. 3 = Information: log errors, warnings and informationals. 4 = Verbose: Everything is logged.
ektronCommerce	
ek_ecom_TestMode	When set to true, payments are sent to a test gateway instead of the actual one.
ek_ecom_DefaultCurrencyId	Select the default currency and enter its Numeric ISO code. This should be done before creating your product catalog. Important: Do not change the default currency after your eCommerce site is live. See Also: The Administrator Manual section “eCommerce” > “eCommerce Configuration Screens” > “Currencies” > “The Default Currency”
ek_MeasurementSystem	Select whether to use English or Metric measurements for your packages. See Also: The Administrator Manual section “eCommerce” > “eCommerce Shipping Screens” > “Packages”
mediaSettings	
WindowsMedia-CLSID	The class ID for the Windows Media Player.
Quicktime-CLSID	The class ID for the Quicktime player.
Realplayer-CLSID	The class ID for the Real player.
Flash-CLSID	The class ID for the Flash player.
WindowsMedia-Codebase	Location of the code base plug-in for Windows Media Player.
Quicktime-Codebase	Location of the code base plug-in for Quicktime player.

Setting	Description
Realplayer-Codebase	Location of the code base plug-in for Real player.
Flash-Codebase	Location of the code base plug-in for Flash player.
application/x-shockwave-flash	Define the relationship between the Shockwave Flash mime type and the Flash player.
audio/x-wav	Define the relationship between the WAV mime type and the Windows Media, Quicktime and Real players.
audio/x-wav-default	Define the relationship between the WAV default mime type and the Windows Media Player.
video/x-avi	Define the relationship between the AVI mime type and the Windows Media, Quicktime and Real players.
video/x-avi-default	Define the relationship between the AVI default mime type and the Quicktime player.
video/x-msvideo	Define the relationship between the msvideo mime type and the Windows Media, Quicktime players.
video/x-msvideo-default	Define the relationship between the msvideo default mime type and the Windows Media Player.
audio/x-ms-wma	Define the relationship between the MS-WMA mime type and the Windows Media Player.
video/mpeg	Define the relationship between the MPEG video mime type and the Windows Media Player.
audio/mpeg	Define the relationship between the MPEG audio mime type and the Windows Media Player.
video/x-realvideo	Define the relationship between the realvideo mime type and the Real player.
video/x-ms-wmv	Define the relationship between the MS-WMV mime type and the Windows Media Player.
audio/x-realaudio	Define the relationship between the realaudio mime type and the Real player.

Setting	Description
video/quicktime	Define the relationship between the quicktime mime type and the Quicktime player.
Miscellaneous	
session state	mode - This setting determines the storage option for session data. CMS400.NET only supports <code>InProc</code> . Other session state modes are not supported.
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. <pre>add verb="*" path="*.png" type="URLRewrite.StaticFileHandler,Ektron.Cms .URLRewriter" /></pre>
maxRequestLength	This setting determines the maximum size of files that can be uploaded to your server. The default setting is 204,800 kilobytes, or 200 MB. Enter the desired value in kilobytes. To convert megabytes to kilobytes, go to http://www.onlineconversion.com/computer.htm .

Configuring E-Mail for Tasks and Content

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 this kind of e-mail notification in Ektron CMS400.NET.

To learn about email notification for Web Alerts, see ["Installing the Web Alert Feature" on page 119](#).

