

MapGuide Open Source

# Installing and Configuring on Windows

MapGuide Open Source

March 2006

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# Installing MapGuide on Windows



## In this chapter

- [Installation Requirements](#)
- [Installing MapGuide Server](#)
- [Installing MapGuide Web Server Extensions](#)

## Installation Requirements

---

**NOTE** If you do not use the installer, but build MapGuide from source, refer to *Building and Configuring MapGuide on Windows* for instructions.

---

There are two separate components that make up MapGuide Open Source:

- MapGuide Server
- MapGuide Web Server Extensions

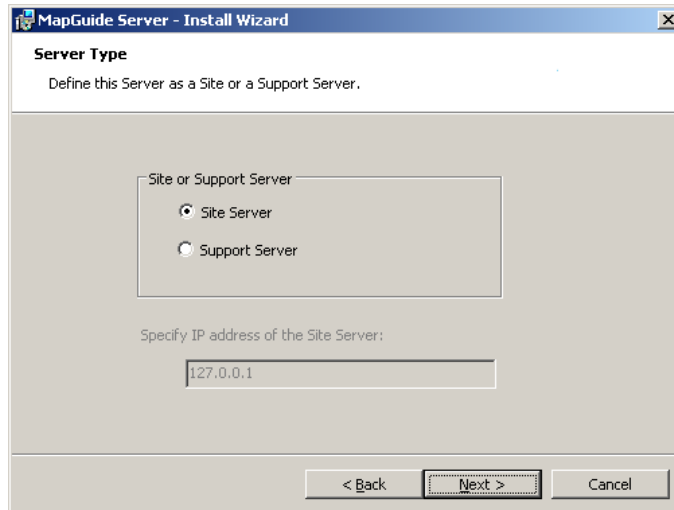
The installer programs are available from the MapGuide downloads page at <http://osgeo.org/>.

You can share the server functionality across more than one computer. One computer must act as the site server, while others can act as support servers that perform a subset of the site functions.

MapGuide Server and MapGuide Web Server Extensions may also be installed on separate computers. When you install Web Server Extensions, you must supply the IP address of the site server.

## Installing MapGuide Server

To install MapGuide Server, run the installer program MgServerSetup.exe. Choose either Site Server or Support Server. If you install a support server, enter the IP address of the site server.



Click Next to install.

The files are installed to C:\Program Files\MapGuideOpenSource\Server. The MapGuide Server (mgserver.exe) is started automatically, as a service called MapGuide Server.

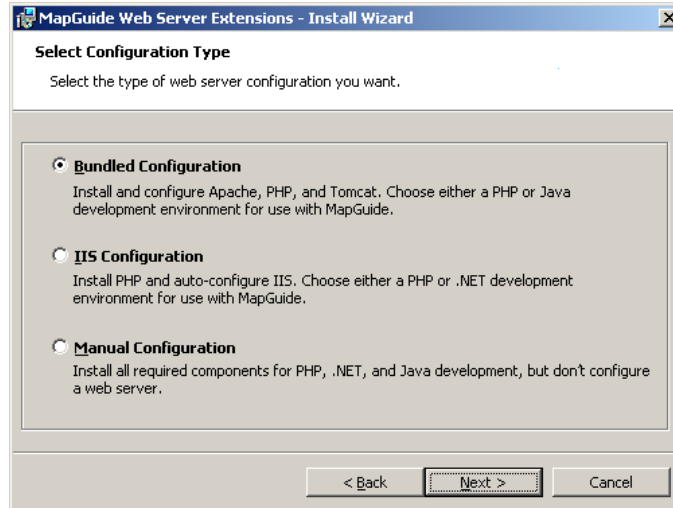
## Installing MapGuide Web Server Extensions

Before installing MapGuide Web Server Extensions, decide which web server you will use for your site, Apache HTTP Server or Internet Information Services (IIS). Also decide which language you will use for application development, PHP, ASP.NET, or Java Server Pages (JSP). MapGuide Open Source 1.0.0 supports the following versions:

- Apache 2.0.55
- IIS 5 and 6
- PHP 5.0.5
- .NET 2.0
- Tomcat 5.5.12

To install the Web Server Extensions, run the installer program MgWebServerExtensionsSetup.exe.

Choose a configuration type.



The bundled configuration option installs and configures the Apache HTTP Server, PHP, and Tomcat. You can select this option even if you have an existing Apache installation. These versions are installed as part of the Web Server Extensions installation, and they do not interfere with any existing installations.

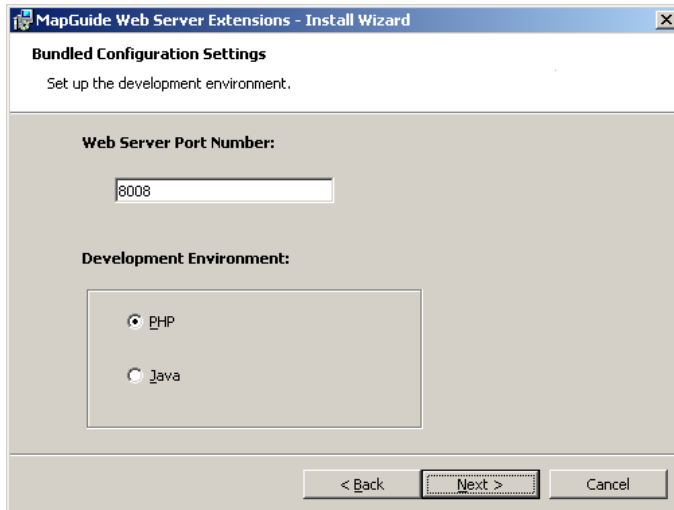
The IIS configuration option installs PHP for site administration, and configures IIS for use with either PHP or ASP.NET.

The manual configuration option installs and configures PHP, ASP.NET, and JSP, but it does not configure a web server. See [Configuring MapGuide Web Server Extensions on Windows](#) (page 9) for details about configuration.

