

ProjectWise Mobile Access Server, Product Preview v1.1

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ProjectWise Mobile Access Server Overview

ProjectWise Mobile Access Server is the part of Bentley's mobile app suite that extends ProjectWise access to users using ProjectWise Explorer for the iPad. Once the server is configured, ProjectWise Explorer for the iPad users can connect to the ProjectWise Mobile Access Server and log in to their ProjectWise datasources.

This app is available from Bentley's iWare website: <http://www.bentley.com/en-US/Free+Software/>.

Note: Do not deploy ProjectWise Mobile Access Server to an IIS web site to which you have already deployed ProjectWise Web Server. This configuration is not supported.

Required Operating Systems

This ProjectWise Mobile Access Server product preview is supported on:

- Windows Server 2003 R2 (32-bit)
- Windows Server 2003 R2 (62-bit)
- Windows Server 2008 SP2 (64-bit)
- Windows Server 2008 R2 (64-bit)

Setting Up ProjectWise Mobile Access Server on Windows Server 2008

To set up ProjectWise Mobile Access Server, you need to:

- Install and configure prerequisite software (page 5)
- Install and deploy ProjectWise Mobile Access Server (page 8)
- Configure this computer to retrieve ProjectWise datasource list information (page 14)

Installing and Configuring Prerequisite Software

ProjectWise Mobile Access Server requires Internet Information Services (IIS) and .NET Framework 4. If these items are not already installed, please install them now before installing ProjectWise Mobile Access Server.

Note: IIS should be installed before .NET Framework 4. If you install IIS after .NET Framework 4, additional configuration is required.

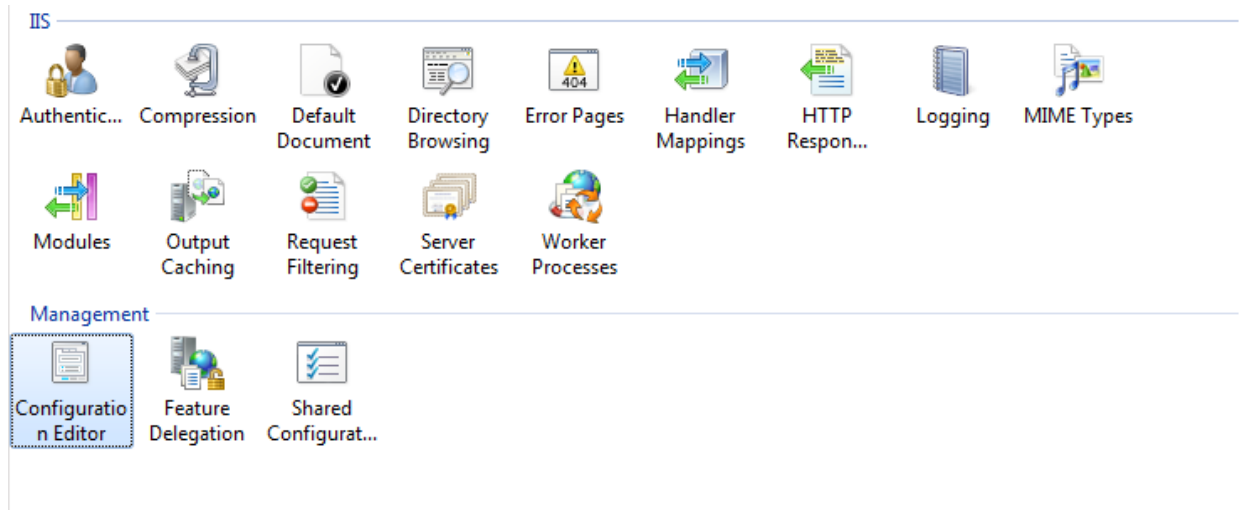
TO INSTALL AND CONFIGURE IIS

1. Open Server Manager (Start > Administrative Tools > Server Manager).
2. Select the Roles node and click Add Roles.
3. When the Add Roles Wizard opens, click Next.
4. Select the check box to the left of Web Server (IIS) and click Next.
5. On the Introduction to Web Server IIS page, click Next.
6. (Optional) On the Select Role Services page, enable compression for ProjectWise Mobile Access Server by turning on Web Server > Performance > **Dynamic Content Compression**.
By default, the ProjectWise Mobile Access Server does not compress server responses. Compression is recommended if you are working with a slow network connection.
7. Click Next, then click Install.

