Sitecore CMS 6.6

Installation Guide

Installation guide for administrators and developers

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Chapter 1

Introduction

This document describes the Sitecore CMS installation.

For small implementations including developer workstations and testing environments, Sitecore CMS and the database server can be installed on a single computer. For larger implementations the database server is typically separated from the application server. The content authoring environment for business users is also frequently separated from the content delivery environment that is accessed by internet users.

Sitecore can be broken down into three logical components regardless of whether a setup .exe file or a .zip file is used to install a new instance of Sitecore and regardless of the database technology that is used.

The three logical components are:

- IIS document root ("the Web site").
- Supporting file system for logs and data.
- Supporting relational databases. The databases are often stored under the supporting file system.

Configuration is managed by files such as `web.config` and the files under the */App_Config* folder.

For information about hardening security when Sitecore is installed, see the *Security Hardening Guide*.

The Sitecore CMS can be distributed in two ways:

- As an executable installation program — .exe file(s).
- As an archived copy of a Sitecore CMS solution in a file system — a zip file.

The installation program should be used whenever possible. It contains a wizard which guides you through the installation process.

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Using the installation program requires considerably less manual effort than configuring the zip file.

You can create an archive of your Sitecore CMS solution to move it from one computer to another.

The document contains the following chapters.

- **Chapter 1 – Introduction**
- **Chapter 2 – Sitecore CMS 6 Requirements**
- **Chapter 3 – Using the Sitecore Installation Program**
- **Chapter 4 – Installing from the .ZIP File**
- **Chapter 5 – Limitations and Specific Requirements**
- **Chapter 7 – Appendix**

Please contact http://support.sitecore.net/helpdesk/ for assistance or to report any discrepancies between this document and the product.

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1.1 Preparing to Install Sitecore CMS 6

Depending on your choice of database technologies, the server administrator's preferences, and the environment you want to run — development, testing, content authoring, content delivery, and so on — there are various ways in which you can install Sitecore.

When you thoroughly understand the Sitecore CMS architecture and have read the installation documentation, you should define a basic installation plan.

Before attempting to install Sitecore CMS, you should decide on the:

- Project name and acronym, for instance ProjectName.
- Acronym/prefix, for instance PN.
- Target installation file system root, for instance `C:\inetpub\wwwroot\ProjectName`.
- Database technology — SQL Server 2008, SQL Server 2008 R2, SQL Server 2012 or SQL Express, or Oracle.
- Database location — locally or on a remote server.
- Appropriate Sitecore CMS license.
- Hardware.
- Administrative access to computers and databases.
- Access to Sitecore Developer Network (http://sdn.sitecore.net) — contact a local sales office or partner manager.
- IIS configuration — host headers, and so on.

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Chapter 2

Sitecore CMS 6 Requirements

This chapter describes the prerequisites, hardware, and software requirements for Sitecore CMS 6 host and client computers. In this document the term “server” refers to a Windows OS Web server and the term “host” refers to an installation of Sitecore CMS on either a server or workstation.

This chapter contains the following sections:

- Sitecore Hosting Environment Requirements
- Sitecore Client Requirements

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2.1 Sitecore Hosting Environment Requirements

2.1.1 IIS Requirements

Sitecore CMS can be hosted on the following IIS versions running on supported operating systems:

- IIS 5.1
- IIS 6.0
- IIS 7.0
- IIS 7.5

Sitecore CMS does not support any other ASP.NET web servers such as Visual Studio Cassini, IIS Express or Mono Web Server.

Important
Sitecore neither supports nor permits multiple IIS website definitions pointing to the same Sitecore web root.

2.1.2 Operating System Requirements

Sitecore CMS can be hosted on the following Microsoft operating systems:

- Windows XP (32-bit only)
- Windows Server 2003 (32/64-bit)
- Windows Server 2008 (32/64-bit)
- Windows Server 2008 R2 (64-bit)
- Windows Vista (32/64-bit)
- Windows 7 (32/64-bit)

Important
Visit Windows Update — http://windowsupdate.microsoft.com — and install all the appropriate service packs and security updates on all of your Sitecore CMS host and client computers.

Windows XP Service Pack 2 (or a later update) must be installed on every Microsoft Windows XP computer that hosts Sitecore or accesses Sitecore with Internet Explorer. Sitecore highly recommends Service Pack 2 (or a later update) for Microsoft Windows 2003. Service Pack 1 is required as a minimum.

Sitecore CMS supports the following editions of the **Windows Vista** operating system:

- Business
- Ultimate
- Enterprise

The other editions of Vista, such as Home Basic, have IIS server limitations. For more information about IIS configuration on different editions of Windows Vista, see the following articles:

- Why you need Vista Business / Ultimate for IIS 7?

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- IIS 7.0 Features and Vista Editions

Sitecore CMS supports the following editions of the **Windows 7** operating system:

- Ultimate
- Professional
- Enterprise

It is possible to run Sitecore on **Windows 7 Home Premium** if you install IIS 7.5 on it. For information about installing IIS 7.5 on Windows 7 Home Premium read the following article:

- Installing IIS 7.5 on Windows 7 Home Premium, Home Basic, or Home Starter.

You can read about feature limitations in **Windows 7** editions by reading the following article:

- Available Web Server (IIS) Role Services in IIS 7.5

2.1.3 .NET Framework Requirements

Sitecore CMS 6 requires .NET Framework 3.5 Service Pack 1 or .NET Framework 4.

Any available updates to the .NET framework should be applied to every Sitecore host.

To reduce the number of ASP.NET configuration issues on Sitecore hosts running on IIS 6, install and enable IIS before updating the .NET framework.

If you are running IIS 6 and you have installed .NET Framework before installing IIS, please refer to the following article for troubleshooting instructions:

- Troubleshooting an ASP.NET Installation (IIS 6.0)

2.1.4 Database Requirements

Sitecore CMS supports the following database servers:

- MS SQL Server 2008.
- MS SQL Server 2008 R2.
- MS SQL Server 2012.
- Oracle 11g.

Note
You should have the Oracle specific license keys in your license file to run Sitecore with the Oracle database: Sitecore.Oracle and Sitecore.FireDB.

Note
Starting with 6.5 Update-3, Oracle 10g is no longer supported, because Oracle has not provided active support for 10.2 since July 2010.

Sitecore recommends running the database on a separate server from the web server(s).

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2.1.5 Hardware Requirements for a Server Running a Single Sitecore Installation

The following hardware requirements are recommended:

- 4 core processor
- 4 GB of RAM

Note
The recommended hardware requirements are for running the software on a single computer. For more information about running Sitecore on different kinds of hardware, consult your Sitecore partner or Technical Sales Representative.

2.1.6 Antivirus Software Considerations

Some antivirus software can have a detrimental effect on the performance of ASP.NET applications including Sitecore. We therefore recommend that you use only antivirus scanners that are certified for the operating system that you use. For more information about the certified products, see the Windows Server Catalog website.

To ensure optimal performance, exclude the following folders from scanning by your antivirus software:

- The site root folder.
- The data folder that is defined in the `<sc.variable name="dataFolder" ... />` setting in the web.config file.
- The folder that contains the actual Sitecore database files.
- The `C:\Windows\Temp or {app_pool user profile}\Temp` folder.

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2.2 Sitecore Client Requirements

2.2.1 Software Requirements

Browser

Sitecore CMS clients are browser-based user interfaces. Sitecore clients can run on the following browsers:

- Microsoft Internet Explorer 11 is supported by Sitecore CMS 6.6 Service Pack-2, originally released as 6.6 Update-8 (rev. 140410).
- Microsoft Internet Explorer 10 is supported by Sitecore CMS 6.6 Update-5 (rev. 130404) and later 6.6 updates.
- Microsoft Internet Explorer 9 is supported by CMS 6.5 Update-2 (rev. 111123) and later CMS 6.5 updates.
- Microsoft Internet Explorer 7 and 8.
- Mozilla Firefox 3.6 and later.
- Google Chrome 5 and later.
- Apple Safari 5.

Note
To use Page Editor, Preview or Sitecore Debugger in Microsoft Internet Explorer 9, you must enable Compatibility View mode in the browser. For more information about IE 9 support, see the known issue on SDN.

Note
Sitecore CMS 6.6 supports all current stable versions of these browsers unless stated otherwise.

For more information on how to configure a browser, see the *Browser Configuration Reference*.

Silverlight

If you want to install Sitecore DMS, you must also install Microsoft Silverlight 4 or later.

2.2.2 Hardware Requirements

- Processor: Intel Pentium 4 2GHz or faster processor.
- RAM: 512 MB minimum. 1GB – recommended.
- TCP/IP connection at 512Kbps or faster to the Sitecore CMS host.
- 1024x768 or greater screen resolution required for advanced operations.

You do not need to install any additional software on the Sitecore CMS clients that access Sitecore CMS servers.

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Chapter 3

Using the Sitecore Installation Program

This chapter describes the process of Sitecore CMS installation using the executable installation program.

You can download the Sitecore Installation Program from the Sitecore CMS Downloads page.

This chapter contains the following sections:

- Windows Vista / Windows 7 Pre-installation Steps
- Installation Process
- Uninstalling Sitecore
- Troubleshooting

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3.1 Windows Vista / Windows 7 Pre-installation Steps

Before you can install Sitecore on Windows Vista or Windows 7, you must ensure that the UAC (User Account Control) configuration security policy *Detect application installations and prompt for elevation* is enabled.

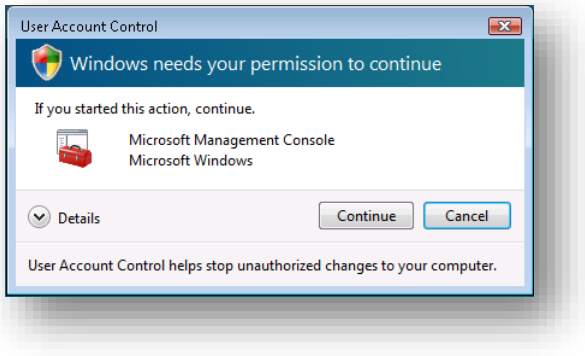
3.1.1 The UAC (User Account Control) Configuration

To run the installation program on Windows Vista or Windows 7, the UAC (User Account Control) configuration security policy *Detect application installations and prompt for elevation* must be enabled (this setting is enabled by default).

To check if this setting has been changed on your machine:

1. Log in to Vista as an administrator.
1. Press WIN + R to open the **Run** window.
2. In the **Run** window, enter *secpol.msc* and press ENTER.

   The UAC (User Account Control) requests your permission to continue.



3. Click **Continue** to open the **Local Security Policy** window.
4. In the left-hand pane, expand the *Local Policies* node and select *Security Options*.
5. Scroll to the bottom of the list of policies in the right-hand pane.

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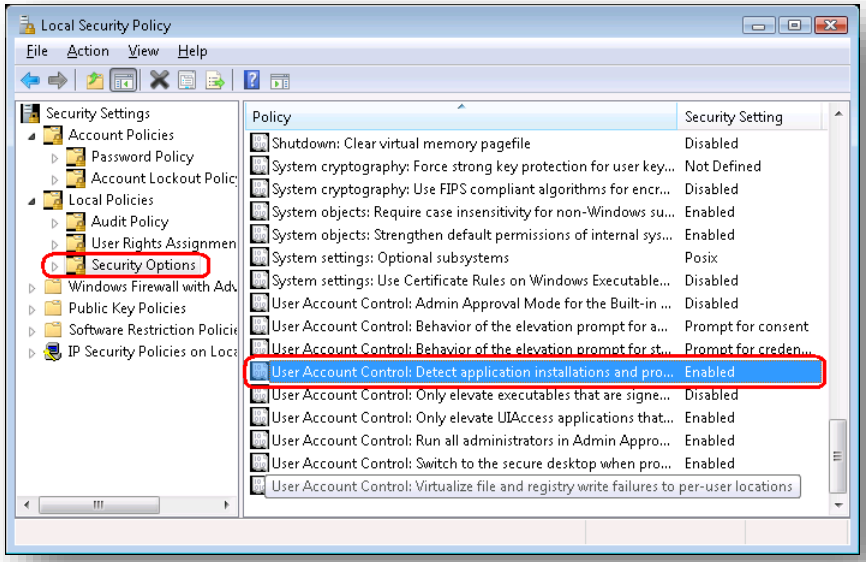
6. Verify that the *User Account Control: Detect application installations and prompt for elevation* policy is set to *Enabled*.



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3.2 Installation Process

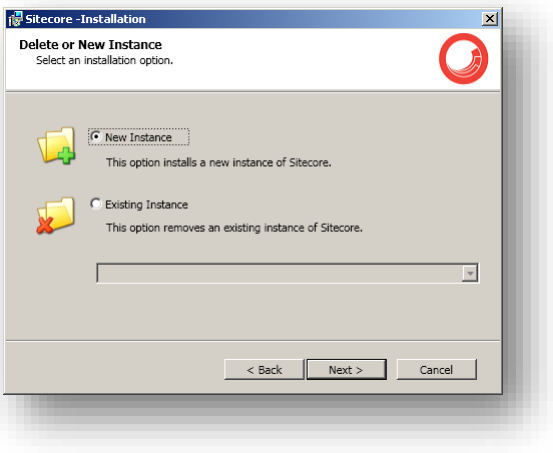
To start the installation process you need to launch the **Sitecore 6.X.X rev.XXXXXX.exe** application, which starts the installation wizard. This section describes the steps of the wizard.

Note
The Sitecore CMS configuration files are automatically modified according to the settings provided in the wizard.

Welcome screen

Review the welcome screen and click **Next**.

Upgrade or New Instance



Select the **New Instance** radio button to *install a new instance*.

Select the **Existing Instance** to *remove an existing instance of Sitecore CMS*. This option is only active when an instance of Sitecore already exists on the machine.

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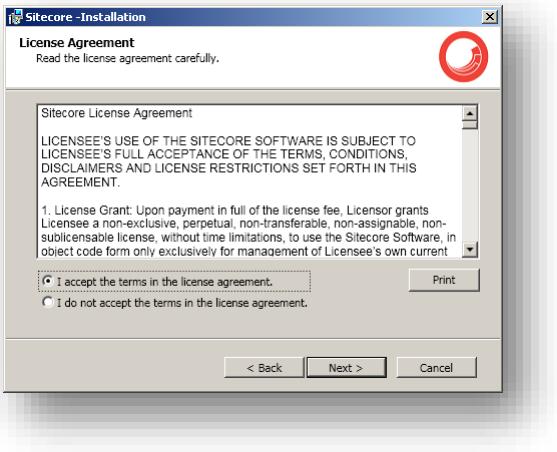
License Agreement



Read the License Agreement and select the appropriate radio button. Click **Next**.

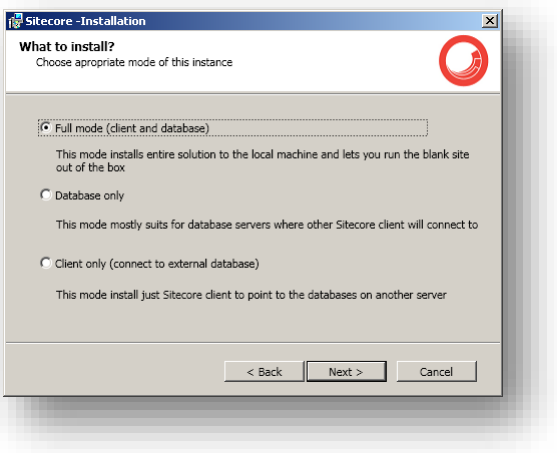
What to Install?

Select the installation mode:

- Full mode (client and database). This mode installs both Sitecore databases and Sitecore client on the local computer.
- Database only. This mode only installs Sitecore databases.
- Client only. This mode installs everything except databases.

3.2.1 Full Mode (client and database)

This mode installs both Sitecore databases and Sitecore client on the local computer.



Select the **Full mode (client and databases)** check box.

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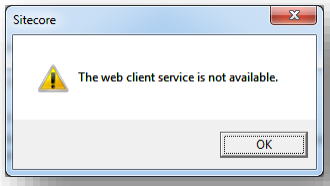
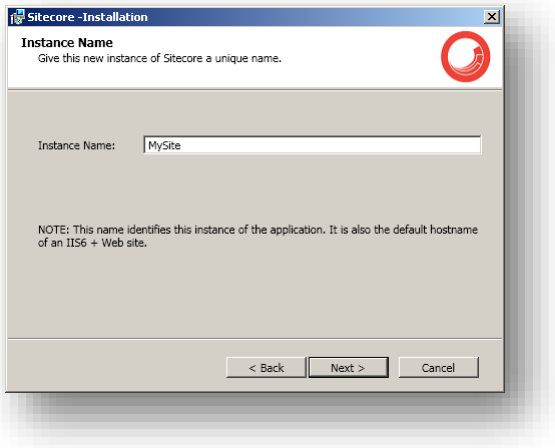
To install Sitecore WebDAV features you must have the WebClient service on your computer. If not, the following message appears:



Disregard this message if you do not want to install WebDAV features.

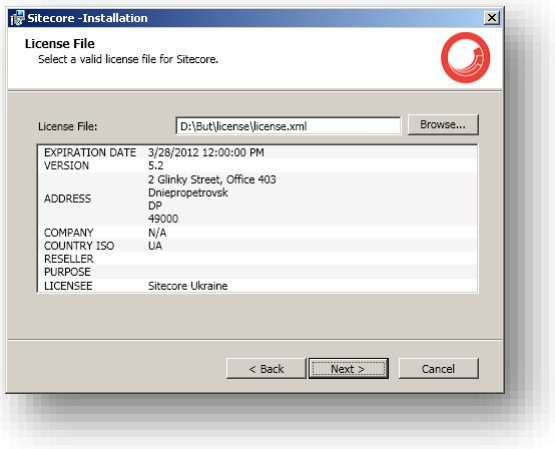
Click **Next**.