If you choose the bundled configuration option, select a port for the Apache HTTP Server. By default, the port is 8008, so it won't conflict with any existing web servers that listen on port 80. The service name for Apache is ApacheMapGuide.

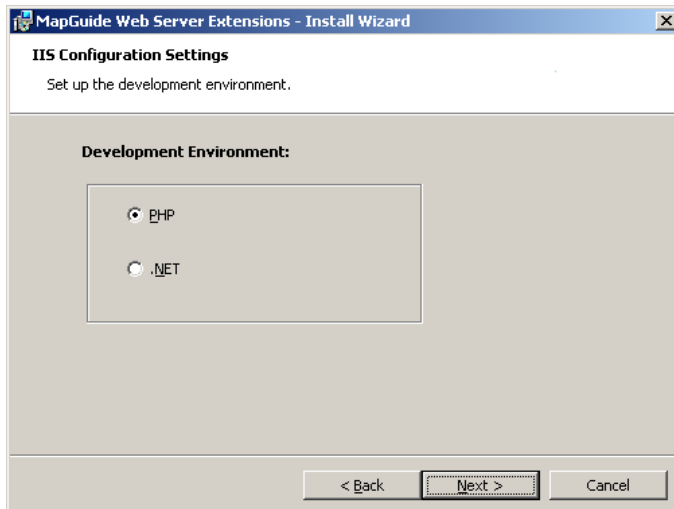
Specify the development environment, either PHP or Java.



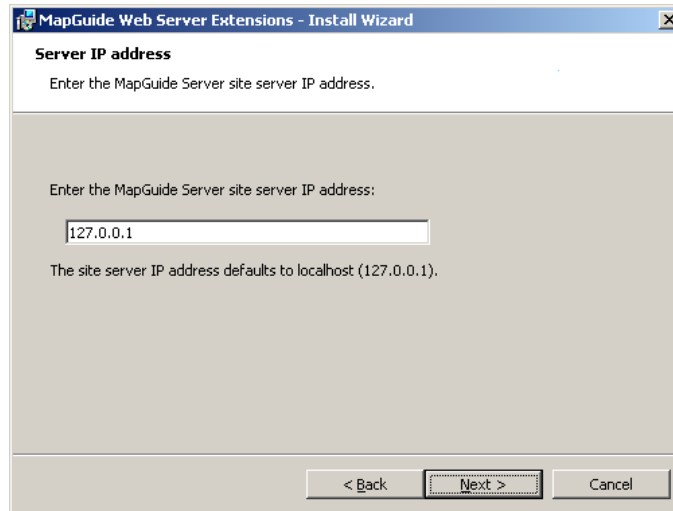


**NOTE** If you choose Java as the development environment, you must install the Java JDK, and configure Tomcat. See [Setting Up Java for the Bundled Installation](#) (page 7) for details.

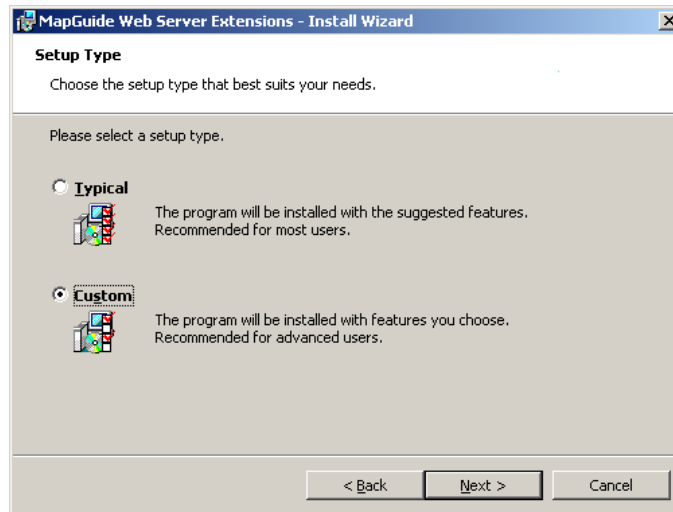
If you choose the IIS configuration option, specify the development environment, either PHP or .NET.



Enter the IP address of the Site Server. The default value of 127.0.0.1 assumes that the Site Server and the Web Server Extensions are installed on the same machine.



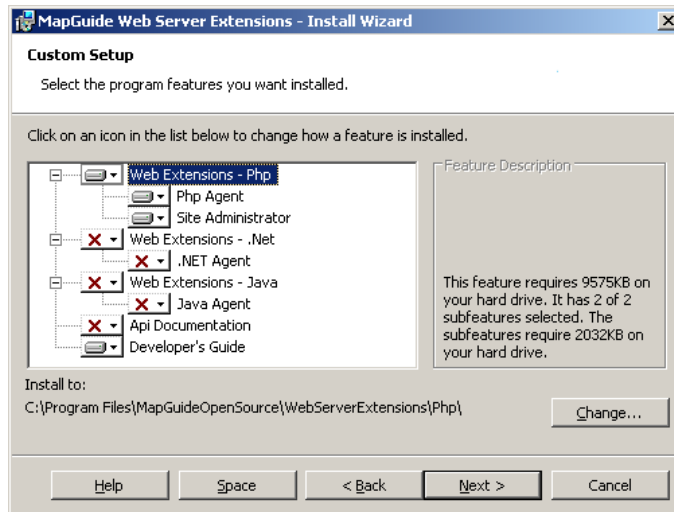
Specify Setup Type.



If you specify the typical setup, the rest of the installation proceeds automatically, using default values for the installed components and locations. If you specify the custom setup, you can decide which components to install, and change the installation location for any component.

By default, PHP is installed for the Site Administrator pages, even if you do not plan to use PHP as a development environment.

Also by default, the API documentation is not installed. If you plan to develop MapGuide applications, you should install this documentation.



Click Next to complete the installation. By default, the files are installed to C:\Program Files\MapGuideOpenSource\WebServerExtensions.

