



# Sitecore CMS 6.2

# WebDAV Configuration

*WebDAV Implementation and Configuration for Sitecore Administrators and Developers*

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# Chapter 1

## Introduction

This document provides a technical overview and configuration details for the Sitecore Web-based Distributed Authoring and Versioning (WebDAV) implementation.<sup>1</sup> CMS administrators, architects, and developers should read this document before implementing WebDAV features in a Sitecore solution.

This document begins with an overview of WebDAV features and the WebDAV architecture, continues to provide instructions to configure Sitecore WebDAV features, and completes with descriptions of limitations, known issues, and troubleshooting techniques for Sitecore WebDAV features.

This document contains the following chapters:

- Chapter 1 — Introduction
- Chapter 2 — WebDAV Overview
- Chapter 3 — Sitecore WebDAV Configuration
- Chapter 4 — Known Issues and Troubleshooting

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<sup>1</sup> For more information about WebDAV, see <http://www.webdav.org>. For more information about Sitecore WebDAV features, see the Content Author's Cookbook at <http://sdn.sitecore.net/End%20User/Sitecore%206%20Cookbooks.aspx>.

## Chapter 2

# WebDAV Overview

This chapter provides overviews of WebDAV features and the WebDAV architecture.

This chapter contains the following sections:

- WebDAV Features
- WebDAV Architectural Notes

## 2.1 WebDAV Features

WebDAV allows users of Web clients such as browsers to manage files on Web servers using Web protocols such as HTTP or HTTPS. With WebDAV, users can drag-and-drop files between the Windows desktop and the browser.

### Warning

Microsoft Internet Explorer 8 does not support WebDAV when accessing the host name `localhost`. For more information about this issue, see the section `Cannot Find`.

### Warning

The Sitecore WebDAV implementation uses the ITHit WebDAV engine. The IIS7 WebDAV component available from Microsoft and the IIS7.5 WebDAV Publishing feature can interfere with the Sitecore WebDAV implementation. For more information about the ITHit WebDAV engine, see the section `The IT Hit WebDAV Engine`.

### Important

Sitecore does not support WebDAV features that Internet Explorer does not directly support, such as custom WebDAV properties and the ability to map drive letters to WebDAV resources.

### Note

For information about WebDAV client configuration, see the section `WebDAV Client Configuration`.

### Note

To access the IIS management console, in the Windows desktop, click the **Windows** button. The Windows Start menu appears. If the Windows Start menu does not contain a text box, then select **Run**. Type `inetmgr`, and then press Enter.

### Note

If Internet Explorer prompts for a password when accessing WebDAV features, then enter your Sitecore username including the domain prefix (`sitecore\username`) and your password. Usernames and passwords are case-sensitive.

## 2.2 WebDAV Architectural Notes

This section provides information about the WebDAV architecture and the Sitecore WebDAV implementation.

### 2.2.1 WebDAV Requests

WebDAV interactions consist of a series of HTTP (or HTTPS) requests and responses (WebDAV requests) between a Web client and a Web server. User actions in WebDAV-enabled components of a Web client trigger WebDAV requests from the Web client to the Web server. The Web server responds to WebDAV requests by taking some action on one or more files or directories and returning some information to the Web client. For example, when a user drags a file into a browser window that supports WebDAV, the Web client sends information about that file including its contents to the Web server, which stores a copy of that file and returns information about the current directory and its contents to the Web client.

### 2.2.2 WebDAV Modes

WebDAV operates in read-only or read-write mode. The default is read-write mode.

#### Tip

You can override the WebDAV mode by manipulating the `resolveMode` pipeline to set the `Sitecore.Configuration.WebDAVOptions.ReadOnlyMode` property.<sup>2</sup> For more information about the `resolveMode` pipeline, see the section [The resolveMode Pipeline](#).

### 2.2.3 WebDAV Options Objects

Sitecore determines a processing context for each WebDAV request. To optimize performance, Sitecore stores information about different processing contexts in WebDAV Options objects on the server, but does not populate properties of these objects until needed. WebDAV request URLs contain GUIDs linking to WebDAV Options objects. For information about server-side storage of WebDAV Options objects, see the section [Configure the WebDAV Option Store](#).

WebDAV Options objects can include various types of information, including:

- The context site.
- The database.
- The media item.
- The WebDAV mode (read-only or read-write).

#### Note

Sitecore can use the same WebDAV Options object for requests from multiple users. To optimize performance by minimizing the number of objects and database interactions, WebDAV Options objects persist between HTTP requests and are read-only after creation.

### 2.2.4 WebDAV Views

WebDAV views provide alternative user interfaces to a WebDAV repository.

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<sup>2</sup> For more information about Sitecore APIs, see the Sitecore API documentation at [http://sdn.sitecore.net/Reference/Sitecore%206/Sitecore\\_6\\_API\\_Reference.aspx](http://sdn.sitecore.net/Reference/Sitecore%206/Sitecore_6_API_Reference.aspx).

Sitecore provides two default views. The simple view provides information about the media folders and media items within a media folder or the root of the media library. The detailed view lists each media item that supports versioning as a folder containing folders for each language, where each folder contains zero or more versions for that language.

**Note**

In Sitecore user interfaces, the simple view can appear as **Show only latest version of files**; the detailed view can appear as **Show versioned files in folders**.

**Note**

You can register additional views as described in the section Configure WebDAV Views.

## 2.2.5 The WebDAV Request Handler

Sitecore processes WebDAV request with the WebDAV request handler. For more information about the WebDAV request handler, see the section The WebDAV.MediaHandlerName Setting.

## 2.2.6 The WebDAV File Drop Area Data (FDA) Template Field Type

The File Drop Area data template field type allows users to use WebDAV to manage media items associated with an item.<sup>3</sup> Each FDA field value links to a unique folder in the media library that contains the media items dragged into the field.

## 2.2.7 WebDAV Custom Properties

WebDAV allows users to associate custom properties with files stored in the WebDAV repository.

**Note**

The Microsoft Internet Explorer WebDAV client supported by Sitecore does not support WebDAV custom properties.

## 2.2.8 The IT Hit WebDAV Engine

Sitecore uses the IT Hit WebDAV engine.<sup>4</sup>

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<sup>3</sup> For more information about the File Drop Area (FDA) data template field type, see the Data Definition Reference manual at <http://sdn.sitecore.net/Reference/Sitecore%206/Data%20Definition%20Reference.aspx>.

<sup>4</sup> For more information about IT Hit WebDAV, see <http://ithit.com/>. For more information about the IT Hit WebDAV Engine, see <http://www.webdavsystem.com/server/>.



## Chapter 3

# Sitecore WebDAV Configuration

This chapter describes Sitecore WebDAV configuration, beginning with instructions to configure IIS to support WebDAV, and continuing with information about WebDAV configuration elements including the WebDAV pipelines.

This chapter contains the following sections:

- Configure IIS to Support WebDAV
- WebDAV Configuration Settings
- The WebDAV Configuration Element
- WebDAV Pipelines

## 3.1 Configure IIS to Support WebDAV

If you do not use the setup executable to install Sitecore, then follow the instructions in this section to configure IIS to support WebDAV.

### Note

The Sitecore setup executable automatically configures IIS to support WebDAV.

### Note

If you use separate Sitecore instances for content management and content delivery, and you do not use WebDAV in the content delivery environment, then you do not need to configure WebDAV support in the content delivery environment.