Instance Name



Give this new instance of Sitecore CMS a unique name. If you choose to create a new site on a later step, this name is also used as the hostname of an IIS web site.

License File



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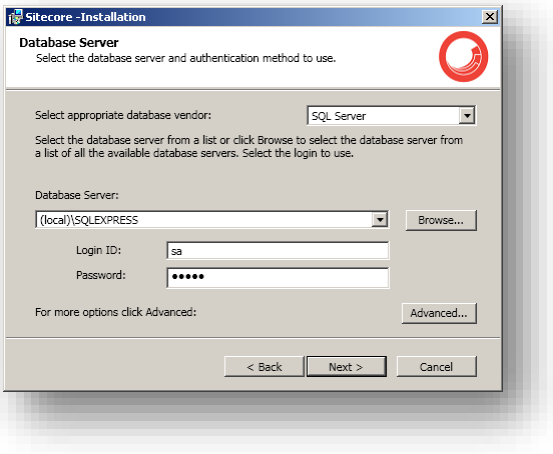
Select the license file. Click **Next**.

Database Server

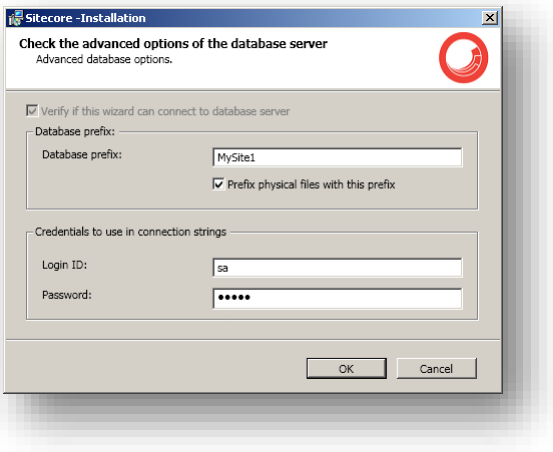
Choose the database server.

If you have chosen SQL server, you see the following **Database Server** dialog box:



Select the database vendor. Select the database server from a list or click **Browse** to see a list of all the database servers available. Enter the login id (SQL server user name) and corresponding password. The installation program will use these credentials to access the SQL server.

To set the database prefix options, click **Advanced** and the **Check the advanced options of the database server** dialog box appears:



Specify the database prefix for this instance of Sitecore CMS and select whether to prefix physical files or not.

Enter the login id (SQL server user name) and corresponding password. Sitecore applications will use these credentials to access the SQL server. Click **Ok**.

Click **Next**.

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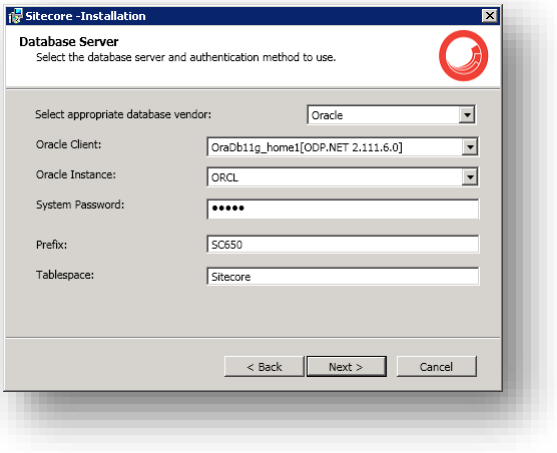
If you have chosen Oracle, you see the following **Database Server** dialog box:



Important
You must create the appropriate tablespace first. To do this, run the following SQL script:

```
create tablespace sitecore logging datafile 'sitecore.dbf' size 200M
reuse autoextend on next 100M extent management local segment space management auto;
```

Configure the Oracle database server. This dialog box contains the following fields:

- **Oracle Client** – select the Oracle client.
- **Oracle Instance** – select the Oracle instance.
- **System password** – password for the system user of the Oracle instance.
- **Prefix** - prefix to use for user schema names and passwords.
- **Tablespace** – name of the tablespace for Sitecore data.

Click **Next**.

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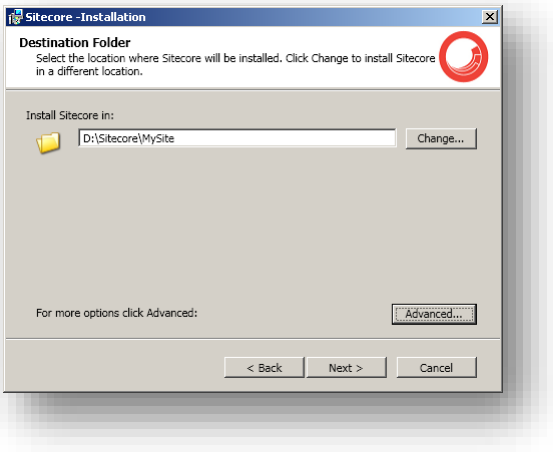
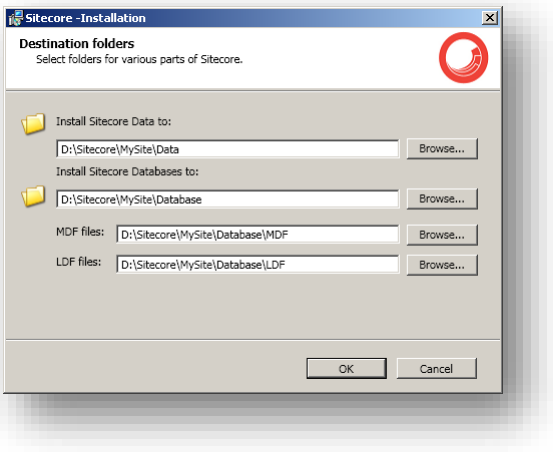
Destination Folder



Select the folder where Sitecore CMS web site will be installed.

To change the database folder and the folder where various data files will be stored (log files, packages, etc.), click **Advanced**. The **Destination Folders** dialog box appears:



Enter new destination folders and click **Ok**.

Click **Next**.

Note
Make sure that the SQL server has the permissions to write to the destination folder.

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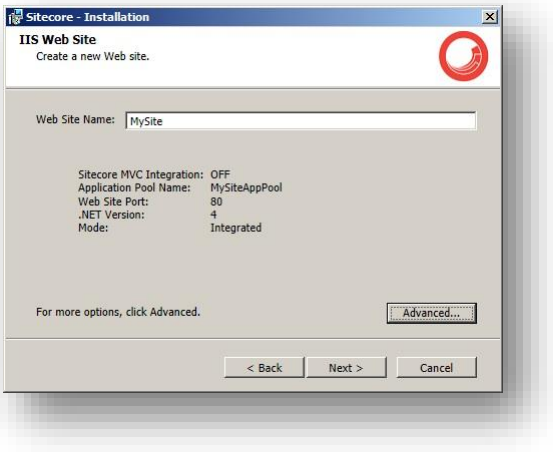
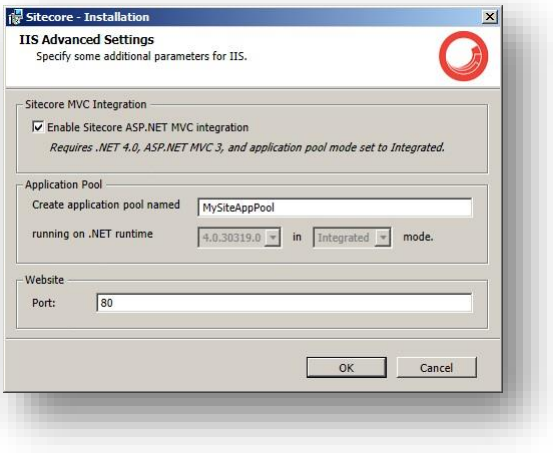
IIS Web Site



Enter the name of the new website.

Click **Advanced** to enable Sitecore ASP.NET MVC integration, edit a website port, application pool name and its mode and .NET Framework version.



Important
To enable Sitecore ASP.NET MVC integration, you must have Microsoft ASP.NET MVC 3 installed before you run the installation program. To install ASP.NET MVC 3, use the Web Platform Installer.

Click **OK**.

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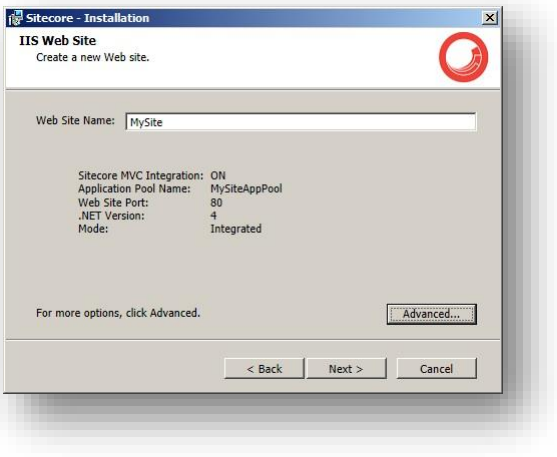
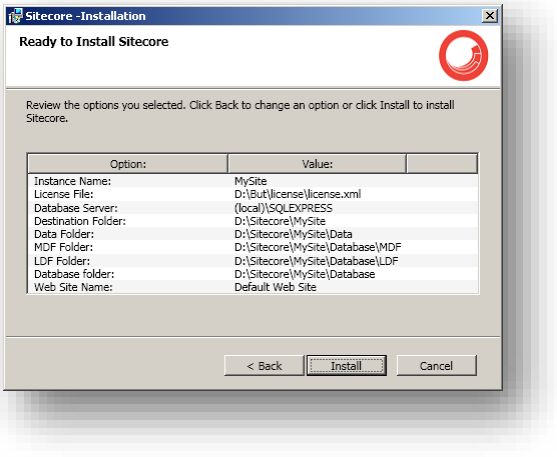
If you select the **Enable Sitecore ASP.NET MVC Integration** checkbox, the IIS Web Site dialog box will reflect that in the **Sitecore MVC Integration** field:



Click **Next**.

Note
If you did not set these options during your Sitecore 7.0 installation, you can do this later using the Microsoft Windows IIS Manager tool to verify or set the application pool for your new Sitecore web site to .NET Framework 4.0.

Ready to Install Sitecore



Review the options you selected. Click **Install** to install Sitecore CMS.

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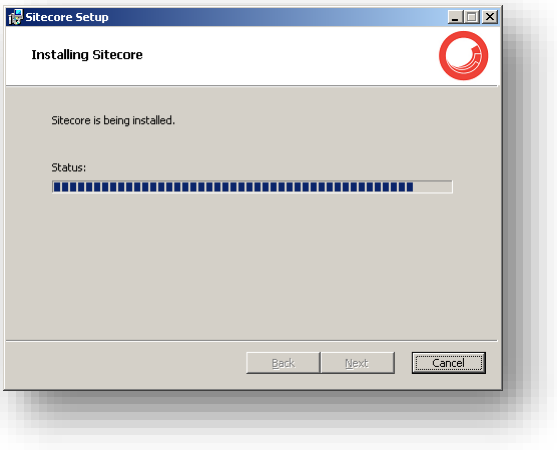
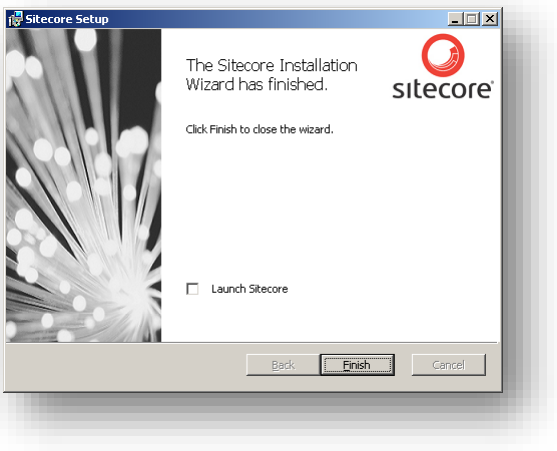
Installing Sitecore



After you click **Next** you will see a window which will inform you about the installation process.

Finish



The Sitecore Installation Wizard has finished. Click **Finish** to exit the wizard.

3.2.2 Databases Only Installation Mode

This section describes the Databases Only installation mode. This mode only installs Sitecore databases.

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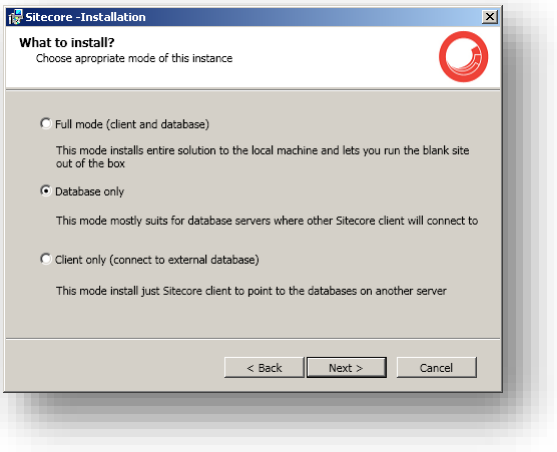
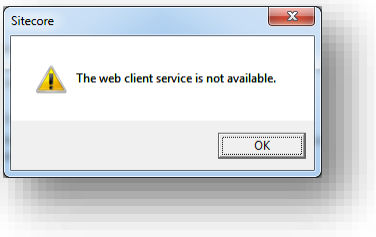
What to Install?



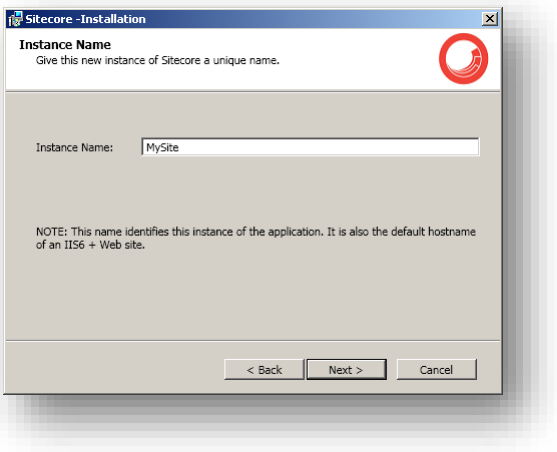
Select the **Databases only** check box installation type to install only databases.

To install Sitecore WebDAV features you must have the WebClient service on your computer. If not, the following message appears:



Disregard this message if you do not want to install WebDAV features.

Instance Name



Give this new instance of Sitecore CMS a unique name. If you choose to create a new site on a later step, this name is also used as the hostname of an IIS web site.

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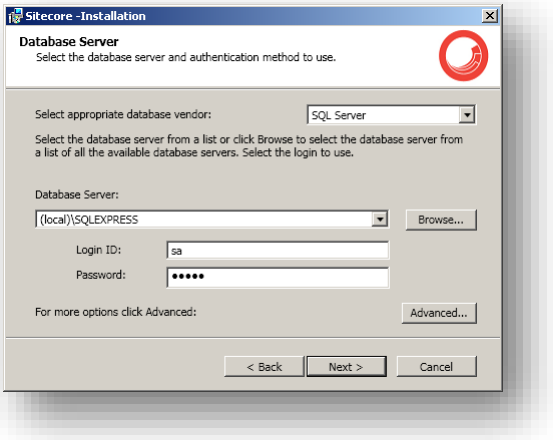
Database Server

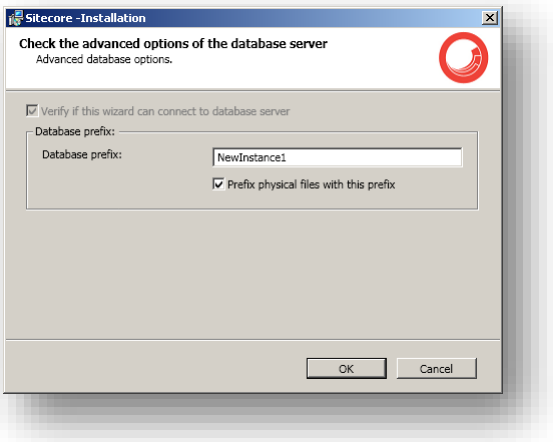
Choose the database server.

If you have chosen SQL server, you see the following **Database Server** dialog box:



Select the database server from a list or click Browse to see a list of all the database servers available. Enter the login id (SQL server user name) and corresponding password.

To set the database prefix options, click **Advanced** and the **Check the advanced options of the database server** dialog box appears.



Specify the database prefix for this instance of Sitecore CMS and select whether to prefix physical files or not. Click **Ok**.

Click **Next**.