## Setting Up Java for the Bundled Installation

If you install the Apache/PHP/Tomcat bundle and choose Java as the development environment, you must also perform the following steps:

- Install the Java JDK.
- Set up redirections for Apache.
- Set `JAVA_HOME`
- Start Tomcat.

To install Java, download the JDK from [java.sun.com](http://java.sun.com). Install using the default installation instructions.

Edit the Apache `httpd.conf` file. This is located in

```
C:\Program Files\MapGuideOpenSource\  
  WebServerExtensions\Apache2\conf\  

```

Replace `localhost` with the name or IP address of your server in the following lines:

```
Redirect /mapguide/mapviewerajax/  
  http://localhost:8008/mapguide/mapviewerjava/ajaxviewer.jsp  
Redirect /mapguide/mapviewerdwf/  
  http://localhost:8008/mapguide/mapviewerjava/dwfviewer.jsp  

```

Restart Apache.

Set the environment variable `JAVA_HOME` to the root directory of your Java installation. For the JDK 5.0, update 6, this is

```
C:\Program Files\Java\jdk1.5.0_06
```

Different versions of the JDK will be installed in different locations.

To start Tomcat, go to the Tomcat bin directory and run `startup.bat`. For the default installation, Tomcat is installed in the following location:

```
C:\Program Files\MapGuideOpenSource\WebServerExtensions\Tomcat\  

```

# Configuring MapGuide Web Server Extensions on Windows

# 2

## In this chapter

- Possible Configuration Scenarios
- Configuration with IIS
- Configuration with Apache
- Verifying the Configuration

## Possible Configuration Scenarios

Depending on the choices you made when installing MapGuide Web Server Extensions, you may have to perform different configuration steps. There are three installation methods, with some variations:

Installation Method	Description
Install with bundled Apache, PHP, and Tomcat	This installs separate versions of Apache, PHP, and Tomcat. Existing installations of these components are not affected. This method does not normally require additional configuration.
Install with IIS	This installs a separate version of PHP. If you have an existing installation of PHP, it is not affected. This method does not normally require additional configuration.
Install with manual configuration of web server	This also installs and configures PHP, ASP.NET, and Java. You must configure a web server manually.

If you use Apache as your web server, you can use either PHP or JSP for developing your own applications. If you use IIS as your web server, you can use either PHP or ASP.NET for developing your own applications.

If you choose either Apache or IIS as the web server when you install MapGuide, most of the configuration is done by the installer. If you need to do any site-specific customization, it may be useful to refer to the appropriate configuration details.

## Directory Structure

If you use the installer program, the default installation directory (*InstallDir*) is

```
C:\Program Files\MapGuideOpenSource
```

and the Web Server Extensions directory (*WebDir*) is

```
C:\Program Files\MapGuideOpenSource\WebServerExtensions\www
```

Make the appropriate substitutions for path names in the instructions that follow.

## Configuration with IIS

If you use IIS as the web server for MapGuide Web Server Extensions, you have the choice of using either PHP or ASP.NET to develop applications.

In either case, if you want to run the Site Administrator from the machine, you must install PHP.

There are two ways to install MapGuide Web Server Extensions for use with IIS:

- Install and auto-configure using the installer program.
- Install using the installer program, but configure the web server manually.

If you use the installer to configure IIS, you do not need to do any more configuration. You may use this section as reference, to see what configuration steps have been done.

If you use the installer, but choose to configure a web server manually, you must perform the following steps:

- Set up virtual directories for the Web Server Extensions and the AJAX and DWF Viewers.
- Configure PHP or ASP.NET.

Many of the configuration steps for PHP and ASP.NET are the same.

## Setting Up Virtual Directories for IIS

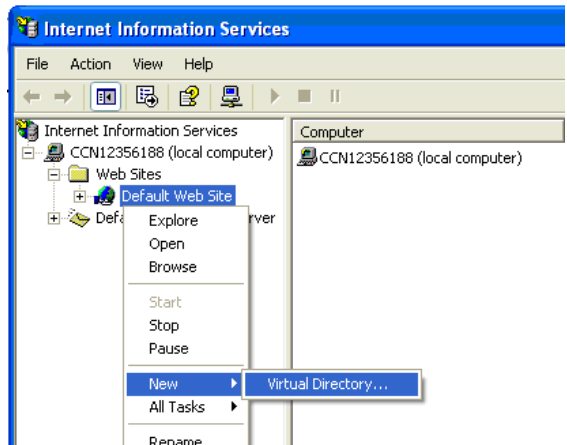
This is required if you choose to configure the server manually.

---

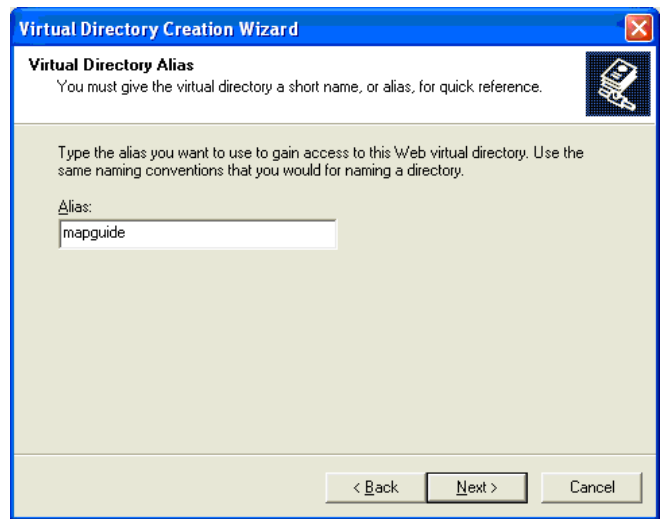
**NOTE** This document contains screenshots showing the IIS Administration Console version 5.1. Dialogs and menus may differ slightly in other versions.

---

Start the IIS administration console and create a new virtual directory.