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.example.com"
```

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

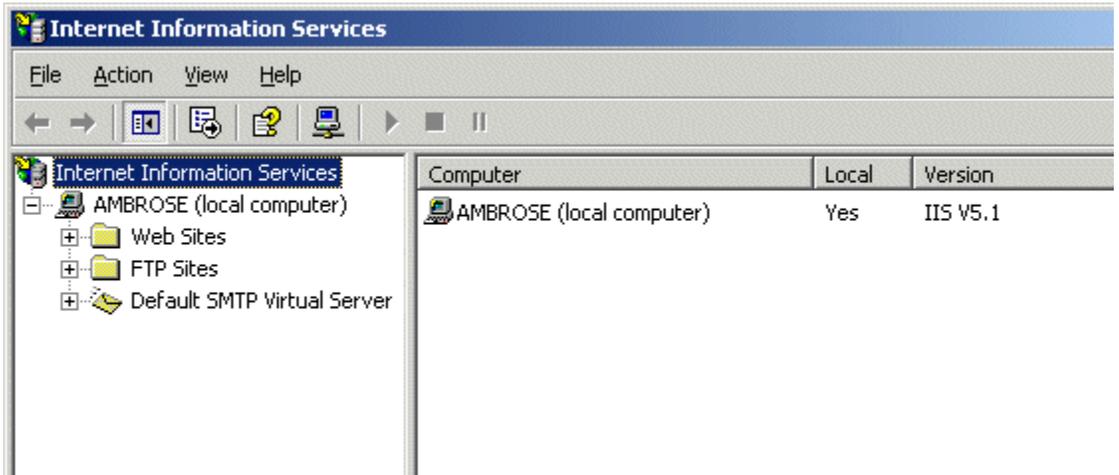
After the SMTP server is set up, configure it as described in ["Verification for Relay" on page 111](#).

Verification for Relay

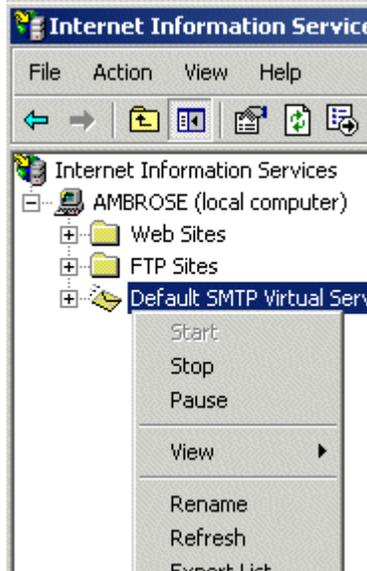
To verify that your Ektron CMS400.NET Web server's IP address supports relay through your SMTP server, follow these steps.

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

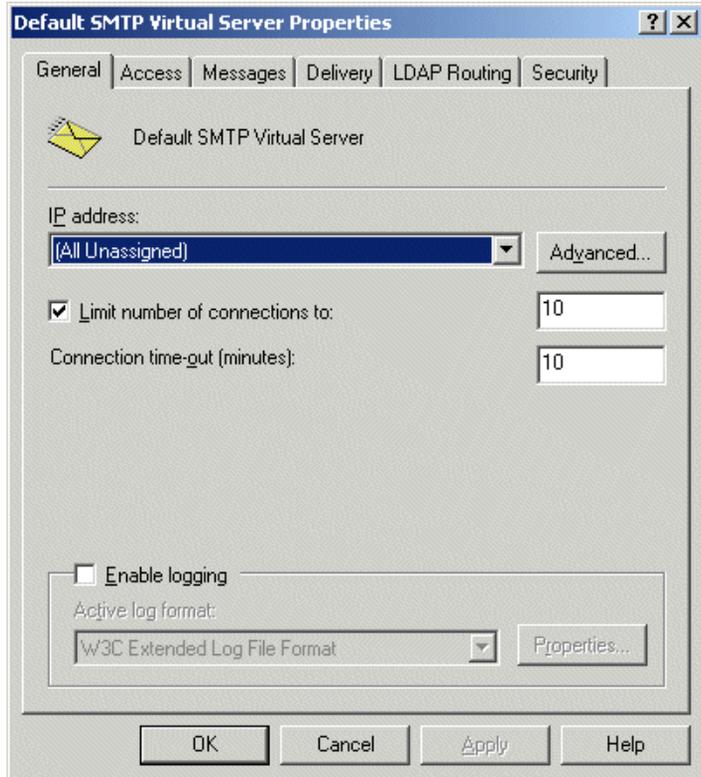
1. On your SMTP server, access your Internet Services Manager in the Administrative Tools.



2. In the IIS Management Console, select the SMTP virtual server.
3. On the Action menu, click **Properties**.

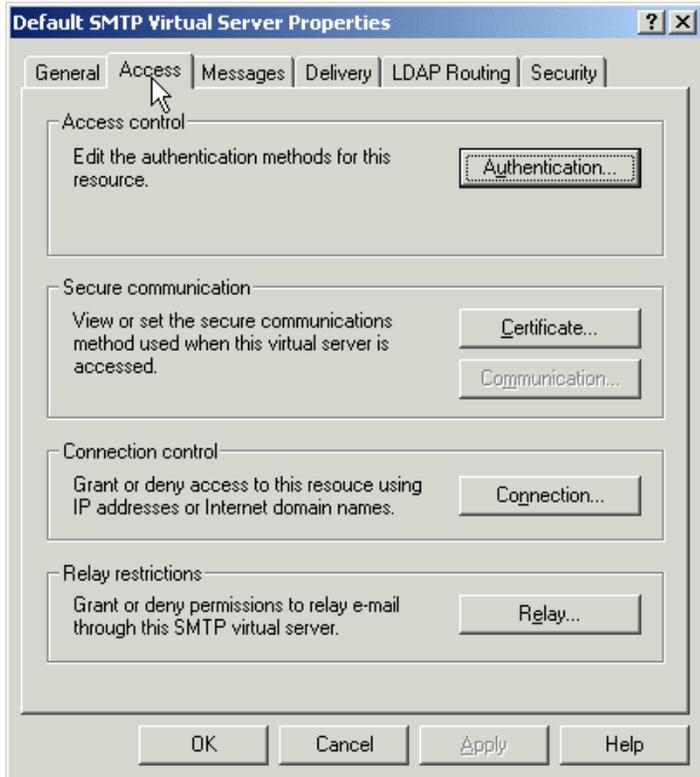


4. The SMTP properties window opens.

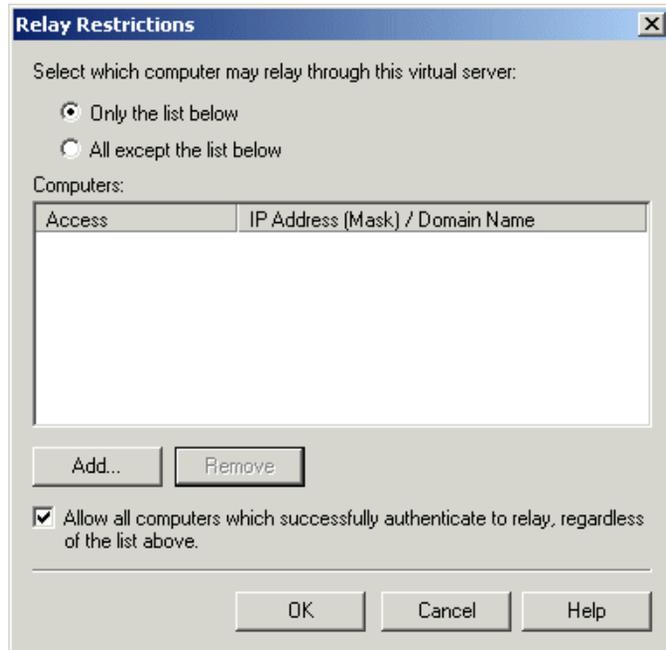


5. Click the **Access** tab.

- The access properties appear.



- In the Relay Restrictions section, click the **Relay...** button.
- 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 95.)
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 110.

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@example.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 116](#).

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@example.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.

Installing the Web Alert Feature

The Web Alert feature enables **Ektron CMS400.NET** to generate email for a list of registered users whenever new content appears on your site, or existing content is updated.

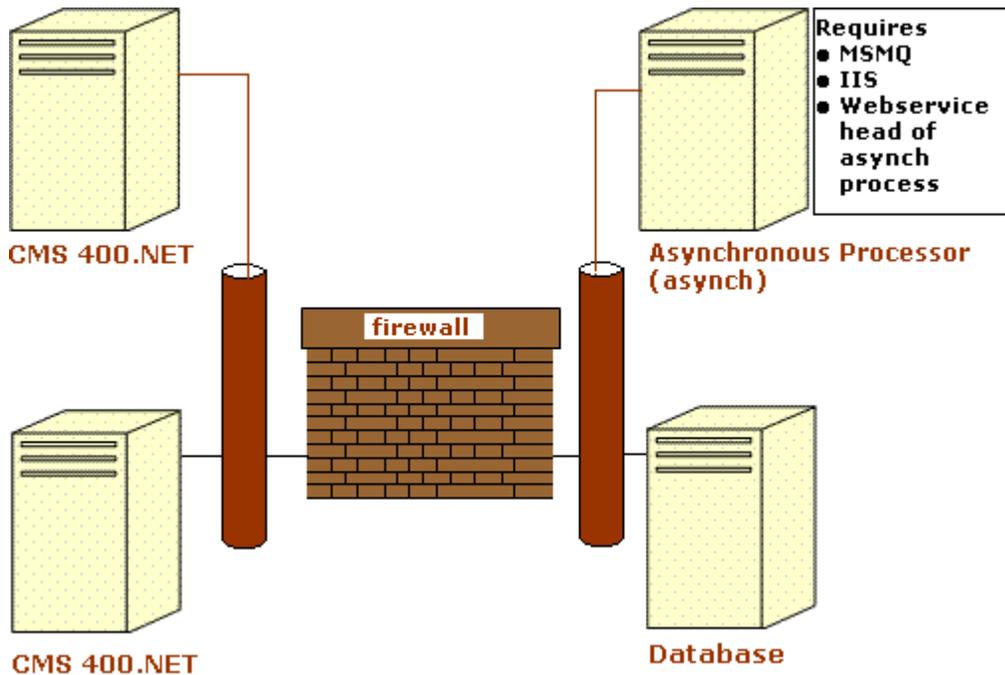
For example, anyone may register to be notified whenever new information about your product is published. As soon as the page is published on your site, registered users receive an email announcement with a link to the new/updated page. The recipient clicks the link and immediately accesses the page.

As a result, a self-selected group of users can be instantly notified of changes on your Web site relating to their interests. Once the system is set up, you don't need to do anything -- everything happens in the background.

This section describes how to install the Web Alert feature. For additional information about setting up and using the feature, see the **Ektron CMS400.NET** Administrator manual section "Web Alert Feature."

Server Configuration

The following illustration depicts a typical Web server configuration you would use with the Web Alerts feature.



- **Firewall** - the Ektron CMS400.NET business tier must have Web access to the asynchronous server. The business tier maintains the CMS files. This configuration enables proper communication between Ektron CMS400.NET and the asynchronous processor.
 - The asynchronous processor must have port 25 (SMTP) access to a valid mail server to send emails
 - The mail server (omitted from the illustration) must be allowed to send out port 25 (SMTP) traffic and can be on the Async server
- **Queuing** - Message queuing must be installed on the Async server.

You must create a message queue on the Async machine and record its name. The message queue is specified in the exe.config file for the service, and the web.config file for the Web Service interface.
- **CMS** - The web.config file includes a key for the location of the asynchronous processor. This needs to be verified as working.

- **Other** - IIS must be installed on the asynchronous processor. IIS allows a Web service call to schedule a file download and send commands.

Ektron recommends that the Async machine only allow HTTP traffic from **Ektron CMS400.NET** servers. This provides additional security on the Async processor.

Verifying Connections

- You can verify the Web service > queue connection by
 - leaving the Ektron service off, submitting content with notifications, and verifying that a message arrived in the queue
 - turning on journaling for the queue. Submit a message in the queue. The Ektron service picks it up and places it in the journaled messages.
 - turning on logging for the Ektron service
- To verify the CMS > Web service connection, open the asynchronous processor location inside a Web browser and test the Web services.

To verify the writing of files, ensure that **Ektron CMS400.NET** has write access to the `[sitepath]subscriptions` directory and submit content that will trigger notifications. This action places a file inside that directory.

- To verify that the service can download a file, open a Web browser on the Async machine and connect to the location of the notification command files. Attempt to download one.

Enabling the Web Alert Feature

Enabling the Web Alert feature involves the following steps. This section explains each step in detail.

Step	Description	For more information, see
1. Set up message queue and asynchronous processor.		"Setting Up the Message Queue and Asynchronous Processor" on page 123

Step	Description	For more information, see
2. Create messages.	Define components of the email to be sent to subscribers.	Ektron CMS400.NET Administrator Manual section “Web Alerts” > “Creating the email Message”
3. Define subscriptions.	Categories of information on your site. Site visitors can subscribe to be notified when content in a category is added or updated.	Ektron CMS400.NET Administrator Manual section “Web Alerts” > “Defining Subscriptions”