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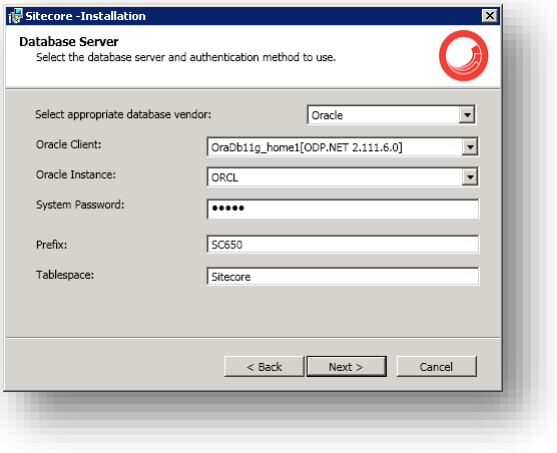
If you have chosen Oracle, you see the following **Database Server** dialog box:



Important
You must create the appropriate tablespace first. To do this, run the following SQL script:

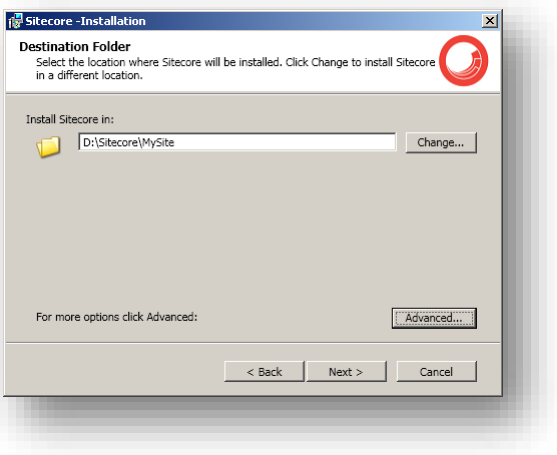
```
create tablespace sitecore logging datafile 'sitecore.dbf' size 200M
reuse autoextend on next 100M extent management local segment space management auto;
```

Configure the Oracle database server. This dialog box contains the following fields:

- **Oracle Client** – select the Oracle client.
- **Oracle Instance** – select the Oracle instance.
- **System password** – password for the system user of the Oracle instance.
- **Prefix** - prefix to use for user schema names and passwords.
- **Tablespace** – name of the tablespace for Sitecore data.

Click **Next**.

Destination Folder



Select the location where the databases will be installed.

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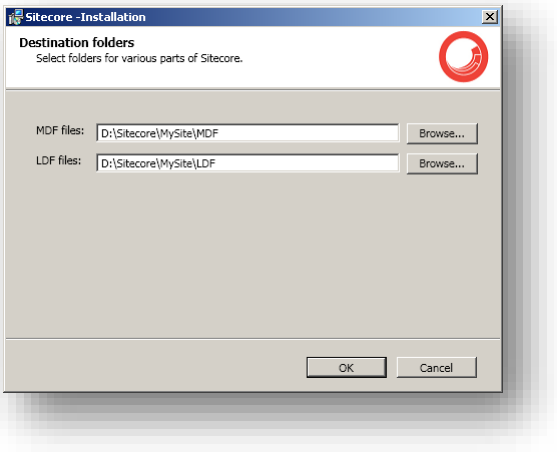
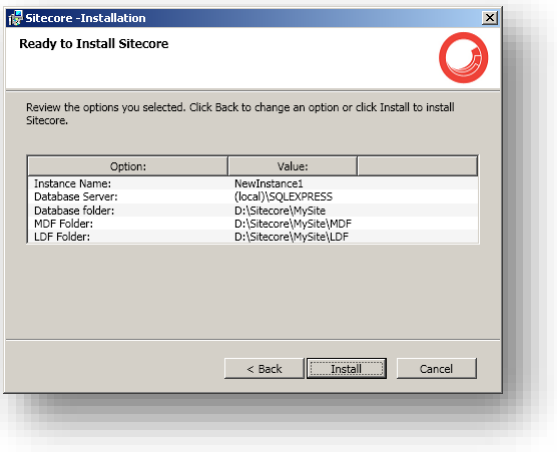
To change the database folder and the folder where various database files will be stored, click **Advanced**. The **Destination Folders** dialog box appears:



Enter destination folders and click **Ok**.

Click **Next**.

Ready to Install Sitecore



Review the options you selected. Click **Install** to install Sitecore CMS.

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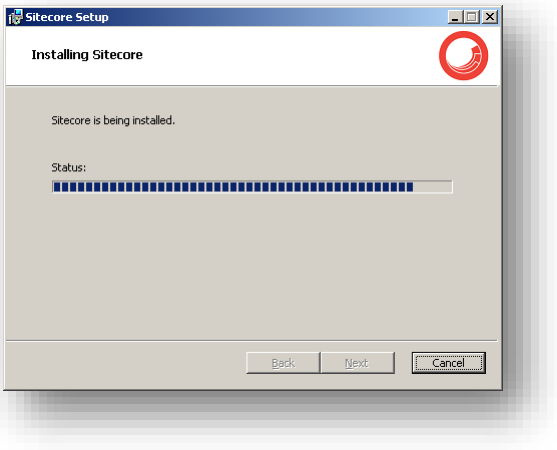
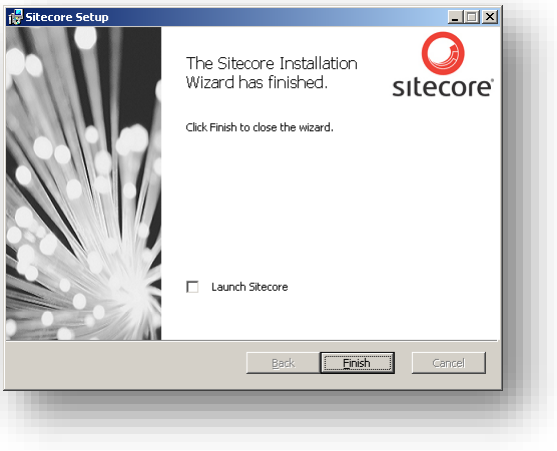
Installing Sitecore



After you click **Next** you will see a window which will inform you about the installation process.

Finish



The Sitecore Installation Wizard has finished. Click **Finish** to exit the wizard.

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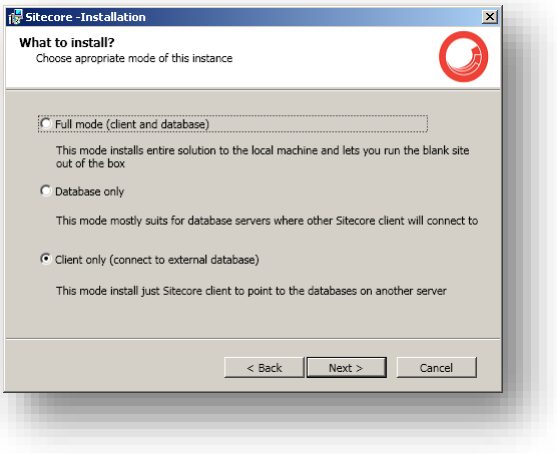
3.2.3 Client Only Installation Mode

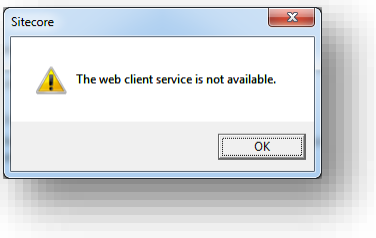
This section describes the Client Only installation mode. This mode installs everything except databases.

What to Install?



Select the **Client only** check box.

To install Sitecore WebDAV features you must have the WebClient service on your computer. If not, the following message appears:



Disregard this message if you do not want to install WebDAV features.

Click **Next**.

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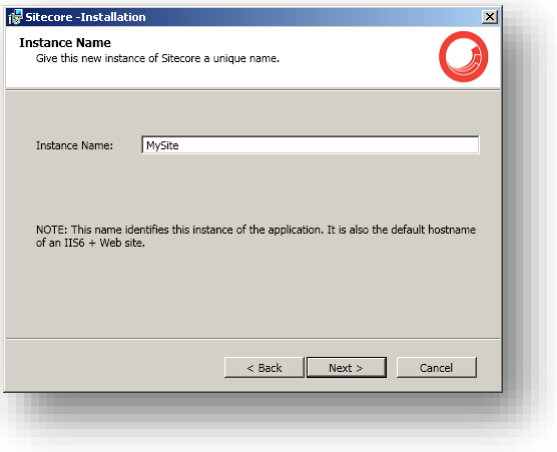
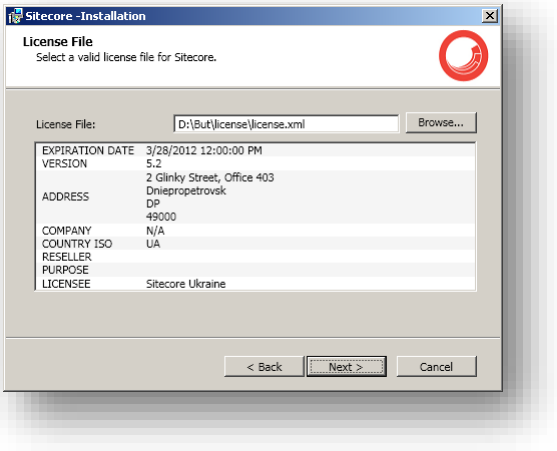
Instance Name



Give this new instance of Sitecore CMS a unique name. If you choose to create a new site on a later step, this name is also used as the hostname of an IIS web site.

License File



Select the license file. Click **Next**.

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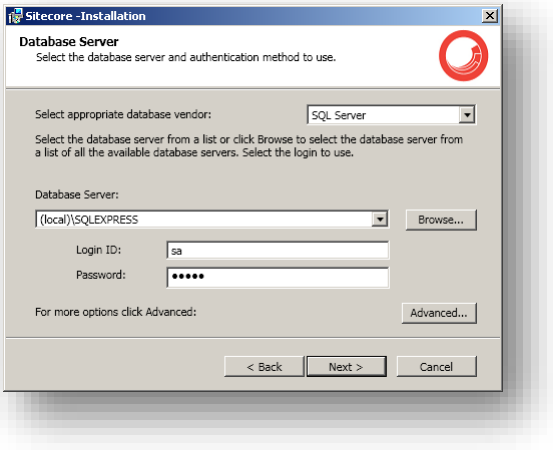
Database Server

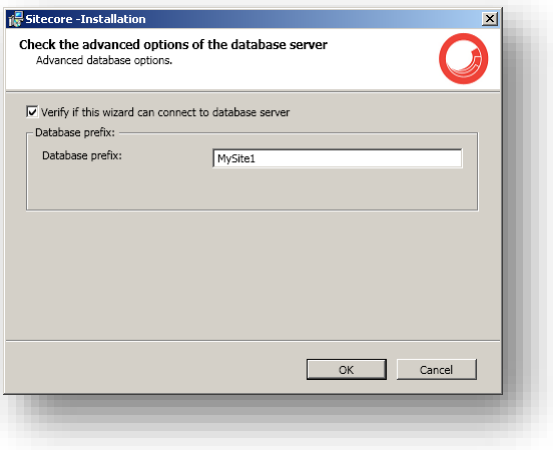
Choose the database server.

If you have chosen SQL server, you see the following **Database Server** dialog box:



Select the database vendor. Select the database server from a list or click **Browse** to see a list of all the database servers available. Enter the login id (SQL server user name) and corresponding password. The installation program will use these credentials to access the SQL server.

To set the database prefix options, click **Advanced** and the **Check the advanced options of the database server** dialog box appears.



Specify the database prefix for this instance of Sitecore CMS and select whether to prefix physical files or not. Click **Ok**.

Click **Next**.

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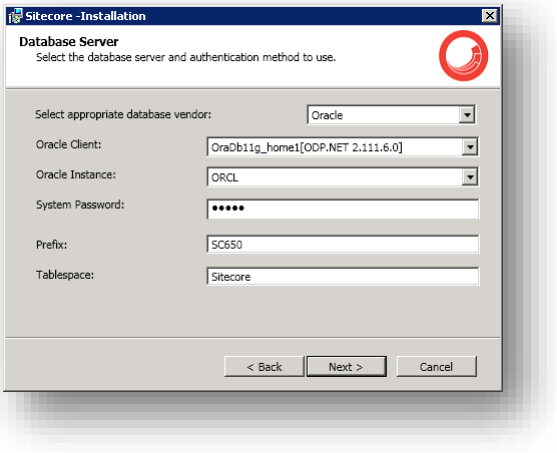
If you have chosen Oracle, you see the following **Database Server** dialog box:

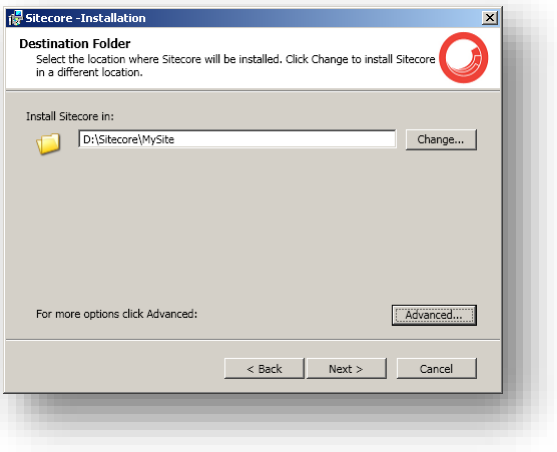


Configure the Oracle database server. This dialog box contains the following fields:

- **Oracle Client** – select the Oracle client.
- **Oracle Instance** – select the Oracle instance.
- **System password** – password for the system user of the Oracle instance.
- **Prefix** - prefix to use for user schema names and passwords.
- **Tablespace** – name of the tablespace for Sitecore data.

Click **Next**.

Destination Folder



Select the location where Sitecore will be installed.

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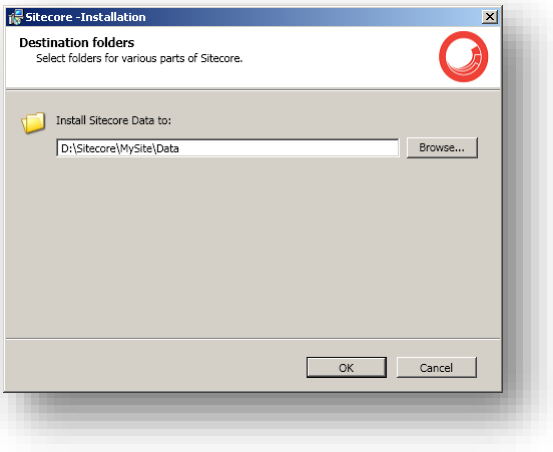
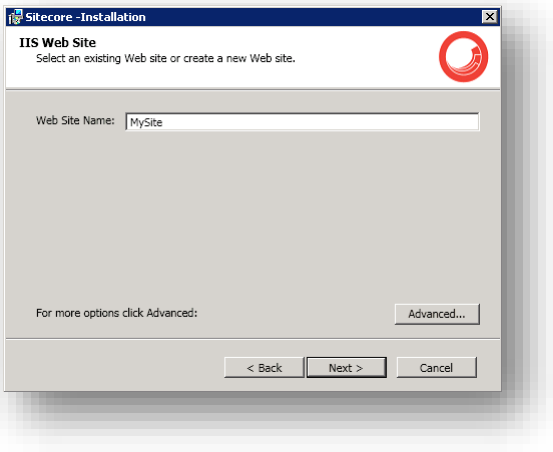
To change the database folder and the folder where various database files will be stored, click **Advanced**. The **Destination Folders** dialog box appears:



Enter destination folders and click **Ok**.

Click **Next**.

IIS Web Site



Enter the name of the new website.

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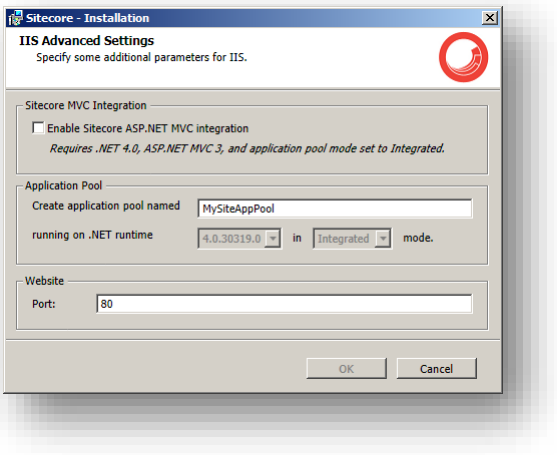
Click **Advanced** to enable Sitecore ASP.NET MVC integration, edit a website port, application pool name and mode, .NET Framework version.



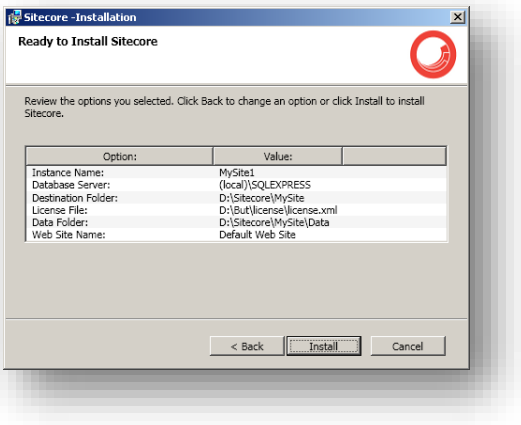
Important
To enable Sitecore ASP.NET MVC integration, you must have Microsoft ASP.NET MVC 3 installed before you run the installation program. To install ASP.NET MVC 3, use the Web Platform Installer.

Click **OK**.

Click **Next**.

Note
If you did not set these options during your Sitecore 7.0 installation, you can do this later using the Microsoft Windows IIS Manager tool to verify or set the application pool for your new Sitecore web site to .NET Framework 4.0.

Ready to Install Sitecore



Review the options you selected. Click **Install** to install Sitecore CMS.