### 3.1.1 Disable Integrated Windows Authentication

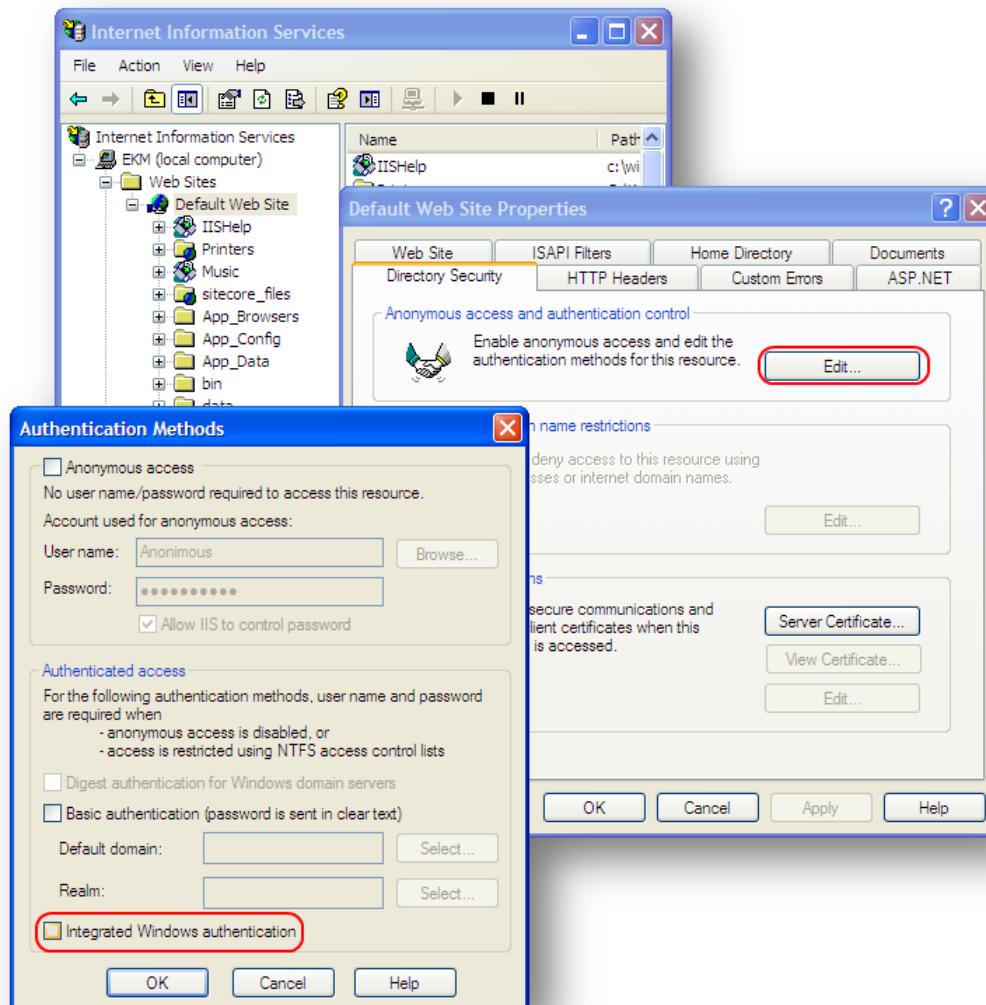
Ensure that you have disabled integrated Windows authentication.

#### How to Disable Integrated Windows Authentication on IIS6 or Earlier (Windows XP and Windows 2003)

To disable integrated Windows authentication on IIS6 or earlier:

1. In the IIS management console, right-click the Web site, and then click **Properties**. The **Properties** dialog appears.
2. In the **Properties** dialog, click the **Directory Security** tab, and then under **Authentication and access control**, click **Edit**. The **Authentication Methods** dialog appears.

3. In the **Authentication Methods** dialog, disable **Integrated Windows authentication**, and then click **OK**.

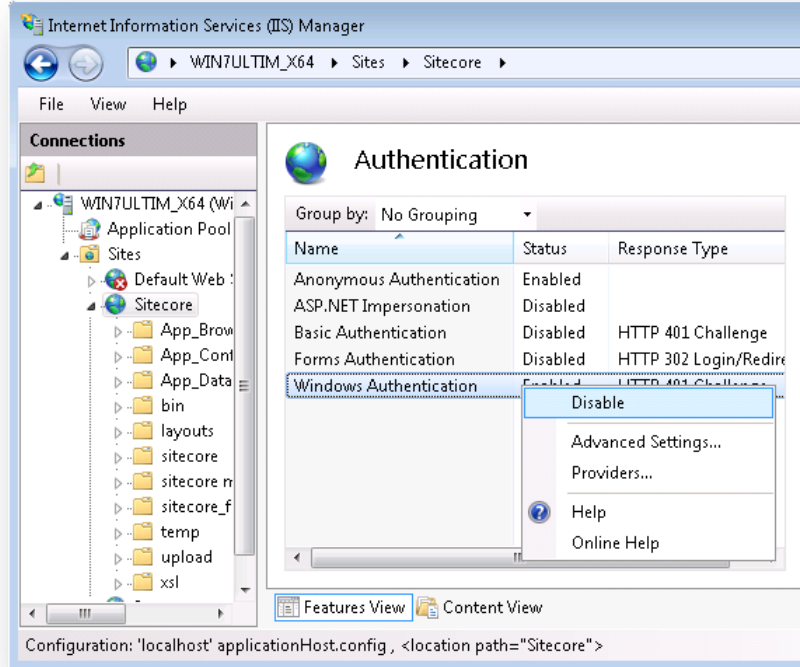


## How to Disable Integrated Windows Authentication on IIS7 or Later (Windows Vista, Windows 2008, and Windows 7)

To disable integrated Windows authentication on IIS7 or later:

1. In the IIS management console, select the Web site, and then double-click **Authentication**.

2. In the IIS management console, disable **Windows Authentication**.



### 3.1.2 Configure IIS to Use ASP.NET to Process WebDAV Requests

Follow the instructions in this section for your platform to ensure that IIS processes WebDAV requests using ASP.NET.

#### Note

To minimize processing overhead in some cases, different configuration applies to the document root of the IIS Web site and the subdirectory specified by the `WebDAV.Folder` setting. For more information about the `WebDAV.Folder` setting, see the section [The WebDAV.Folder Setting](#).

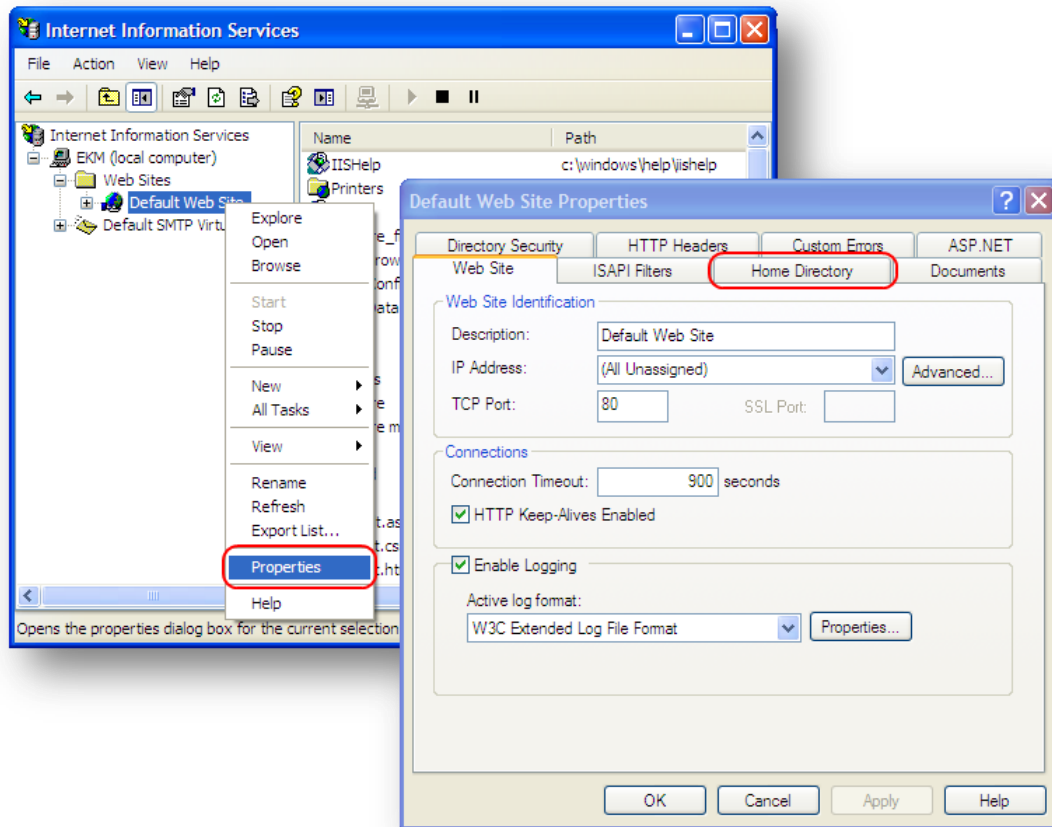
#### Note

The instructions below list the default value of the `WebDAV.Folder` setting (`/sitecore_files`). For more information about the `WebDAV.Folder` setting, see the section [The WebDAV.Folder Setting](#).