4. Assign Web Alert information to folders and content.	Assign Web Alert information to folders and content items which, when published, trigger emails. For each folder or content item to which you assign subscriptions, determine <ul style="list-style-type: none"> ● activities that trigger emails (for example, only upon initial publication of content) ● the content of the email ● the subscription list(s) to whom the email is sent 	Ektron CMS400.NET Administrator Manual section “Web Alerts” > “Assigning Web Alert Information to Folders and Content”
5. Create and publish site visitor registration page.	Create a new Web form and drop the membership server control onto it. Then, publish that form on your Web site. <u>Note: This task is typically done by a developer.</u>	Ektron CMS400.NET Developer’s Manual > “Introduction to Ektron CMS400.NET Server Controls “> “Membership Server Control”
6. Site visitors subscribe to lists of interest.	Someone signs up to be notified when changes in a selected subscription (category) are published on your Web site.	Ektron CMS400.NET Administrator Manual section “Web Alerts” > “How Users Sign up for Subscriptions”
7. CMS users can also subscribe.		Ektron CMS400.NET Administrator Manual section “Web Alerts” > “CMS User Subscription Sign Up”

Step	Description	For more information, see
8. Subscribers are automatically notified when content is updated.	Web content is either first published or updated. If at least one subscription is assigned to the content or its folder, email is sent according to pre-defined criteria for the folder.	

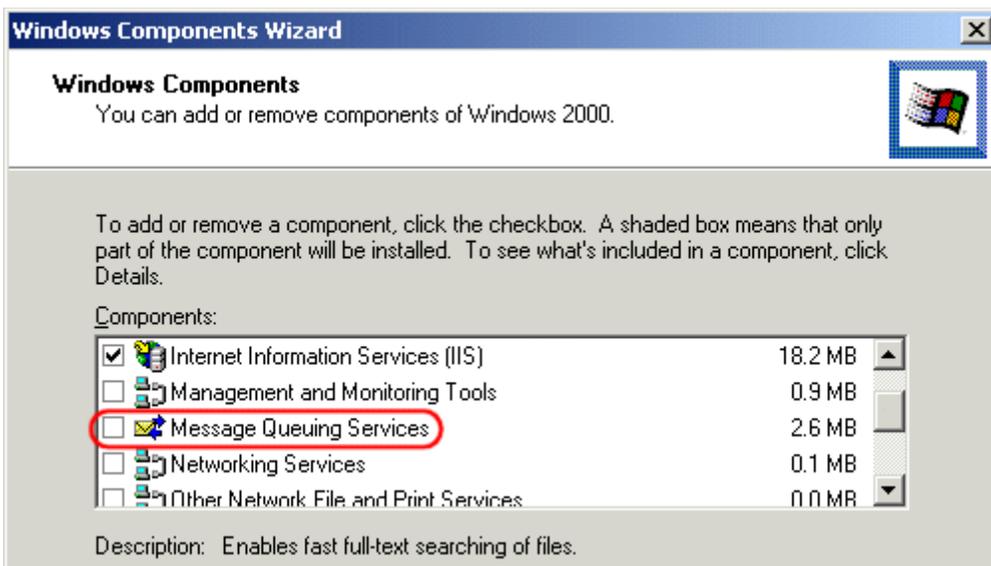
Setting Up the Message Queue and Asynchronous Processor

After installing **Ektron CMS400.NET** version 5.1 or higher, you need to set up the Microsoft Message Queuing and the Ektron Asynchronous Processor. It is assumed that the following directories and files are installed on your server:

- C:\Program Files\Ektron\CMS400v61\EktronAsyncProcessor_Service\
- C:\inetpub\wwwroot\CMS400Min\bin\EktronAsyncProcessorWS.dll
- C:\inetpub\wwwroot\CMS400Min\Workarea\webservice\EktronAsyncProcessorWS.asmx

NOTE If you need to move Web services file, use the **Asynchronous Processor Location** field in the Configuration > Setup screen to specify the new folder location.

1. On the server that hosts **Ektron CMS400.NET**, go to **Control Panel > Add/Remove programs > Add/Remove Windows Components**.
2. If it is not checked, check **Message Queuing Services**.

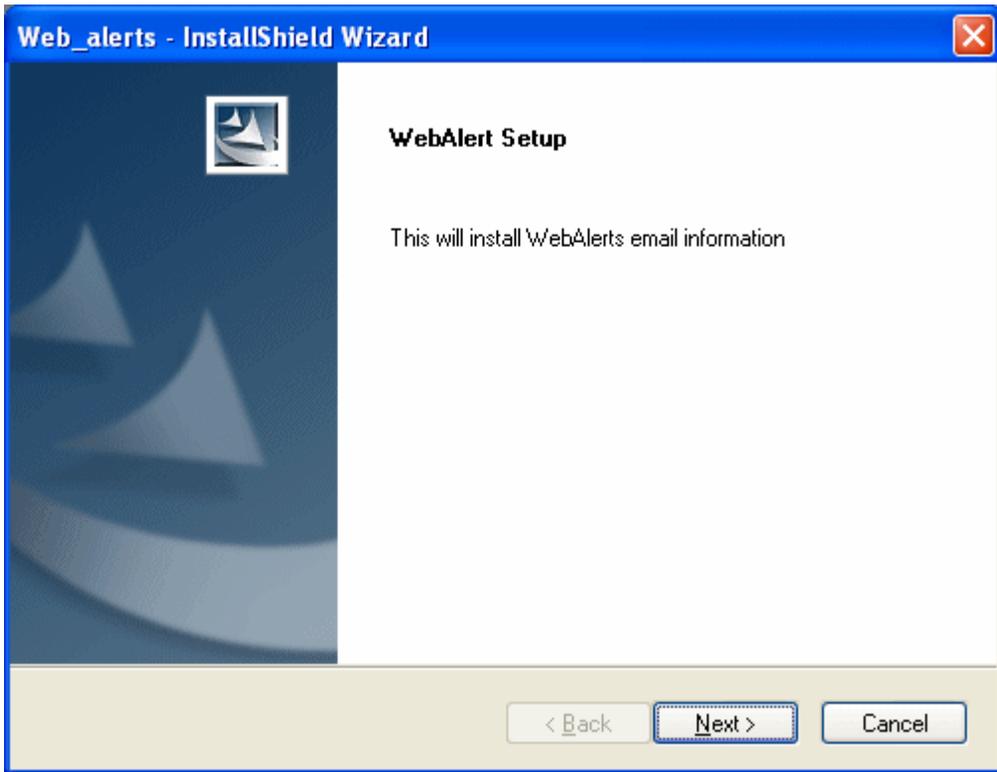


NOTE On Windows 2003, it is within the Application Server Components group.

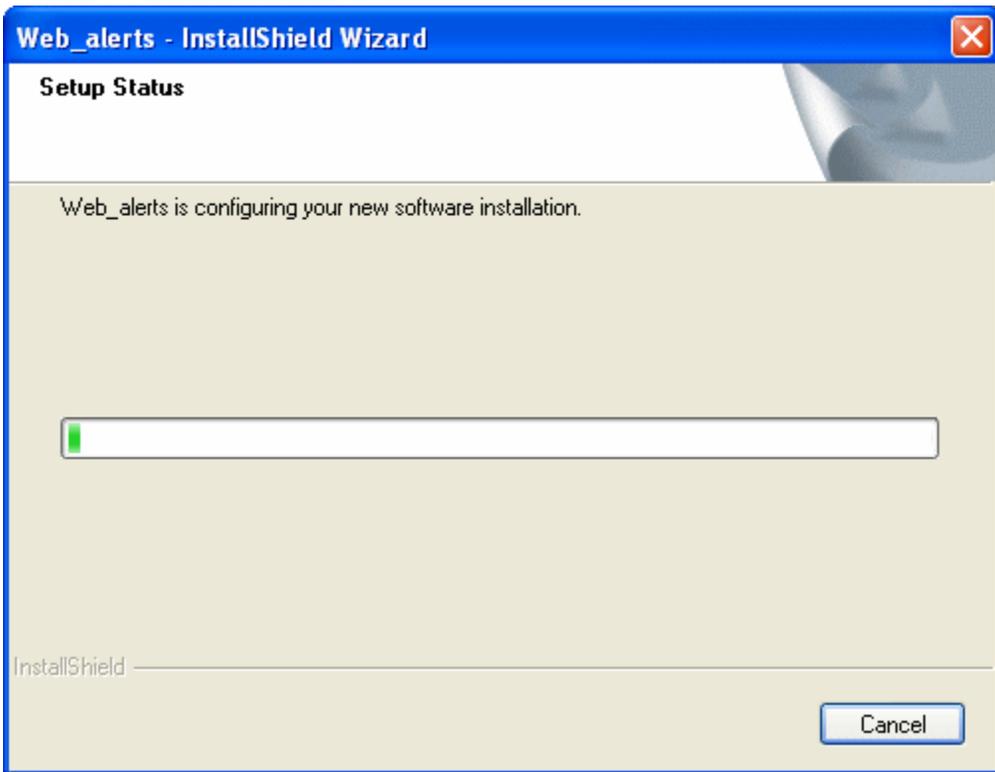
3. If **Message Queuing Services** was checked when you viewed it, go to step 4.
If it was not checked, click **Next**. A wizard creates the component.

NOTE The rest of this procedure employs a wizard that saves you several manual steps. If you have a problem using the wizard, or prefer to install Web Alerts manually so you can track the files being installed to your server, see "Manual Steps for Setting up the Message Queue and Asynchronous Processor" on page 129.

4. From the Windows Start Menu, click **All Programs > Ektron > CMS400 > Utilities > Web Alerts Setup**.
5. The Web Alert Wizard setup screen appears.



6. Click **Next**. The wizard begins installing the Web Alerts feature.



7. The following screen appears.

Message Queue Name .\Private\$\ msmq_web

SMTP Port 25

SMTP Server localhost

SMTP User

SMTP Password

Log File Name

Logfile Verbose

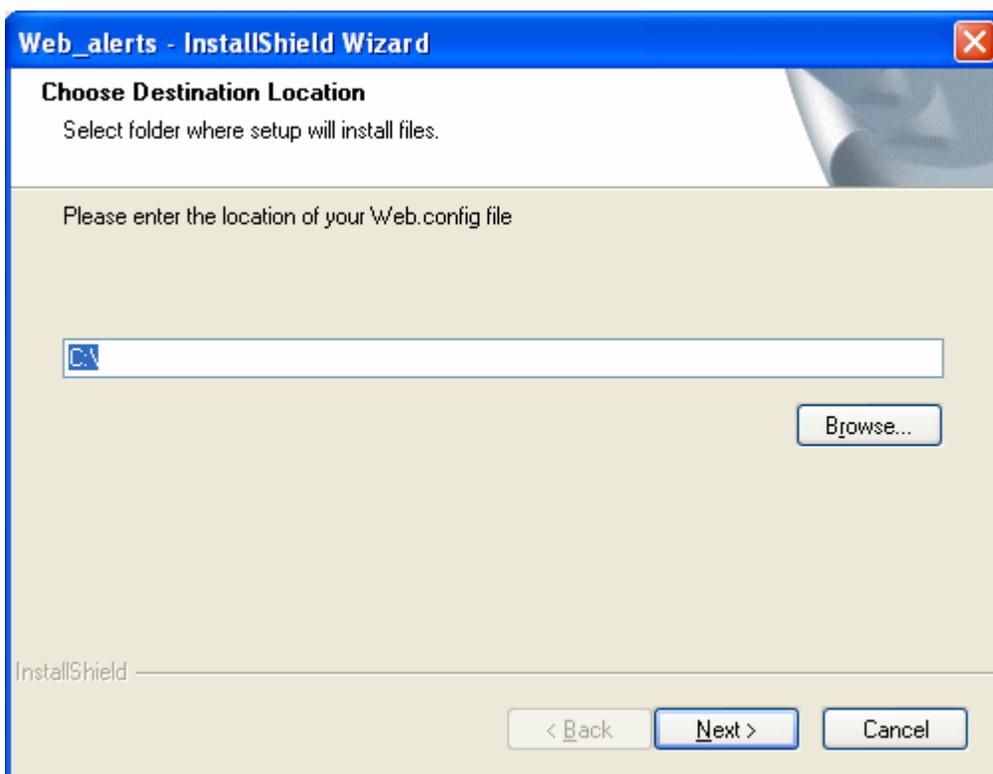
Cancel Next

InstallShield

8. Enter the username and password that will be used to send and receive email.
9. At the **Log File Name** field, enter the name of the file that will track Web Alert activities. If you enter nothing, the file is named listener.log.

The file resides in the `C:\Program Files\Ektron\CMS400v61\EktronAsyncProcessor_Service` folder. It is also available from the Workarea. See ["Asynchronous Log File Reporting" on page 131](#).

10. If you want a very detailed log file, click **Logfile Verbose**.
11. Click **Next**. The following screen appears.



12. Either insert or browse to the folder that contains your web.config file. This is your site root folder. Then click **Next**.
13. If your Asynchronous Processor service is not running, the following message appears.

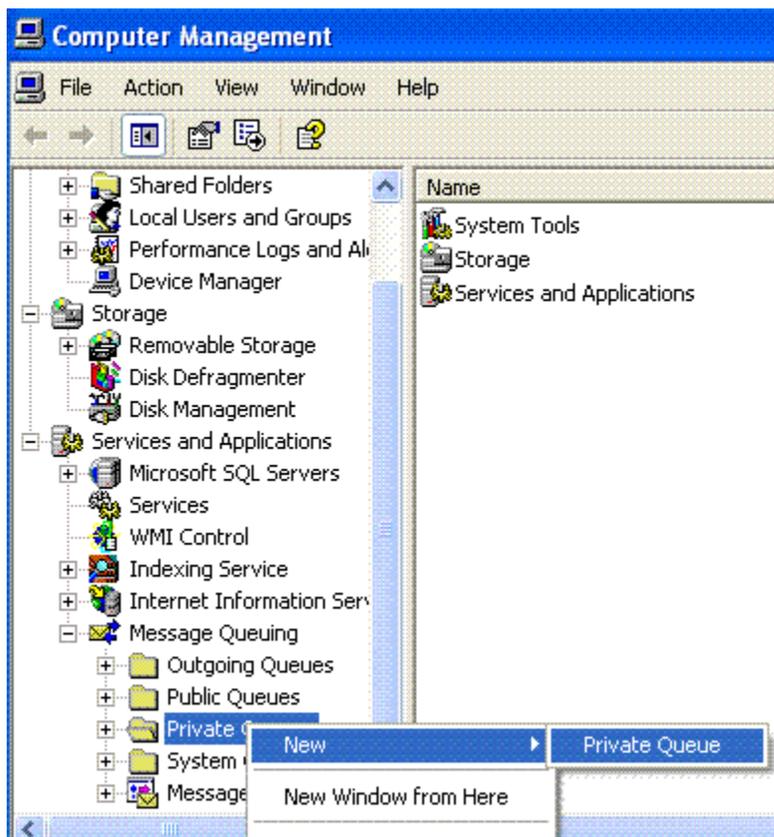


14. If you see this message, click **OK** then click **Finish**.
15. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Services**. Start the Ektron Async Processor Service.

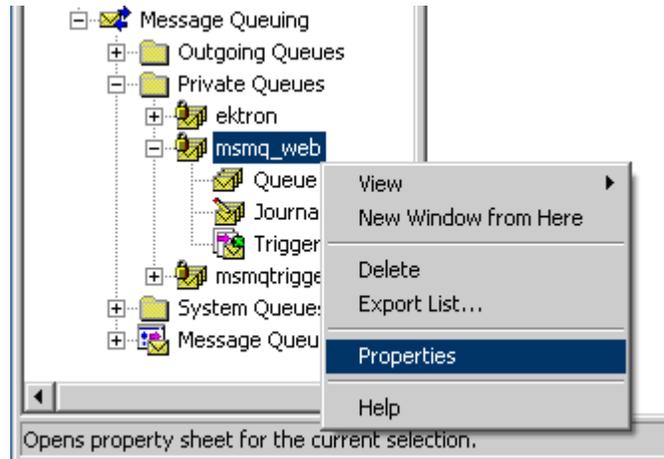
Manual Steps for Setting up the Message Queue and Asynchronous Processor

This section describes manual steps for setting up the Message Queue and Asynchronous Processor. You can use this procedure if you had a problem using the wizard, or you want to know which files are being installed to your server.

1. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Message Queuing**.
2. Right click the Private Queues folder and select **New > Private Queue**.



3. Create a private queue named `msmq_web`.
4. Right click `msmq_web` and select Properties.



5. Go to the **Security** tab. You can give the Everyone group Full Control if you are in a testing environment. If you are on a production server or want better security, give the local system account (the account which the EktronAsyncProcessor Service runs as) the following permissions:

- Delete
- Receive Message
- Peek Message
- Send Message

Give the ASP.NET account (the account that the Web services interface runs as) Send Message permission.

6. Click **OK**.
7. Open the following file:

```
C:\Program
Files\Ektron\CMS400v52\EktronAsyncProcessor_Service\RegEktron.S
ervices.EktronAsyncProcessor.bat
```

8. Review and update as necessary the paths to the .NET directory and Ektron.Services.EktronAsyncProcessor.exe file.

WARNING! Update the paths to the .NET Directory and the .exe file if necessary.

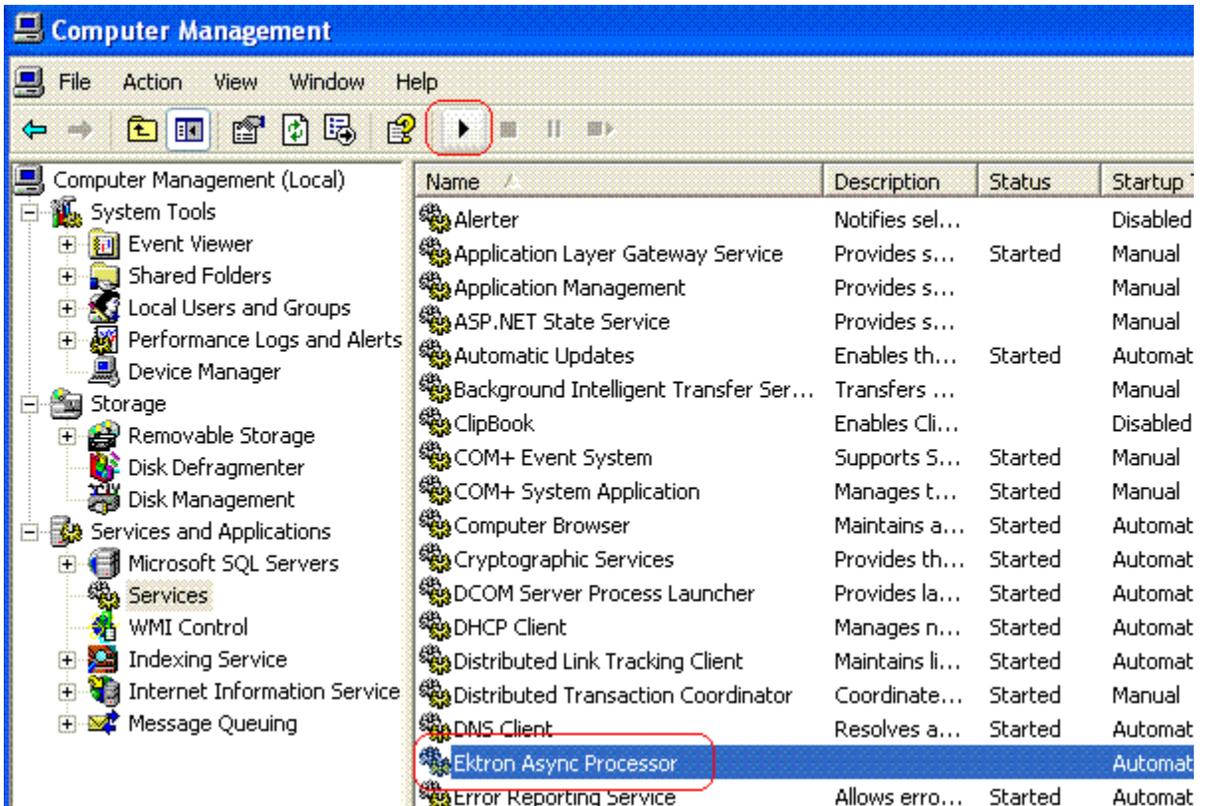
9. Execute the .bat file.

Or, from a command line or **Start Menu > Run**, enter:

```
C:\Windows\Microsoft.NET\Framework\v1.1.4322\installutil
"C:\program
```

Files\Ektron\CMS400v52\EktronAsyncProcessor_Service\Ektron.Services.EktronAsyncProcessor.exe”

10. Open the following file and enter your SMTP connection settings: C:\Program Files\Ektron\CMS400v52\EktronAsyncProcessor_Service\Ektron.Services.EktronAsyncProcessor.exe.config.
11. Go to **Control Panel > Administrative Tools > Computer Management > Services and Applications > Services**. Start the **Ektron Async Processor** Service.



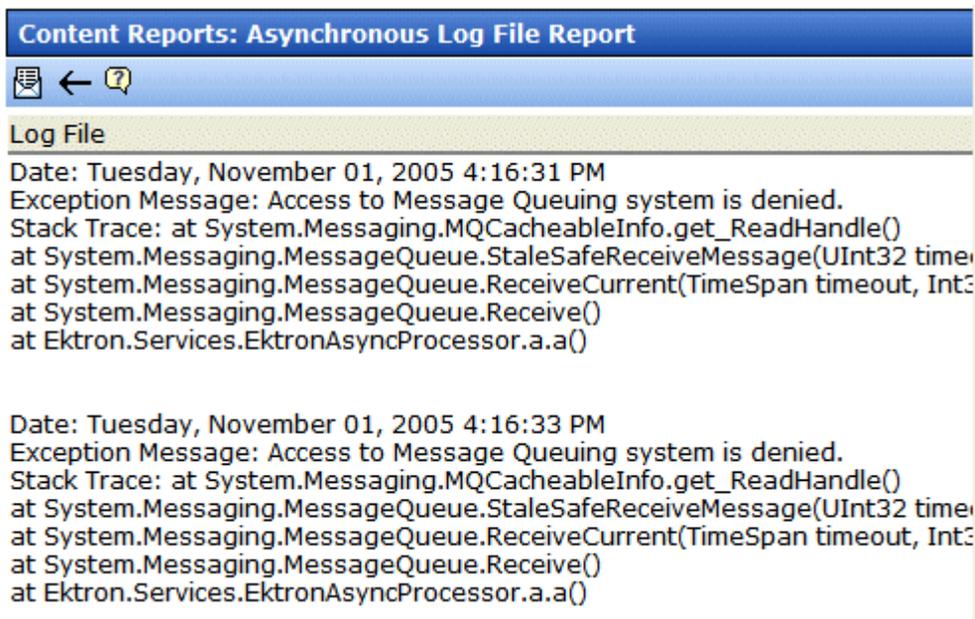
Asynchronous Log File Reporting

Once the Message Queuing and Asynchronous Process is set up and running, you can access a log report about the Asynchronous process. This report shows any problems with the Asynchronous Processor.

In addition to viewing the report, you can email it to any CMS400 user. For an explanation of emailing a report, see the User Manual section “Content Workflow Reports” > “Common Report Topics” > “emailing Reports”.

To access the Asynchronous Process log, follow these steps.

1. In the **Workarea’s Smart Desktop**, click the Reports folder.
2. Click the Asynchronous Log File link.
3. If the log has captured any problems, they are displayed on the screen.



Content Reports: Asynchronous Log File Report

Log File

Date: Tuesday, November 01, 2005 4:16:31 PM
Exception Message: Access to Message Queuing system is denied.
Stack Trace: at System.Messaging.MQCacheableInfo.get_ReadHandle()
at System.Messaging.MessageQueue.StaleSafeReceiveMessage(UInt32 timeout, Int32 receiveTimeout, Int32 receiveCurrentTimeout, Int32 receiveCurrentTimeout)
at System.Messaging.MessageQueue.Receive()
at Ektron.Services.EktronAsyncProcessor.a.a()

Date: Tuesday, November 01, 2005 4:16:33 PM
Exception Message: Access to Message Queuing system is denied.
Stack Trace: at System.Messaging.MQCacheableInfo.get_ReadHandle()
at System.Messaging.MessageQueue.StaleSafeReceiveMessage(UInt32 timeout, Int32 receiveTimeout, Int32 receiveCurrentTimeout, Int32 receiveCurrentTimeout)
at System.Messaging.MessageQueue.Receive()
at Ektron.Services.EktronAsyncProcessor.a.a()

Configuring SSL

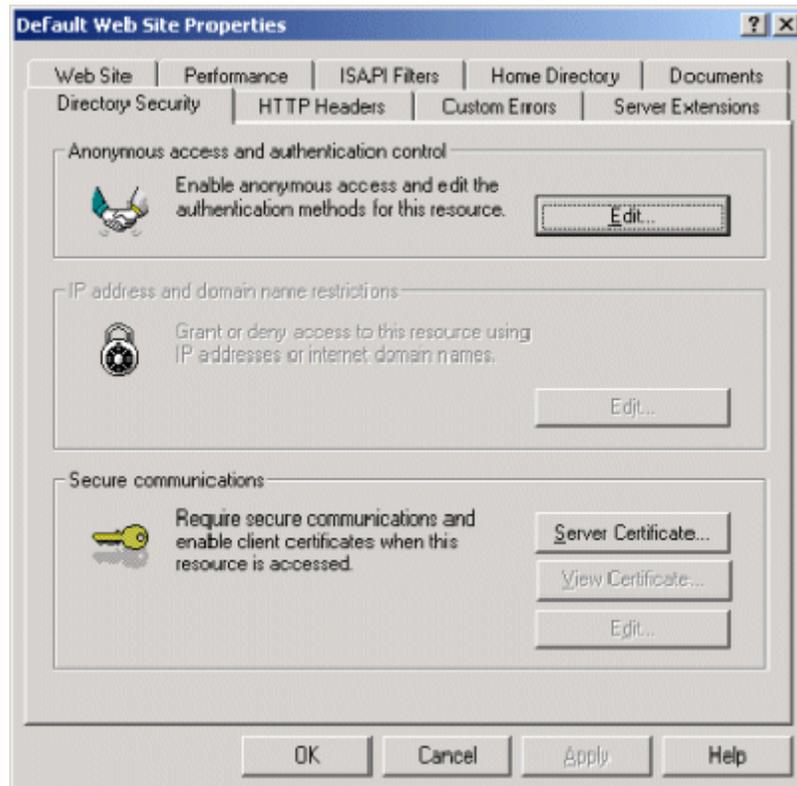
In **Ektron CMS400.NET**, you can use SSL when users log in to your Web site. SSL encrypts the username and password during transmissions to the server.

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.

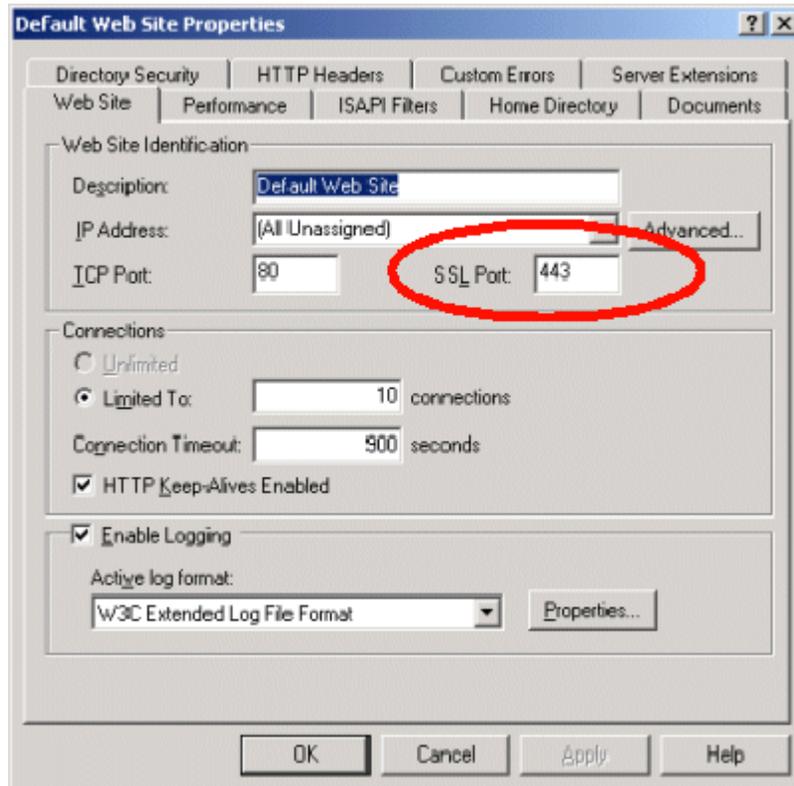
1. Access the Internet Information Server Administrator Console on your Web server.
2. Navigate to the computer and Web site to which Ektron CMS400.NET is installed.
3. Right click on the Web site.
4. Click **Properties**.
5. Click the **Directory Security** tab.



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 95.](#))
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" on page 139](#)
- ["Branding Ektron CMS400.NET" on page 143](#)

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 the resource files. In that file, each email consists of one string for the subject and one for the body. Ektron CMS400.NET does not support HTML email, however the message text is fully customizable.

The procedure for customizing resource files is documented in the **Ektron CMS400.NET** Administrator manual section “Multi-Language Support” > “Translating the Workarea” > “Procedure for Translating Workarea Strings.”

The body of an email can include variables, located between @ symbols. Ektron CMS400.NET replaces these variables 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.

Variable	Inserts
@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. <hr/> Note: You must be logged in to see the changes. <hr/>
@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 Default 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.

Immediate Deletion of Content

Message Title: email subject: content has been deleted.

Message Text: Content has been deleted.

Approved Content Awaiting Go Live Date

Message Title: email subject: content changes approved.

Message Text: Content changes have been approved.

Approved Content Published Immediately

Message Title: email subject: content has been changed.

Message Text: Content changes have been made.

Decline Approval Request

Message Title: email subject: approval request declined.

Message Text: Content approval request declined.

Send Approval Message

Message Title: email subject: request for approval.

Message Text: Request for content approval.

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.

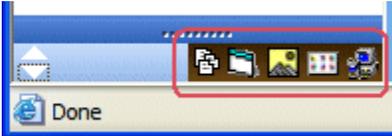
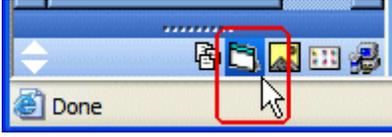
Class Explanation

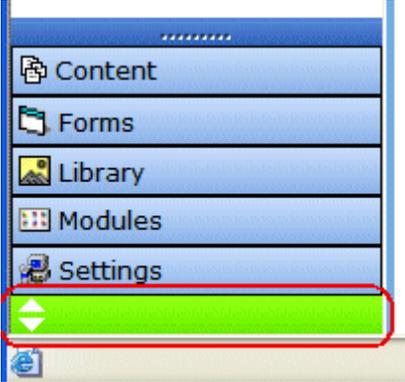
General Classes

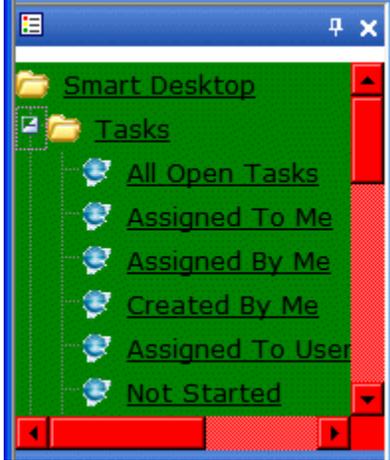
Class	Description
.titlebar	Located at the top of every page in the application. Used for page explanations or location explanation. While navigating through Ektron CMS400.NET, this page header or "titlebar" tells the user where he is (for example, Viewing content in content.aspx).
.titlebar-error	Similar to titlebar; 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 to list information. For example, it is used for column headers.
.info	Any important information that should stand out. An example is in the content page when showing the attributes of the content block.
.info-header	Similar to the info class; used for information that should stand out but starts a new section on a page. Examples are metadata and summary on the content block properties page.
.toolbar	The background of the toolbar. <hr/> Note: Change this class only if you are changing all toolbar icons. <hr/>

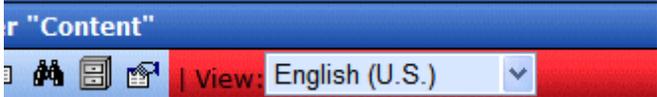
Workarea Classes

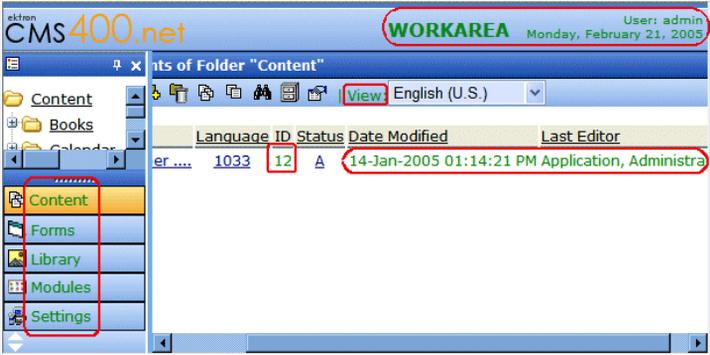
Class	Description
.Workarea	The background color of the Workarea.
td.FolderButtonBarNm	Text of top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings).

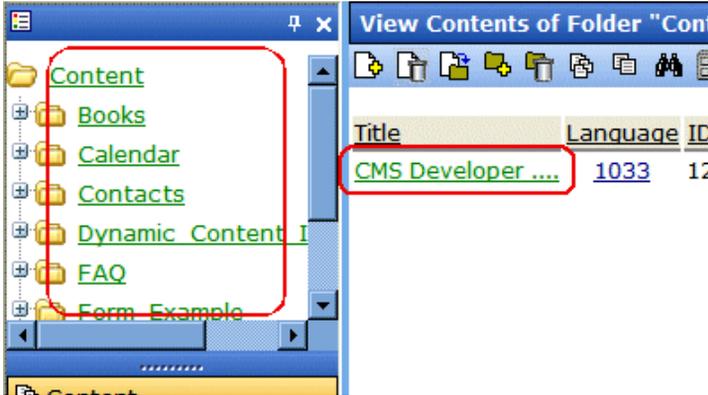
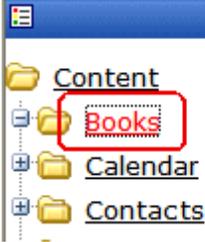
Class	Description
td.FolderButtonBarOver	Text that appears when you hover the cursor over top-level folders that appear in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
td.FolderButtonBarSelectedOver	Selected text in the lower left corner of the Workarea (Content, Forms, Library, Modules and Settings)
td.FolderButtonBarSelected	Text that appears when you hover the 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	<p>The minimized top level folder icons properties.</p> <p>The following example shows minimized icons with a brown background.</p> 
td.NavIconBarOver	<p>The minimized top level folder icons hover over properties.</p> <p>The following example shows the Forms icon with a light orange background, while hovering over it.</p> 
td.NavIconBarSelectedOver	<p>Properties of the minimized top level folder icons when selected then hovered over.</p> <p>The following example shows the Forms icon with a dark blue background, while selected and hovering over it.</p> 

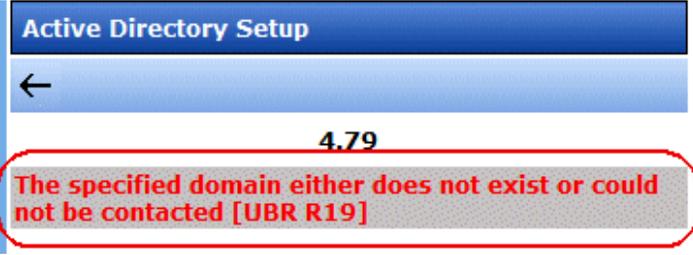
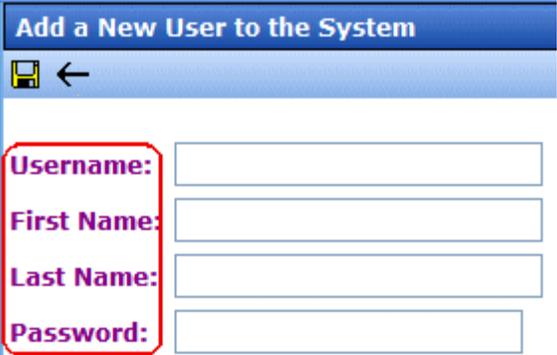
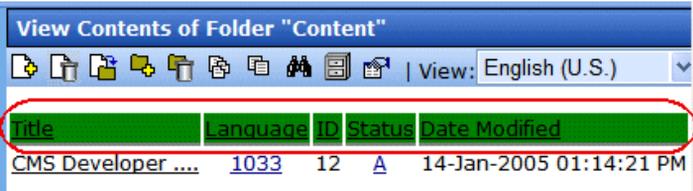
Class	Description
td.NavIconBarSelected	<p>The minimized top level folder icons properties, when selected. The following example shows the Forms icon with a green background when selected.</p> 
body.FolderIconBar	<p>The bottom bar in which the minimized top level folder icons appear. The following example shows the bar green.</p> 
table.FolderToolBar	<p>The top left bar where the Smart Desktop and pin buttons are located. The following example shows the bar red.</p> 

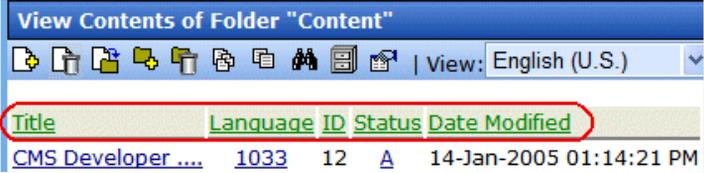
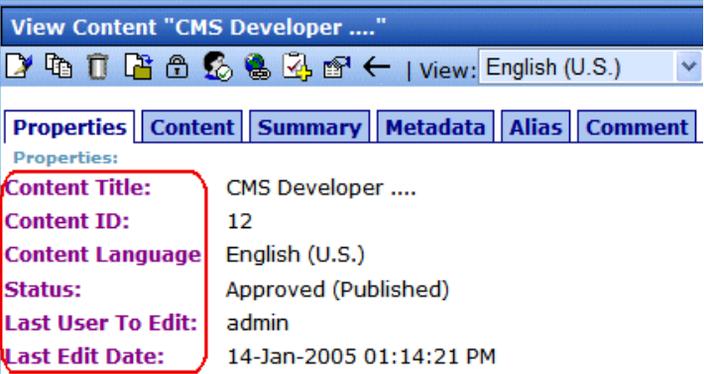
Class	Description
body.FolderArea	<p>The folder area on the left of the screen.</p> <p>The following is an example of a green background with red scrollbars.</p> 
.WorkareaToolbar-nm	<p>The Workarea toolbar properties for the buttons section. The following is an example of a red background.</p> 
.WorkareaToolbar-ovr	<p>The Workarea toolbar icon hover-over properties. The following is an example of View Collections background being green when hovered over.</p> 

