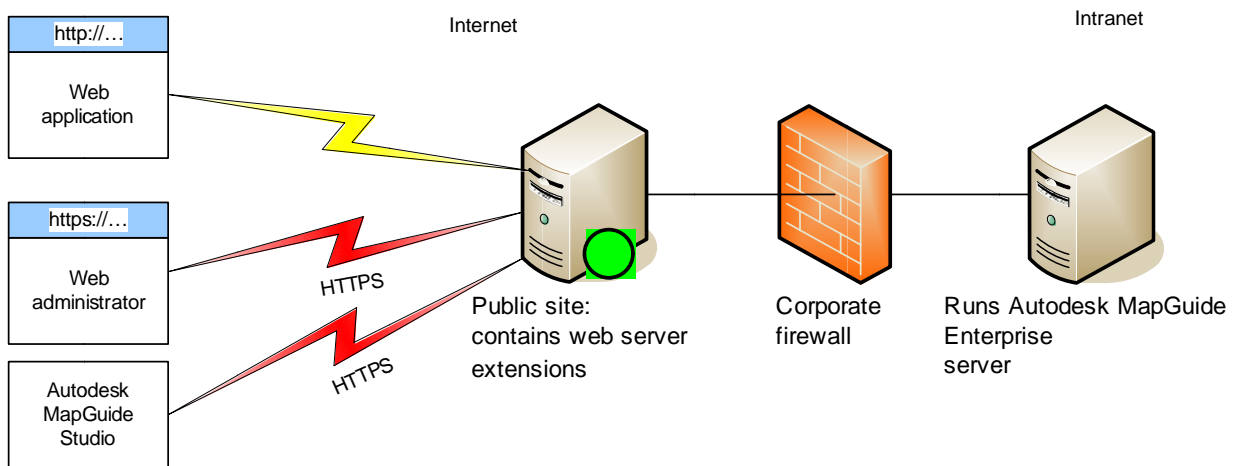


Creating a Secure Site

This document describes how to create a secure Autodesk MapGuide® Enterprise software site. The setup consists of two parts: (1) the open component that allows anyone to view maps over a normal connection and (2) the secured component that can be used to administer and author the site over a secure connection.



Step-by-step instructions are provided for setting up a secure site for different configuration types. And although these instructions are specific, variations can be used as appropriate.

Note: If administration and authoring do not need to be made publicly available, an alternative installation shown at the end of this document can be used.

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Windows 2003 Using IIS 5.2

This configuration is for Microsoft® Windows® 2003 operating system using Internet Information Services (IIS) 5.2 and PHP. Although Windows 2003 is specified, other supported servers running IIS 5.x have similar steps.

In the following steps, <webdir> corresponds to
C:\Program Files\Autodesk\MapGuideEnterprise2008\WebServerExtensions.

Install

Perform a standard installation of the server. When installing the web server extensions, ensure that IIS and PHP are selected. If a .NET installation is selected, the following instructions should be modified accordingly; see the “Installation and Configuring on Windows” document which can be found in your installation media disks for details.

The default installation creates a *mapguide2008* virtual directory under the Default Website.

Create a wwwsecure Directory

Make a copy of the <webdir> \www directory and call it <webdir> \wwwsecure.

The *wwwsecure* directory contains the configuration and files required for administration and authoring against the site.

Limit the www Directory to Running Applications

The following steps limit the *www* directory (that is, <http://<machine>/mapguide2008>) to only run applications but not administration or authoring.

To disable authoring, open <webdir>\www\webconfig.ini and change the DisableAuthoring entry from 0 to 1. When done, the line should read

```
DisableAuthoring = 1
```

Save the file. If this process has been successful, Autodesk MapGuide® Studio software can no longer connect to the site using HTTP.

To disable the web administrator, delete the <webdir>\www\mapadmin folder.

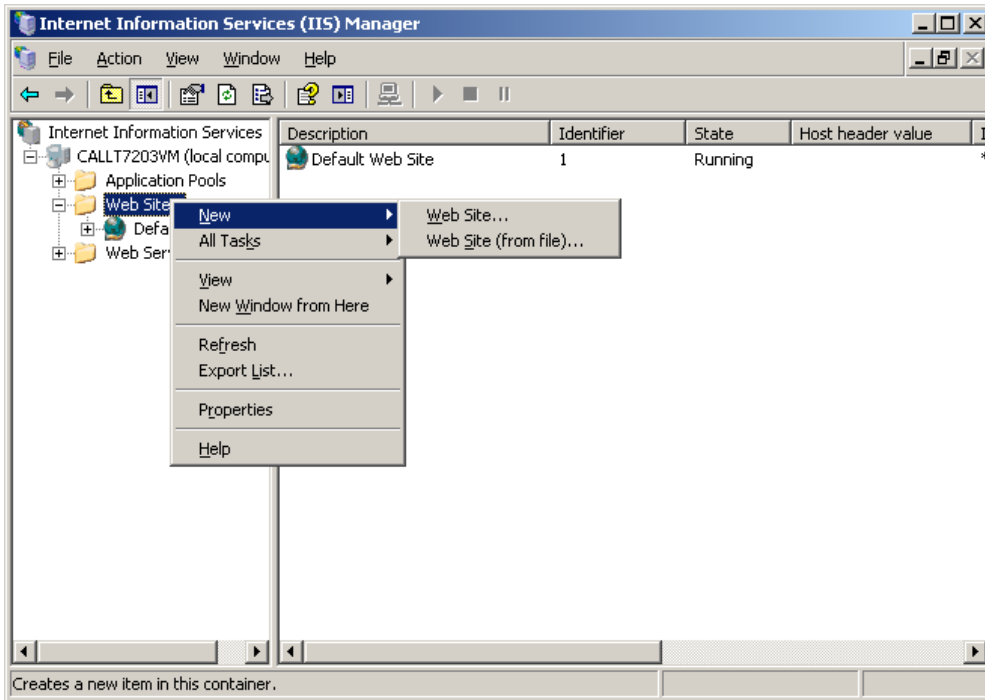
Set Up Secure Connections for Administration and Authoring