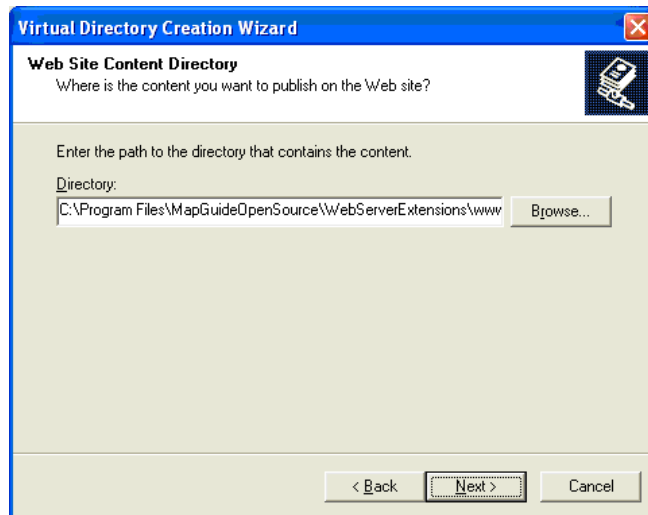


Name the virtual directory `mapguide`.

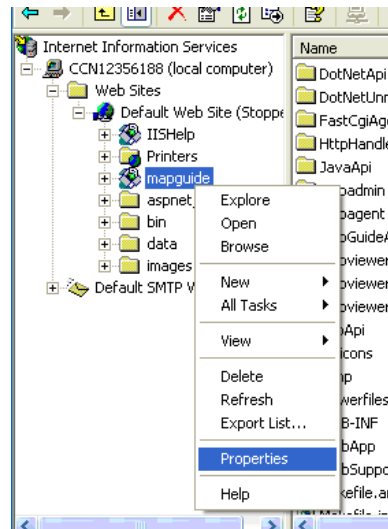


Set the physical path to `WebDir`.

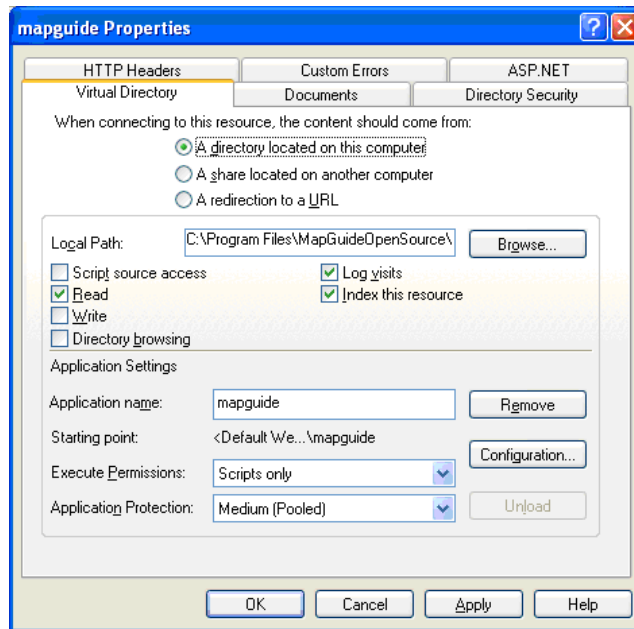




Open the properties dialog for the virtual directory:



Set the properties for the virtual directory, as shown below:



## Setting Up the PHP Association

This is required if you will be using PHP as a development environment or if you will be running the Site Administrator on this machine.

You must set up an application mapping so IIS handles PHP files properly. You can choose to have PHP run as a CGI process or as an ISAPI extension.

Setting up the application mapping is the same in both cases, except that the executable path is different.

For CGI, the executable is

```
InstallDir\WebServerExtensions\Php\php-cgi.exe
```

For ISAPI, the executable is

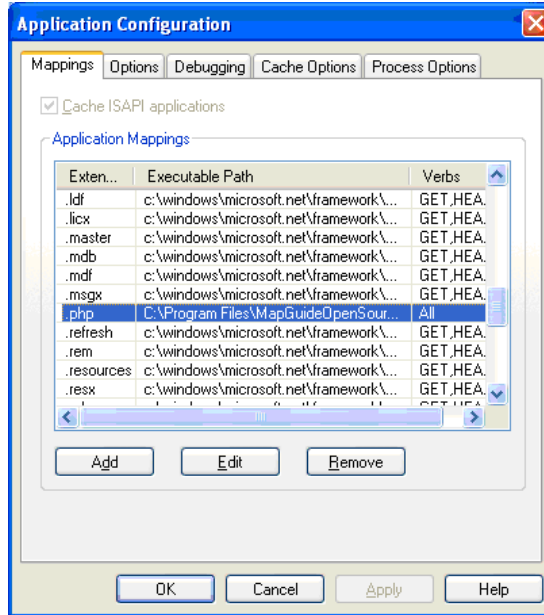
```
InstallDir\WebServerExtensions\Php\php5isapi.dll
```

---

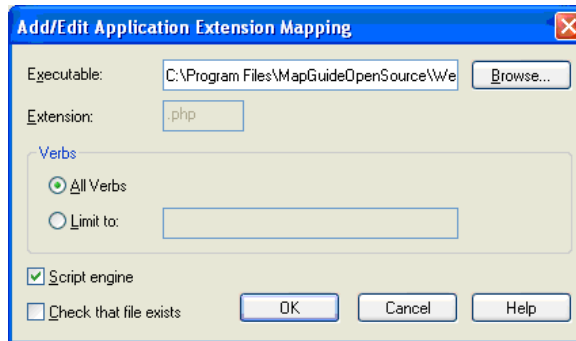
**NOTE** There cannot be any spaces in the path to php5isapi.dll. If you install MapGuide to the default location under C:\Program Files, you must use C:\Progra~1 in the path instead. For example, the default location is C:\Progra~1\MapGuideOpenSource\WebServerExtensions\Php\php5isapi.dll.

---

From the Properties dialog, click Configuration.



If a mapping for PHP has not been set up or is not set up properly, click Add or Edit to set up the mapping.