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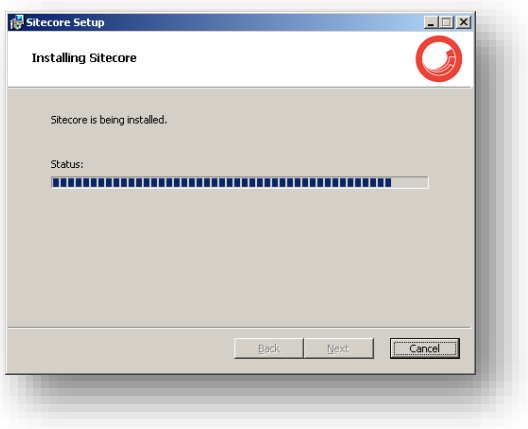
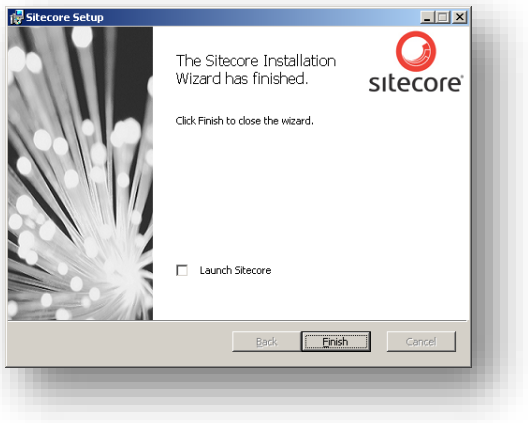
Installing Sitecore



After you click **Next** you will see a window which will inform you about the installation process.

Finish



The Sitecore Installation Wizard has finished. Click **Finish** to exit the wizard.

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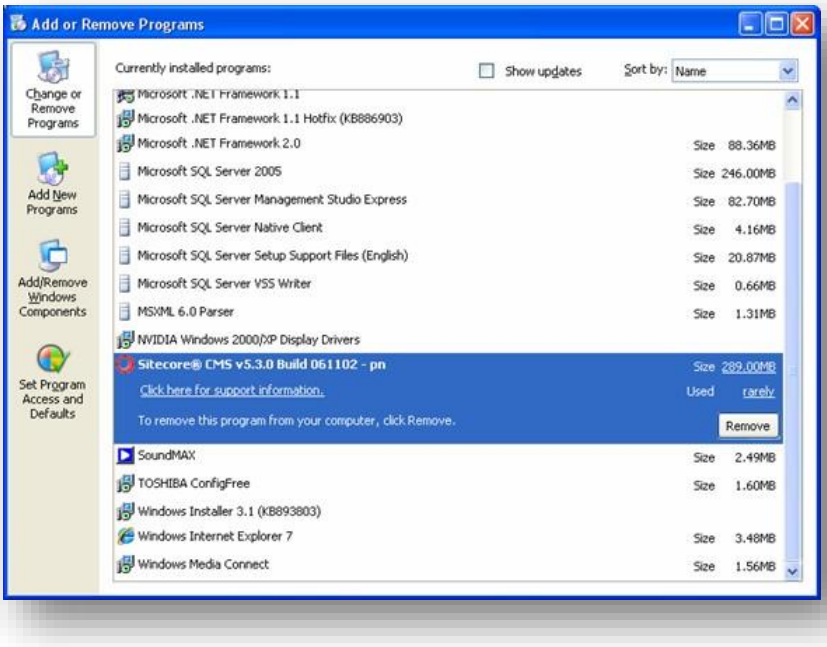
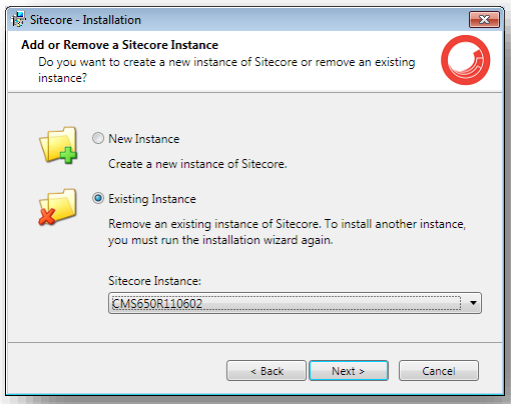
3.3 Uninstalling Sitecore

To start the process of uninstalling Sitecore, perform one of the following actions:

- Run Windows Control Panel, in the **Add or Remove Programs** window, locate the appropriate entry and click **Remove**:



- Launch the **Sitecore 6.X.X rev.XXXXXX.exe** application, in the **Add or Remove Sitecore Instance** step, select **the Existing Instance** check box.



After uninstalling Sitecore, restart the SQL Server and IIS services as appropriate.

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3.4 Troubleshooting

If the installation program fails

If the installation program fails, archive the log file and attach it to your support request.

If the installation program fails after you click Install in the **Ready to Install** dialog box, the log file is automatically created at: `%TEMP%\SitecoreInstaller.log`.

Note
The log file is recreated during each installation. You should therefore copy it right after an unsuccessful installation. Otherwise the file will be overwritten.

"Database '...' cannot be upgraded" error message while using SQL Server

When using SQL Server the installer returns the "Database '...' cannot be upgraded" error message, the user account configured to run the SQL server application must have Full access permissions to the website root folder. Typically, the SQL server application runs in the context of the NETWORK SERVICE account.

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Chapter 4

Installing from the .ZIP File

This chapter describes how to install Sitecore using the ZIP archive of the Web site root. You can download the ZIP archive from the following page:

http://sdn.sitecore.net/Resources/Sitecore%206.aspx

This chapter contains the following sections:

- Installation Process Overview
- Configuring Folder and Registry Permissions
- Configuring the IIS
- Microsoft SQL Server Configuration
- Oracle Database Storage Setup
- Uninstalling Sitecore (ZIP installation)

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4.1 Installation Process Overview

This section describes how to install Sitecore from a ZIP archive of the Sitecore CMS site root.

You can download the Sitecore CMS ZIP archive from the following page:

http://sdn.sitecore.net/Resources/Sitecore%206.aspx

To install an instance of Sitecore:

1. Install Microsoft .NET Framework V3.5 or 4.
2. Choose a parent directory path for the project, for example `C:\InetPub\ProjectName.`
3. Extract the .zip archive to create the following folders:

   ```
   C:\InetPub\ProjectName\Website
   C:\InetPub\ProjectName\Data
   C:\InetPub\ProjectName\Databases
   ```

4. Set permissions as described in **Section 4.2, Configuring Folder and Registry Permissions**.
5. To enable Sitecore ASP.NET MVC integration, perform the following actions:
   - Install ASP.NET MVC 3 using the Web Platform Installer.
   - Disable the `Web.config` file.
   - Rename the `Web.config.Mvc` file to `Web.config`.
   - Copy all assemblies from the `/Website/bin_Net4` folder to the `/Website/bin` folder.
   - In the `/Website/App_Config/` folder, enable the following files:
     `Sitecore.Mvc.config`
     `Sitecore.MvcExperienceEditor.config`
     `Sitecore.MvcSimulator.config`

     To use DMS with Sitecore MVC, also enable the `Sitecore.MvcAnalytics.config` file.
6. Place the appropriate `license.xml` file to the `/Data` folder. The location of the `/Data` folder is determined by the following setting in the `web.config` file:

   ```
   <sc.variable name="dataFolder" value="/data" />
   ```

   This setting should be changed to the absolute location of the folder, such as `C:\InetPub\ProjectName\Data`
7. If you are running SQL Server, attach SQL databases from `/Databases` folder to the SQL server.
8. If you are running SQL Server, edit the `ConnectionStrings.config` file located in the `/Website/App_Config/` folder. Enter the appropriate values in a line for each database, for instance:

   ```
   <add name="core" connectionString="user
   id=_sql_server_user_;password=_user_password_;Data
   Source=_sqlserver_;Database=_core_database_name_" />
   ```

9. In the IIS, configure the web site as described in **Section 4.3, Configuring the IIS**.

Note
To use Sitecore ASP.NET MVC, you must select .NET Framework version 4.0 and Integrated mode in application pool settings.

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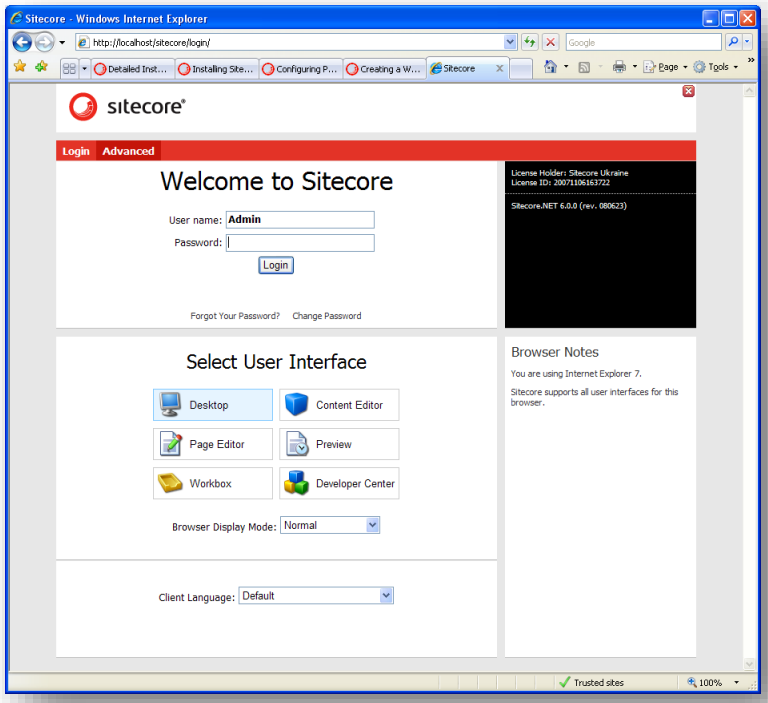
10. Configure the Internet Explorer browser as described in Internet Explorer Configuration Reference.
11. Start the browser and enter the following address in the address bar:

    http://ProjectName/sitecore

    You should now see the Sitecore login screen:



    The default password for the Admin user is “b”.

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4.2 Configuring Folder and Registry Permissions

This section describes the NTFS permissions for folders and files and Windows registry permissions required by Sitecore CMS for proper functioning. For practical advice on how to edit NTFS permissions and registry permissions, please refer to **Section 7.1, Server Configuration**, and to the MSDN web site and Windows help application.

4.2.1 File System Permissions for Anonymous Requests

Certain types of browser requests (generally for directory lookups and static resources) are executed with the permissions of the anonymous Internet user account. This account requires *Read* permissions to all files, folders, and subfolders under the `/Website` folder.

The following table contains the default name for this account in different versions of IIS:

IIS version	Default anonymous Internet user account name
5 and 6	IUSR_*, where the star represents the machine name
7 and 7.5	IUSR

If IIS is configured not to use the default IUSR account for processing anonymous requests or Anonymous authentication is not enabled for the web site, the aforementioned permissions should be granted to the corresponding account(s).

4.2.2 File System Permissions for ASP.NET Requests

Requests for ASP.NET resources and all the .NET code running within the application is executed with the permissions of the account configured as an identity for the web site's application pool. This account requires *Modify* permissions to all files, folders, and subfolders under the `/Website` and `/Data` folders.

The following table contains the default account used for processing ASP.NET requests in different versions of IIS:

IIS version	Default ASP.NET account name
5	ASPNET
6 and 7	NETWORK SERVICE
7.5	AppPoolIdentity

IIS 6 and later versions allow changing the user account used for processing ASP.NET requests.

If you choose a different user account for processing ASP.NET requests, you must grant this account the aforementioned permissions.

Note
For more information about application pool identities and specifically about assigning rights to the AppPoolIdentity account, refer to the following article: http://learn.iis.net/page.aspx/624/application-pool-identities/

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4.2.3 File System Permissions for System Folders

To be able to load .NET runtime and ASP.NET resources used for processing the ASP.NET requests, the worker process hosting the Sitecore CMS application requires access to multiple system files and folders that are not distributed as a part of the Sitecore CMS but installed as a part of Windows OS and .NET framework.

Most of these permissions are granted by IIS to all ASP.NET applications automatically making the application pool identity account a member of the *IIS_IUSRS* security group (IIS_WPG on IIS 6).

However, on certain environments it is necessary to manually grant permissions for the application pool identity to the following system locations:

Default location	Required permissions	Comments
%WINDIR%\temp\	Modify	
%WINDIR%\Globalization\	Modify	Required for registering custom languages by the .NET Framework correctly
%PROGRAMDATA%\Microsoft\Crypto	Modify	Required for storing cryptographic keys used for encrypting/decrypting data

Note
ASP.NET and/or IUSR_* users require the modify access rights to the \temp folder to install Sitecore CMS.

Variables mentioned above have the following default values:

Variable	Default value
%WINDIR%	C:\Windows
%PROGRAMDATA%	C:\Documents and Settings\All Users for IIS 5/6; C:\ProgramData for IIS 7 and later

Note
For more information about built-in groups and accounts in IIS, refer to http://learn.iis.net/page.aspx/140/understanding-built-in-user-and-group-accounts-in-iis-7/

4.2.4 File System Permissions for SQL Server Files

If you are using SQL Server, the user account configured to run the SQL server application requires *Full access* to the `/Databases` folder containing MDF and LDF database files. Typically, the SQL server application runs within the context of the *NETWORK SERVICE* account.

4.2.5 Windows Registry Permissions

Sitecore CMS contains a built-in functionality that reads and updates the Windows performance counters that can be used for monitoring and troubleshooting the Sitecore application. This functionality requires access to Windows registry keys. This access can be granted by making the application pool identity a member of the built-in *Performance Monitor Users* group.

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Note
If the required registry permissions are not granted, the “Access to the registry key 'Global' is denied” error will be written in the Sitecore log files whenever the application attempts to access Windows performance counters.

To avoid the error, you must prevent Sitecore from updating the performance counters. To do that, in the web.config file, set the “Counters.Enabled” setting to “false”.

Adding an Account to a User Group

To add a Windows account to a user group, use the `net localgroup` command.

For example, to add the *NETWORK SERVICE* account to the *Performance Monitor Users* group, run the following command on the server hosting the Sitecore CMS web application:

```
net localgroup "Performance Monitor Users" /add "NETWORK SERVICE"
```

IIS reset is required for the changes to take effect.

For more information about the `net localgroup` command, refer to http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/net_localgroup.mspx

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4.3 Configuring the IIS

The following sections describe how to configure different versions of IIS (versions 5, 6, 7 and 7.5) for Sitecore CMS.

The following list shows which operating systems use which IIS versions:

- IIS 5 – Windows XP.
- IIS 6 – Windows Server 2003.
- IIS 7 – Windows Server 2008, Windows Vista.
- IIS 7.5 – Windows Server 2008 R2, Windows 7.

4.3.1 IIS 7

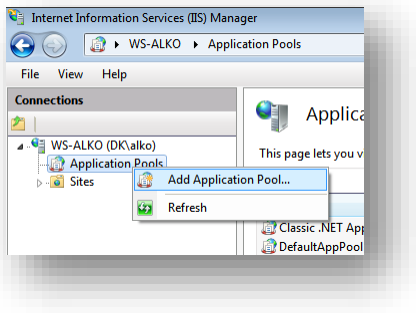
This section contains the instructions for IIS 7 and 7.5.

Create the Application Pool

This section describes how to create the application pool for Sitecore on IIS7 or IIS7.5 (Windows 7, Windows Server 2008).

To create the application pool:

1. Start the **IIS Manager**.
2. In the **Connections** panel, select **Application Pools**.
3. Right-click **Application Pools** and click **Add Application Pool**.



4. In the prompt dialog, enter the following values:

   Name: ProjectNameAppPool

   .NET Framework version: 2.0.XXXXX or 4.0 XXXXX

   Managed pipeline mode: Integrated.

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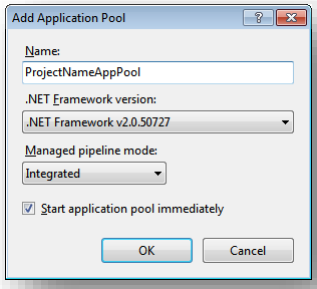
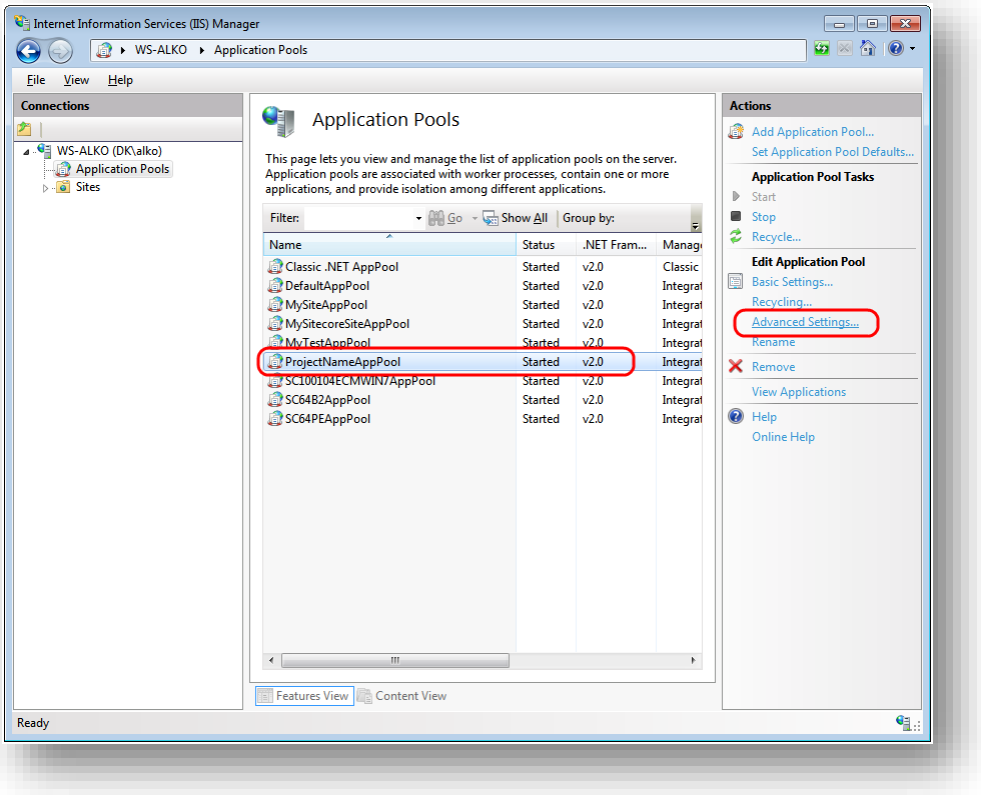
Click **OK**.