The following describes what is required to set up secure connections for administration and authoring. The way this is set up, you end up with a URL of the form <https://<machinename>/mapguide2008> or <https://<machinename>/mapguide2009> depending on the installation version to access the site. Keeping the *mapguide2008/* *mapguide2009* virtual directory is preferred because none of the web tier scripts need to be manually modified to point to a different virtual directory.

CREATING A SECURE AUTODESK MAPGUIDE ENTERPRISE SITE

Create a New Website

The first step is to create a new website in the IIS Manager.



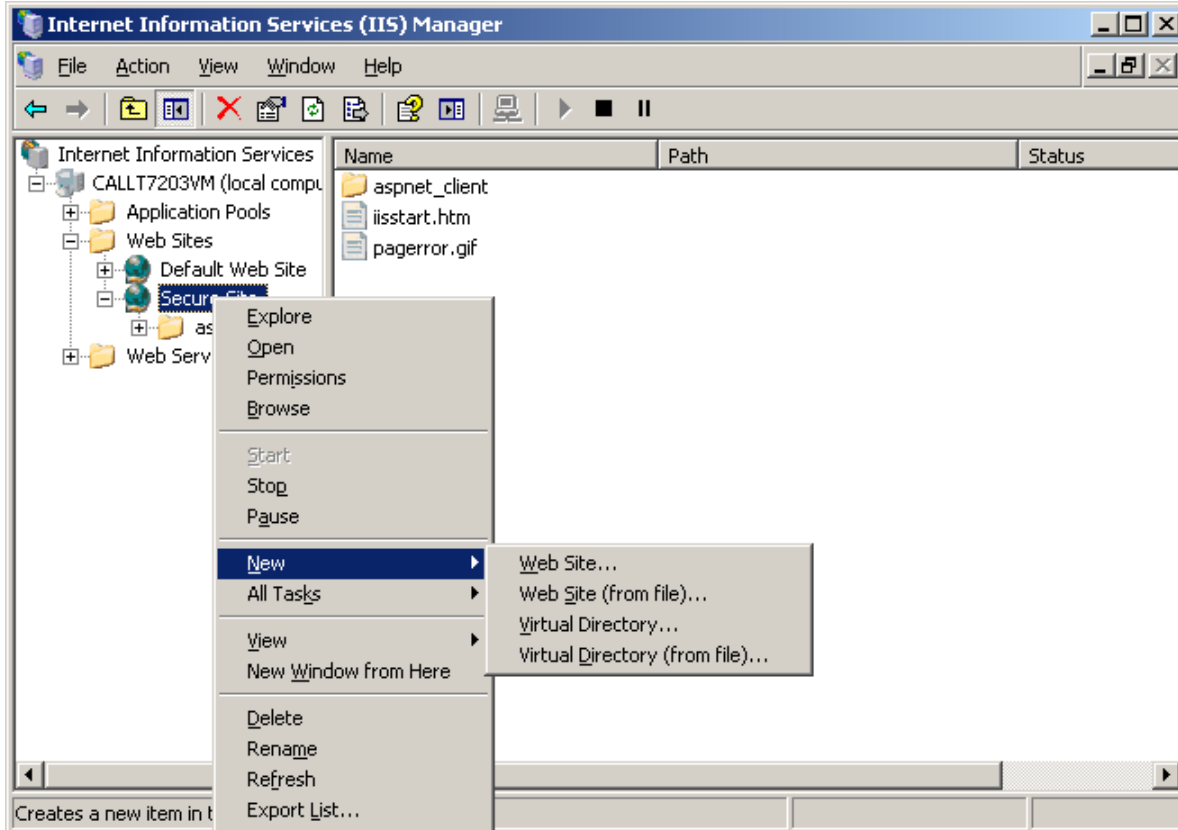
A dialog box asks for a website description. Enter any descriptive name, such as Secure Site, and then click Next. In the IP Address and Port Settings dialog box, change the TCP port to an unused port, such as 8008, and click Next. Select a path in the *Web Site Home* directory; the default *c:\inetpub\wwwroot* directory will suffice. Click Next and then click Next again for the Web Site Access Permissions dialog box. Finally click Finish to create the website.