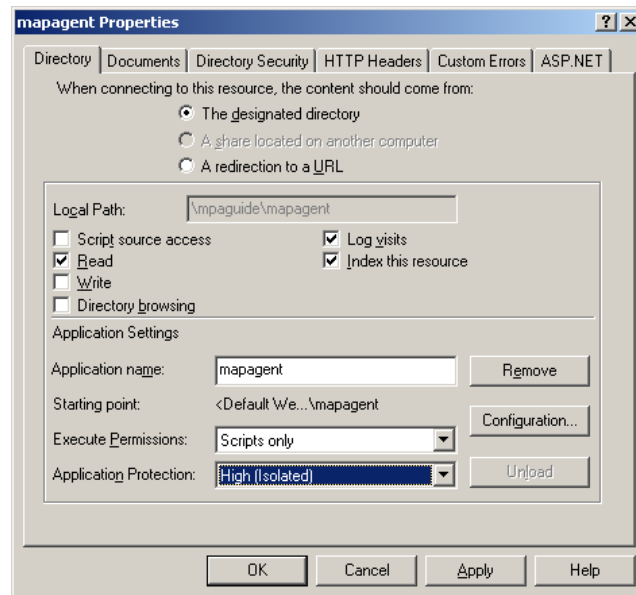


## Setting Up the FastCGI Association

MapGuide uses a FastCGI agent to improve performance. To configure FastCGI, perform the following steps.

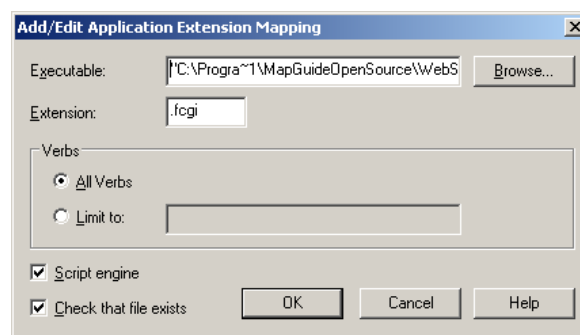
The file `isapi_fcgi.dll` is located in `WebDir\mapagent`.

In the IIS Administration Console, set the properties of the `mapguide\mapagent` folder. Create an application named `mapagent`. Set the application protection to High (Isolated).



Click Configuration and set up an application extension mapping to `isapi_fcgi.dll` for the `.fcgi` extension.

**NOTE** You cannot have spaces in the path to `isapi_fcgi.dll`. For example, you may need to replace `Program Files` with `Progra~1` in the path.



Add the following to the Windows Registry. Change the path to mapagent.exe if necessary.

```
Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\FASTCGI]
"MaxPostData"=dword:00000000
"CustomVars"=dword:00000000
"ThreadPoolSize"=dword:0000000a
"BypassAuth"=dword:00000001
"Impersonate"=dword:00000000
"StartServers"=dword:00000001
"IncrementServers"=dword:00000001
"MaxServers"=dword:00000004
"Timeout"=dword:0000003c

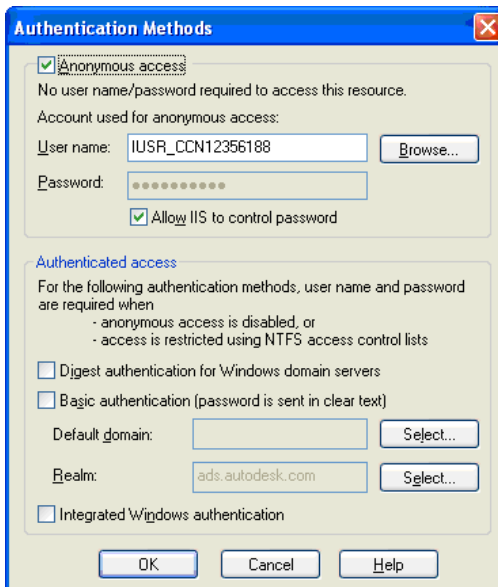
[HKEY_LOCAL_MACHINE\SOFTWARE\FASTCGI\.fcgi]
"BindPath"="app-mapagent"
"AppPath"="C:\\Program Files\\MapGuideOpenSource\\WebServerExtensions\\www\\mapagent\\mapagent.exe"
```

You should increase the number of ephemeral ports available for the FastCGI agent. Otherwise, there is a chance that the pool of available ports will be used up before enough ports have been freed. Refer to the Microsoft support note at <http://support.microsoft.com/default.aspx?scid=kb;en-us;319502> for details.

Another alternative is to disable the FastCGI agent and use a regular CGI agent instead. To do this, set the application mapping in IIS to mapagent.exe instead of isapi\_fcgi.dll.

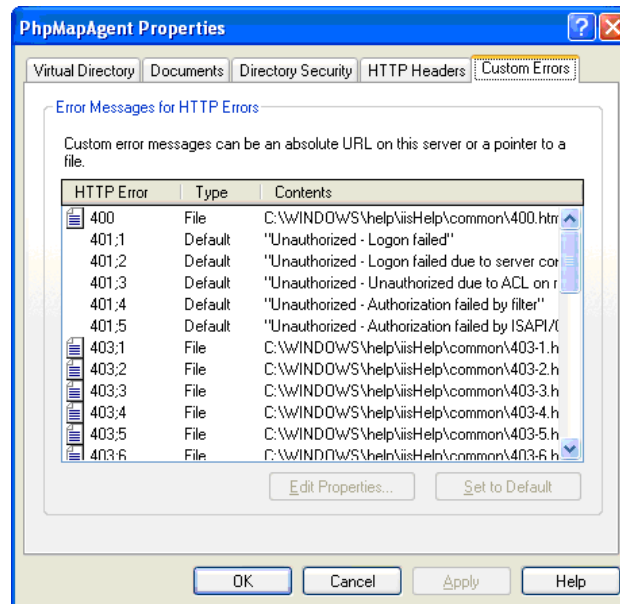
## Setting Up the Security Properties

To set the security properties, go to the Directory Security tab and click Edit. Set the options as shown in the dialog below. Note that the account information is already set for you by IIS and you don't need to change it.