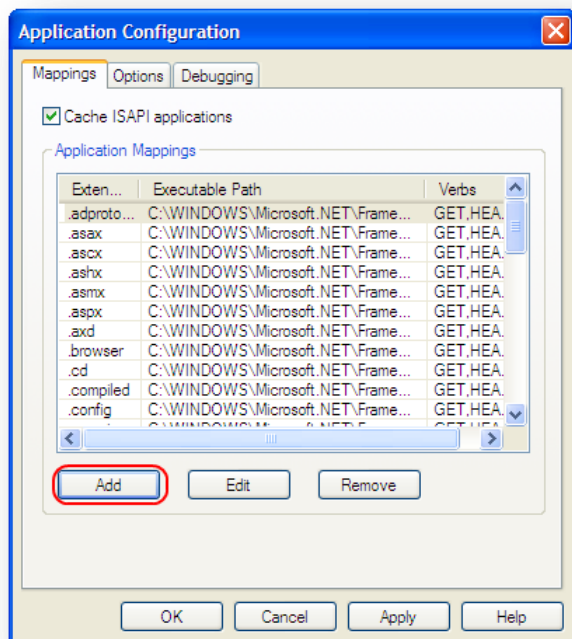
### IIS5 (Windows XP)

To configure the document root of an IIS5 Web site to support Sitecore WebDAV features:

1. In the IIS management console, right-click the Web site, and then click **Properties**. The **Properties** dialog appears.

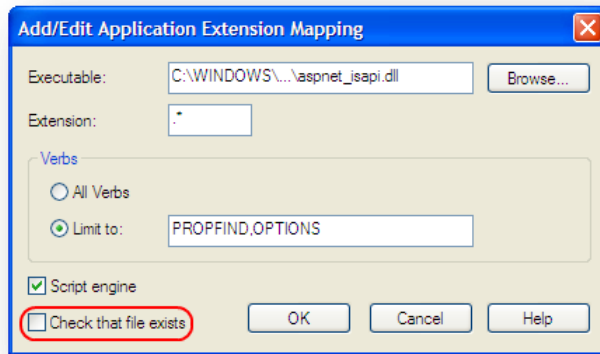


- In the **Properties** dialog, click the **Home Directory** tab, and then click **Configuration**. The **Application Configuration** dialog appears.



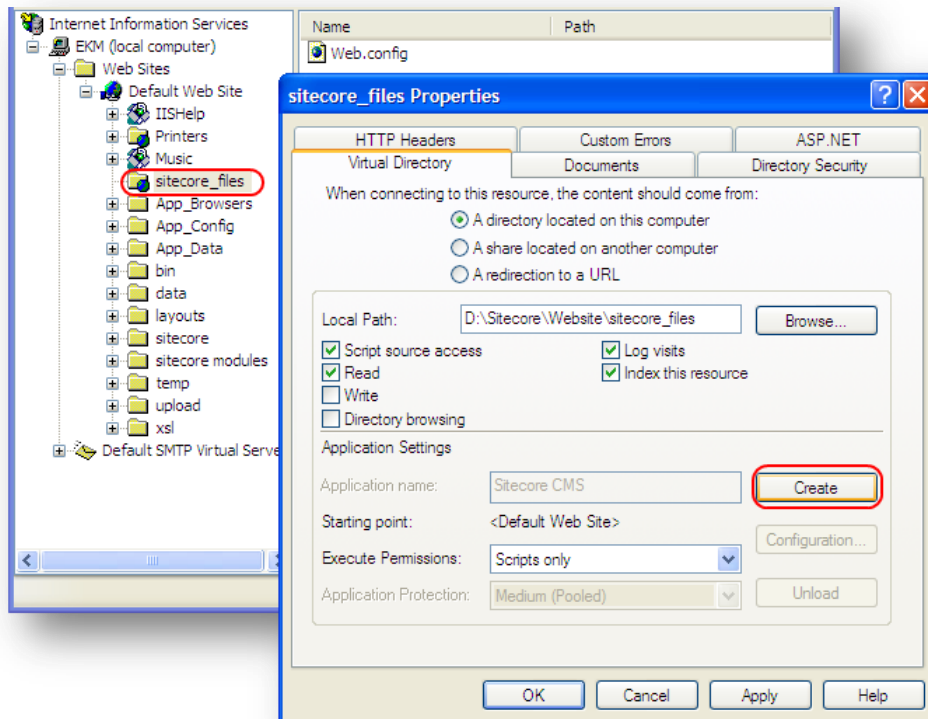
- In the **Application Configuration** dialog, select `.aspx`, and then click **Edit**. The **Add/Edit Application Extension Mapping** dialog appears.
- In the **Add/Edit Application Extension Mapping** dialog, copy the value of **Executable** to the Windows clipboard, and then click **OK**.
- In the **Application Configuration** dialog, click **Add**. The **Add/Edit Application Extension Mapping** dialog appears.
- In the **Add/Edit Application Extension Mapping** dialog, in the **Executable** field, paste the value from the Windows clipboard.
- In the **Add/Edit Application Extension Mapping** dialog, for **Extension**, enter an asterisk (“\*”).
- In the **Add/Edit Application Extension Mapping** dialog, select **Limit to**, and enter `PROPFIND, OPTIONS`.

9. In the **Add/Edit Application Extension Mapping** dialog, disable **Check that file exists**, and then click OK.



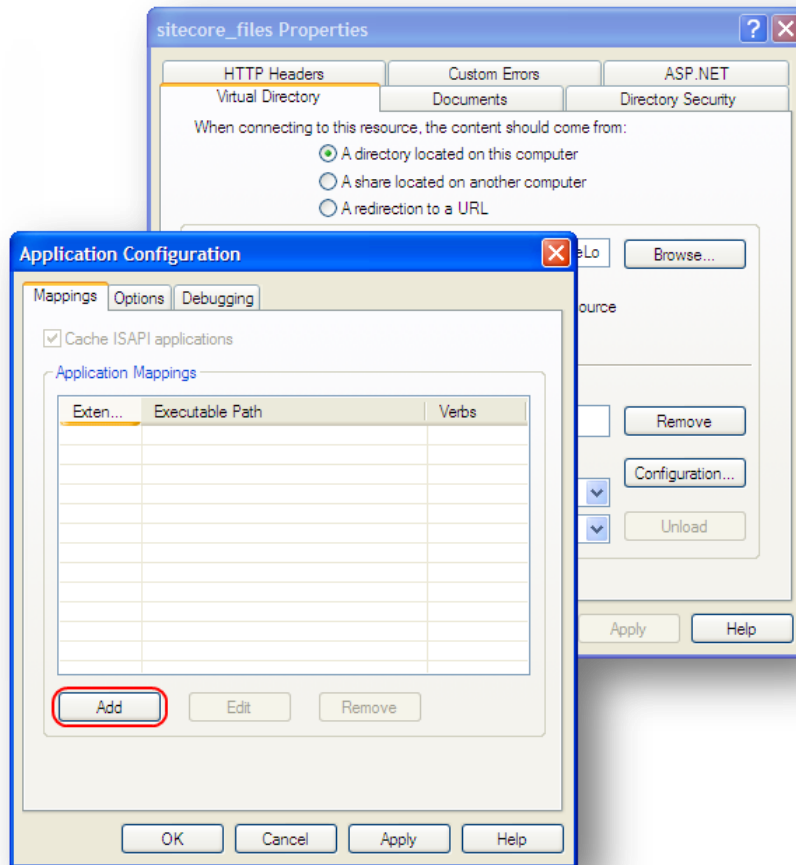
To configure the WebDAV subdirectory of an IIS5 Web site to support Sitecore WebDAV features:

1. In the IIS management console, expand the Web site, then right-click /sitecore\_files, and then click Properties. The Properties dialog appears.
2. In the Properties dialog, click the Directory tab, and then click Create.