(The following instructions for setting up the web server extensions can also be found in the "Installing and Configuring on Windows" document.)

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Create a Virtual Directory

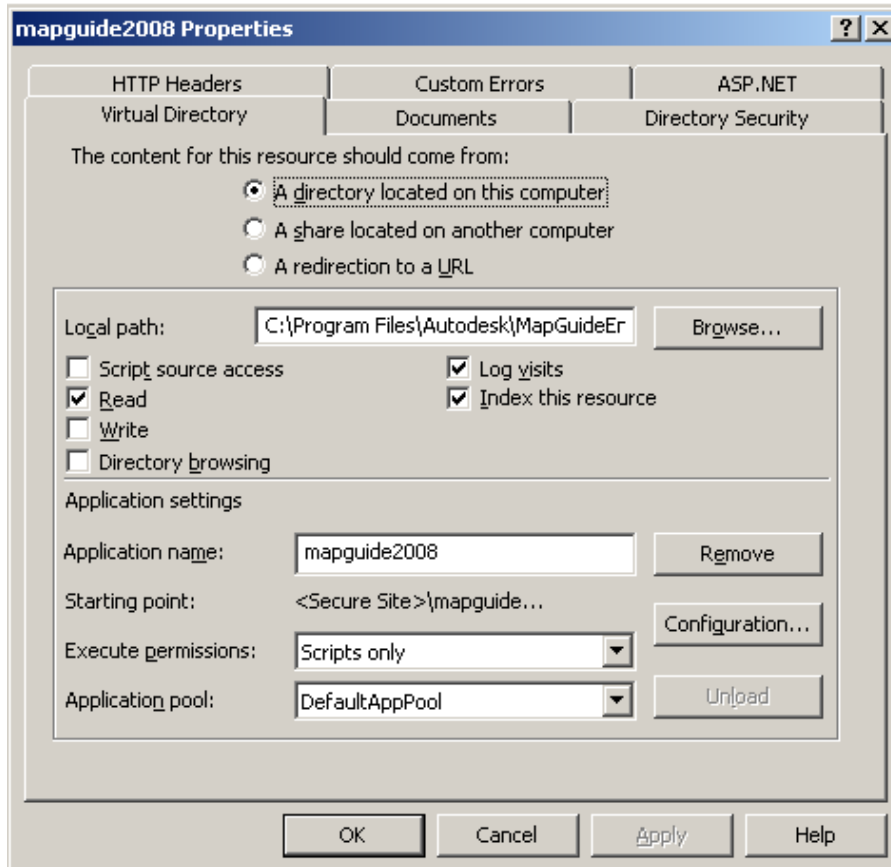
The next step is to hook up the `wwwsecure` directory that was created earlier. As the following diagram shows, right-click `Secure Site` in the IIS Manager and choose `New>Virtual Directory`.



Set the alias name to `mapguide2008` or `mapguide2009` depending on the installation version, select `<webdir>\wwwsecure` as the content directory, and leave the directory access permissions as is.

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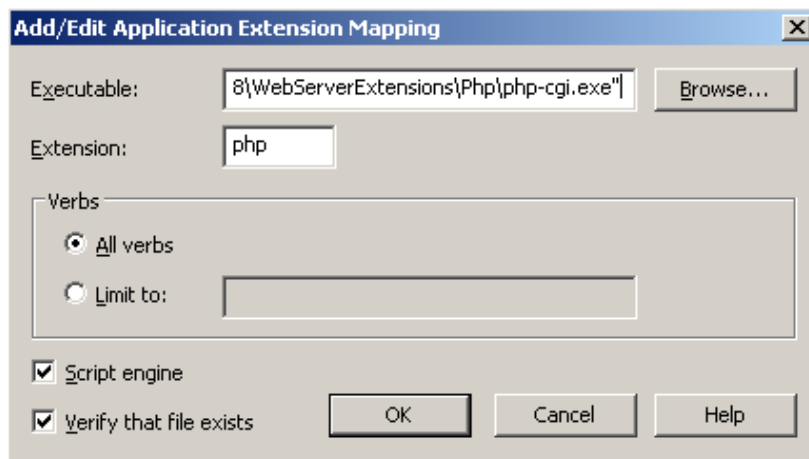
Next, right-click and select Properties in the *mapguide2008* virtual directory. Click the Create button and set the properties as shown in the following graphic:



Set Up CGI

Normally the next step would be to set up the fcgi mapping to the FastCGI agent. However, because there is only one global setting for the FastCGI in the registry, they all end up using the same *webconfig.ini* settings. This does not work since you have two *webconfig.ini* files, one with authoring disabled and one enabled. To get around this problem, standard CGI is used for the website. This makes processing slower, but since authoring and administration are not compute intensive, this should not be a problem.