5. Select the application pool you have just created.
6. In the **Actions** panel, click **Advanced Settings**.



7. In the **Advanced Settings** dialog box, set the following settings:

   Set the **.NET Framework version** setting to “v2.0”.

   Set the **Identity** setting to the built-in account called “ApplicationPoolIdentity” or “NetworkService”.

   Ensure that the **Maximum Worker Processes** setting is set to “1”.

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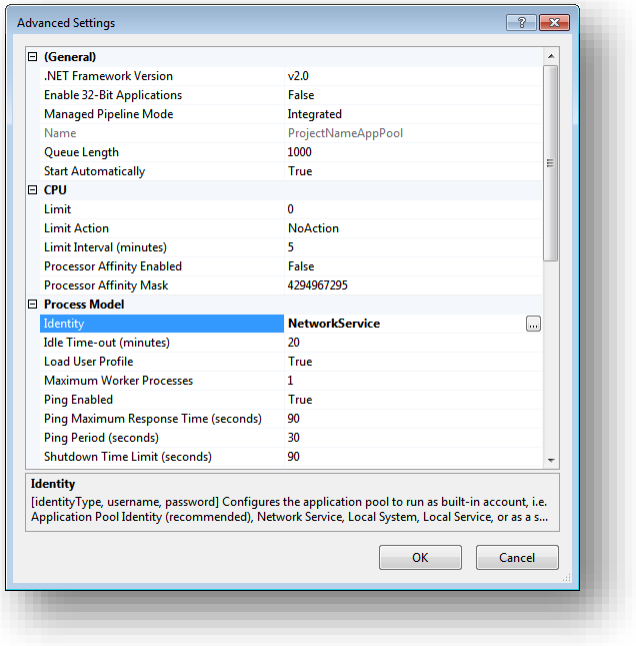
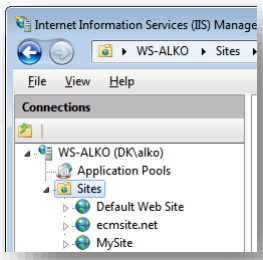
Set the **Load User Profile** setting to “true”.



Create the Website

Complete the following steps to configure the Web site.

1. Start the **IIS Manager**.
2. In the **Connections** panel, expand Web Sites.



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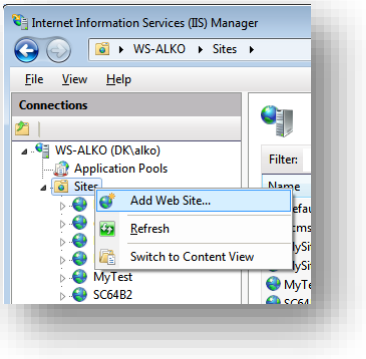
3. Right-click **Sites** and click **Add Web Site**.



4. In the **Add Web Site** dialog box, fill the required fields, for example:

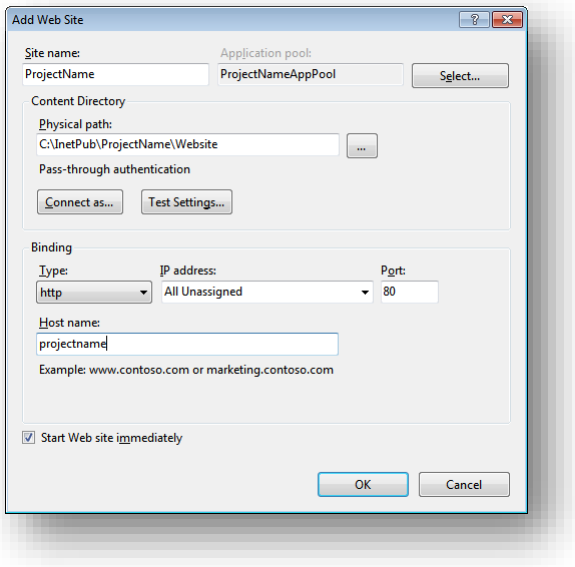
   Site name: ProjectName

   Application pool: ProjectNameAppPool

   Physical path: C:\InetPub\ProjectName\Website

   Host name: projectname

   Click **OK**.



5. Add the following line to your `hosts` file that is located at `C:\Windows\System32\drivers\etc`:

   127.0.0.1 projectname

Now you can access your website by entering the *http://projectname* address in your browser.

Limit Access to Anonymous Users

You should prevent anonymous users from accessing the following folders:

- /App_Config

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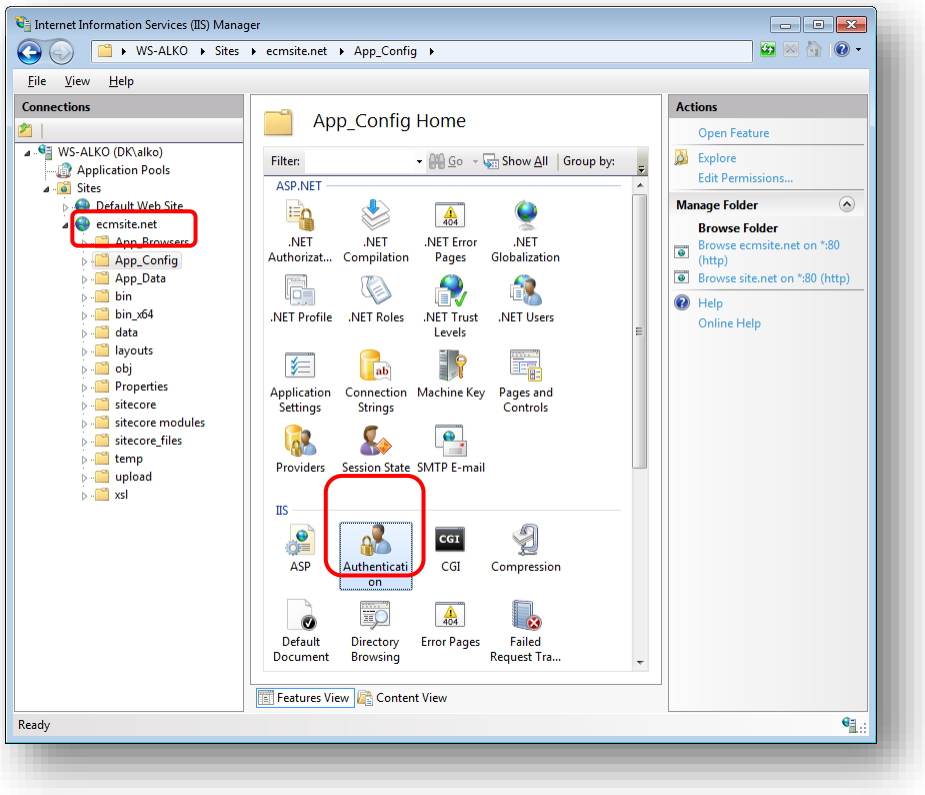
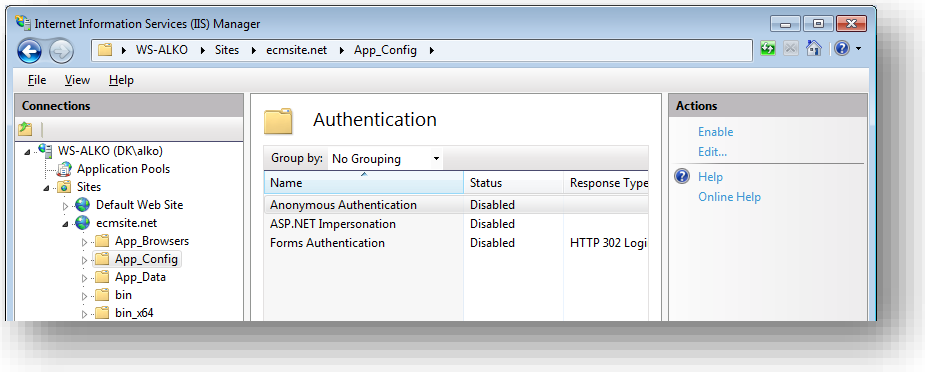
- /sitecore/admin
- /sitecore/debug
- /sitecore/shell/WebService

For instance, to limit anonymous access to the /`App_Config` folder:

1. Open the IIS.
2. In the **Connections** panel, browse your Sitecore site and select the `/App_Config` folder.



3. In the **App_Config Home** panel, double-click **Authentication** to configure the authentication settings for this folder.
4. In the **Authentication** panel, ensure that the **Anonymous Authentication** is disabled.



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5. Repeat steps 2-4 for the other folders you want to secure.
6. Restart the IIS.

4.3.2 IIS 6

This section contains the instructions for IIS 6.

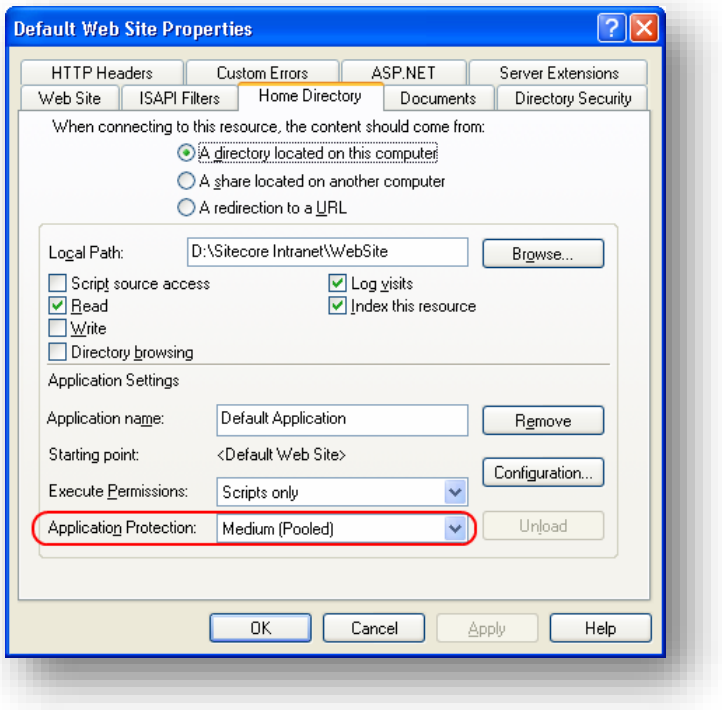
Complete the following steps to configure an existing site or create a new Web site in IIS (Windows 2003 only).

Note
Do not create a virtual directory for Sitecore as the product cannot operate from a virtual directory.

1. Open the Internet Information Services (IIS) Manager.

   If you are running Windows 2000 or Windows XP, click Control Panel, Administrative tools, Internet Information Services to open the Microsoft Management Console for the IIS.

   If you are running Windows 2003, click Control Panel, Administrative tools, Internet Information Services (IIS) Manager to open the Microsoft Management Console for the IIS.
2. In the **Internet Information Services** window, expand Web Sites
   - Windows XP: Right-click Default Web Site and click Properties.
   - Windows 2000 Server, Windows 2003 Server: Create a new Web site.
3. In **Home Directory** tab, in the **Local path** field, enter or browse to the `WebSite` folder, for instance `C:\InetPub\ProjectName\WebSite`.
4. In **ASP.NET** tab, select .NET Framework version 2.0 or 4.0.
5. In the **Application Protection** field, select *Medium (Pooled)*.



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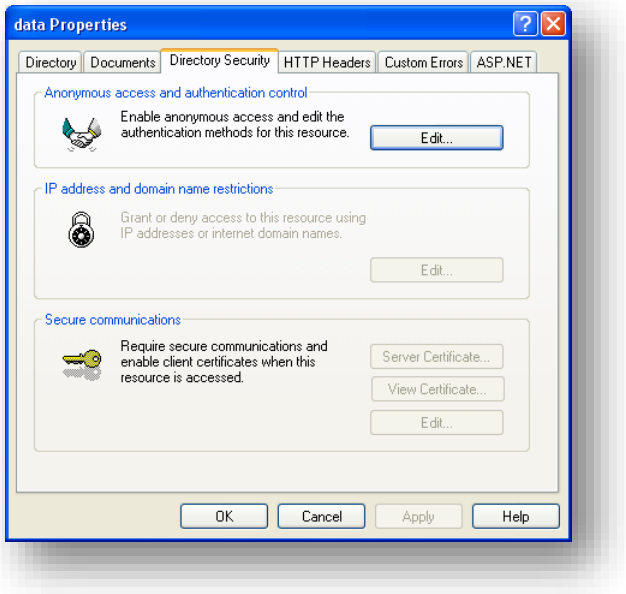
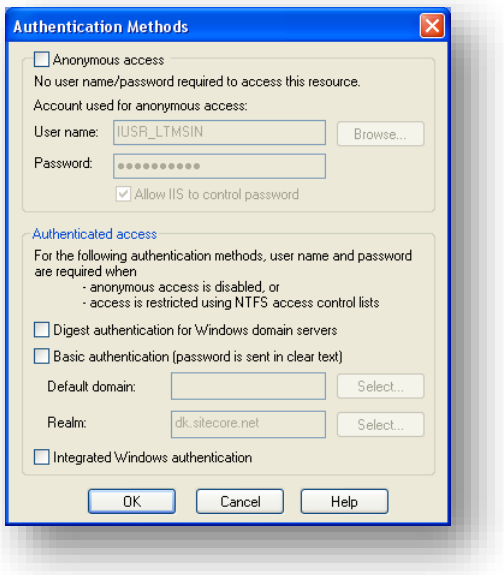
Do not select *High (Isolated)* as this will cause excessive caching.

6. In the **Internet Information Services** window, under Default Web Site, select the `/data` folder and click Properties to open the **Properties** window for this folder:



7. In the **Directory Security** tab, in the **Anonymous access and authentication control** section, click Edit. The Authentication Methods window will appear.



8. In the **Authentication Methods** dialog box, ensure that the **Anonymous access** check box is not checked.
9. Repeat this procedure for the following folders and files:
   `/sitecore/admin`
   `/sitecore/debug`
10. Restart the IIS.

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If you are running Windows 2003:

1. Open the **Properties** dialog box for the appropriate Application Pool, in the **Performance** tab and ensure that the Maximum number of worker processes is ALWAYS “1

   On multiple processor servers, this value may automatically be set higher than 1 when you install the OS/IIS.

   On these servers, it is therefore especially important to check this setting as it will likely be higher than "1".

2. Restart IIS.

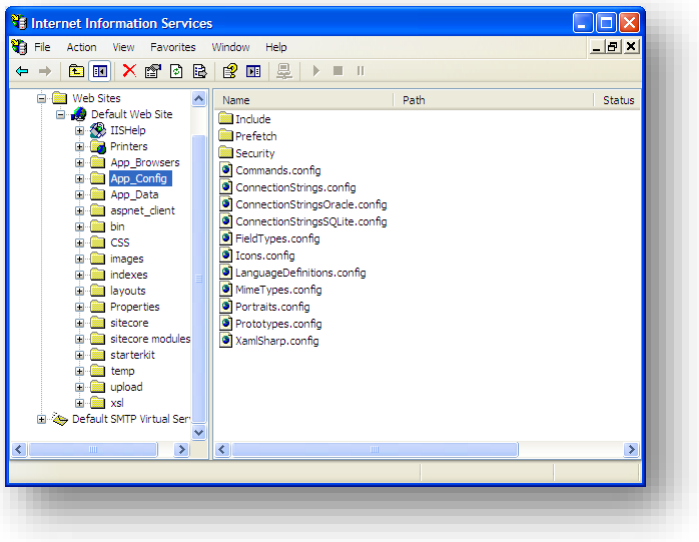
Limit Access to Anonymous Users

You should prevent anonymous users from accessing the following folders:

- /App_Config
- /sitecore/admin
- /sitecore/debug
- /sitecore/shell/WebService

For instance, to limit anonymous access to the /`App_Config` folder:

1. Open the IIS.
2. Navigate to the `Web Sites\Default Web Site\App_Config` folder.



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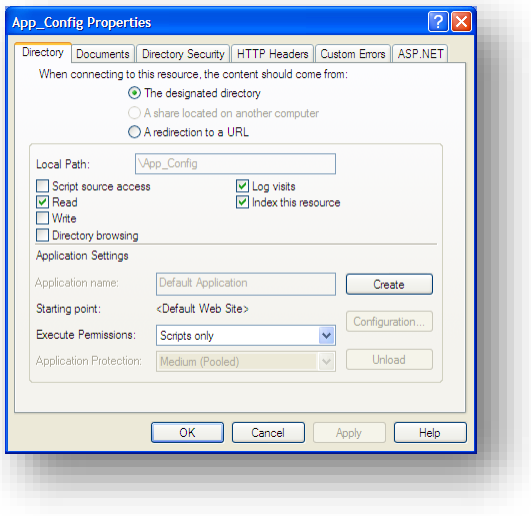
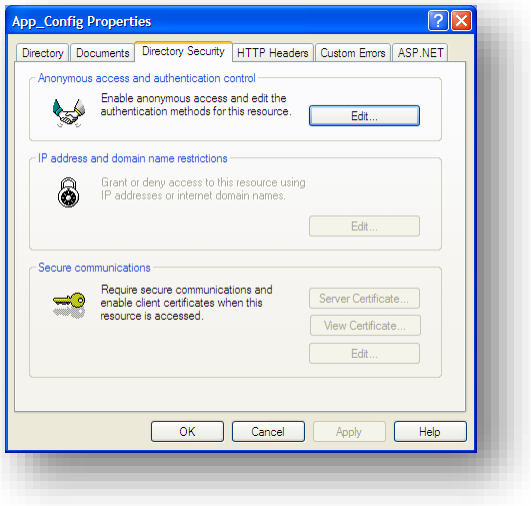
3. In the **Internet Information Services** window, right-click the `App_Config` folder and click **Properties**:



4. In the **App_Config Properties** window, click the **Directory Security** tab.



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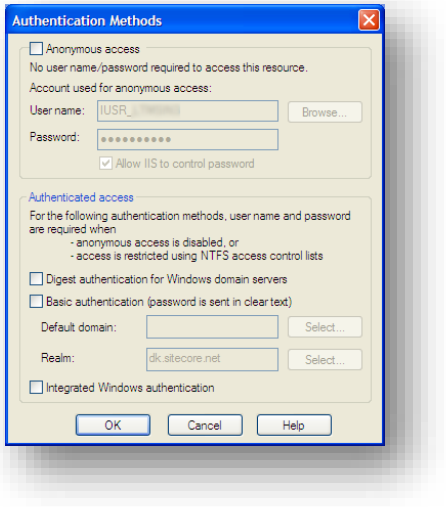
5. In the **Anonymous access and authentication** control section, click Edit.