The Properties dialog refreshes to indicate the new application.

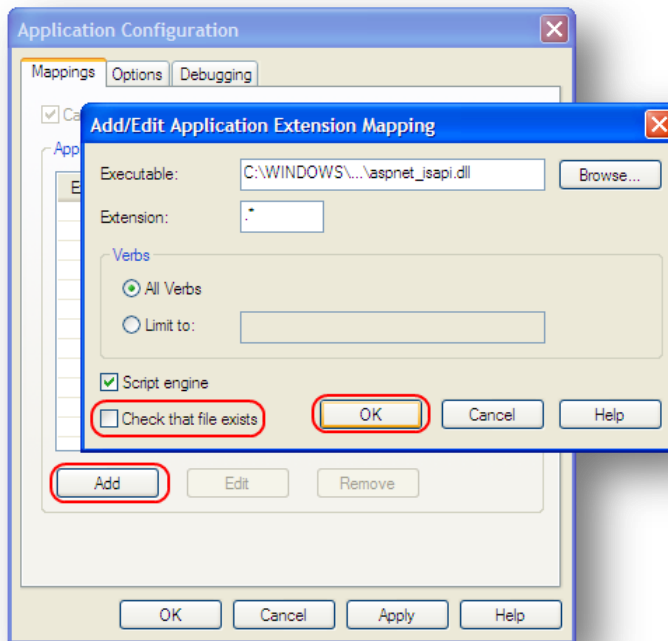
3. In the **Properties** dialog, click **Configuration**. The **Application Configuration** dialog appears.



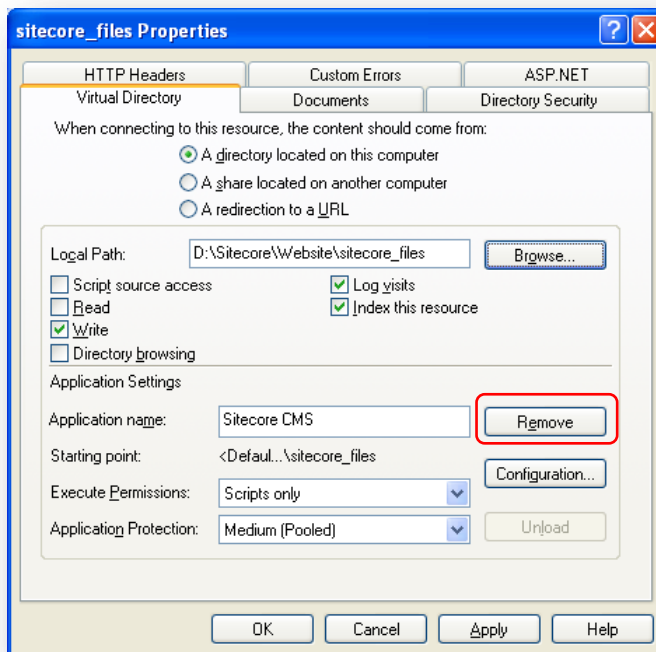
4. Create an extension mapping for an asterisk (“\*”) extension. In the **Executable** field, paste the value that you copied in the step 4 of the previous actions list. Select **All Verbs**, disable **Check**



that file exists.



5. In the **Properties** dialog, click **Remove**, and then click **OK**. The **Properties** dialog refreshes to indicate that you can create an application.

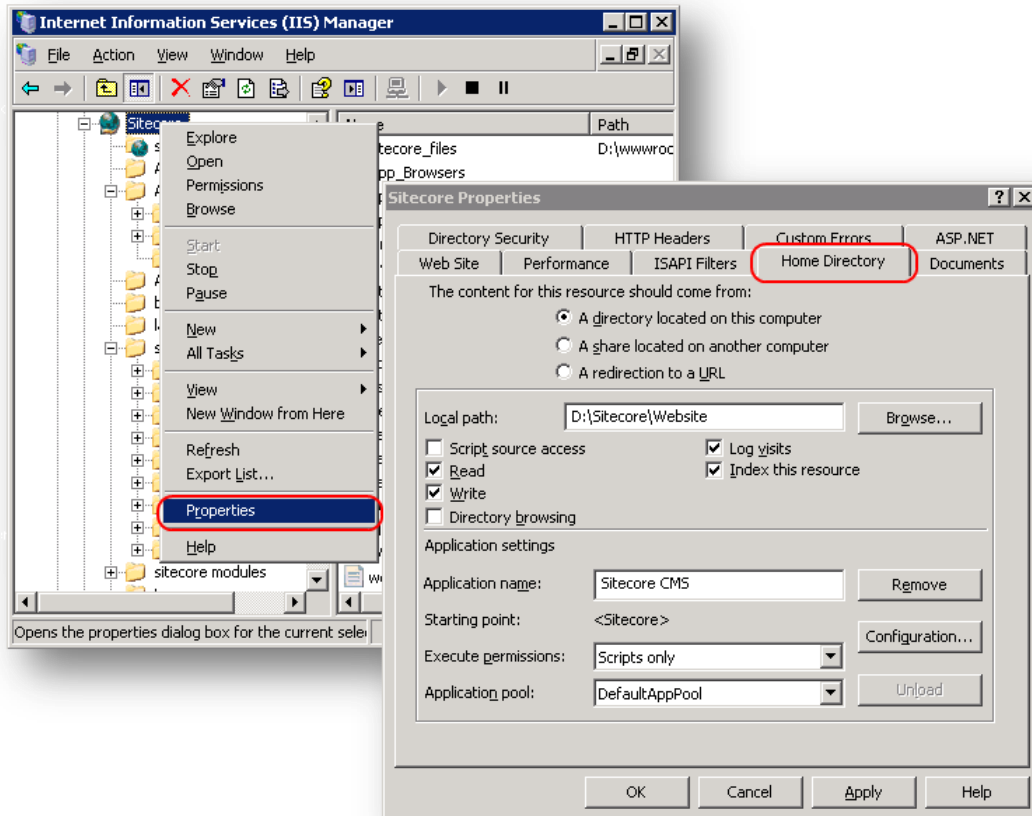


## IIS6 (Windows 2003)

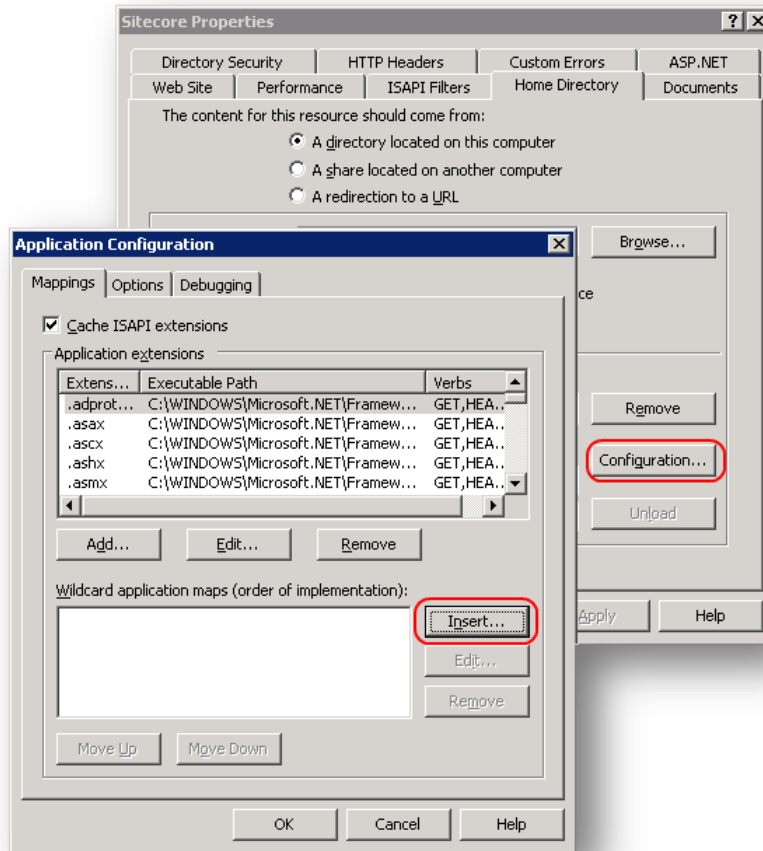
To configure an IIS6 Web site to support Sitecore WebDAV features, configure the Web site, and then configure the WebDAV subdirectory of that Web site as described in the following section. For more information about the WebDAV subdirectory, see the section The WebDAV.Folder Setting.