To set up the proper mapping, click the Configuration button and add a php mapping to the *php-cgi.exe* program (you need to change the Open dialog box filter to *.exe from *.dll) as shown in the following graphic:

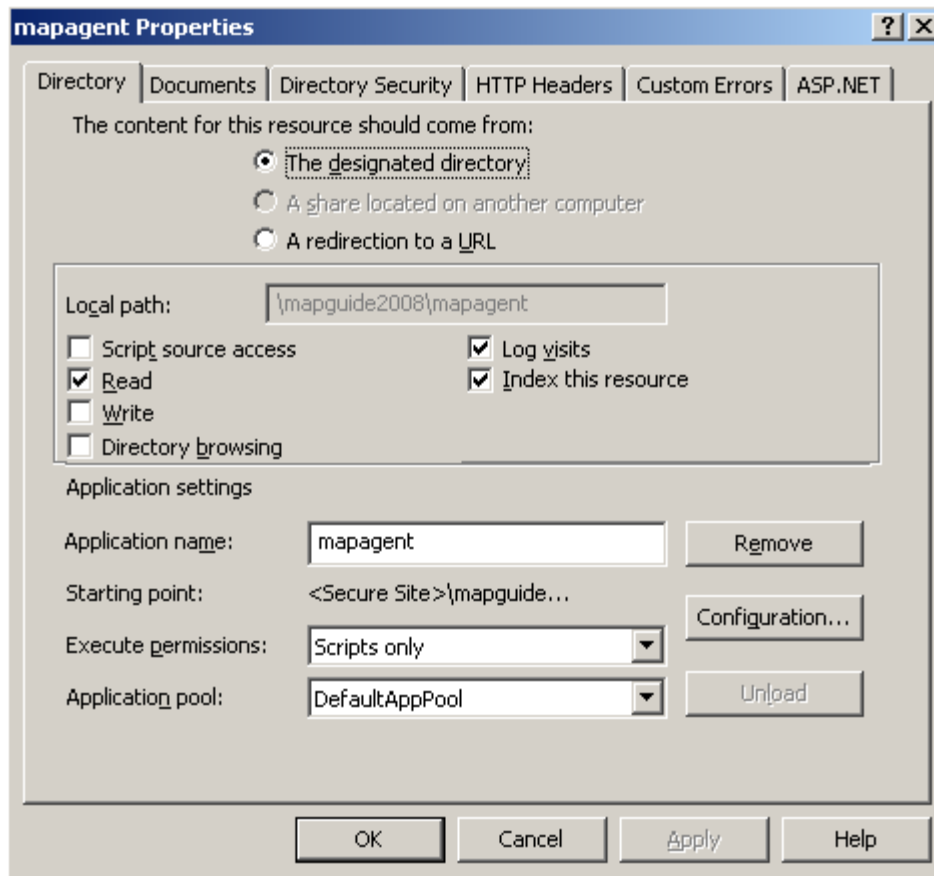


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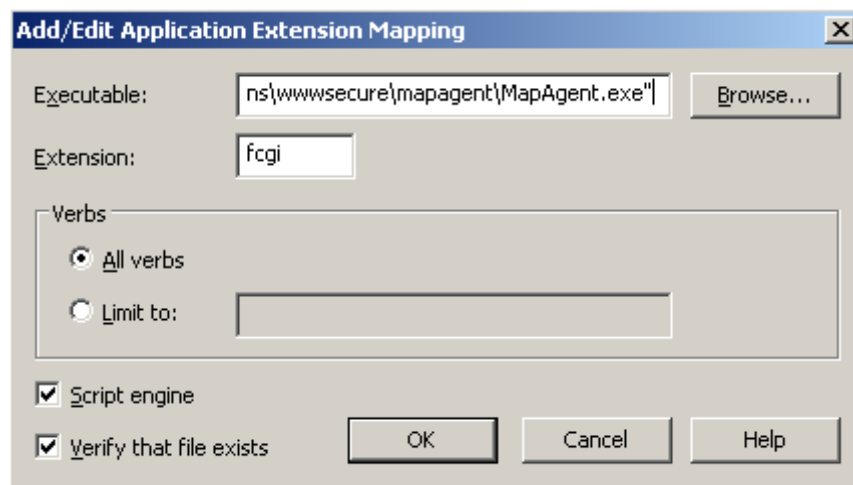
Note: You need to put quotation marks around the Executable string. Also, there cannot be any spaces in the string, so you most likely need to replace “Program Files” with “Progra-1”; if you don’t, you get 404 errors.

Create the mapguide2008/ mapguide2009 Virtual Directory

Next, open the *mapguide2008/ mapguide2009* virtual directory and select Properties in the *mapagent* directory. Create an application so that the properties are as shown in the following graphic:



Click the Configure button and add an fcgi mapping:

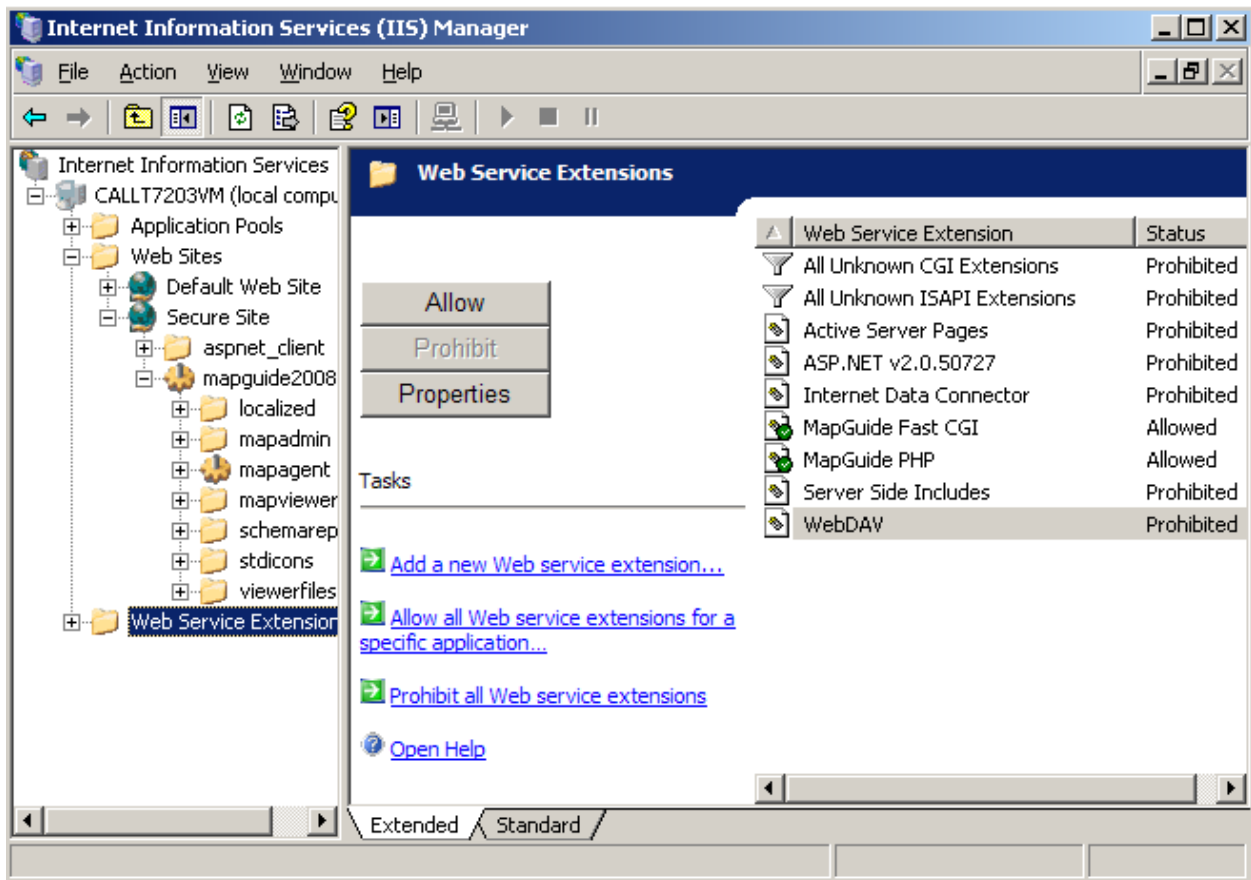


CREATING A SECURE AUTODESK MAPGUIDE ENTERPRISE SITE

Ensure that the executable is *MapAgent.exe* and that the string is enclosed in quotation marks. Also, there cannot be any spaces in the string, so you most likely need to replace "Program Files" with "Progra~1"; if you don't, you get 404 errors.

Enable Web Service Extensions

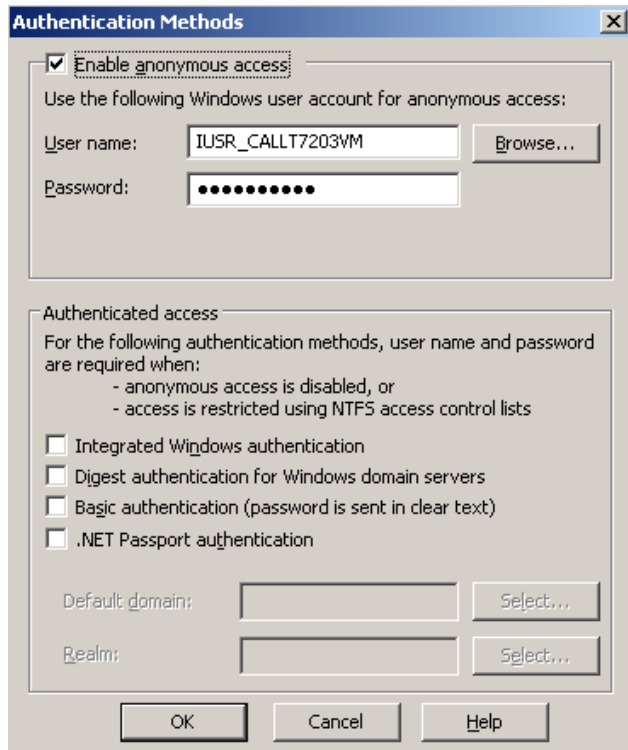
Next, open the Web Service Extensions as shown in the following graphic:



Add a new web service extension called Secure MapGuide and add a reference to the `<webdir>\\wwwsecure\mapagent\mapagent.exe` file. Set the status of the Secure MapGuide extension to Allow.