6. In the **Authentication Methods** window, ensure that the **Anonymous access** check box is cleared.

Repeat this process for the other folders and restart the IIS.

Note
If you have upgraded to Sitecore 6 from an earlier version and followed the upgrade instructions, you should have removed all the obsolete files. However, if you did not follow the upgrade instructions, you should prevent anonymous access to the rest.aspx file. This file is stored in the /sitecore folder.

4.3.3 IIS 5

This section contains the instructions for IIS 5.

Set the Home Directory

Complete the following steps to set the Web site home directory.

1. Open the Internet Information Services (IIS) Manager.
2. In the **Internet Information Services** window, expand Web Sites.
3. Right-click Default Web Site and click **Properties**.
4. In **Home Directory** tab, in the **Local path** field, enter the path to the `WebSite` folder, for instance `C:\InetPub\ProjectName\WebSite`.
5. In **ASP.NET** tab, select .NET Framework version 2.0 or 4.0.

Limit Access to Anonymous Users

You should prevent anonymous users from accessing the following folders:

- /App_Config
- /sitecore/admin
- /sitecore/debug

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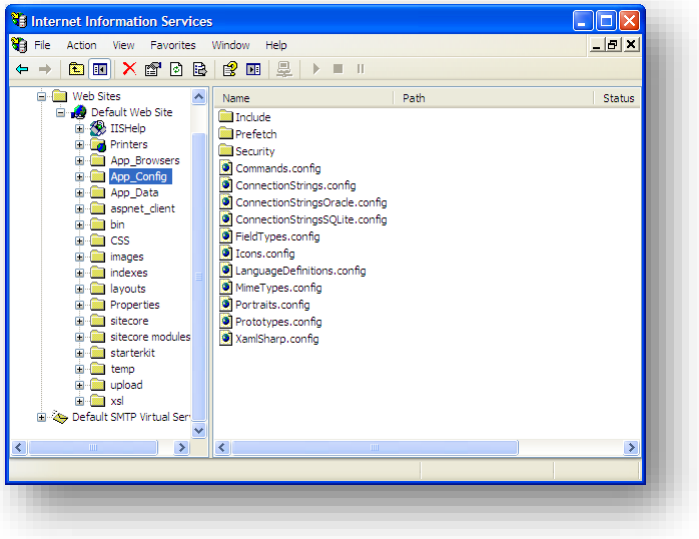
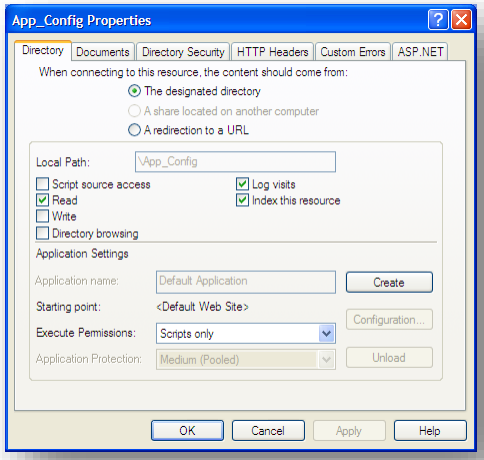
- /sitecore/shell/WebService

For instance, to limit anonymous access to the /`App_Config` folder:

1. Open the IIS.
2. Navigate to the `Web Sites\Default Web Site\App_Config` folder.



3. In the **Internet Information Services** window, right-click the `App_Config` folder and click Properties:



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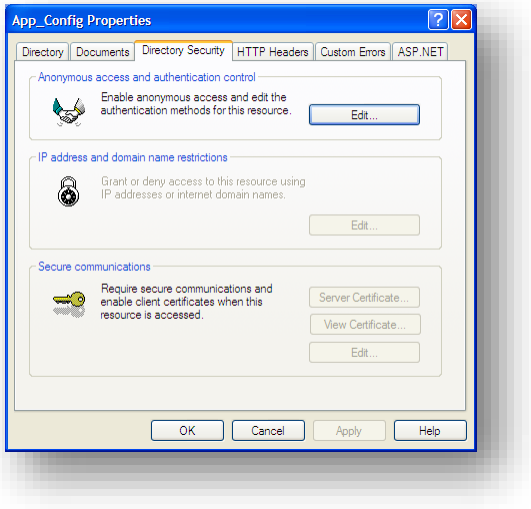
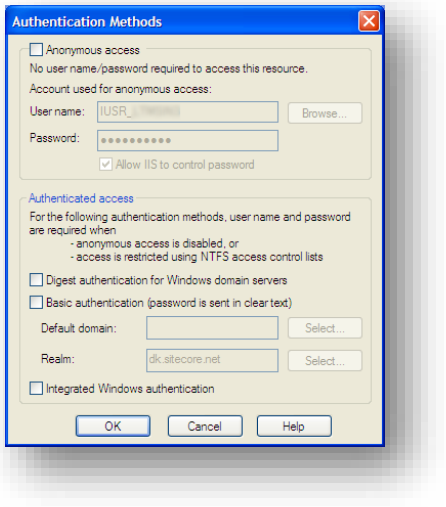
4. In the **App_Config Properties** window, click the **Directory Security** tab.



5. In the **Anonymous access and authentication** control section, click Edit.



6. In the **Authentication Methods** window, ensure that the **Anonymous access** check box is cleared.
7. Restart the IIS.

Repeat this process for the other folders.

Note
If you have upgraded to Sitecore 6 from an earlier version and followed the upgrade instructions, you should have removed all the obsolete files. However, if you did not follow the upgrade instructions, you should prevent anonymous access to the rest.aspx file. This file is stored in the /sitecore folder.

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4.4 Microsoft SQL Server Configuration

When you install Microsoft SQL Server, select **Mixed Mode** authentication (Windows Authentication and SQL Server Authentication).

If you have already installed MS SQL and you need to change the security authentication mode, refer to the following article:

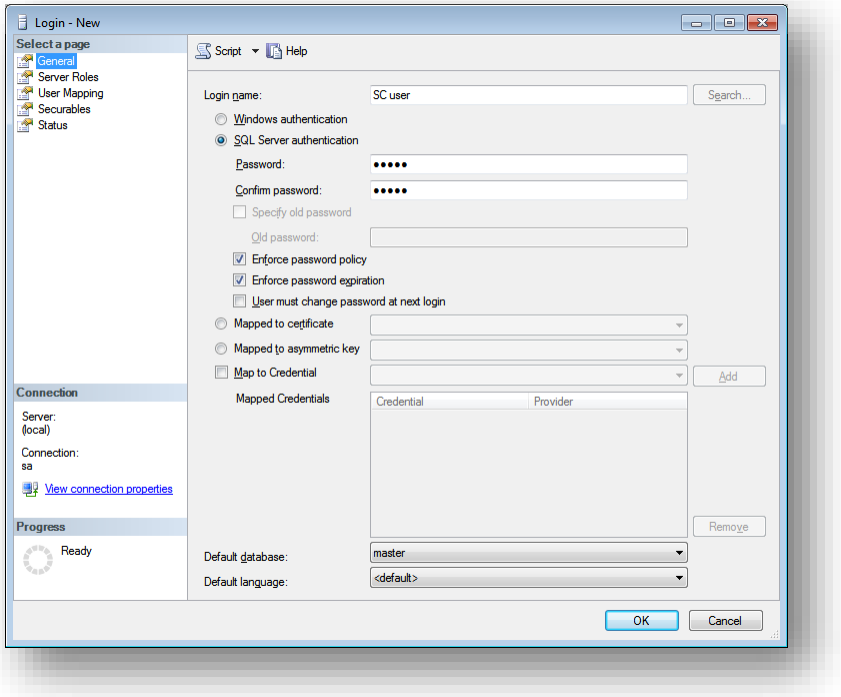
http://technet.microsoft.com/en-us/library/ms188670.aspx

Note
It is also possible to use Windows authentication to connect to SQL server. For more information on connecting to SQL server refer to http://msdn.microsoft.com/en-us/library/ff647396.aspx

4.4.1 Creating a Database Account for Sitecore CMS Databases on SQL Server 2008

This section describes how to create a database account for Sitecore databases under SQL Server 2008 with the minimum required permissions.

1. Start SQL Server Management Studio.
2. Make sure the Sitecore databases are attached.
3. In SQL Server Management Studio, in the **Object Explorer** pane, expand the Security folder.
4. Right-click the Logins folder and click New Login to create a new login.



5. In the **Login – New** window, select the **General** page and specify the login name.
6. Select the **SQL Server authentication** option and clear the **User must change password at next login** checkbox (this option is not supported on some Windows operating systems).

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7. Select the **User Mapping** page and in the **User mapped to this login** field, select the Sitecore databases.
8. In the Database role membership for field, select the following check boxes:

   For the Master and the Web databases: db_datareader, db_datawriter, public

   For the Analytics database (if you have DMS installed): db_datareader, db_datawriter, public

   For the *Core* database:

   db_datareader,

   db_datawriter,

   public,

   aspnet_Membership_BasicAccess,

   aspnet_Membership_FullAccess,

   aspnet_Membership_ReportingAccess,

   aspnet_Profile_BasicAccess,

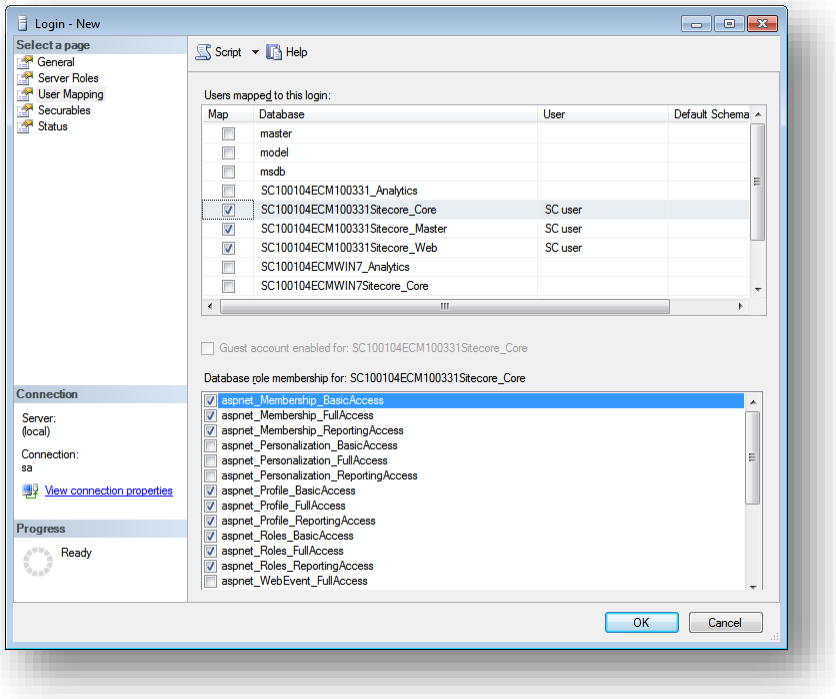
   aspnet_Profile_FullAccess,

   aspnet_Profile_ReportingAccess,

   aspnet_Roles_BasicAccess,

   aspnet_Roles_FullAccess,

   aspnet_Roles_ReportingAccess,



9. Click OK to create the user.

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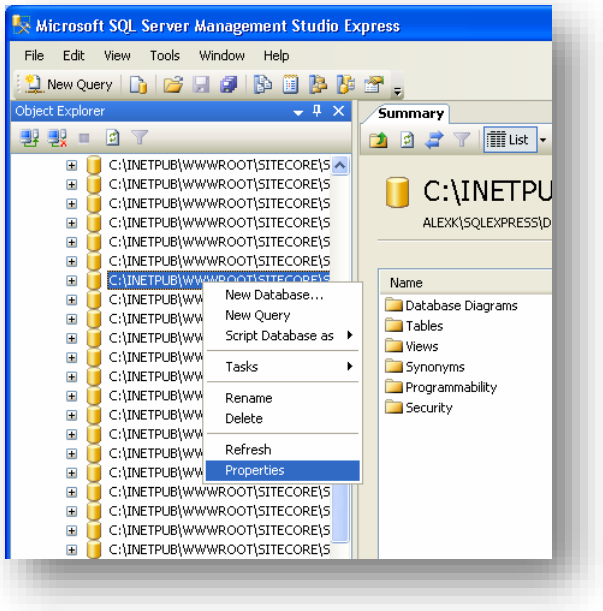
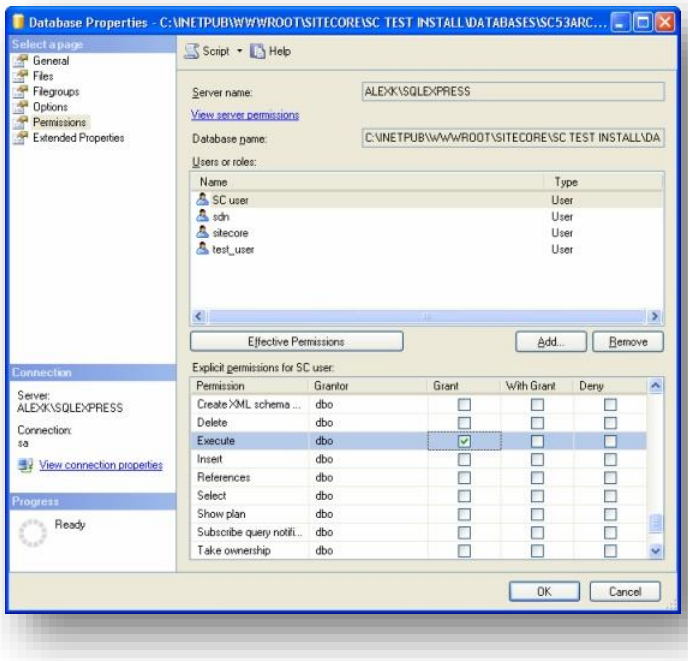
4.4.2 Granting Execute Rights to Stored Procedures

To grant execute rights to stored procedures:

1. In the **SQL Server Management Studio** window, expand Databases.
2. Right-click a Sitecore database and click **Properties**.



3. In the **Database Properties** window, select the **Permissions** section and select the user you want to grant rights.



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4. In the **Users or roles** field, select the user and in the **Explicit permissions for** field, in the **Grant** column give the user *Execute* permission.

Repeat this procedure for the other Sitecore CMS databases, including the Analytics database if you have Sitecore DMS installed.

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4.5 Oracle Database Storage Setup

This section describes how to set up Oracle database storage for Sitecore CMS.

4.5.1 Oracle Storage Setup

This section describes setting up a Sitecore CMS with Oracle databases in detail.

Database Server Preparations

Database server must run a supported version of Oracle database instance, which meets the following requirements:

1. Oracle instance must be configured in shared server mode.
2. Oracle instance must contain a tablespace for Sitecore having at least 200MB of free space initially. More space will be needed as Sitecore database grows. Perform these steps on the Oracle Database Server (or a workstation PC with the administration tools for the Oracle) to set up Oracle databases for Sitecore CMS:
3. Install Sitecore CMS Databases (*DB.exe setup executable, version 6.0.2 or higher). Alternatively you can copy the */Databases/Oracle* folder from an existing Sitecore 6 installation.
4. Load Sitecore data into the Oracle database:
    a. In the computer's System Properties/Advanced/Environment Variables set up user-level variables as follows:
    DATABASE = The name of the Oracle Database instance that will host Sitecore data (as set up on the PC).
    TBS = Name of the tablespace for Sitecore data
    PASSWORD = password for the system user of the Oracle instance.
    PREFIX = Prefix to use for user schema names and passwords (default: sc).
    b. Launch the **createdata.bat** file from the */Databases/Oracle/* folder.
    c. Remove DATABASE, TBS, PASSWORD, PREFIX variables from the environment.

Installation scripts will set up three user schemas: %PREFIX%core, %PREFIX%master, %PREFIX%web (default: sccore, scmaster, scweb). User passwords are the same as the user names.

Website Server Setup Instructions

The following instructions describe a web server setup where Sitecore CMS file system will be hosted.

1. Install Oracle Client matching the Oracle Database version. Make sure Oracle Data Provider for .NET 2.0 is installed. Add a connection to the appropriate Oracle instance (created as described in the Database Server Preparations section). For detailed instructions on this topic, refer to *Section 7.1.2, Adding a Connection to the Oracle Instance*.