To configure the document root of an IIS6 Web site to support Sitecore WebDAV features:

1. In the IIS management console, right-click the Web site, and then click **Properties**. The **Properties** dialog appears.

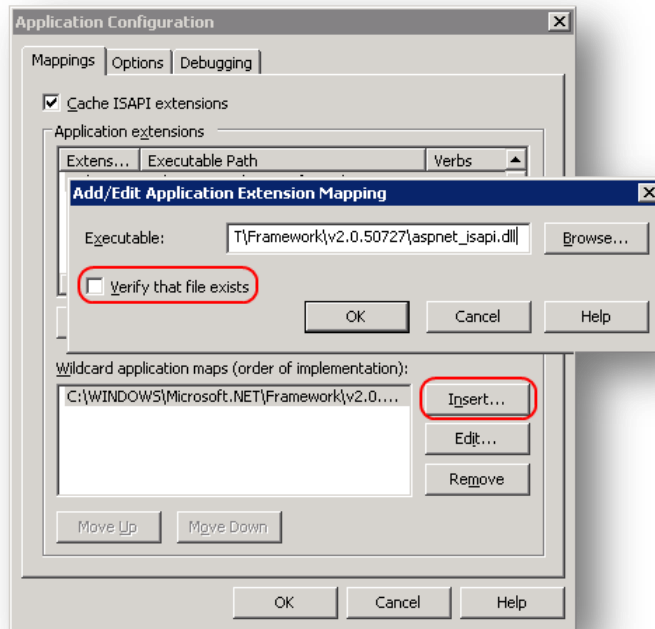


- In the **Properties** dialog, click the **Home Directory** tab, and then click **Configuration**. The **Application Configuration** dialog appears.



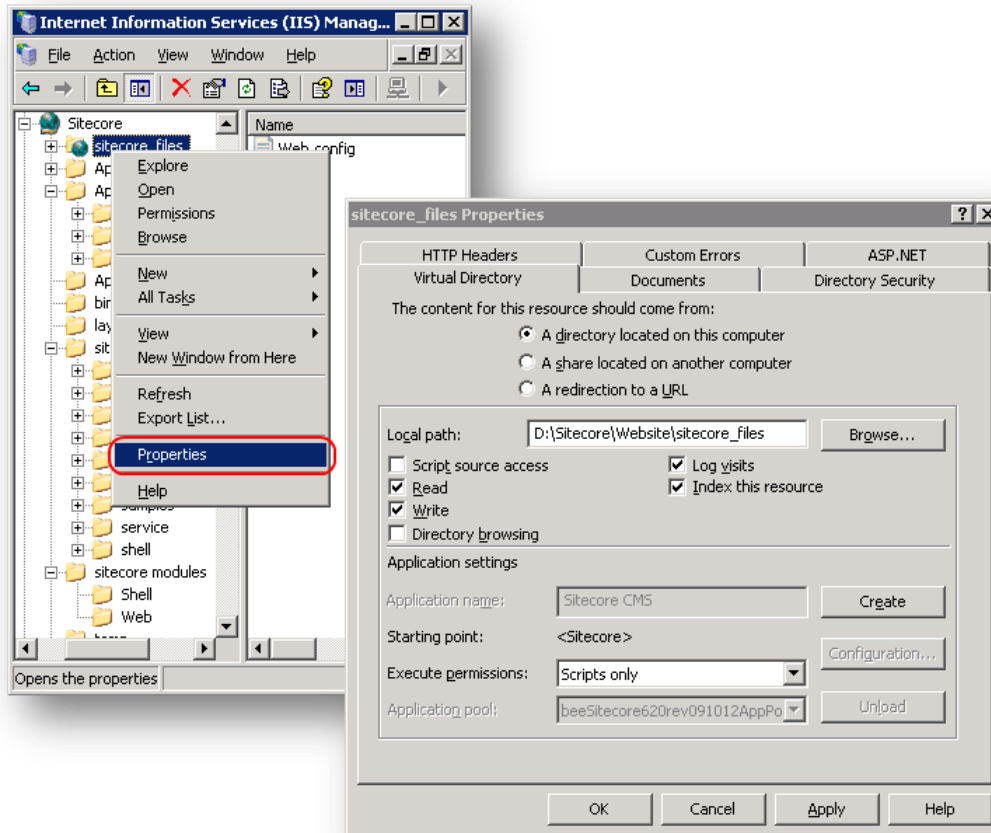
- In the **Application Configuration** dialog, select the `.aspx` extension, and then click **Edit**. The **Add/Edit Application Extension Mapping** dialog appears.
- In the **Add/Edit Application Extension Mapping** dialog, copy the value of **Executable** to the Windows clipboard, and then click **OK**.
- In the **Application Configuration** dialog, click **Insert**. The **Add/Edit Application Extension Mapping** dialog appears.
- In the **Add/Edit Application Extension Mapping** dialog, for **Executable**, paste the value from the Windows clipboard.

7. In the **Add/Edit Application Extension Mapping** dialog, disable **Verify that file exists**, and then click **OK**.

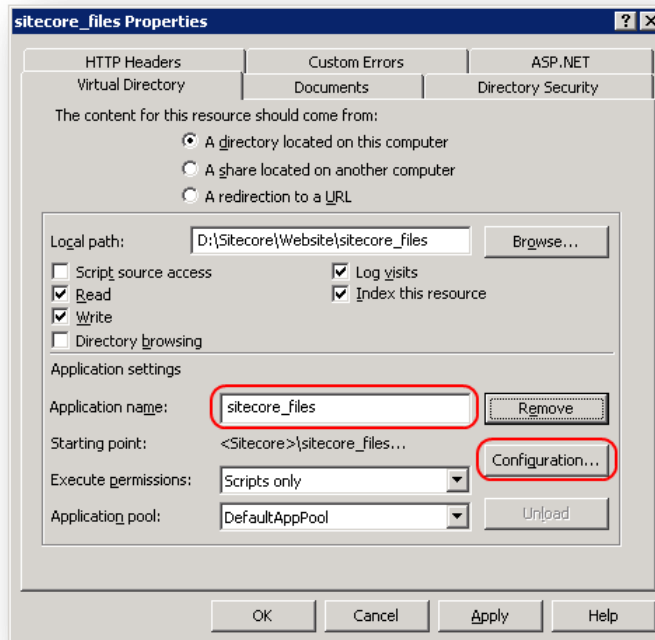


To configure the WebDAV subdirectory of an IIS6 Web site to support Sitecore WebDAV features:

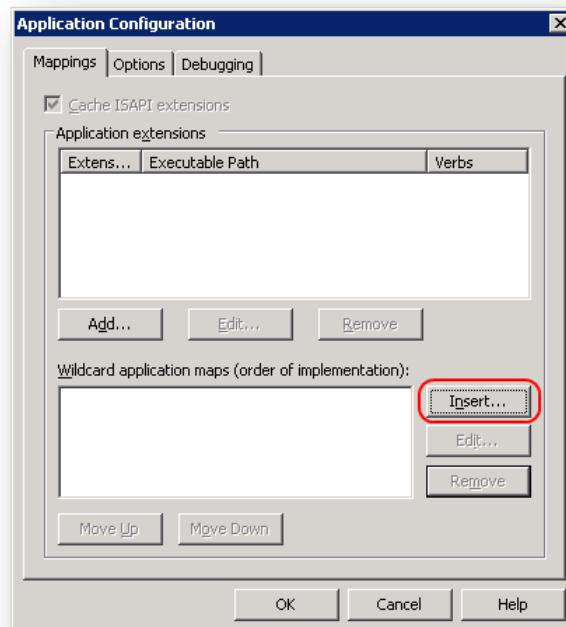
1. In the IIS management console, expand the Web site, then right-click the /sitecore\_files subdirectory, and then click **Properties**. The **Properties** dialog appears.