## Setting Up the Error Pages

On the Custom Errors tab, select all the 401 errors, and click Set to Default. This ensures that MapGuide processes authorization requests properly.



## Setting Up Virtual Directories for the Viewers

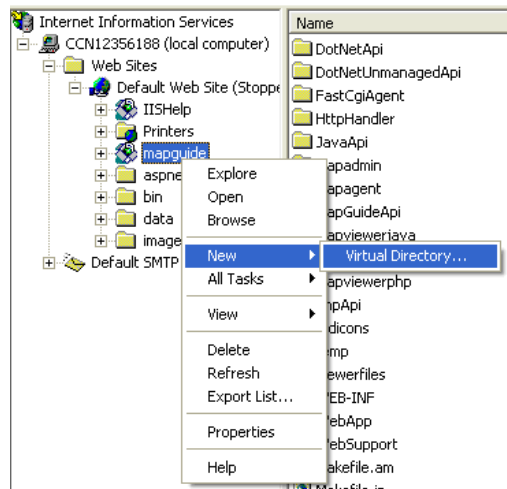
The AJAX Viewer and the DWF Viewer share the same physical path, but you must create separate virtual directories for each. For PHP, the physical path is

`WebDir\mapviewerphp`

and for ASP.NET, the physical path is

`WebDir\mapviewer.net`

From the IIS administration console, create a new virtual directory for the AJAX viewer.



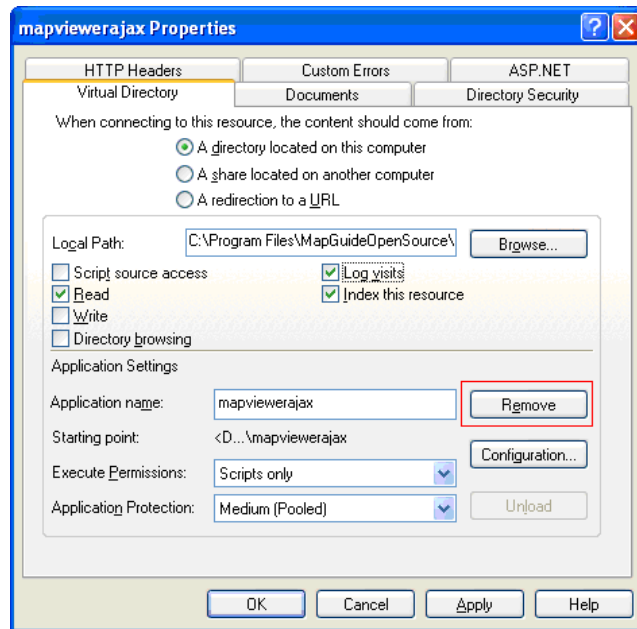
Set the alias name to `mapviewerajax`.

If you use PHP as your development language, set the physical path to `WebDir\mapviewerphp`. If you use ASP.NET as your development language, set the physical path to `WebDir\mapviewernet`.

Finally, set up the default document for the new virtual directory. Open the Documents tab of the Properties dialog, and add the appropriate document to the default list:

- For PHP development, add `ajaxviewer.php` to the default document list.
- For ASP.NET development, add `ajaxviewer.aspx` to the default document list.





Repeat the steps above to create a virtual directory for the DWF viewer. Set the name to `mapviewerdwf` instead of `mapviewerajax`. The physical path is the same for both directories. The default documents are as follows:

- For PHP development, add `dwfviewer.php` to the default document list.
- For ASP.NET development, add `dwfviewer.aspx` to the default document list.

## Configuring PHP

You must configure PHP if you plan to use it as a development language for MapGuide applications or if you plan to use the Site Administrator. To configure PHP, edit the PHP configuration file, `php.ini`.

The `php.ini` file is installed in `InstallDir\WebServerExtensions\Php`.

## Identifying the Correct php.ini File

PHP checks for php.ini in many different places. You must ensure that the MapGuide version is the one PHP uses. Read the PHP documentation for a complete explanation.

The recommended method is to create a system environment variable named `PHPRC`, and set it to the PHP directory containing php.ini.

With the default installation, this is

```
C:\Program Files\MapGuideOpenSource\WebServerExtensions\Php
```

---

**NOTE** There may be a Windows registry entry that determines which php.ini will be processed. Check for the key

```
HKEY_LOCAL_MACHINE\SOFTWARE\PHP\IniFilePath. Delete it if it exists.
```

---

## Editing php.ini

When you use the installer program, most of the required PHP configuration is done for you. However, if you run PHP as a CGI process, you must make the following change to php.ini. Change

```
; cgi.force_redirect = 1
```

to

```
cgi.force_redirect = 0
```

The php.ini supplied with MapGuide contains some modifications from the standard php.ini. These modifications increase resource limits to allow the use of larger data sets:

```
output_buffering = 4096
max_execution_time = 60
memory_limit = 64M
post_max_size = 64M
upload_max_filesize = 64M
```

## Adding the PHP Directory to the PATH

If you run PHP as an ISAPI extension, you must add the PHP directory to the system PATH environment variable. This ensures that the PHP DLLs can be loaded properly.

Add

```
C:\Program Files\MapGuideOpenSource\WebServerExtensions\Php
```

to the system PATH environment variable.

## Configuring ASP.NET

If you use the installer, ASP.NET should be configured properly.

Verify that you are using the correct version of ASP.NET. MapGuide requires version 2.0.50727 or higher. Older versions will not work. To verify the version, open the IIS administration console. Navigate to the mapguide site and open the site properties. On the ASP.NET tab, check the version number. Upgrade if necessary.