Note
When installing Oracle Data Provider in a 64-bit Environment, make sure you use Oracle Client for Windows x64.

2. Install Sitecore CMS 6. If you are installing Sitecore from a ZIP archive (not an exe setup executable) you should configure the dataFolder setting and put a valid license.xml file into the data folder before proceeding to next steps.

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3. Copy dataFolder variable definition from Web.config to Web.config.Oracle.

   For example <sc.variable name="dataFolder" value="c:\sitecore\data"/>

4. In the Web.config.Oracle, in **runtime/assemblyBinding** section set **bindingRedirect** to the Oracle.DataAccess assembly version installed on your system:

   a. Open Global Assembly Cache by running the 'assembly' command in the command prompt of the Run console (Win+R).

   b. Locate Oracle.DataAccess.dll for your Oracle Client version, right-click, choose **Properties** and copy the Version value which can be in one of the following formats:

      i. 10.2.x.x (Oracle Client versions prior to 10.2.0.2).

      ii. 2.102.x.x or 2.111.x.x (Oracle Client versions 10.2.0.2 and higher).

   c. Modify the assemblyBinding setting. Replace 10.2.0.100 with your assembly version:

```
<dependentAssembly>
  <assemblyIdentity name="Oracle.DataAccess"
ublicKeyToken="89b483f429c47342"/>
  <bindingRedirect oldVersion="9.2.0.401"
newVersion="10.2.0.100"/>
</dependentAssembly>
```

5. Backup the original Web.config and rename Web.config.Oracle to Web.config.

6. Modify connection strings in /App_Config/ConnectionStringsOracle.config to point to the valid Oracle instance.

   a. Data Source parameter must point to the local Oracle instance name as configured in the Oracle Net Manager.

   b. User names and passwords must be adjusted to match those installed on the database server. Default names/passwords are sccore/sccore , scmaster/scmaster and scweb/scweb.

7. Configure IIS as for a usual Sitecore installation and run Sitecore.

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4.6 Uninstalling Sitecore (ZIP installation)

Before uninstalling Sitecore, delete the IIS Web site or update it to reference a different directory, or stop IIS by executing the following command:

```
net stop w3svc.
```

Stop the SQL Server process:

- for SQL Server Express: `net stop "sql server (sqlexpress)"`
- for every other edition of SQL Server: `net stop "sql server (instancename)"`

Remove the Sitecore file system.

Remove any databases on remote or local servers that are used by this instance of Sitecore.

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Chapter 5

Limitations and Specific Requirements

This chapter contains various limitations and environment-specific requirements.

This chapter contains the following sections:

- OS Specific Requirements
- Maximum Number of Worker Processes
- Miscellaneous

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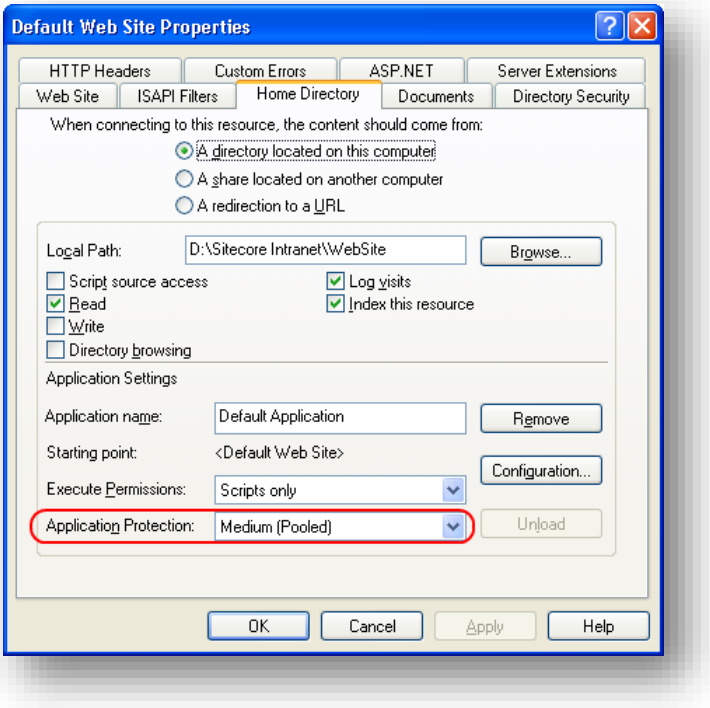
5.1 OS Specific Requirements

This section contains requirements related to operating systems.

5.1.1 Windows XP

If you are running Windows XP, make the following setting:

In the **Application Protection** field select *Medium (Pooled)*.



Sitecore works fine with each of the three different levels of application protection. The *Medium (Pooled)* level is just the recommended setting since it has better performance than the *High (Isolated)* setting and more strict security as compared to the *Low* setting. For more details, refer to the Application Protection article.

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5.2 Maximum Number of Worker Processes

Sitecore does not support configuration when the **Maximum number of worker processes** is set to two or higher. You must set this setting to “1”.

On multiple processor servers, this value may automatically be set higher than 1 when you install the OS/IIS. On these servers, it is therefore especially important to check this setting as it will likely be higher than "1".

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5.3 Miscellaneous

This section contains miscellaneous uncategorized requirements.

5.3.1 Install Latest Updates

Visit Windows Update — http://windowsupdate.microsoft.com — and install all the appropriate service packs and security updates on all of your Sitecore CMS host and client computers.

5.3.2 UNC Share Not Supported

Sitecore CMS must be installed on a local drive, not a UNC share.

5.3.3 Sitecore Cannot Operate from a Virtual Directory

Do not create a virtual directory for Sitecore as the product cannot operate from a virtual directory.

5.3.4 Install IIS Before Updating .NET Framework

To reduce the number of ASP.NET configuration issues on Sitecore hosts, install IIS before installing or updating the .NET framework.

If you have installed or updated .NET framework before installing the IIS, refer to the following article that contains instructions about troubleshooting an ASP.NET installation:

http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/187d0e2c-8e89-49ad-a89d-e26e4d76ee68.mspx?mfr=true

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Chapter 6

Post-Installation Steps

This chapter describes the steps that we recommend you to take after installing Sitecore CMS.

This chapter contains the following sections:

- Web.config Changes Required to Run Sitecore on ASP.NET 4.0
- Windows Authentication for Sitecore
- Setting Microsoft SQL Server Database Properties
- Rebuild the Search Index and the Link Database
- Cache Configuration

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6.1 Web.config Changes Required to Run Sitecore on ASP.NET 4.0

Sitecore CMS provides the web.config file that is configured to run Sitecore on ASP.NET 3.5.

To run a Sitecore instance on ASP.NET 4.0, perform the actions described in this MSDN article, section *To manually upgrade an application's Web.config file from the .NET Framework 3.5 to the .NET Framework 4.*

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6.2 Content Expiration

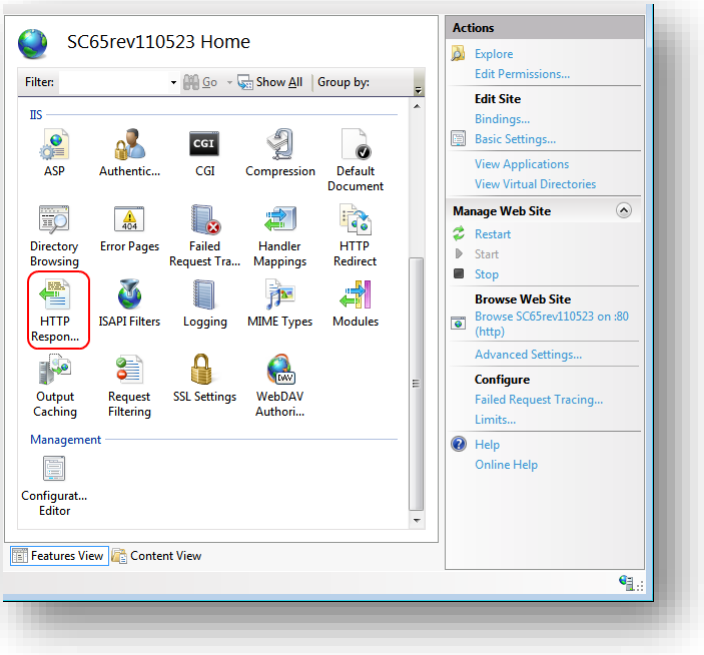
Set IIS Expire Web content header to improve performance.

The Expire Web content header (located in common HTTP Response headers) is how IIS determines whether or not to return a new version of the requested web page if the request is made after the web page content has expired. IIS will mark each web page before it's sent using the settings you provide for content expiration. The browser of the website visitor will translate the expiration mark.

By setting Expire Web content to something other than immediately, you can reduce second-access load times by 50 to 70 percent. This setting will not affect dynamically generated content.

To enable the Expire Web content header in IIS 7.x:

1. Launch IIS Manager.
2. Navigate to the site that you wish to enable the Expire Web content header.
3. In the **IIS** section, double click on the **HTTP Response Headers**.



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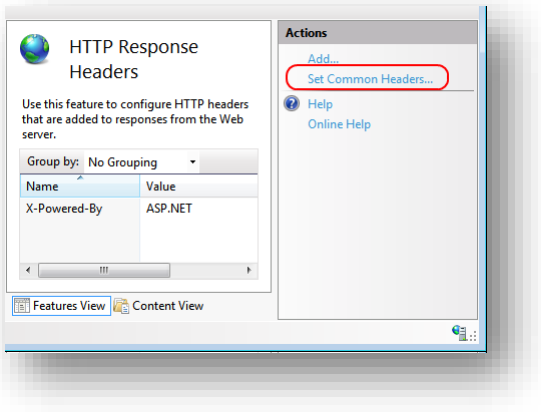
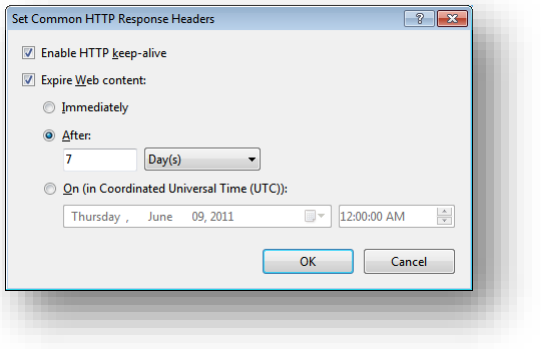
4. In the **Actions** panel, click on **Set common headers…**



5. Select the **Expire Web content** check box.
6. Select the **After** check box and set the number of days to its default (7).



7. Click **OK** when finished.

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6.3 Windows Authentication for Sitecore

You can configure Sitecore to use Windows Authentication for SQL connection (SQL 2008 / Windows 2008 (R2)) and effectively remove the username and password from the `connectionStrings.config` file.

1. Find the application pool that your Sitecore is running under. Open Properties and set the identity to the domain user on the corresponding tab.
2. On the SQL Server box, register the domain user and grant security permissions on Sitecore databases for the domain user according to the section "4.4.1 Creating a Database Account for Sitecore CMS Databases on SQL Server 2008" of the Installation Guide.
3. On the machine that hosts Sitecore, add this domain user to the IIS_IUSRS group.
4. Adjust the permissions for the IIS_IUSRS group according to these sections of the Installation Guide":
   - "4.2.2 File System Permissions for ASP.NET Requests"
   - "4.2.3 File System Permissions for System Folders".
5. Edit the `/App_Config/ConnectionStrings.config` file and replace the `user id` and `password` parameters with the `trusted_connection=yes` option:

```
        <?xml version="1.0" encoding="utf-8"?>
        <connectionStrings>
        <add name="core" connectionString="Data
Source=.\sql2008;Database=Sandbox6_Core;Trusted_Connection=Yes" />
        <add name="master" connectionString="Data
Source=.\sql2008;Database=Sandbox6_Master;Trusted_Connection=Yes" />
        <add name="web" connectionString="Data
Source=.\sql2008;Database=Sandbox6_Web;Trusted_Connection=Yes" />
        </connectionStrings>
```

6. Prepare your identity so it can be used as a service account with "aspnet_regiis.exe" and the -ga switch.
7. Add your domain service account to the local "Performance Monitor Users" group as per this section: "4.2.5 Windows Registry Permissions"

Note
If you use DMS, the same configuration must be repeated for the Analytics database. The connection string for the Analytics database must be follows:

```
        <add name="analytics" connectionString="Data
        Source=<Data-Source>;Database=Sandbox6_Analytics;Trusted_Connection=Yes" />
```

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6.4 Setting Microsoft SQL Server Database Properties

There are a few Microsoft SQL Server database properties that, when configured correctly, will help increase performance:

- **Compatibility Level**
  Compatibility Level effects SQL syntax and query parsing, and should have no impact of performance. Setting the Compatibility Level to a value of *SQL Server 2008(100)* will take advantage of new T-SQL features, which are used in many of the scripts / commands.
- **Auto Close**
  When MS SQL Server opens a database, resources are allocated to maintain that state. Memory for locks, buffers, security tokens, etc. are all assigned. These operations take time. The *Auto Close* property defines how these resources are handled. If it is set to *true* or *ON*, then when the last connection is closed these resources are deallocated. If a new connection comes in within a short period of time (1/10th of second or quicker), then all of those resources need to be activated again. Setting the *Auto Close* property to *false* or *OFF* will prevent this from happening.
- **Auto Shrink**
  The Auto Shrink property uses a lot of resources when it's called, and you have no control over when it is being called. If you combine *Auto Shrink* with *Auto Growth*, you can get into a spiral of constantly growing and shrink the database, taking valuable resources away from other database tasks as well as causing fragmentation issues. If a database or file requires a SHRINK command, it should be done so via a script, command or scheduled Maintenance Plan. Setting the *Auto Shrink* property to *false* or *OFF* will disable this feature.
- **Recovery Model**
  In Simple Recovery Model MS SQL Server logs minimal amount of information in the transaction log. MS SQL Server basically truncates the transaction log whenever the transaction log becomes 70 percent full or the active portion of the transaction log exceeds the size that MS SQL Server could recover in the amount of time which is specified in the Recovery Interval server level configuration. Setting Recovery Model to Simple has the lowest amount of overhead over Full and Bulk-logged, which is crucial to the performance requirements needed for the Sitecore CMS databases.

To set these properties:

1. Launch MS SQL Server Management Studio.
2. In the object explorer, right click on the **CMS Master** database and select **Properties**.

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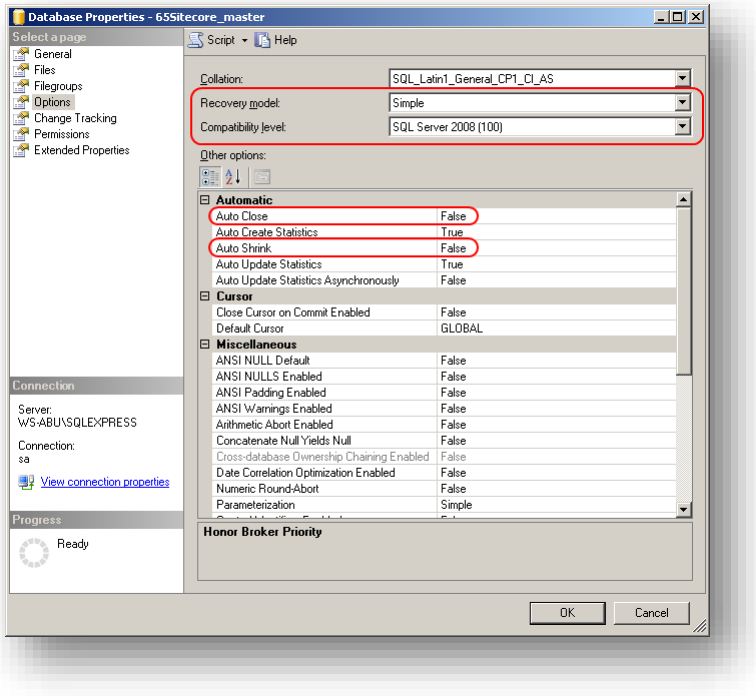
3. Select the **Options** page and set the parameters as it is presented on the following image:



4. In the **Compatibility Level** field, select **SQL Server 2008(100)**.
5. Set the **Auto Close** property to **false**.
6. Set the **Auto Shrink** property to **false**.
7. In the **Recovery Model** field, select **Simple**
8. Click **OK**.

Repeat these actions for the CMS Core and Web databases.

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6.5 Rebuild the Search Index and the Link Database

Follow these instructions only if you install Sitecore using the ZIP archive of the Web site root.

You should rebuild the Search Index for the core database and the Quick search index.

To rebuild the Search Index, log in to the Sitecore desktop and click *Control Panel, Database, Rebuild the Search Index*. Select all available databases.

To rebuild the Link Database, log in to the Sitecore desktop and click *Control Panel, Database, Rebuild the Link Database*. Select all available databases.

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6.6 Cache Configuration

When Sitecore CMS is installed, optimize caching to improve solution performance, reduce server load, and increase system capacity.

For more information about cache configuration, see *Cache Configuration Reference* on SDN.

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Chapter 7

Appendix

This chapter contains the supplementary instructions that help you to configure your environment.

This chapter contains the following sections:

- Server Configuration
- IIS
- Creating a Web Project in Visual Studio

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7.1 Server Configuration

The following sections contain miscellaneous information and techniques concerning the server configuration.