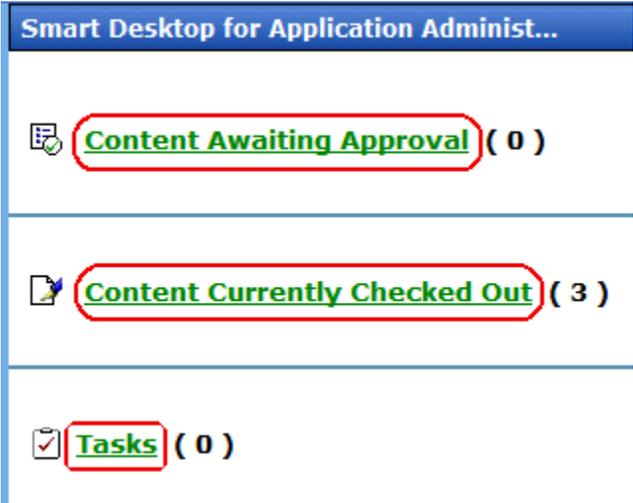
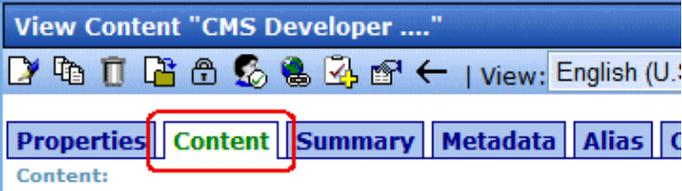
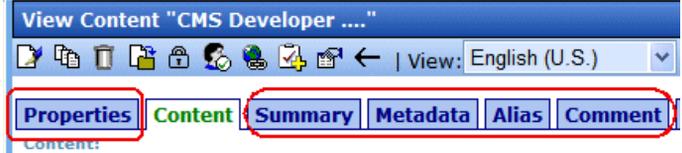
Class	Description
<p>.ToolbarImage-nm</p>	<p>Sets the size of the Workarea toolbar icons.</p> <p>The following is an example of setting the height and width to 35px.</p>  <p>The following example has the height and width set to default 22px.</p> 
<p>.WorkareaToolbar-bk</p>	<p>The Workarea toolbar properties for the non-button section.</p> <p>The following is an example of a red background.</p> 
<p>.WorkareaTitlebar</p>	<p>The properties of the titlebar in the Workarea. The following example shows a red background with black letters.</p> 

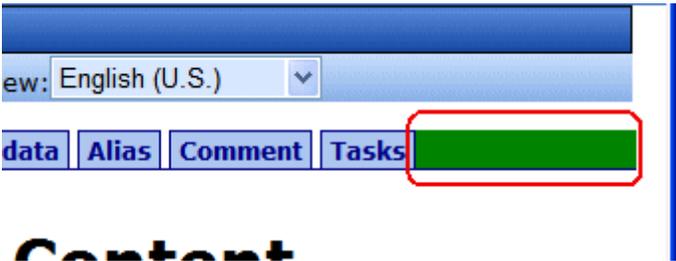
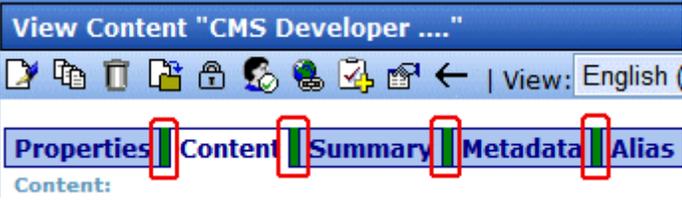
Class	Description
body.UiMain	<p>The properties of the user interface area. The following example shows a green background with a red scrollbar.</p> 
TD	<p>The default fonts in the logo bar area, the toolbar area, the folder buttons, and user interface area. In the following example, the font is green.</p> 

Class	Description
A	<p>Properties of links in the Workarea before they are selected. The following example shows the links in green.</p> 
A:ACTIVE	<p>Properties for currently active links. The following example shows the active link red.</p> 
A:Visited	<p>Properties for visited links. The following example shows the visited links in navy blue.</p> 

Class	Description
TD.titlebar-error	<p>Error display properties. The following example shows the error displayed with a red font and a silver background.</p> 
TD.input-box-text	<p>Properties of text that precedes a text box. The following example shows the text color purple.</p> 
TD.title-header TR.title-header	<p>The column head properties in the Workarea. The following example shows the column head backgrounds in green.</p> 

Class	Description
A.title-header	<p>The font properties in the column heads.</p> <p>The following example shows the column heads with green fonts.</p>  <p>The screenshot shows a web interface titled "View Contents of Folder 'Content'". It features a toolbar with various icons and a language dropdown set to "English (U.S.)". Below the toolbar is a table with the following headers: "Title", "Language", "ID", "Status", and "Date Modified". These headers are highlighted with a red circle in the original image. The first row of data shows "CMS Developer ...", "1033", "12", "A", and "14-Jan-2005 01:14:21 PM".</p>
TD.info	<p>Description information title properties. The following example shows information titles in purple.</p>  <p>The screenshot shows a web interface titled "View Content 'CMS Developer ...'". It has a toolbar and a language dropdown set to "English (U.S.)". Below the toolbar are tabs for "Properties", "Content", "Summary", "Metadata", "Alias", and "Comment". The "Properties" tab is selected, and the "Properties:" section is highlighted with a red circle. The properties listed are: "Content Title: CMS Developer ...", "Content ID: 12", "Content Language: English (U.S.)", "Status: Approved (Published)", "Last User To Edit: admin", and "Last Edit Date: 14-Jan-2005 01:14:21 PM".</p>
TD.info-header	<p>Information header label. The following is an example of the information header in green.</p>  <p>The screenshot is identical to the previous one, showing the "View Content 'CMS Developer ...'" interface. In this instance, the "Properties:" header in the "Properties" tab is highlighted with a red circle.</p>

Class	Description
.moreinfo	<p>Font used on the Smart Desktop in the Workarea. The following example shows the font in green.</p> 
td.tab_activated	<p>The active tab properties in the Workarea. The following example shows the active tab with a green font.</p> 
td.tab_disabled	<p>Defines the non-active tab properties in the Workarea. The following example shows the non-active tabs with a dark blue font and blue background</p> 

Class	Description
td.tab_last	<p>The properties of the space at the end of the tabs. The following example shows that space with a green background.</p>  <p>The screenshot shows a blue header bar with a dropdown menu set to 'English (U.S.)'. Below it is a tab bar with buttons for 'data', 'Alias', 'Comment', and 'Tasks'. A green rectangular area is highlighted at the end of the tab bar with a red border.</p>
td.tab_spacer	<p>The properties of the space between the tabs. The following example shows the spaces as green.</p>  <p>The screenshot shows a blue header bar titled 'View Content "CMS Developer ..."'. Below it is a toolbar with various icons. At the bottom, there is a tab bar with buttons for 'Properties', 'Content', 'Summary', 'Metadata', and 'Alias'. Green vertical bars are placed in the spaces between these buttons, and each bar is highlighted with a red border.</p>

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. <u>NOTE: The font size cannot be controlled by the style sheet. It is set by the browser.</u>

Library Classes

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

Calendar Classes

InternCalendarStyles.css

The InternCalendarStyles.css file is used to define the look of the pop-up calendar in Ektron CMS400.NET. This file's default location is `\site root folder\Workarea\csslib`.

Class	Controls
<p>.mup_nonMonthCell</p>	<p>The cells at the beginning or end of the month that do not contain days. The following example shows these cells in green.</p> 
<p>.mup_weekendCell</p>	<p>The weekend day cell. The following example shows the cell in green.</p> 

Class	Controls
<p>.mup_weekdayCell</p>	<p>The week day cell. The following example shows the week day cell in green.</p> 
<p>.mup_weekendDOWHeader</p>	<p>Weekend day of week header. The following example shows those days in green.</p> 

Class	Controls
.mup_weekdayDOWHeader	<p>Weekday day of week header. The following example shows that day header in green.</p>  <p>The screenshot shows a calendar for March 2006. The days of the week are listed in the header row: Sun, Mon, Tue, Wed, Thu, Fri, Sat. The 'Mon' header is highlighted in green. The date 22 is highlighted in red. Navigation arrows and year selection (2005, 2006, 2007) are visible at the bottom, along with time selection (05:30 PM) and 'Done'/'Cancel' buttons.</p>
.mup_yearFooter	<p>The year selection cell. The following example shows the year footer in green.</p>  <p>This screenshot is identical to the one above, but the entire footer area, including the year selection dropdowns (2005, 2006, 2007) and the time selection controls, is highlighted in green.</p>

Class	Controls
.mup_monthHeaderBorder	<p>The border around the month header. The following example shows that border in green.</p>  <p>The screenshot shows a calendar for March 2006. The month header area, containing navigation arrows and the text '<< Feb March, 2006 Apr >>', is enclosed in a thick green border. The calendar grid below shows days of the week (Sun-Sat) and dates (1-31). The date 22 is highlighted in red. Below the grid are year navigation arrows ('<< 2005 2006 2007 >>'), time selection controls (05, 30, PM), and 'Done' and 'Cancel' buttons.</p>
.mup_monthHeader	<p>The month header. The following example shows that header in green.</p>  <p>This screenshot is identical to the one above, but the green border is replaced by a solid green background for the month header area. The rest of the calendar interface, including the grid and navigation controls, remains the same.</p>

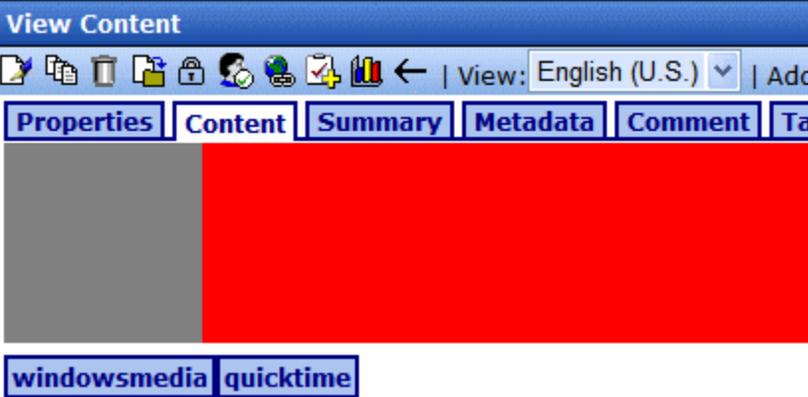
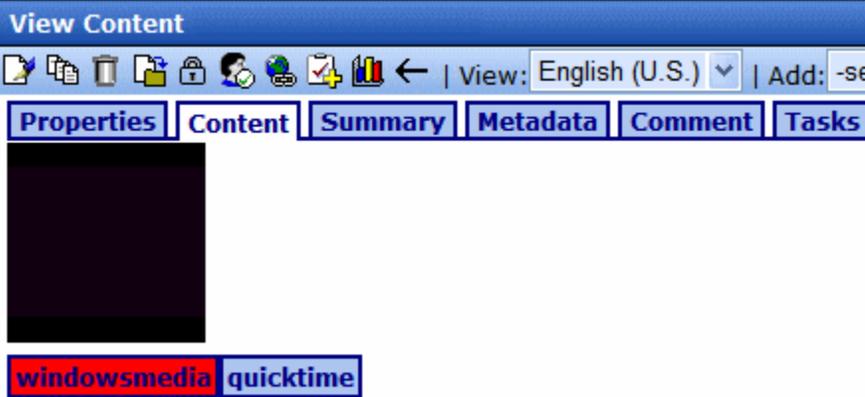
Class	Controls
<p>.mup_monthHeaderPrev</p>	<p>The previous button on the month header. The following example shows that background in green.</p> 
<p>.mup_monthHeaderNext</p>	<p>The next button on the month header. The following example shows that header background in green.</p> 

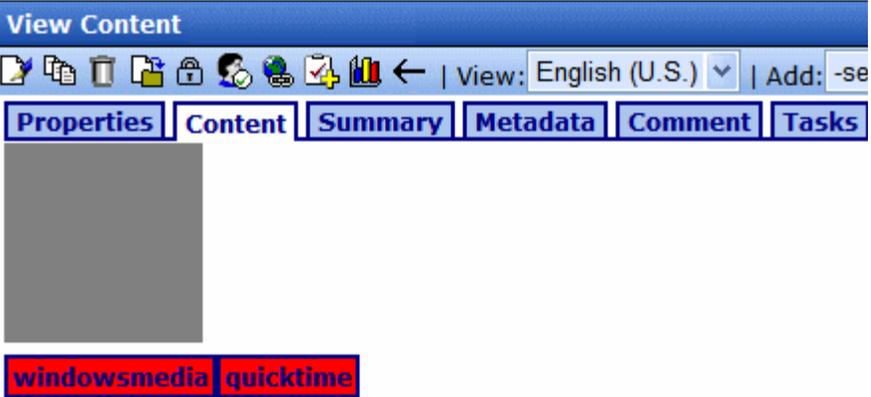
Class	Controls
.mup_selectedDate	<p>The selected date. The following example shows that date background in red.</p> 
.mup_noShow	This class should not be changed.