## Configuring Web Service Extensions for IIS 6

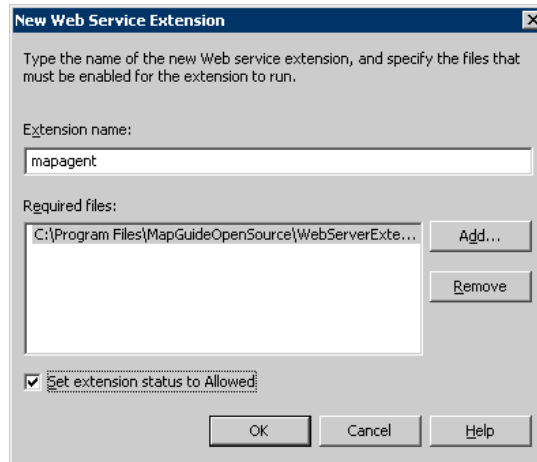
IIS 6, running on Windows Server 2003, requires some additional configuration to enable PHP and the Map Agent to run.

From the IIS Manager, select the Web Service Extensions folder. Click Add a new Web Service Extension. Enter `mapagent` as the extension name, and

```
C:\Program
```

```
Files\MapGuideOpenSource\WebServerExtensions\www\mapagent\isapi_fcgi.dll
```

as the required file. Set the extension status to Allowed.



Repeat for the PHP CGI module. Enter `php` as the extension name, and `C:\Program Files\MapGuideOpenSource\WebServerExtensions\Php\php-cgi.exe` as the required file.

---

**NOTE** If you use the regular CGI agent instead of the FastCGI agent, replace `isapi_fcgi.dll` with `mapagent.exe` in the instructions above.

---

## Configuration with Apache

If you use Apache as the web server for MapGuide Web Server Extensions, you have the choice of using either PHP or JSP to develop applications.

In either case, if you want to run the Site Administrator from the machine, you must install PHP.

There are two ways to install MapGuide Web Server Extensions for use with Apache:

- Install with a bundle containing Apache, PHP, and optionally Tomcat.
- Install using the installer program, but configure the web server manually.

If you use the installer to install the Apache/PHP/Tomcat bundle, you do not need to do any more configuration. You may use this section as a reference, to see what configuration steps have been done.

If you select the option to configure the web server manually, the installer installs and configures a version of Apache and Tomcat, but does not start the Apache server.

By default, the configuration is set up to use PHP as the development environment. If you want to use JSP instead, you must remove the PHP configuration directives described in [Configuring Apache to Use PHP](#) (page 25) and add the JSP directives described in [Configuring Apache to Use JSP](#) (page 26).

Most of the configuration is done by editing `httpd.conf`, in the `conf` directory of the Apache installation.

---

**NOTE** Some directives have been split over multiple lines in this document, but they must be written on one line in the configuration file.

---

## Common Configuration Steps

There are some steps you must perform whether you are using PHP or JSP as a development environment.

- If you are using the Site Administrator or plan to use PHP as a development environment, configure Apache to process files with the `.php` extension. Edit `httpd.conf`. Look for the configuration of the PHP engine. Ensure it is set as follows, or add the following to the file as necessary.

```
ScriptAlias /php/ "C:/Program Files/MapGuideOpenSource/  
    WebServerExtensions/Php/"  
Action application/x-httpd-php "/php/php-cgi.exe"  
AddType application/x-httpd-php .php
```

- In the Dynamic Shared Object Support section, ensure that the rewrite module is enabled. If there is a comment character at the beginning of the line, remove it so it looks like this:

```
LoadModule rewrite_module modules/mod_rewrite.so
```

## Configuring Apache to Use PHP

To use PHP as the development environment with the Apache HTTP Server, add the following declarations at the end of `httpd.conf`.

```

ScriptAlias /mapguide/mapagent/mapagent.fcgi
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapagent/MapAgent.exe"
AliasMatch ^/mapguide/mapviewerajax/([^?]) (.*)$
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerphp/$1$2"
Alias /mapguide/mapviewerajax
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerphp/ajaxviewer.php"
AliasMatch ^/mapguide/mapviewerdwf/([^?]) (.*)$
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerphp/$1$2"
Alias /mapguide/mapviewerdwf
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerphp/dwfvviewer.php"

Alias /mapguide
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/www/"
<Directory
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/www/">
    AllowOverride All
    Options All
    Order allow,deny
    Allow from all
    AddHandler cgi-script .exe
    RewriteEngine on
    RewriteRule .* - [E=REMOTE_USER:%{HTTP:Authorization},L]
</Directory>

```

Save the changes and restart the Apache server.

## Configuring Apache to Use JSP

To use JSP as the development environment with the Apache HTTP Server, you must install the following components:

- Java JDK 1.5
- Tomcat
- The Apache/Tomcat connector.

Download the Java JDK from [java.sun.com](http://java.sun.com). Install using the default installation instructions. Set the environment variable `JAVA_HOME` to the root directory of your Java installation.

Download Tomcat and the Tomcat-Apache connector from [tomcat.apache.org](http://tomcat.apache.org). Install using the default installation instructions.

You must also perform the following steps:

- Edit the Apache configuration file, `httpd.conf`.
- Add a `workers.properties` configuration file for the Tomcat connector.
- Configure and start Tomcat.