- In the **Properties** dialog, click the **Virtual Directory** tab, and then click **Create**. The **Properties** dialog refreshes to indicate the new application.

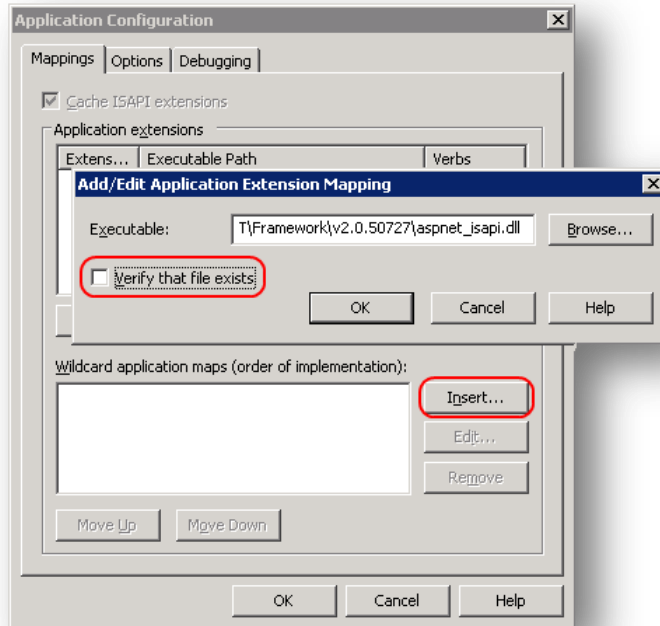


- In the **Properties** dialog, click **Configuration**. The **Application Configuration** dialog appears.

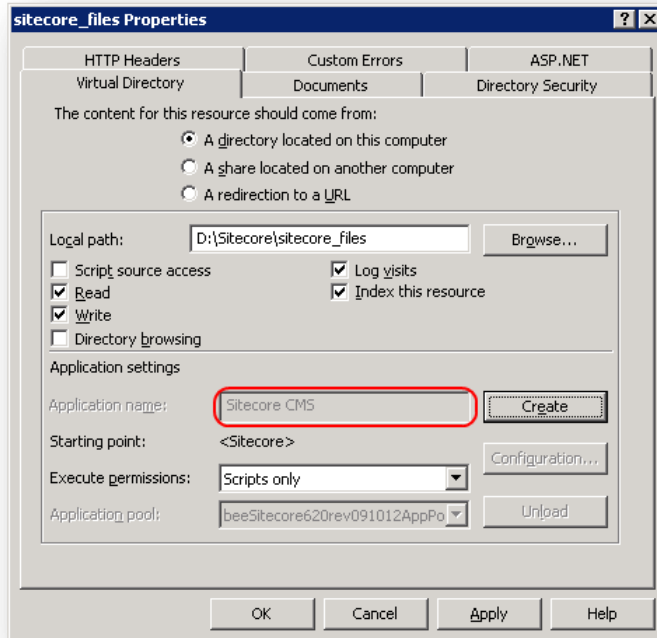


- In the **Application Configuration** dialog, click **Insert**. The **Add/Edit Application Extension Mapping** dialog appears.

5. In the **Add/Edit Application Extension Mapping** dialog, in the **Executable** field, paste the value that you copied in the step 4 of the previous actions list.
6. In the **Add/Edit Application Extension Mapping** dialog, disable **Verify that file exists**, and then click **OK**.



7. In the **Properties** dialog, click **Remove**, and then click **OK**. The **Properties** dialog refreshes to indicate that you can create an application.



## IIS7 (Windows Vista, Windows 2008, and Windows 7)

If you use IIS7, then you do not need to configure IIS to support WebDAV.



## 3.2 WebDAV Configuration Settings

This section describes the structure of the file `/App_Config/Include/Sitecore.WebDAV.config` that controls Sitecore WebDAV features. For more information, see the comments above each setting in `/App_Config/Include/Sitecore.WebDAV.config`.

### 3.2.1 The `WebDAV.AssociateUsernameWithLink` Setting

The `WebDAV.AssociateUsernameWithLink` setting controls whether Sitecore stores information about users in WebDAV Options objects. For more information about WebDAV Options objects, see the section WebDAV Options Objects. For more information about WebDAV authentication, see the section Configure WebDAV Authentication.

#### Warning

Do not set the `WebDAV.AssociateUsernameWithLink` setting to `true` on networks that you do not know to be secure.

#### Important

In order to support CMS users using Microsoft Internet Explorer on Windows 7, do not set `WebDAV.AssociateUsernameWithLink` to `false`.

#### Note

If the value of the `WebDAV.AssociateUsernameWithLink` setting is default, then Sitecore stores information about users in WebDAV Options objects when required for specific Web clients, such as Microsoft Internet Explorer on Windows 7.

#### Tip

On secure networks, you can set the `WebDAV.AssociateUsernameWithLink` setting to `true` to reduce the frequency of WebDAV authentication prompts.

### 3.2.2 The `WebDAV.Enabled` Setting

The `WebDAV.Enabled` setting controls whether Sitecore enables WebDAV features. If you set `WebDAV.Enabled` to `false`, then WebDAV features do not appear in the Sitecore user interfaces, and Sitecore does not use the WebDAV engine to process WebDAV requests. For more information about the WebDAV engine, see the section The IT Hit WebDAV Engine.

#### Note

When `WebDAV.Enabled` is `false`, File Drop Area (FDA) data template fields display an alternate interface that does not rely on WebDAV. For more information about FDA fields, see the section The WebDAV File Drop Area Data (FDA) Template Field Type.

### 3.2.3 The `WebDAV.EngineLogLevel` Setting

The `WebDAV.EngineLogLevel` setting controls the verbosity of the IT Hit WebDAV engine log. For more information about the IT Hit WebDAV engine, see the section The IT Hit WebDAV Engine. For more information about WebDAV logs, see the section The WebDAV Logs.

#### Note

The default configuration disables the IT Hit WebDAV engine log.

### 3.2.4 The WebDAV.FileDropAreaMediaLocation Setting

The `WebDAV.FileDropAreaMediaLocation` setting specifies the default location in the media library for Sitecore to store media items managed with WebDAV. Sitecore rejects WebDAV requests that involve items outside of this location. You can use the `WebDAV.FileDropAreaMediaLocation` setting to configure WebDAV support for only one specific branch of the media library.

### 3.2.5 The WebDAV.Folder Setting

The `WebDAV.Folder` setting specifies the subdirectory of the IIS Web site that handles WebDAV requests.

Sitecore does not create files in the directory specified by the `WebDAV.Folder` setting.

#### Warning

The `WebDAV.Folder` setting uses the `value` attribute of the `/configuration/sitecore/sc.variable` element in the file `/App_Config/Include/Sitecore.WebDAV.config` with name `webDAVPrefix`. These two configurable items must always evaluate to the same value.

### 3.2.6 The WebDAV.LicenseFile Setting

The `WebDAV.LicenseFile` setting specifies the location of the license file that Sitecore uses for the IT Hit WebDAV engine. For more information about the IT Hit WebDAV engine, see the section [The IT Hit WebDAV Engine](#).

#### Warning

Do not change the `WebDAV.LicenseFile` setting unless instructed to do so by Sitecore.