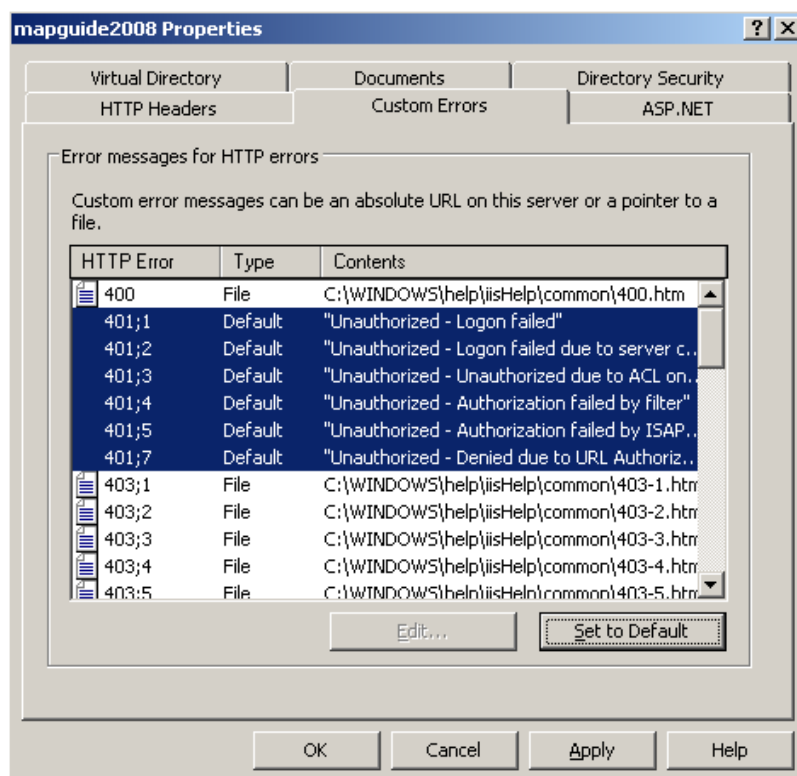
Set Up Authentication Method

Select the properties on the *mapguide2008* virtual directory, and click the Directory Security tab. Click Edit in the Authentication and access control area and ensure that it is set as shown in the following graphic:



Set Up Custom Errors

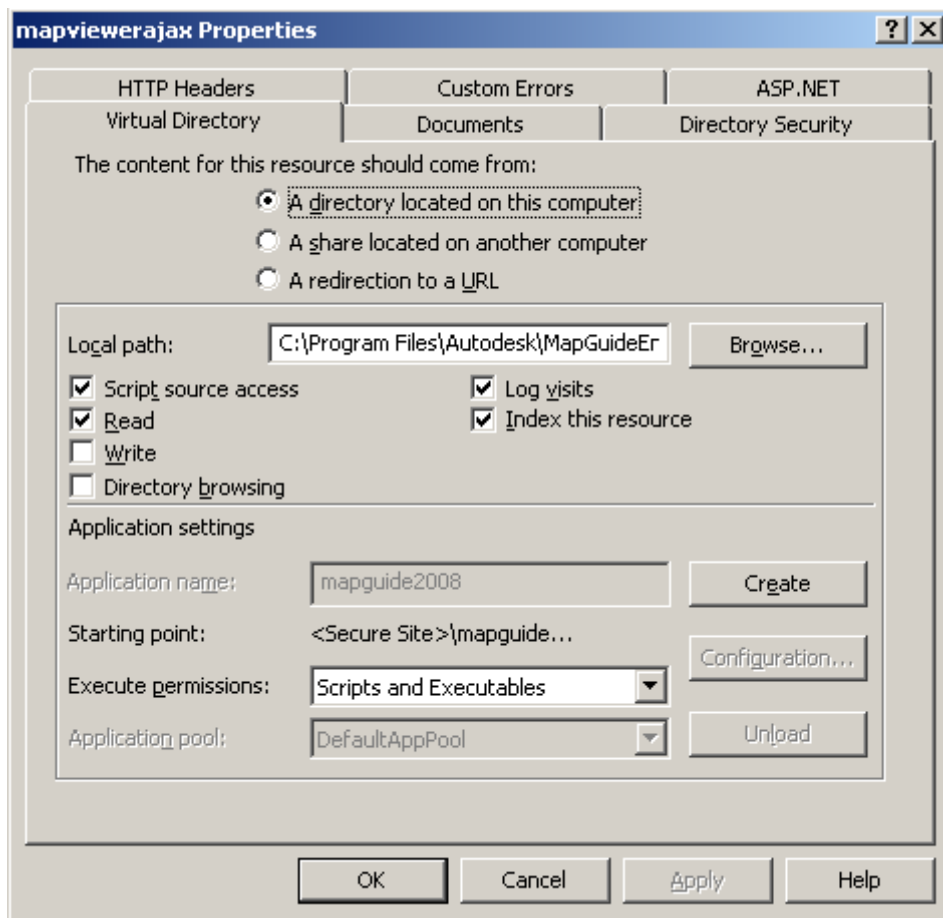
In the same Properties window, click the Custom Errors tab, select all the 401 errors, and click Set to Default.