## Apache Configuration

Add the following declarations at the end of `httpd.conf`.

```

ScriptAlias /mapguide/mapagent/mapagent.fcgi
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapagent/MapAgent.exe"
AliasMatch ^/mapguide/mapviewerajax/([^?]) (.*)$
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerjava/$1$2"
Alias /mapguide/mapviewerajax
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerjava/ajaxviewer.jsp"
AliasMatch ^/mapguide/mapviewerddf/([^?]) (.*)$
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerjava/$1$2"
Alias /mapguide/mapviewerddf
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/
    www/mapviewerjava/ddfviewer.jsp"

Alias /mapguide
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/www/"
<Directory
    "C:/Program Files/MapGuideOpenSource/WebServerExtensions/www/">
    AllowOverride All
    Options All
    Order allow,deny
    Allow from all
    AddHandler cgi-script .exe
    RewriteEngine on
    RewriteRule .* - [E=REMOTE_USER:%{HTTP:Authorization},L]
</Directory>

```

Add the following to the configuration file. These declarations are necessary for the Tomcat connector. Replace `<HostName>:<Port>` with the correct name and port. `localhost` will not work for the redirection.



```

LoadModule      jk_module  modules/mod_jk.so

JkWorkersFile
    "C:/Program Files/MapGuidOpenSource/WebServerExtensions/
    Apache2/conf/workers.properties"

# Where to put jk logs
JkLogFile
    "C:/Program Files/MapGuidOpenSource/WebServerExtensions/
    Apache2/logs/mod_jk.log"
# Set the jk log level [debug/error/info]
JkLogLevel      info
# Select the log format
JkLogStampFormat "[%a %b %d %H:%M:%S %Y] "
# JkOptions indicate to send SSL KEY SIZE,
JkOptions       +ForwardKeySize +ForwardURICompat -ForwardDirectories
# JkRequestLogFormat set the request format
JkRequestLogFormat "%w %V %T"
# Send everything for context /examples to worker named
# worker1 (ajp13)
JkMount  /mapguide/mapviewerjava/* worker1

Redirect /mapguide/mapviewerajax/
    http://<HostName>:<Port>/mapguide/mapviewerjava/ajaxviewer.jsp
Redirect /mapguide/mapviewerdwf/
    http://<HostName>:<Port>/mapguide/mapviewerjava/dwfvviewer.jsp

```

## Connector Configuration

Rename the pre-built Apache/Tomcat connector binary to mod\_jk.so and place it in the Apache modules directory. The original file includes the version number and should be mod\_jk-1.2.14-apache-2.0.54.so.

Add a workers.properties file in the Apache conf folder, containing the following:

```
# Define 1 real worker using ajp13
worker.list=worker1
# Set properties for worker1 (ajp13)
worker.worker1.type=ajp13
worker.worker1.host=localhost
worker.worker1.port=8009
worker.worker1.lbfactor=50
worker.worker1.cachesize=10
worker.worker1.cache_timeout=600
worker.worker1.socket_keepalive=1
worker.worker1.recycle_timeout=300
```

## Tomcat Configuration

In the Tomcat conf\Catalina\localhost directory, add a context file named mapguide.xml with the following content:

```
<!--
    Context configuration file for the Tomcat Manager Web App
-->

<Context
    docBase=
        "C:\Program Files\MapGuideOpenSource\WebServerExtensions\www"

    privileged="true"    antiResourceLocking="false"    antiJAR
    Locking="false">

    <!-- Link to the user database we will get roles from -->
    <ResourceLink name="users" global="UserDatabase"
        type="org.apache.catalina.UserDatabase"/>

</Context>
```

To start Tomcat, execute

```
startup.bat
```

in the Tomcat bin directory.

## Verifying the Configuration

You can run some simple tests to ensure that the Map Agent and Web Server Extensions are configured properly.

### Testing the Map Agent

Ensure that the MapGuide Server is running. The installer configures MapGuide Server as a service. Check that the service status is Started.

Open a web browser and go to the following URL. If the Web Server Extensions are not running on your local machine, replace `localhost` with the name or IP address of your server.

```
http://localhost/mapguide/mapagent/mapagent.fcgi?  
OPERATION=ENUMERATERESOURCES&VERSION=1.0.0&  
LOCALE=en&RESOURCEID=Library://&TYPE=&DEPTH=-1
```

Note that if your web server is listening on a different port you must include the port number in the HTTP request. For example, if Apache is listening on port 8008, you must go to the following URL:

```
http://localhost:8008/mapguide/mapagent/mapagent.fcgi?  
OPERATION=ENUMERATERESOURCES&VERSION=1.0.0&  
LOCALE=en&RESOURCEID=Library://&TYPE=&DEPTH=-1
```

Enter *Administrator* for the user id and *admin* for the password. Both are case-sensitive.

If the Map Agent is running properly, you will get an XML document describing the resources in the repository.

### Testing the Site Administrator

Ensure that the MapGuide Server is running. Open a web browser and go to the following URL.

```
http://localhost/mapguide/mapadmin/login.php
```

Note that if your web server is listening on a different port you must include the port number in the HTTP request. For example, if Apache is listening on port 8008, you must go to the following URL:

```
http://localhost:8008/mapguide/mapadmin/login.php
```

Enter `Administrator` for the user id and `admin` for the password. Both are case-sensitive.

If the Site Administrator is configured properly, you will get a Manage Servers page which lists all the servers configured in the MapGuide Site.

## Testing the Web Server Extensions

You can check that the Web Extensions are correctly set up. If your application development language is PHP, go to this URL in a web browser:

[http://localhost/mapguide/mapviewerajax/ajaxviewer.php?  
WEBLAYOUT=Library://ATest.WebLayout](http://localhost/mapguide/mapviewerajax/ajaxviewer.php?WEBLAYOUT=Library://ATest.WebLayout)

If your application development language is ASP.NET, go to this URL in a web browser:

[http://localhost/mapguide/mapviewerajax/ajaxviewer.aspx?  
WEBLAYOUT=Library://ATest.WebLayout](http://localhost/mapguide/mapviewerajax/ajaxviewer.aspx?WEBLAYOUT=Library://ATest.WebLayout)

If your application development language is JSP, go to this URL in a web browser:

[http://localhost/mapguide/mapviewerajax/ajaxviewer.jsp?  
WEBLAYOUT=Library://ATest.WebLayout](http://localhost/mapguide/mapviewerajax/ajaxviewer.jsp?WEBLAYOUT=Library://ATest.WebLayout)

Because the web layout `ATest` does not exist in the MapGuide repository, you should see the following error:

```
Resource was not found: Library://ATest.WebLayout
```

This error is returned by the AJAX Viewer script. This shows that the Web Server Extensions are correctly enabled to receive and process requests.