### 3.2.7 The WebDAV.MediaHandlerName Setting

The `WebDAV.MediaHandlerName` setting controls which handler Sitecore uses for WebDAV requests. Sitecore handles WebDAV requests with the class identified by the `type` attribute of the `/configuration/system.web/httpHandlers/add` element in `web.config` for which the `path` attribute matches the value of the `WebDAV.MediaHandlerName` setting.

### 3.2.8 The WebDAV.PromptWhenUsernameUnknown Setting

The `WebDAV.PromptWhenUsernameUnknown` setting controls how Sitecore responds to WebDAV requests when the context user is unknown. When the `WebDAV.PromptWhenUsernameUnknown` setting is `true`, then Sitecore prompts for authentication. When the `WebDAV.PromptWhenUsernameUnknown` setting is `false`, then Sitecore performs the operation as the anonymous user in the context domain.

### 3.2.9 The WebDAV.URLDisplayName Setting

The `WebDAV.URLDisplayName` setting controls the prefix that Sitecore uses in WebDAV URL paths, and can appear as the current folder name in WebDAV clients.

## 3.3 The WebDAV Configuration Element

The following sections describes the `/configuration/sitecore/webdav` element in the file `/App_Config/Include/Sitecore.WebDAV.Config`, which controls Sitecore WebDAV features including authentication, WebDAV views, lock management, and storage of WebDAV Options objects.

### 3.3.1 Configure WebDAV Authentication

The `/configuration/sitecore/webdav/authentication` element in the file `/App_Config/Include/Sitecore.WebDAV.config` controls WebDAV authentication. The `type` attribute of the `<authentication>` element specifies the class to use for authenticating WebDAV requests.

Sitecore uses the authentication method specified by the first `<map>` element within the `/configuration/sitecore/webdav/authentication/authentications` element in the file `/App_Config/Include/Sitecore.WebDAV.config` with a `useragent` attribute that matches the user agent string of the Web client. If no such entry exists, Sitecore uses the authentication method specified by the `/configuration/sitecore/webdav/authentication/preferredAuthentication` element in the file `/App_Config/Include/Sitecore.WebDAV.config`.

#### Note

Without customization, you must use the same authentication method for all Web clients that match each `useragent`.

## WebDAV Authentication Methods

Sitecore provides two WebDAV authentication methods: *Basic* and *Digest*.

#### Warning

*Basic* authentication transmits usernames and passwords in plain text. *Digest* provides additional security, but is not completely secure. Consider implementing custom WebDAV authentication on networks that you do not know to be secure.

#### Note

WebDAV requires separate authentication because WebDAV clients do not support ASP.NET forms authentication used by Sitecore.<sup>5</sup>

#### Note

Default configurations of Windows Vista and Windows 2008 do not support *Basic* authentication.<sup>6</sup>

#### Note

The default Sitecore configuration uses *Digest* for all user agents.

To implement a custom WebDAV authentication provider:

1. Implement the abstract methods in the `Sitecore.Security.Authentication.HttpAuthenticationProvider` class.

<sup>5</sup> <http://msdn.microsoft.com/en-us/library/aa480476.aspx>.

<sup>6</sup> [http://www.webdavsystem.com/server/documentation/authentication/basic\\_auth\\_vista](http://www.webdavsystem.com/server/documentation/authentication/basic_auth_vista).

2. Register your class within the `/configuration/sitecore/httpAuthentication` section in `web.config`.
3. Create, update, or delete the appropriate `/configuration/sitecore/webdav/authentication/authentications/map` elements in the file `/App_Config/Include/Sitecore.WebDAV.config` to reference your class, or update the contents of the `<preferredAuthentication>` element in the file `/App_Config/Include/Sitecore.WebDAV.config` to specify your class.

### 3.3.2 Configure WebDAV Views

The `/configuration/sitecore/webdav/views` element in `/App_Config/Include/Sitecore.WebDAV.config` controls views available to WebDAV users. The `defaultProvider` attribute of the `/configuration/sitecore/webdav/views` element specifies the default view for users who have not selected a view.

To implement a view:

1. Create a class that inherits from `Sitecore.Data.Views.WebDAVView` base class.
2. In the new class, implement all of the abstract methods in the base class. In the `GetHierarchyItem()` method, return the appropriate WebDAV item.
3. Register the new class within the `/configuration/sitecore/webdav/views` element in the file `/App_Config/Include/Sitecore.WebDAV.config`.

### 3.3.3 Configure the WebDAV Supplemental Locking Provider

WebDAV operations require Sitecore locks where appropriate, such as when a user edits a media item. In some cases, to prevent multiple users from acting on a single media item through WebDAV at the same time, Sitecore must maintain additional locking information without affecting the Sitecore locking status of the item.

The `/configuration/sitecore/webdav/locking` element in the file `/App_Config/Include/Sitecore.WebDAV.config` controls the class used to implement this WebDAV supplemental locking. The default WebDAV supplemental locking provider stores supplemental locking information in the `IDTable` table in the database specified by the first `/configuration/sitecore/IDTable/param` element in `web.config`.

#### Note

The default Sitecore configuration uses the `IDTable` table in the Master database. To use the `IDTable` table in a different database, set the `connectionStringName` attribute of the first `/configuration/sitecore/IDTable/param` element in `web.config` to the name of that database.

### 3.3.4 Configure the WebDAV Null Locking Provider

Sitecore uses the class specified by the `/configuration/sitecore/webdav/lockNull` element in the file `/App_Config/Include/Sitecore.WebDAV.config` to store information before creating media items using WebDAV. The default WebDAV null locking provider stores lock information in memory on the server.

### 3.3.5 Configure the WebDAV Option Store

The `/configuration/sitecore/webdav/optionStore` element in the file `/App_Config/Include/Sitecore.WebDAV.config` controls the class that Sitecore uses to persist WebDAV Options objects. For more information about WebDAV Options objects, see the section [WebDAV Options Objects](#).

The default WebDAV Options object store provider uses the `IDTable` table in the database specified by the first `/configuration/sitecore/IDTable/param` element in `web.config`. GUIDs in WebDAV URLs correspond to entries in this table, associating WebDAV Options objects with WebDAV requests.

## 3.4 WebDAV Pipelines

For each WebDAV request, Sitecore invokes pipelines defined in the file `/App_Config/Include/Sitecore.WebDAV.config`. You can add and replace processors in these pipelines to control WebDAV functions.

### Important

To maximize performance, thoroughly optimize each pipeline and pipeline processor. The first action in a processor is to exit if the logic in that processor is not relevant to the processing context.

### Note

This document does not describe pipeline or pipeline processor implementation.

### 3.4.1 The `autogenerateVersions` Pipeline

Sitecore invokes the `autogenerateVersions` pipeline to determine when to create a new version of the media item for a WebDAV operation.

### 3.4.2 The `getProperties` Pipeline

Sitecore invokes the `getProperties` pipeline to manage WebDAV custom properties. For more information about WebDAV custom properties, see the section [WebDAV Custom Properties](#).

The current implementation of the `getProperties` pipeline returns a single property named `ItemID`, which contains the ID of the media item. If you use a WebDAV client that supports custom WebDAV properties, then you can implement features in the `getProperties` pipeline.

### 3.4.3 The `requireAuthentication` Pipeline

Sitecore invokes the `requireAuthentication` pipeline to determine whether to prompt the WebDAV user for authentication. If no authentication information is available, the WebDAV request handler applies the `WebDAV.PromptWhenUsernameUnknown` setting as described in the section [The WebDAV.PromptWhenUsernameUnknown Setting](#), prompting for authentication or invoking the operation as the Anonymous user in the context domain. For more information about authentication, see the section [Configure WebDAV Authentication](#).

### 3.4.4 The `resolveDatabase` Pipeline

Sitecore invokes the `resolveDatabase` pipeline to determine the database to access for each WebDAV request.

### 3.4.5 The `resolveMode` Pipeline

Sitecore invokes the `resolveMode` pipeline to determine whether to process a WebDAV request in read-only or read-write mode. For more information about WebDAV modes, see the section [WebDAV Modes](#). Sitecore assumes WebDAV read-write mode.