NOTE Calendars that appear on a Web page use the CalendarStyles.css style sheet, which is installed by default to the `\site root\Workarea\csslib` directory. This style sheet is described in the Developer Manual section “Introduction to Server Controls” > “Calendar Server Control” > “Calendar Style Sheet”.

EktTabs.css

The EktTabs.css file is used to define the tabs used in the Multimedia section of the Workarea. This file's default location is `\siteroot\Workarea\csslib.`

Class	Controls
.EktTabPanelActive	<p>The panel area in which the multimedia player is loaded. The following example shows that background in red.</p>  <p>The screenshot shows a 'View Content' window with a toolbar and tabs: Properties, Content, Summary, Metadata, Comment, and Tasks. The 'Content' tab is active. Below the tabs, a large red rectangular area represents the multimedia player's content area. At the bottom, there are two buttons: 'windowsmedia' and 'quicktime'.</p>
.EktTabPanelNotActive	<p>The non-activated panel area where the multimedia player is loaded.</p>
.EktTabActive	<p>The active media player selector tab. The following example shows the active tab in red.</p>  <p>The screenshot shows the same 'View Content' window. In this view, the 'Content' tab is highlighted with a red background, while the other tabs are in blue. The rest of the interface, including the toolbar and the 'windowsmedia'/'quicktime' buttons, is the same as in the previous screenshot.</p>

Class	Controls
.EktTabNotActive	<p>The non-active media player selector tab. The following example shows the non-active tabs in red.</p> 

worksearch.css

This file is located in `webroot/siteroot/Workarea/csslib`. It is used to customize the look of the Workarea search results.

Workarea Styles.css

The `Styles.css` file is located in `webroot/siteroot/Workarea`. It is a general style sheet provided for creating a new Web application project.

com.ektron.rules.wizard.css

This file is located in `webroot/siteroot/Workarea/businessrules/css`. It is used to customize the look of the Business Rules module in the Workarea.

com.ektron.utils.wizard.css

This file is located in `webroot/siteroot/Workarea/businessrules/css`. It is used to customize the look of the View Business Rule pop-up screen in the Workarea.

ektnormal.css

This file is located in `webroot/siteroot/Workarea/ewebeditpro`. It is used to customize the xml editor. The style sheet must be assigned to the folder containing the content.

ektdata.css

This file is located in `webroot/siteroot/Workarea/ewebeditpro`. It is used to customize the Workarea's Data Designer. The style sheet must be assigned to the folder containing the content.

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 `\Workarea\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 Workareas. 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 Firefox does 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 `\Workarea\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 166
- "Step 2: Install New Ektron CMS400.NET" on page 167
- "Step 3: Migrate Your CMS300 Database For Use with Ektron CMS400.NET" on page 168
- "Step 4: Copy Folders and Files" on page 170
- "Step 5: Set Folder Permissions" on page 171
- "Step 6: Update Files" on page 172
- "Step 7: Create an IIS Application For Your Site" on page 175
- "Step 8: Make dmdata an IIS Application" on page 178
- "Step 9: Add Ektron CMS400.NET License Keys" on page 179
- "Step 10: Verify Installation" on page 180

NOTE For more information on upgrading your site to **Ektron CMS400.NET**, see "Migrating Your Site to Ektron CMS400.NET" on page 181.

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

Ektron recommends running 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

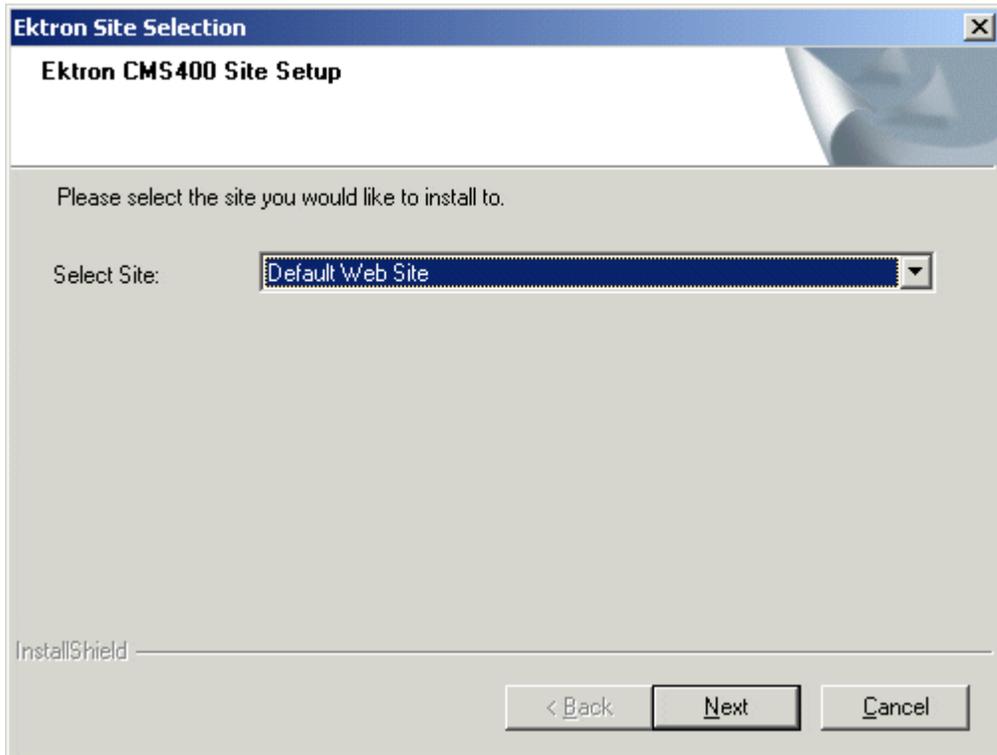
The steps for performing a backup on a Microsoft SQL database are explained in "[Backing Up Databases](#)" on page 87.

Step 2: Install New Ektron CMS400.NET

Install the latest version of **Ektron CMS400.NET** with platform support. This procedure is explained in "[Installing Ektron CMS400.NET](#)" on page 17.

As explained in "[Performing the Installation](#)" on page 22, the installation involves copying files to your server then setting up a starter site. While setting up the site, follow these instructions.

- When asked to insert your license keys, ignore the screen. (You will insert your license keys in "[Step 9: Add Ektron CMS400.NET License Keys](#)" on page 179.)
- When asked to choose a site, select the default.



- Say no to the database install. You will upgrade the 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 17.

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

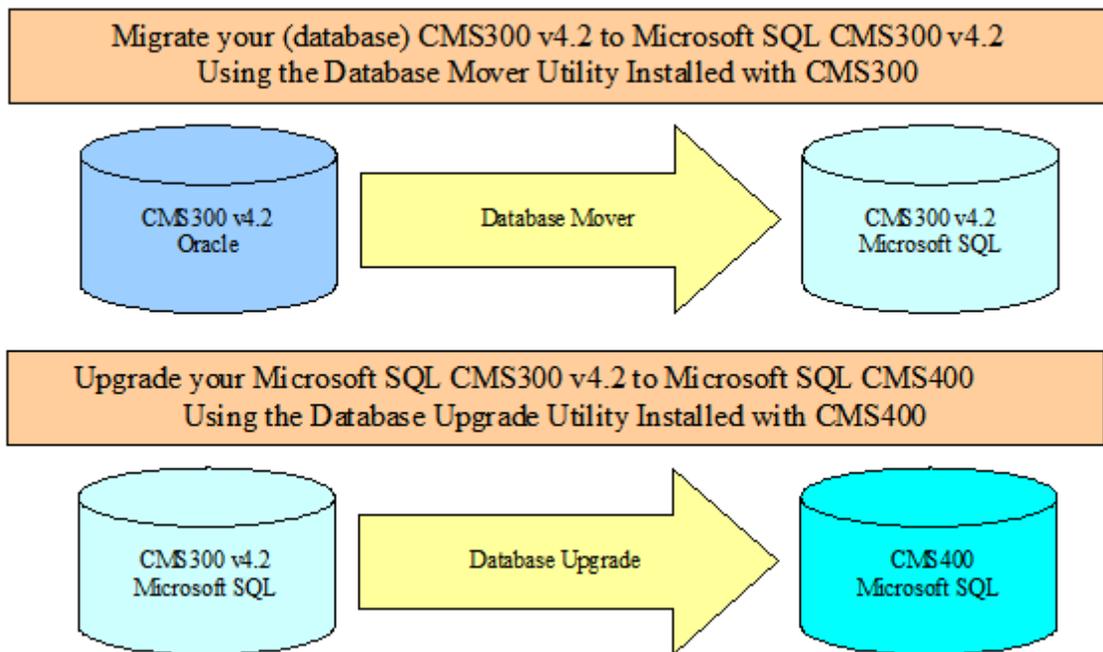
- be a Microsoft SQL database
- be the same CMS version

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

This should be done in the following order.

1. "Migrate Database to Microsoft SQL" on page 169.
2. "Upgrade Database to Ektron CMS400.NET" on page 170.
3. "Adding Database Permission for ASPNET or IIS_WPG users" on page 170.

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 webroot. For example, if you installed the CMS400min site and are using the CMS300Sample site as your site, copy the folders and files from the CMS400min site to C:\inetpub\wwwroot\CMS300Sample.

- The C:\inetpub\wwwroot\cms400min\workarea folder, including all subfolders
- The C:\inetpub\wwwroot\cms400min\bin folder

- The C:\inetpub\wwwroot\cms400min\App_Code folder, including all subfolders
- The C:\inetpub\wwwroot\CMS400min\AssetManagement folder, including all subfolders
- The C:\inetpub\wwwroot\cms400min\Assets folder
- C:\inetpub\wwwroot\cms400min\web.config
- C:\inetpub\wwwroot\cms400min\assetmanagement.config

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 the appropriate permissions. The IIS_WPG user is for Microsoft Windows Server 2003 only. In addition, the dmdata folder needs the EKT_ASSET_USER added.

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

Folder	User	Permission
uploaded images	ASPNET User or IIS_WPG (Windows Server 2003 only)	<ul style="list-style-type: none"> • Read • Write • Modify
uploadedfiles	ASPNET User or IIS_WPG (Windows Server 2003 only)	<ul style="list-style-type: none"> • Read • Write • Modify
dmdata	ASPNET User or IIS_WPG (Windows Server 2003 only)	<ul style="list-style-type: none"> • Read • Write • Delete sub folders and files
dmdata	EKT_ASSET_USER	<ul style="list-style-type: none"> • Write

Folder	User	Permission
Assets	ASPNET User or IIS_WPG (Windows Server 2003 only)	<ul style="list-style-type: none"> • Read • Write

Step 6: Update Files

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

- "Web.config" on page 172 - Everyone needs to update this file.
- "AssetManagement.config" on page 173 - Everyone needs to update this file.
- "site_scripts_path.asp" on page 173 - need updating if you are using ASP pages.
- "applicationAPI.asp" on page 174 - need updating if you are using ASP pages.
- "site_scripts_path.php" on page 174 - need updating if you are using PHP pages.
- "applicationAPI.php" on page 174 - need updating if you are using PHP pages.
- "PHP Templates" on page 175 - need updating if you are using PHP pages.
- "Application.cfm" on page 175 - 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 CMS300 setup.xxx files. Update the following Web.config file settings to reflect your current database, site location, and WSpah.

Setting	How to Change
ConnectionString	<p>ek_dbcatalog, ek_dbusername and ek_dbpassword are no longer used. Update the information between the <ConnectionString> tags to point to your:</p> <ul style="list-style-type: none"> • server • database • user • pwd
ek_sitepath	<p>Change the site path to your site's webroot. For example: /CMS300Sample/</p>
WSpath	<p>Change the web service path. For example: http://localhost/CMS400min/Workarea/ServerControlWS.asmx Becomes http://localhost/CMS300sample/Workarea/ServerControlWS.asmx</p>

AssetManagement.config

The domain needs to be changed from localhost to your domain. For example:

```
DomainName="localhost"
```

becomes

```
DomainName="www.example.com"
```

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/siteroot/WorkArea/WebServices/ContentWS.asmx"
```

becomes

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

and

```
CMS400WorkareaPath = "/siteroot/WorkArea/"
```

becomes

```
workareaPath = "/www.example.com/WorkArea/"
```

site_scripts_path.php

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

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

becomes

```
<?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/siteroot/WorkArea/WebServices/  
ContentWS.asmx?WSDL";
```

becomes

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

and

```
$workareaPath = "/siteroot/WorkArea/";
```

becomes

```
$workareaPath = "/www.example.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.wsdpath` 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

Perform this only if your site is not in your server's webroot, or if your Web site is not already set up as an IIS application

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

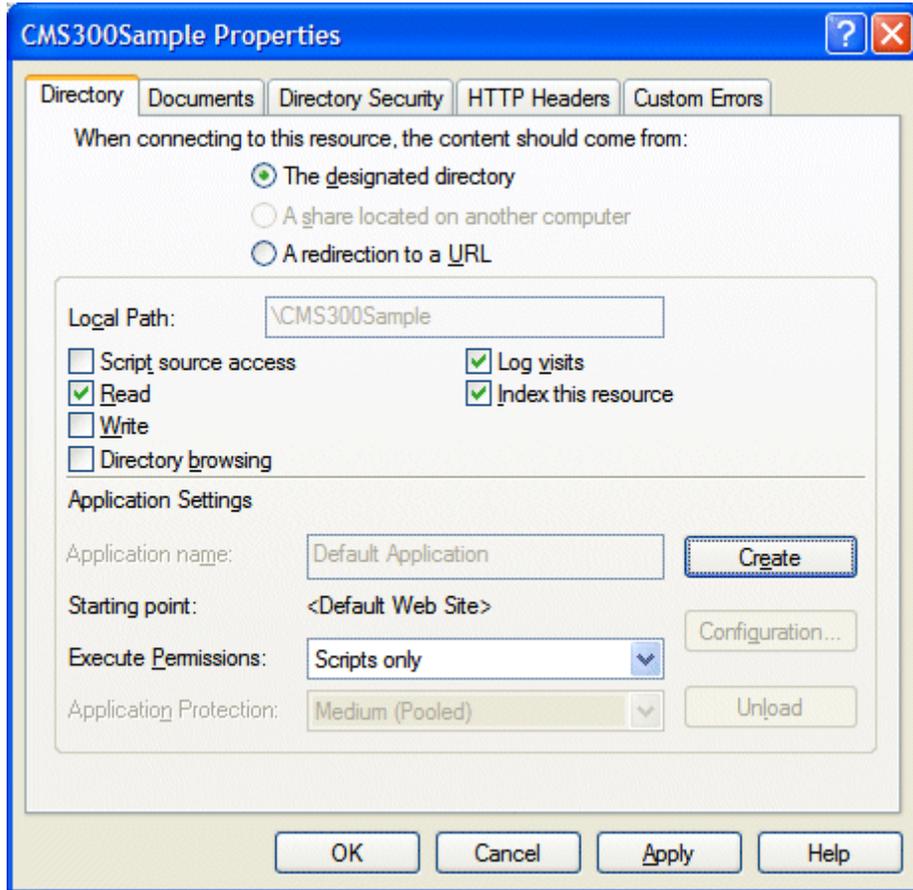
To see if your Web site is running as an IIS application, go to your server's Computer Management Console and view the Internet

Information Services section. Use the following table to determine if your Web site is running as an IIS application.

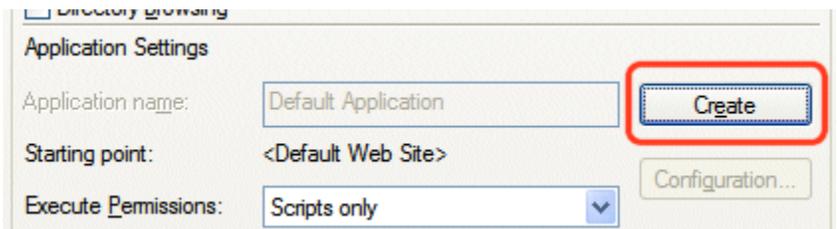
Microsoft Windows Version	Icon Next to Your Site Name In IIS	Web Site running as an IIS Application?
2003 Server		Yes
XP Professional		Yes
Any		No

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

1. Click **Start > Control Panel > Administrative Tools > Computer 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**.
4. The following window appears.



5. Click the **Create** button



6. Your site is now an IIS application



7. Click **OK**.

Step 8: Make dmdata an IIS Application

1. Click **Start > Control Panel > Administrative Tools > Computer Management**.
2. In the left pane of the console, click **Services and Applications > Internet Information Services > Web Sites > Default Web Site > Asset Management > dmdata**
3. Right click your Web site and select **properties**.

4. Make sure that **Read** and **Write** are checked.



5. Click the **Create** button.
6. Click the **Directory Security** tab.
7. In the **Anonymous access and authentication** field click the **Edit** button.
8. Uncheck **Anonymous Access**.
9. Uncheck **Integrated Windows Authentication**.
10. Check **Basic Authentication**.
11. Click **OK**.
12. On the **ASP.NET** tab select a 2.0 version of ASP.NET.
13. Click **OK**.

Step 9: 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, insert the license key and log in under a user name assigned in Ektron CMS400.NET.

Below are the steps for adding 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 ()
7. Insert your license key and any module keys.
8. Click the **Update** button ()

Step 10: Verify Installation

When first attempting to use the platform support, you may 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.

[For more information, see "Installing Ektron CMS400.NET" on page 17.](#)

Verify Installation

After you install Ektron CMS400.NET, verify that it is properly installed by using the starter 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/siteroot/default.aspx`

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

Best Practices

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

For instance, if you encounter errors on your site, you can refer to the starter site to see if the same errors occur. If they do, that may indicate a problem with the installation. If they do not, the installation is probably OK and an external factor is causing the problem.

Setting up Your New Site

NOTE You can use the Site Setup utility to perform these tasks. 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 28.

Copy Application Core Files

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

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 34.

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...
ConnectionString	Update the information between the <ConnectionString> tags to point to your: <ul style="list-style-type: none"> • server • database • user • pwd

NOTE If you are using SSL, the settings you need to modify are explained in "Configuring SSL" on page 133.

Creating a Login Page

Now that everything is set up, you can create a login page. You can either copy the one from the starter 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 Smart Forms

You can also set up your Smart Forms. You create XML files externally or via the Data Designer. Next, a Smart Form is assigned to content blocks and folders.

See “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.

NOTE 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.

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 for Tasks and Content](#)" on page 110 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.

Appendix A: Creating a Web Site in IIS

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

Adding Web Sites to Your Server

IIS lets you create multiple Web sites on a single server. To create a new Web site, you must

- prepare the server and associated network services
- create a unique identity for the site

Preparing to Add a Web Site

Adding a Web site to a server requires careful preparation before running the Web Site Creation Wizard. Consider these recommendations.

- Review the methods of hosting multiple Web sites, and determine which one is appropriate for your environment.
- Multiple Web sites can use the same IP address. But if you decide to use a unique IP address for the new Web site, obtain a static IP address from your organization or ISP. Then, configure the server's TCP/IP settings.
- If you use a host header name to identify the new Web site, select a unique name. On a private network, the host header can be an intranet site name. But on the Internet, the host header must be a publicly available Domain Name System (DNS) name, such as support.microsoft.com. Register a public DNS name with an authorized Internet name authority.

- Update your name resolution system (typically DNS) with a new record that contains the new IP address and site name. For more information, see Domain Name Resolution in IIS help.

- Standard Internet services use TCP port 80 by default. It is not recommended to use any other port for HTTP services.

If you use a non-standard TCP port number to identify a new Web site for special situations (such as a private Web site for development/testing), select a TCP port number above 1023. In this way, the number does not conflict with well-known port numbers assigned by the Internet Assigned Numbers Authority.

- Use Windows Explorer to create a home directory for the content. Create subdirectories to store HTML pages, image files, and other content as needed.

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

You can create a home directory

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

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

- Determine whether to generate the Web site’s identification number incrementally or from the Web site name. When you create a new site using IIS 6.0, a Web site identification number is randomly generated using the Web site name.

With IIS 5.1 and previous versions, site identification numbers were generated incrementally. For example, because the default Web site is created first, its Web site identification number is 1. The next site created is 2. For more information, see “DisableLazyContentPropagation in Global Registry Entries” in IIS help.

- Create a home page that clearly identifies the new site.

Adding a Web Site

IIS provides two methods for adding a new Web site.

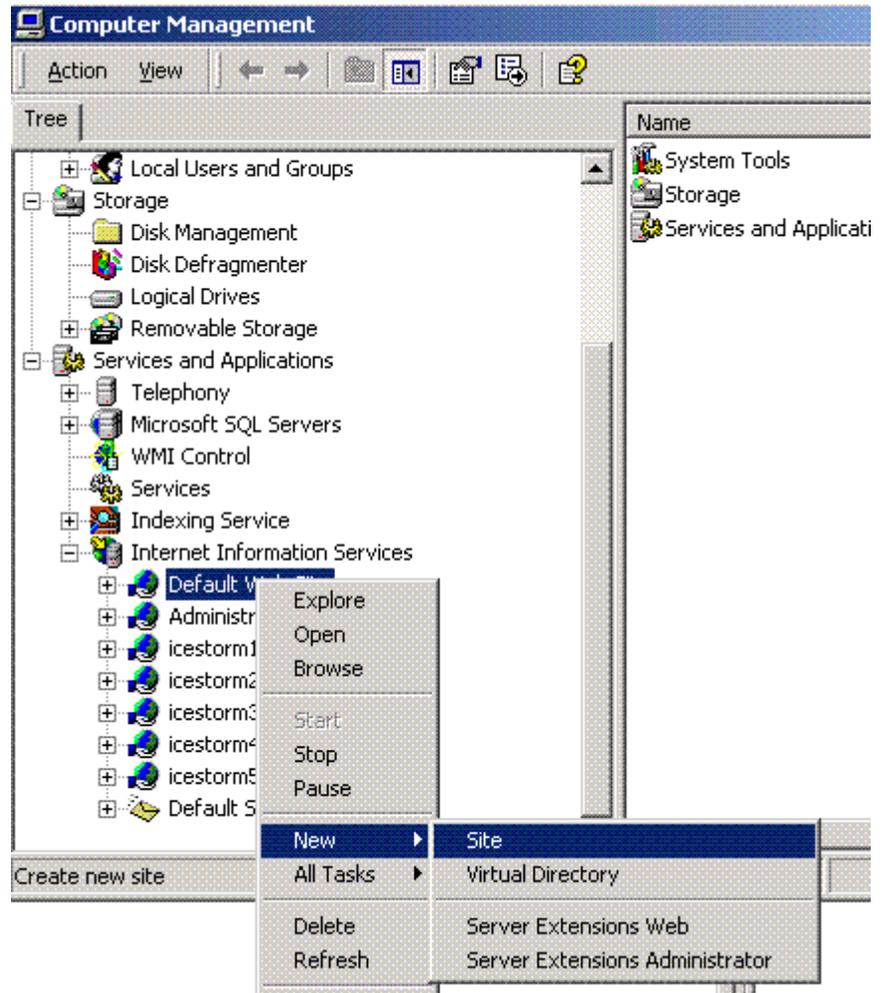
- The Web Site Creation Wizard
- The iisweb.vbs command-line script

IMPORTANT!

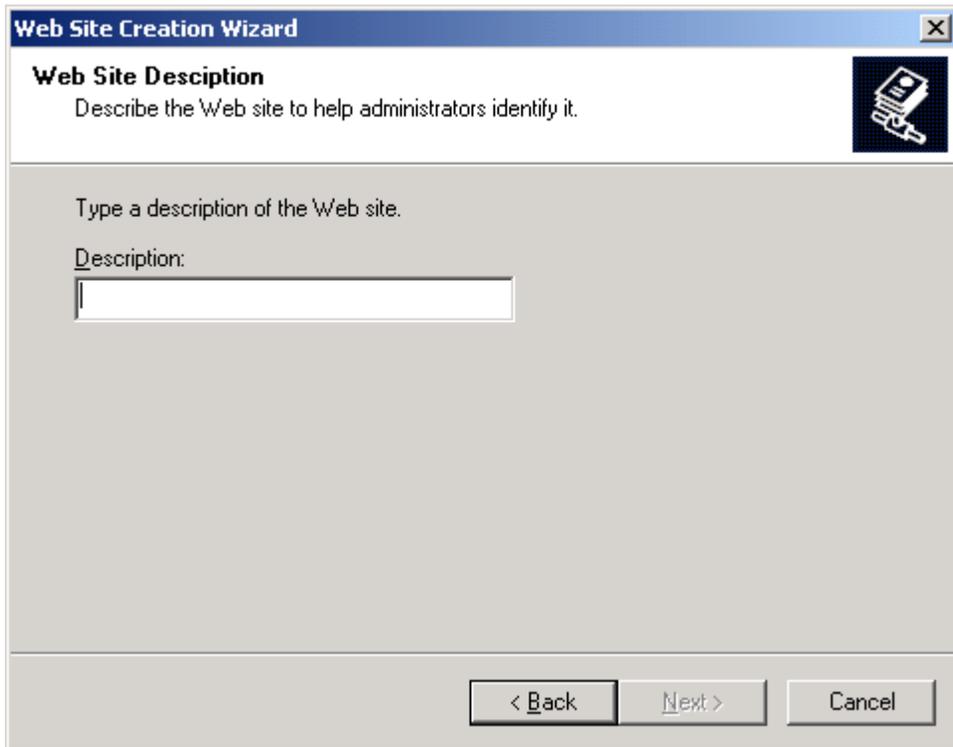
You must be a member of the Administrators group on the local computer to perform the following procedure (or procedures), or you must have been delegated the appropriate authority. As a security best practice, log on to your computer using an account that is not in the Administrators group, and then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

Adding a Web site with the Web Site Creation Wizard

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



2. Click **Next**.



3. In the **Description** box, enter the name of the Web site and click **Next**.

The screenshot shows the 'Web Site Creation Wizard' dialog box, specifically the 'IP Address and Port Settings' step. The title bar reads 'Web Site Creation Wizard'. Below the title bar, the text 'IP Address and Port Settings' is displayed, followed by the instruction 'Specify IP address and port settings for the new Web site.' There is a small icon of a floppy disk with a plus sign in the top right corner. The main area contains four input fields: a dropdown menu for 'Enter the IP address to use for this Web site:' with '(All Unassigned)' selected; a text box for 'TCP port this web site should use: (Default: 80)' containing '80'; a text box for 'Host Header for this site: (Default: None)' which is empty; and a text box for 'SSL port this web site should use: (Default: 443)' which is empty. At the bottom, there is a note: 'For more information, see the IIS Documentation.' and three buttons: '< Back', 'Next >', and 'Cancel'.

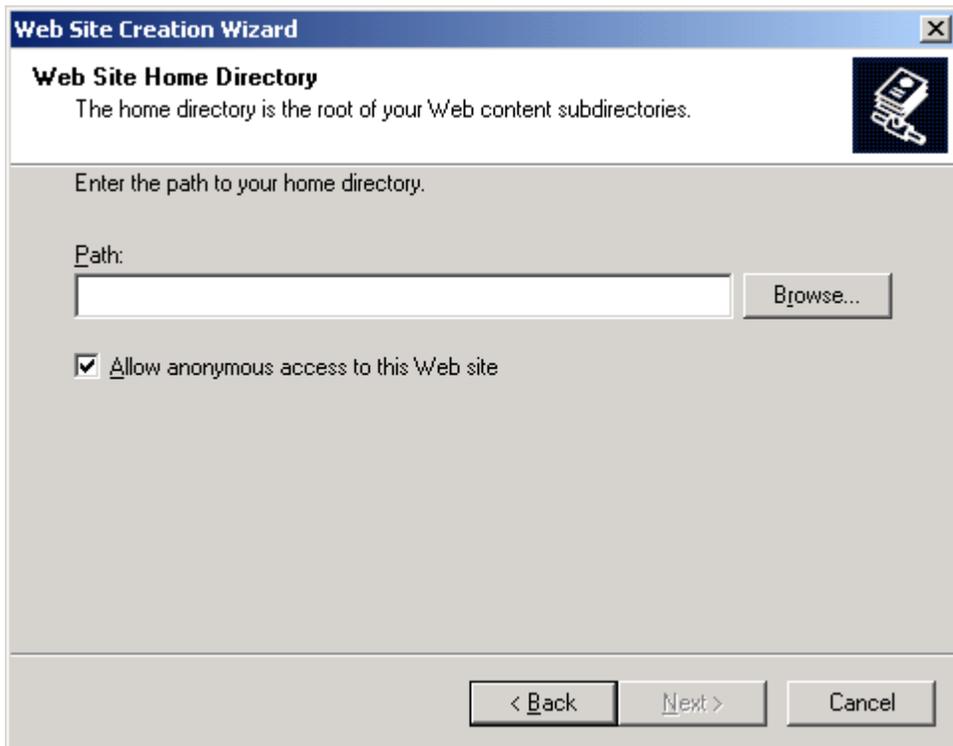
4. In the **Enter the IP address to use for this Web site** box, click **All Unassigned** to allow HTTP to respond to all unassigned IP addresses on the server, or click a specific IP address for the site.

NOTE

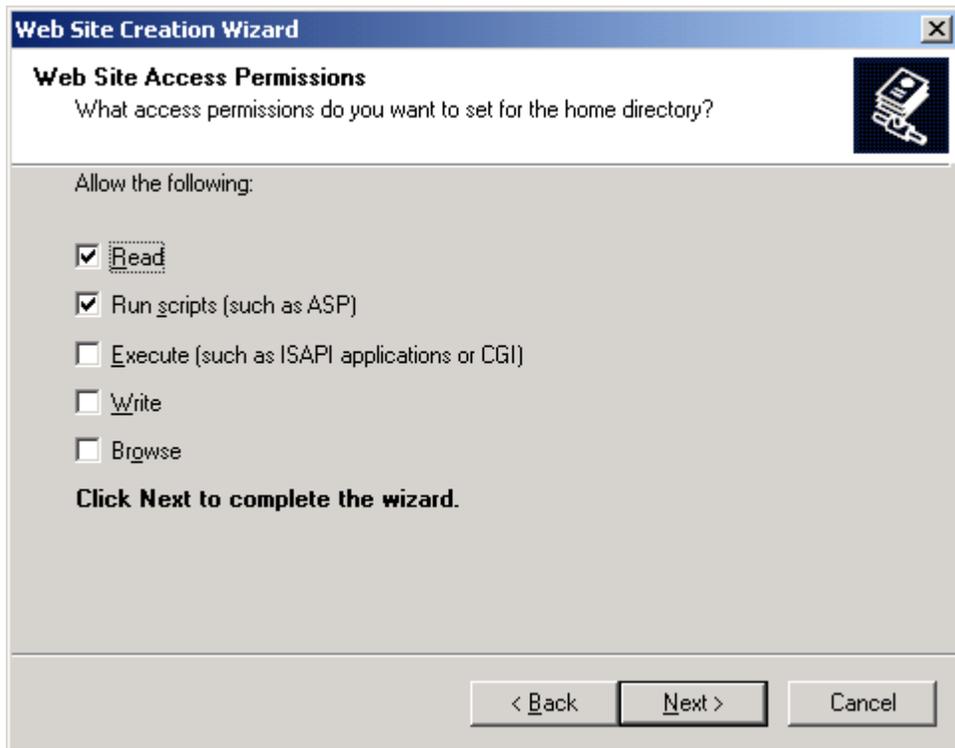
In the Web Site Creation Wizard, **All Unassigned** refers to IP addresses assigned to a computer but not a specific site. The default Web site uses all IP addresses not assigned to other sites. Only one site can be set to use unassigned IP addresses for a given port number. For more information on how sites are identified, see [Creating Multiple FTP Sites in IIS help](#).

5. The TCP port is assigned to port 80 by default. To use a nonstandard port number to create a unique identity for a private Web site, use the **TCP port this Web site should use** box, and type a new port number above 1023.
6. In the **Host Header for this Web site (Default:None)** box, type a host header name to identify a Web site. If you are adding additional sites to a single IP address by using host headers, you must assign a host header name containing the full name of the site, for example, www.ektron.com.

7. If SSL encryption is enabled on the server, the **SSL port** box appears. Type the SSL port number, and then click **Next**.



8. In the **Path** box, type or browse to the path of your Web site home directory.
9. Web sites are configured for anonymous access by default. To create a secure or private Web site, clear the **Allow anonymous** access to this Web site check box, and click **Next**.



10. In the Web Site Access Permissions dialog box, select the permissions for the home directory. Click **Next**, and then click **Finish**.

To add a Web site with the iisweb.vbs command-line script

If the new Web site will be in a new directory, create the new directory. Follow these steps to do that.

1. From the Start menu, and click **Run**.
2. In the Open box, type **cmd**, and click **OK**.
3. From the command prompt, switch to the `systemroot\system32` directory.
4. Type `cscript iisweb.vbs /create Home DirectorySite Description" /i IP Address /b Port` and click <Enter>.

For example, the following command creates a Web site called MyWebSite on port 80 at IP address 123.456.789 with `c:\inetpub\wwwroot\newdirectory` as its home directory.

```
cscript iisweb.vbs /create c:\inetpub\wwwroot\newdirectory "MyWebSite" /i 123.456.789 /b 80
```

NOTE The `iisweb.vbs` script supports additional options for creating a Web site. To see them, search for `iisweb.vbs` in Windows Help.

Related Topics

The following IIS help topics provide additional information.

To change properties on existing Web or FTP sites, see “Changing Default Web Site Settings.”

To add virtual directories, see “Using Virtual Directories.”

To perform common tasks from command-line scripts, see “Using Command-Line Administration Scripts.”

What's New in the 7.6 Release

The following 7.6 features are documented in the **Ektron CMS400.NET Setup Manual**.

- Database support - As of 7.6, Microsoft SQL 2008 and 2005 SP2 are the only supported databases. If you are running an earlier version, you must upgrade SQL before installing **Ektron CMS400.NET** version 7.6
- The license keys have been restructured to accommodate **Ektron CMS400.NET's** new price structure. See "[License Keys](#)" on page vii.
- **New for 7.6.5** - <system.diagnostics> area in the web.config file is described in "[Settings in the web.config File](#)" on page 95.
- **New for 7.6.5** - <ektronCommerce> area in the web.config file is described in "[Settings in the web.config File](#)" on page 95.
- **New for 7.6.5** - URL Aliasing is available with a standard license.
- **New for 7.6.6** - You are asked if you want to enable PCI compliance during installation. See "[If your license key supports eCommerce, this screen appears. To learn more about PCI Compliance, see the following KB article: http://dev.ektron.com/kb_article.aspx?id=26304](#)" on page 40.

Additional Information

Supporting Documents

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

- *Ektron CMS400.NET Administrator Manual, Version 7.6*
- *Ektron CMS400.NET Developers Reference Manual, Version 7.6*
- *Ektron CMS400.NET User Manual, Version 7.6*

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