Set Up Virtual Directories

To get the viewers working for the Studio previews, you need to set up the virtual directories.

Under mapguide2008 create a virtual directory called *mapviewerajax* and point it to `<webdir>\wwwsecure\mapviewer.php`. Open the properties of the *mapviewerajax* virtual directory, click the Documents tab, and add *ajaxviewer.php* to the default document list. Click the Virtual Directory tab, and ensure that Execute Permissions is set to Scripts and Executables as shown in the following graphic:

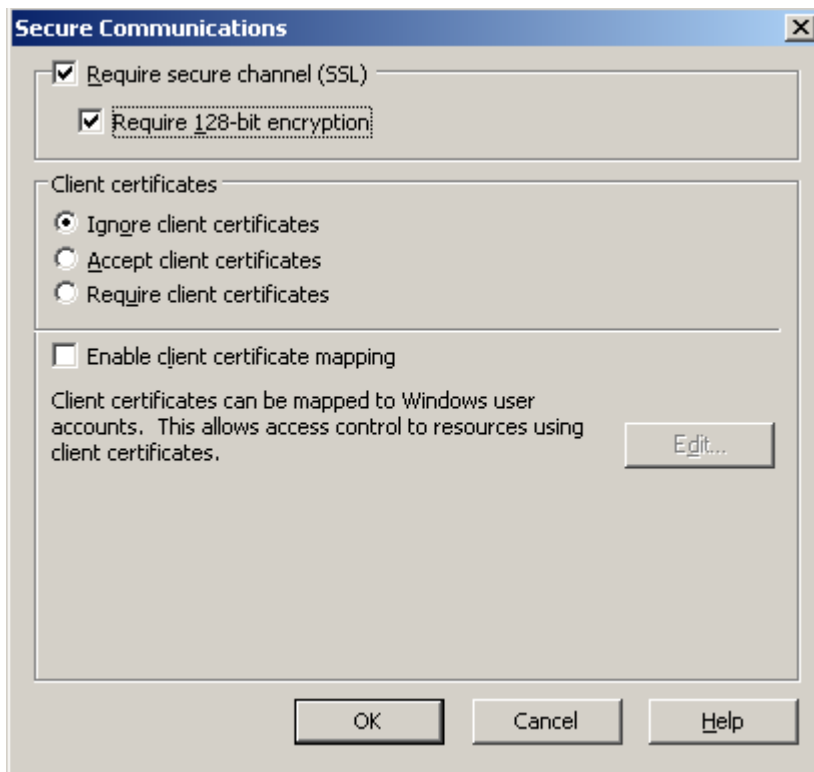


Repeat the preceding steps to create a virtual directory for the Autodesk® DWF™ Viewer software by using *mapviewerdwf* instead of *mapviewerajax*, and *dwfviewer.php* instead of *ajaxviewer.php*.

Secure the Site

Test the site to make sure it works: Connect to `http://<machine>:8008/mapguide2008` using Studio.

To make the site secure, you need to supply a server certificate for secure communications. There are many resources that describe how to create a secure site (for example, <http://support.microsoft.com/kb/299875>). Once the certificate has been installed, open the properties of the *mapguide2008* virtual directory. Select the Directory Security tab and click Edit in the Secure communications section. Select Require Secure Channel (SSL) and Require 128-Bit Encryption as shown in the following graphic:



Note: If a warning dialog box or error page about the certificate is issued when connecting to the secure site using Microsoft® Internet Explorer® internet browser, Studio cannot connect to the site. A trusted certificate issued by a valid trusted certificate authority is required.

Windows 2003 and Red Hat Enterprise Linux 4 Using Apache

This configuration is for Windows 2003 and Red Hat® Enterprise Linux® 4 using Apache and PHP.

In the following steps <webdir> corresponds to

C:\Program Files\Autodesk\MapGuideEnterprise2008\WebServerExtensions on Windows and */opt/Autodesk/mapguideenterprise2008/webserverextensions* on Linux.

Install

Perform a standard installation of the server. Then install the web server extensions; on Windows, ensure that the bundled configuration is selected during the installation.

Installing Apache 2 with mod_ssl

The installed binaries for Apache do not contain the mod_ssl that is required for secure communication over https.

Overwrite the C:\Program

Files\Autodesk\MapGuideEnterprise2008\WebServerExtensions\Apache2 and */opt/Autodesk/mapguideenterprise2008/webserverextensions/apache2* directories with a version of Apache 2.0 that has mod_ssl. Ensure that you do not overwrite the

CREATING A SECURE AUTODESK MAPGUIDE ENTERPRISE SITE

conf/httpd.conf file since it contains the configuration information for Autodesk MapGuide Enterprise.

Test this configuration and make sure that it works before continuing.

Create a wwwsecure Directory

Make a copy of the *<webdir>/www* directory and call it *<webdir>/wwwsecure*.

The *wwwsecure* directory contains the configuration and files required for administration and authoring against the site.

Limit the www Directory to Running Applications

The following steps limit the *www* directory (that is, *http://<machine>/mapguide2008*) to run only applications but not administration or authoring.