7.1.1 Updating the Security Settings for a Folder

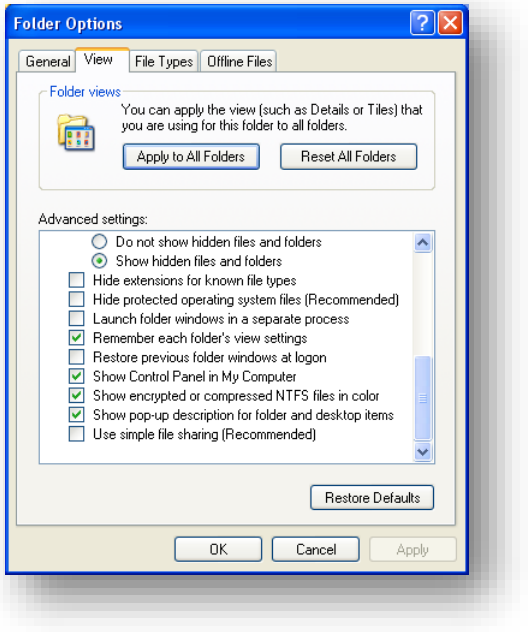
To update the security settings for a folder:

1. In **Windows Explorer**, right-click the folder and select **Properties**.
2. In the **Properties** dialog box, click the **Security** tab.
3. In the **Group or user names** field, select a user or group and grant them the appropriate permissions in the **Permissions for** field.
4. In the **Security** tab, click **Advanced**.
5. In the **Advanced Security Settings** dialog box, select the **Replace permission entries** checkboxes.

Making the Security Tab Visible

If the **Security** tab is not visible, — this can occur after upgrading from Windows XP Home to Professional:

1. In Windows Explorer, click **Tools**, **Folder Options**.
2. In the **Folder Options** dialog box, click the **View** tab.



3. Ensure that the **Use simple file sharing** check box is not selected.

If an account is not visible in the **Security** tab, you must make it visible.

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Making an Account Visible

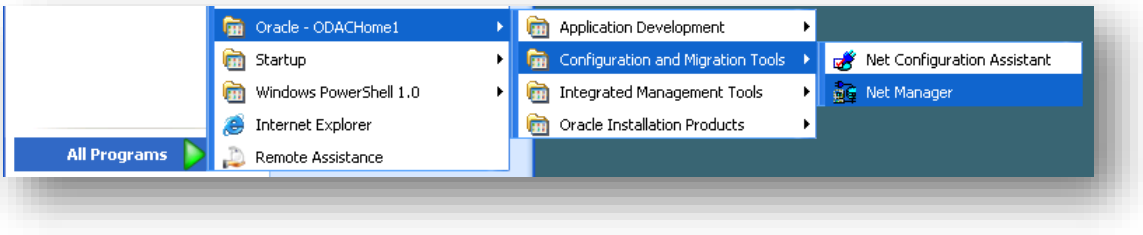
To make an account visible in the **Security** tab:

1. In the **Properties** dialog box, click the **Security** tab.
2. In the **Security** tab, click **Add**.
3. In the **Select Users, Computers, or Groups** dialog box, in the **From this location** field, ensure that the local computer is selected.
4. In the **Enter the object names to select** field, enter the name of the account, and click Check Names.

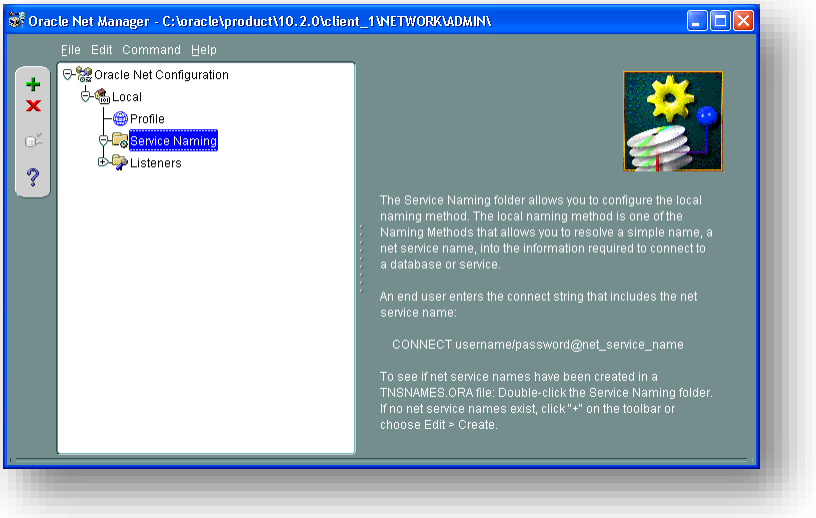
   Alternatively, you can click **Advanced** and then click **Find Now** and select the account you want to add.

7.1.2 Adding a Connection to the Oracle Instance

After installing Oracle Client on your PC or server you can find Oracle Net Manager in All Programs, Oracle – Home, Configuration and Migration tools, Net Manager.



The main window of Net Manager consists of the item tree (on the left side) and the details pane (on the right side). To the left of the item tree there is a toolbar that allows to add and remove connection descriptions.



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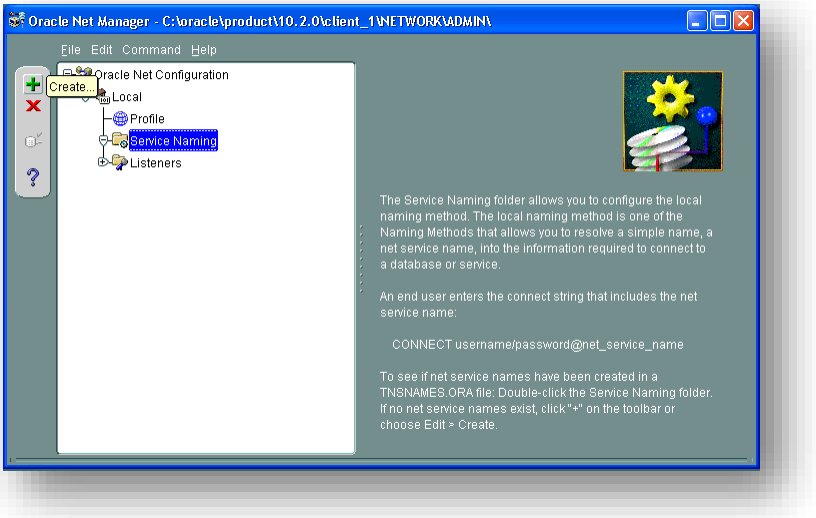
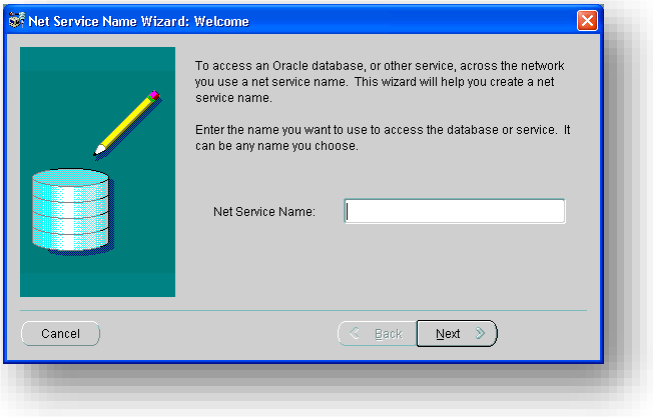
To add a new connection to Oracle instance click the Create button on the toolbar to the left of the item tree.



This starts the *Net Service Name Wizard*.



On the first page of the wizard enter the *Net Service Name* and click *Next*.

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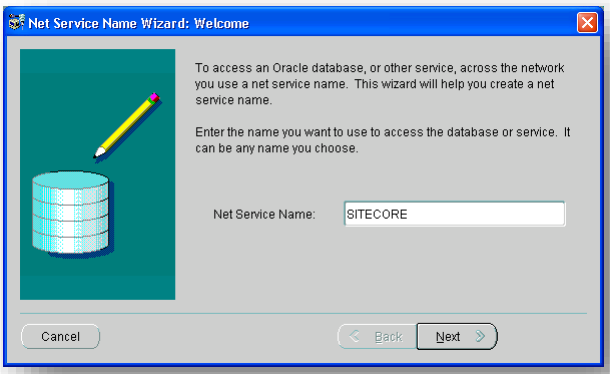
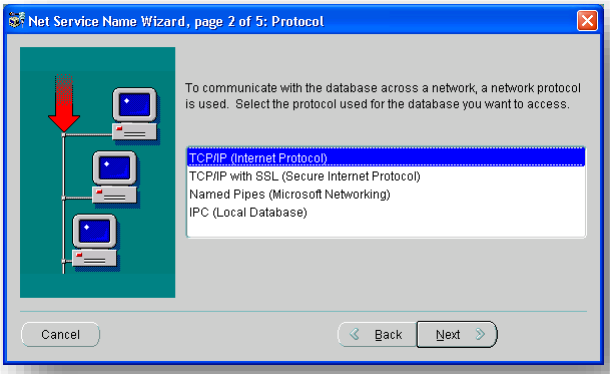
Net Service Name is the local alias that Sitecore will use to connect to the Oracle server. It must be specified in the *data source* part of the connection strings in ConnectionStringsOracle.config in Sitecore.

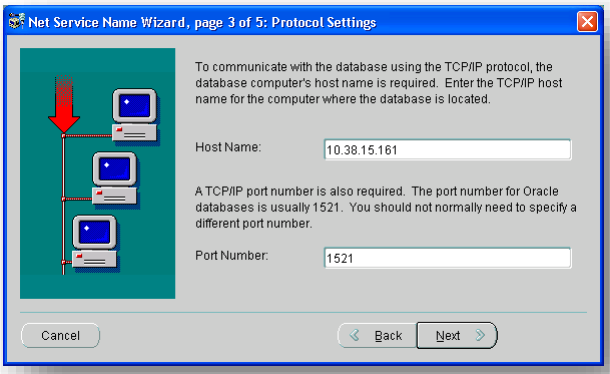


Choose Protocol to connect to the Oracle service and click *Next*. It is most common to use TCP/IP protocol without encryption in local networks.



For TCP/IP protocol set up the following settings: *host name* (or IP address) where the Oracle server is located and TCP *Port number*. Click *Next* to proceed.

Note: Default port number is *1521*.



Enter the Oracle service name (as configured on the remote server) and click *Next*.

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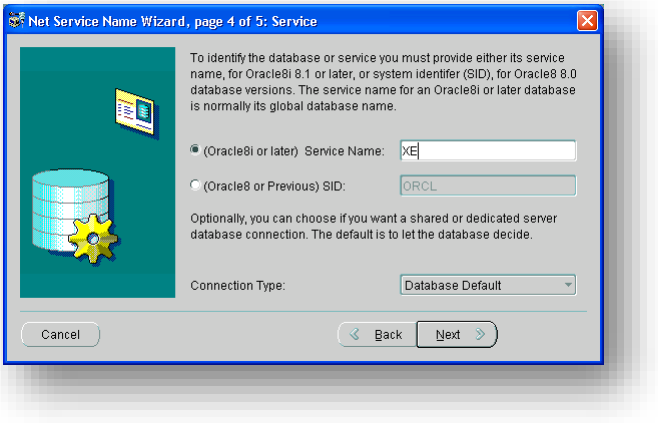
Note: For Oracle 10g Express Edition service name is **XE**.



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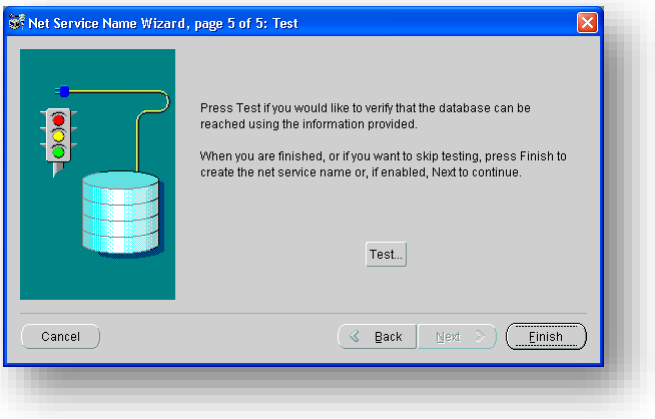
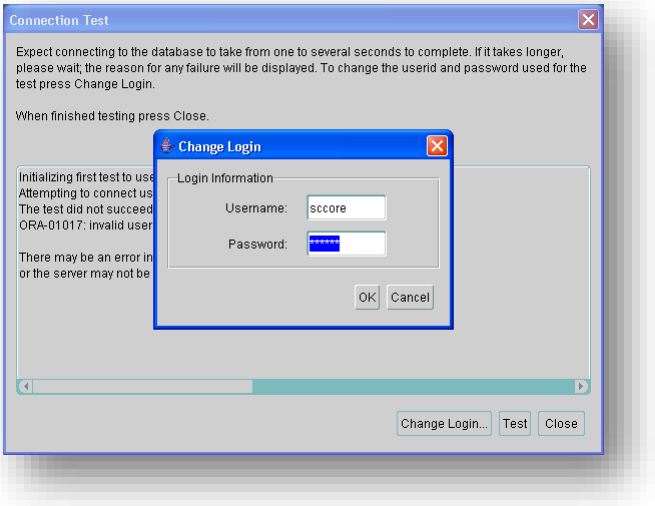
Once all parameters are entered, you can test connection to your server on the test page by clicking the *Test* button.



If the server does not accept the default 'scott/tiger' credentials, click *Change Login* button and enter login and password to one of your Sitecore database schemas.



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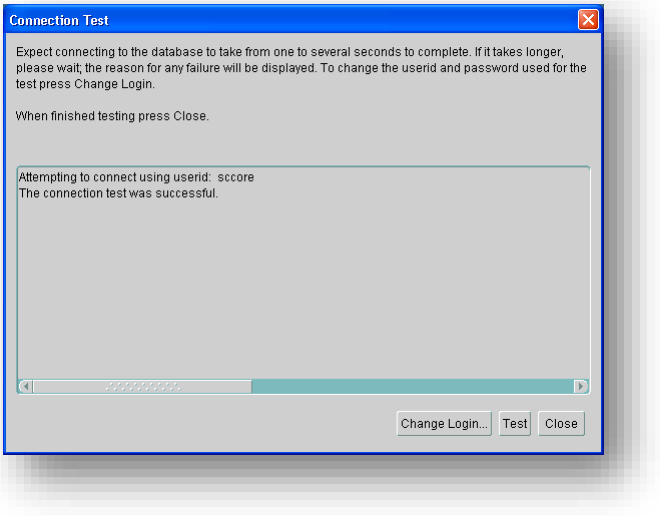
When all parameters are entered correctly, connection test will report success.



Close the test window and click *Finish* to close the wizard. Net Manager main window will display the newly created connection and its parameters.

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7.2 IIS

This section contains various useful techniques related to IIS.

7.2.1 Accessing IIS

Open the Internet Information Services (IIS) Manager.

If you are running or Windows XP, click Control Panel, Administrative tools, Internet Information Services to open the Microsoft Management Console for the IIS.

If you are running Windows 2003, click Control Panel, Administrative tools, Internet Information Services (IIS) Manager to open the Microsoft Management Console for the IIS.

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7.3 Creating a Web Project in Visual Studio

Sitecore supports the Visual Studio Web Application project model for Sitecore solutions.

Note
The initial release of Visual Studio 2005 did not include the Web Application project model. Visual Studio 2005 Service Pack 1 includes the Web Application project model.[1]

Important
Create a Visual Studio solution and at least one project for each Sitecore solution that uses Visual Studio. Follow the steps outlined below as a single sequence once for each new Sitecore solution, then add new projects to the existing solution as appropriate.

To create a Visual Studio Web Application project for an existing Sitecore solution:

1. In Visual Studio, click the **File** menu, then click **New**, and then click **Project**. The new project dialog appears.
2. In the new project dialog, in the **Project Types** tree, expand **Visual C#**, and then click **Web**.
3. In the new project dialog, in the **Templates** list, click **ASP.NET Web Application**.
4. In the new project dialog, select the version of the .NET Framework. While installing Sitecore CMS, in the **IIS Website** step you selected the version of the .NET Framework: 2.0 or 4.0.
   - If you selected .NET Framework 2.0 when installing Sitecore CMS, then select **.NET Framework 3.5** in the Visual Studio project.
   - If you selected .NET Framework 4.0 when installing Sitecore CMS, then select **.NET Framework 4** in the Visual Studio project.
5. In the new project dialog, in the **Name** field, enter the name of the project, for example `MyWebSite`. Visual studio will use this name as the default .NET namespace and assembly name.
6. In the new project dialog, in the **Location** field, enter the document root of the Sitecore solution, for example `C:\inetpub\sitecore\MyWebSite\WebSite`.
7. In the new project dialog, in the **Solution Name** field, enter the name of the solution, which is typically the name of the project, for example `MyWebSite`.
8. Select the **Create directory for solution** check box.
9. Click **OK**. Visual Studio creates the project in a subdirectory of the directory specified by **Location**, and then opens that project.
10. In Solution Explorer, right-click References and click **Add Reference**.
11. Click the **Browse** tab and select the `Sitecore.Kernel.dll` file, and then click OK.
12. In Solution Explorer, select the `Sitecore.Kernel.dll` file and set the *Copy Local* property to false.

To edit files in Visual Studio, you must make them visible and include them in the project.

[1] For more information about Visual Studio 2005 Service Pack 1, see http://msdn.microsoft.com/en-us/vstudio/bb265237.aspx.

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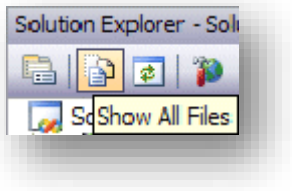
To make the files visible:

13. In the Solution Explorer, click Show All Files.



14. You must now include the files you want to edit. For example, right-click the XSL folder and click Include in Project.
15. Finally, double click the files themselves to edit them.

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