### 3.4.6 The resolveRootItem Pipeline

Sitecore invokes the `resolveRootItem` pipeline to determine the root item of the media library for WebDAV requests. The WebDAV request handler only operates on media items that are descendants of the root item of the media library. You can manipulate the `resolveRootItem` pipeline to use different media library root items under different conditions.

### 3.4.7 The resolveSite Pipeline

Sitecore invokes the `resolveSite` pipeline to determine the context logical Web site for WebDAV requests. Sitecore determines the context site from the WebDAV Options object associated with the GUID in the URL, or from the context Web site. For more information about WebDAV Options objects, see the section WebDAV Options Objects,

### 3.4.8 The resolveUser Pipeline

Sitecore invokes the `resolveUser` pipeline to determine the context user for WebDAV requests. For more information about the WebDAV user, see the section The requireAuthentication Pipeline and the section Configure WebDAV Authentication.

### 3.4.9 The resolveView Pipeline

Sitecore invokes the `resolveView` pipeline to determine the WebDAV. Sitecore uses the first defined view from the following options:

- The WebDAV Options object associated with the request.
- The view selected by the user on the Application Options dialog accessible by clicking the Sitecore logo in the Content Editor.
- The default view specified in the file `/App_Config/Include/Sitecore.WebDAV.config`.

For more information about WebDAV views, including how to specify the default WebDAV view, see the section WebDAV Views and the section Configure WebDAV Views.

### 3.4.10 The updateProperties Pipeline

Sitecore invokes the `updateProperties` pipeline to manage WebDAV custom properties. For more information about WebDAV custom properties, see the section WebDAV Custom Properties.

The current implementation of the `updateProperties` pipeline takes no action. If you use a WebDAV client that supports WebDAV custom properties, then you can implement features in the `updateProperties` pipeline.

### 3.4.11 The validateOperation Pipeline

Sitecore invokes the `validateOperation` pipeline to determine whether a user has authorization to perform a WebDAV operation when item access rights would otherwise allow that operation. For example, you can configure processors in this pipeline to prevent a WebDAV user from deleting a media item for which access rights allow deletion.

## Chapter 4

# Known Issues and Troubleshooting Techniques

This chapter begins by describing known issues with the Sitecore WebDAV implementation and then provides troubleshooting techniques.

This chapter contains the following sections:

- Known Issues
- Troubleshooting WebDAV



## 4.1 Known Issues

The following list describes limitations and known issues with the Sitecore WebDAV implementation:

- Sitecore supports Microsoft Internet Explorer WebDAV clients with updated installations of the Windows Web Folders Client or the Windows Desktop Experience. Internet Explorer as a WebDAV client does not support WebDAV custom properties and certain other WebDAV features. For more information about supported versions and instructions to configure Internet Explorer and Windows Web Folders or the Desktop Experience, see the section WebDAV Client Configuration.
- You cannot use WebDAV with two items with the same name under the same parent item. You cannot use WebDAV with a media folder and a media item with the same name under the same parent item. You cannot use WebDAV with two media items with the same name and different extensions under the same parent item unless the `Media.IncludeExtensionsInItemNames` setting in `web.config` is `true`.
- You cannot change the file name extension of a media item using WebDAV.
- You cannot use WebDAV to create media items with names containing Unicode characters.
- Enter the domain name when authenticating (`domain\username`).
- You cannot control the options that appear in the WebDAV client user interface. You can block WebDAV operations after the user invokes a command using the user interface.
- WebDAV requires a value of `None` for the `mode` attribute of the `/configuration/system.web/authentication` element in `web.config`.
- You cannot control the text of messages shown by the client operating system.
- In the WebDAV simple view, if a media item does not have any version data for the default language, then the extension for the media item does not appear in the user interface. If WebDAV does not require authentication, then you cannot add version data for that item in the simple view. You can add version data using the detailed view. For more information about WebDAV views, see the section WebDAV Views.
- WebDAV does not support HTTPS using ports other than the default (443).
- Microsoft Internet Explorer 8 does not support WebDAV over HTTPS.
- You cannot use WebDAV features from a Web client in which you have not authenticated against Sitecore.
- Microsoft Internet Explorer 8 does not support WebDAV when accessing the host name `localhost`. For more information about this issue, see the section Cannot Find.

### Note

Sitecore user interfaces do not display WebDAV features to Web clients that do not support those features.

### Note

If the WebDAV client user interface does not automatically update after an operation, right-click in the browser window, and then click Refresh.

## 4.2 Troubleshooting WebDAV

This section provides techniques to troubleshoot issues with WebDAV.

### 4.2.1 The WebDAV Logs

You can use diagnostics messages in the WebDAV logs to obtain additional information about issues with WebDAV.

Sitecore logs messages specific to WebDAV to the file `WebDAV.log.{date}.txt` in the `/logs` subdirectory of the directory specified by the `$dataFolder` variable in `web.config`, where `{date}` represents the system date.

#### Note

You can update the `/configuration/log4net/appender` element in `web.config` with name `WebDAVLogFileAppender` to configure the Sitecore WebDAV log. You can add a `<level>` element containing one of the values recognized by log4net:<sup>7</sup>

```
<logger name="Sitecore.Diagnostics.WebDAV" additivity="false">
  <level value="INFO"/>
  ...
</logger>
```

The IT Hit WebDAV engine logs to the file named `WebDAVLog.txt` in the directory specified by the `value` attribute of the `/configuration/sitecore/settings/setting` element in `web.config` with name `DataFolder`.

### 4.2.2 WebDAV Client Configuration

Ensure that the Web client meets Sitecore requirements, and implement Sitecore configuration requirements.<sup>8</sup> Install available Windows updates, including updates to the Windows Web Folders client.

### 4.2.3 Running a System Command on this Item Might Be Unsafe

If you see the the following messages in the browser, then you need to configure the client.

*Running a system command on this item might be unsafe.*

*Do you wish to continue?*

Click **Yes**. To configure the client, see the section WebDAV Client Configuration.

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<sup>7</sup> For more information about log4net, see <http://logging.apache.org/log4net/release/manual/configuration.html>.

<sup>8</sup> For information about Sitecore client requirements, including supported Web clients and versions, see the Sitecore CMS Installation guide at <http://sdn.sitecore.net/Products/Sitecore%20V5/Sitecore%20CMS%206/Installation.aspx>. For instructions to configure Microsoft Internet Explorer to support WebDAV, see the Internet Explorer Configuration Reference manual at <http://sdn.sitecore.net/Reference/Sitecore%206/IE%20Configuration%20Reference.aspx>.

#### 4.2.4 Internet Explorer Could Not Open

If you see messages such as the following in the browser, then remove any IIS WebDAV component that could conflict with the IT Hit WebDAV engine, and confirm that ASP.NET can access the license file used by the IT Hit WebDAV engine. For more information about the IT Hit WebDAV engine, see the section [The IT Hit WebDAV Engine](#).

*Open Folder*

*Internet Explorer could not open <URL> as a Web Folder*

*Would you like to see its default view instead*

If you see messages such as those above in conjunction with messages such as the following in the WebDAV log, then ASP.NET may not have access to the license file used by the IT Hit WebDAV engine. For more information about the WebDAV log, see the section [The WebDAV Log](#).

*System.IO.FileNotFoundException*

*Could not find file*

Ensure that the file specified by the `WebDAV.LicenseFile` setting in the file `/App_Config/Include/Sitecore.WebDAV.config` exists, and that ASP.NET can read this file. For more information about the WebDAV license file, see the section [The WebDAV.LicenseFile Setting](#).

#### 4.2.5 Cannot Find

If you see messages such as the following in the browser, then access the Sitecore instance using a host name other than `localhost`.

*Cannot find <URL>*

*Make sure the path or Internet address is correct.*

Microsoft Internet Explorer 8 does not support WebDAV when accessing the host name `localhost`. You can use an IP address such as `127.0.0.1` or configure an alternate host name for the IIS Web site.