To disable authoring open *<webdir>/www/webconfig.ini* and change the *DisableAuthoring* entry from 0 to 1. When done the line should read:

```
DisableAuthoring = 1
```

Save the file; if this process has been successful Autodesk MapGuide Studio can no longer connect to the site using HTTP.

To disable the web administrator, delete the *<webdir>/www/mapadmin* folder.

Set Up Secure Connections for Administration and Authoring

The following describes requirements to set up secure connections for administration and authoring. The way this is set up, you end up with a URL of the form <https://<machinename>/mapguide2008> or <https://<machinename>/mapguide2009> depending on the installatin version to access the site. Keeping the *mapguide2008/mapguide2009* virtual directory is preferred because none of the web tier scripts needs to be manually modified to point to a different virtual directory.

Create ssl.conf

If a *ssl.conf* file does not exist in the *Apache2/conf* directory, follow the Apache documentation to set up a standard *ssl.conf* file.

Set Up a Secure CGI Agent

You cannot use FastCGI here because there is only one global setting for the FastCGI in the registry, and they all end up using the same *webconfig.ini* settings. This does not work since you have two *webconfig.ini* files, one with authoring disabled and one enabled. To get around this problem, standard CGI is used for the secure website.

In the *VirtualHost* section of the *ssl.conf* file, add the statements to configure a cgi agent to the web tier (the following paths are for a Windows installation, substitute the appropriate paths for a Linux installation and substitute the path to *MapGuideEnterprise2008* if applicable):

```
ScriptAlias /mapguide2009/mapagent/mapagent.fcgi "C:/Program  
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/mapa  
gent/mapagent.exe"
```

CREATING A SECURE AUTODESK MAPGUIDE ENTERPRISE SITE

```
AliasMatch ^/mapguide2009/mapviewerajax/([^?])(.*)$ "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/mapv
iewerphp/$1$2"

AliasMatch ^/mapguide2009/mapviewerajax/(.*)$ "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/mapv
iewerphp/ajaxviewer.php$1"

AliasMatch ^/mapguide2009/mapviewerdwf/([^?])(.*)$ "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/mapv
iewerphp/$1$2"

AliasMatch ^/mapguide2009/mapviewerdwf/(.*)$ "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/mapv
iewerphp/dwfviewer.php$1"

Alias /mapguide2009 "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/"

<Directory "C:/Program
Files/Autodesk/MapGuideEnterprise2008/WebServerExtensions/www/">
  AllowOverride All
  Options All
  Order allow,deny
  Allow from all

# Restrict access via HTTP to webconfig.ini
<Files webconfig.ini>
  Order allow,deny
  Deny from all
</Files>

# Regular CGI MapAgent
AddHandler cgi-script exe

RewriteEngine on
RewriteRule .* - [E=REMOTE_USER:%{HTTP:Authorization},L]

</Directory>
```

Test the Secure Site

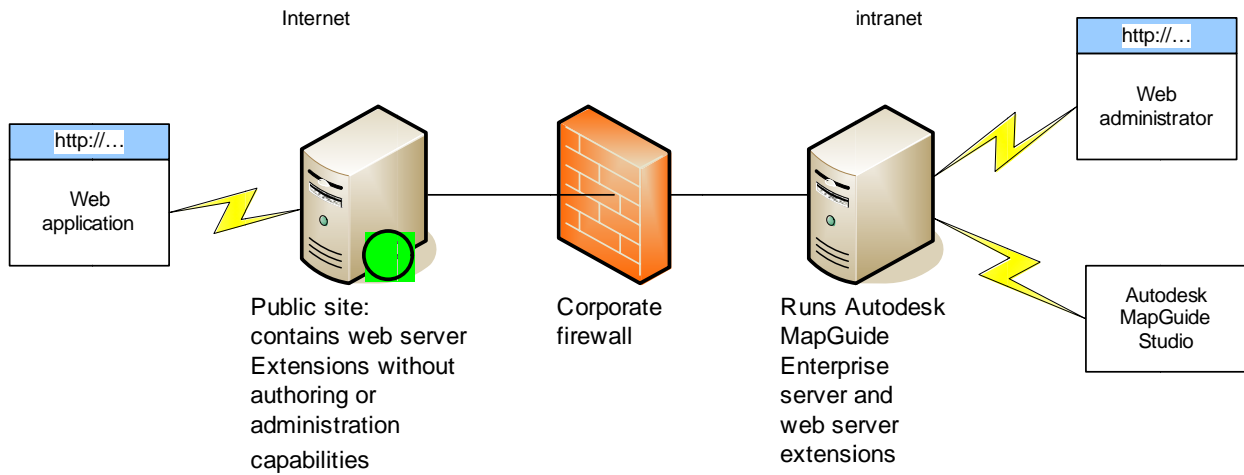
After starting Apache, you should now be able to connect using

<http://<machinename>/mapguide2009>.

Configuration That Does Not Require HTTPS

In this configuration HTTPS is not required because the authoring and administration is put on a machine behind the firewall as shown in the following graphic.

Note: The machine running the web tier is exposed to the Internet and so must have authoring and administration disabled as described earlier.



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