If you choose to enable compression, you will also need to configure MIME types using one of the following procedures, depending on your version of Windows Server 2008.

TO CONFIGURE MIME TYPES (ON WINDOWS SERVER 2008 R2)

1. Open IIS Manager (Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manager).
2. In the Management section, double-click Configuration Editor.



3. Set the Section field to `system.webServer/httpCompression`
4. Select `dynamicTypes`.
5. In the Actions pane, under 'dynamicTypes' Element, click Edit Items.
The Collection Editor dialog opens.
6. In the Actions pane, under Collection, click Add.
7. In the Properties pane:

- a. Select `enabled` and set the value to: `True`
- b. Select `mimeType` and enter the value: `application/json; charset=utf-8`

Properties:	
<code>enabled</code>	* True
<code>mimeType</code>	🔑 application/json; charset=utf-8

8. Close the Collection Editor dialog and close IIS Manager

TO CONFIGURE MIME TYPES (ON WINDOWS SERVER 2008 SP2)

1. Open a command prompt using the Run as administrator option and enter the following command:

```
%windir%\system32\inetsrv\appcmd.exe set config -
section:system.webServer/httpCompression
/+"dynamicTypes.[mimeType='application/json; charset=utf-8',enabled='True']"
/commit:apphost
```

TO ENABLE SSL FOR YOUR WEBSITE

1. Open IIS Manager (Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manager).
2. In Connections, expand Computer name > Sites.
3. Right-click the web site to which you plan to install ProjectWise Mobile Access Server (for example, Default Web Site) and select Edit Bindings.

The Site Bindings dialog opens.

4. Click Add.

The Add Site Binding dialog opens.

5. Change Type to https.
6. Select an SSL certificate from the list.
7. Click OK.
8. Click Close to close the Add Site Binding dialog.
9. Add the SSL port 443 to the Windows Firewall exception list on this computer.

TO INSTALL .NET FRAMEWORK 4

1. Download and install .NET Framework 4:

<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=17851>

ADDITIONAL CONFIGURATION, IF IIS IS INSTALLED AFTER .NET FRAMEWORK 4

1. Open a command prompt using the Run as administrator option and enter the following command:

```
%windir%\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -r
```

Installing and Deploying ProjectWise Mobile Access Server

Note: Do not deploy ProjectWise Mobile Access Server to an IIS web site to which you have already deployed ProjectWise Web Server. This configuration is not supported.

TO DOWNLOAD PROJECTWISE MOBILE ACCESS SERVER

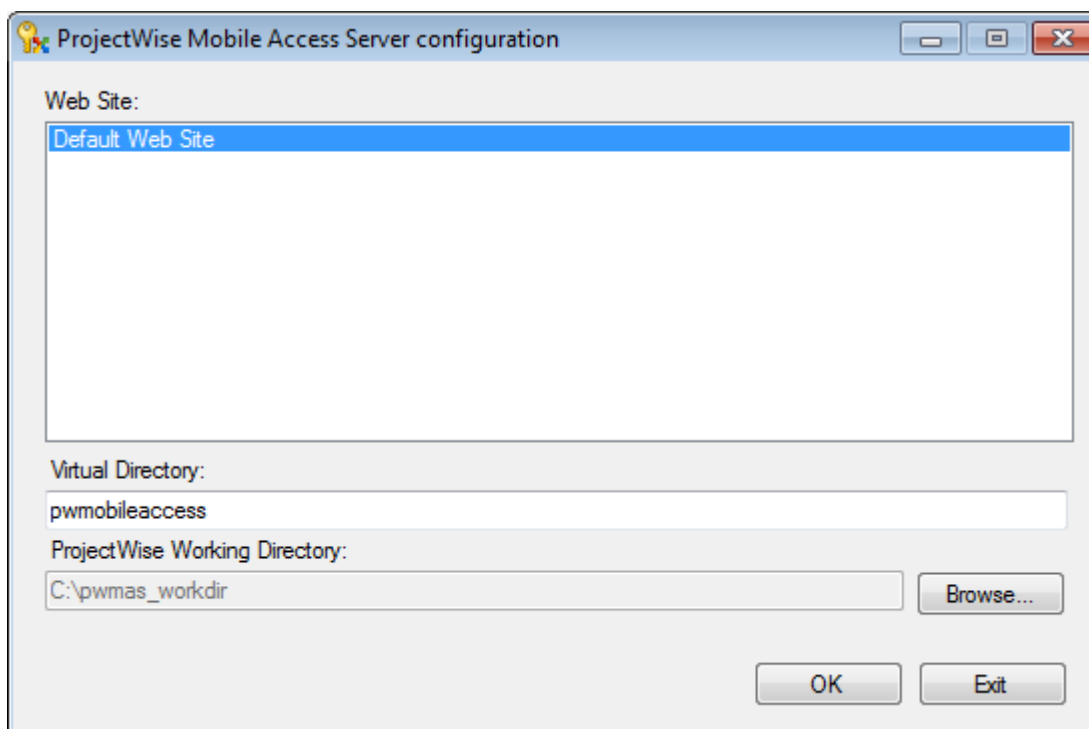
1. Download the ProjectWise Mobile Access Server installation package:

<http://www.bentley.com/en-US/Free+Software/>

TO INSTALL PROJECTWISE MOBILE ACCESS SERVER

1. After downloading, launch the installation wizard and follow the steps to completion.
2. On the final page of the wizard, select the option to Launch the ProjectWise Mobile Access Server configuration tool, and click Finish.

The configuration tool opens to help you deploy the server to an IIS web site. See the next procedure for details about deploying.



TO DEPLOY PROJECTWISE MOBILE ACCESS SERVER

1. If you did not select to launch the configuration tool at the end of your installation, you can launch it now from the Start menu by selecting Start > All Programs > Bentley > ProjectWise Mobile Access Server > ProjectWise Mobile Access Configuration.
2. In the configuration wizard, select the IIS web site to which you want to deploy ProjectWise Mobile Access Server.
3. In the Virtual Directory field, enter the name of the directory you want to create for ProjectWise Mobile Access Server under the selected IIS web site.

The Virtual Directory field is set to “**pwmobileaccess**” by default. You can use the default, or you can change it if needed. When the “**pwmobileaccess**” is used, users connecting to this ProjectWise Mobile Access Server from ProjectWise Explorer for the iPad only need to specify the fully-qualified domain name of the computer on which ProjectWise Mobile Access Server is installed (for example, [servername.domain.com](#)). If you change the default virtual directory name from “**pwmobileaccess**” to anything else, then ProjectWise Explorer for the iPad users will have to specify the fully-qualified domain name of the computer *plus* the virtual directory name, when entering the address (for example, [servername.domain.com/virtualdirectoryname](#)).

4. In the ProjectWise Working Directory field, click Browse to select a folder on the file system to use as the ProjectWise Mobile Access Server’s working directory. For example, “**C:\pwwms_workdir**”.

Notes about the working directory:

- This working directory is used by ProjectWise Mobile Access Server to store files that are being transferred between the main ProjectWise server and the iPad client making the request.
- Make sure the folder you specify is not already being used by any other deployment.
- The working directory must be located on the ProjectWise Mobile Access Server computer.
- The working directory *cannot* be located under the website's home directory (for example, it cannot be here: C:\inetpub\wwwroot)
- Make sure the local system account has Write permission to the specified folder.
- UNC paths (\\servername\sharename) are not supported.

5. When finished, click OK, then click Exit.

TO TEST YOUR DEPLOYMENT

1. Enter your web site’s address into a web browser. For example:
<https://localhost/<VirtualDirectoryName>/>

Here, VirtualDirectoryName is the name you entered in step 3 of the previous procedure, “To Deploy ProjectWise Mobile Access Server”.

A page displays with a message that you have successfully installed ProjectWise Mobile Access Server.

Setting Up ProjectWise Mobile Access Server on Windows Server 2003

To set up ProjectWise Mobile Access Server on Windows Server 2003, you need to:

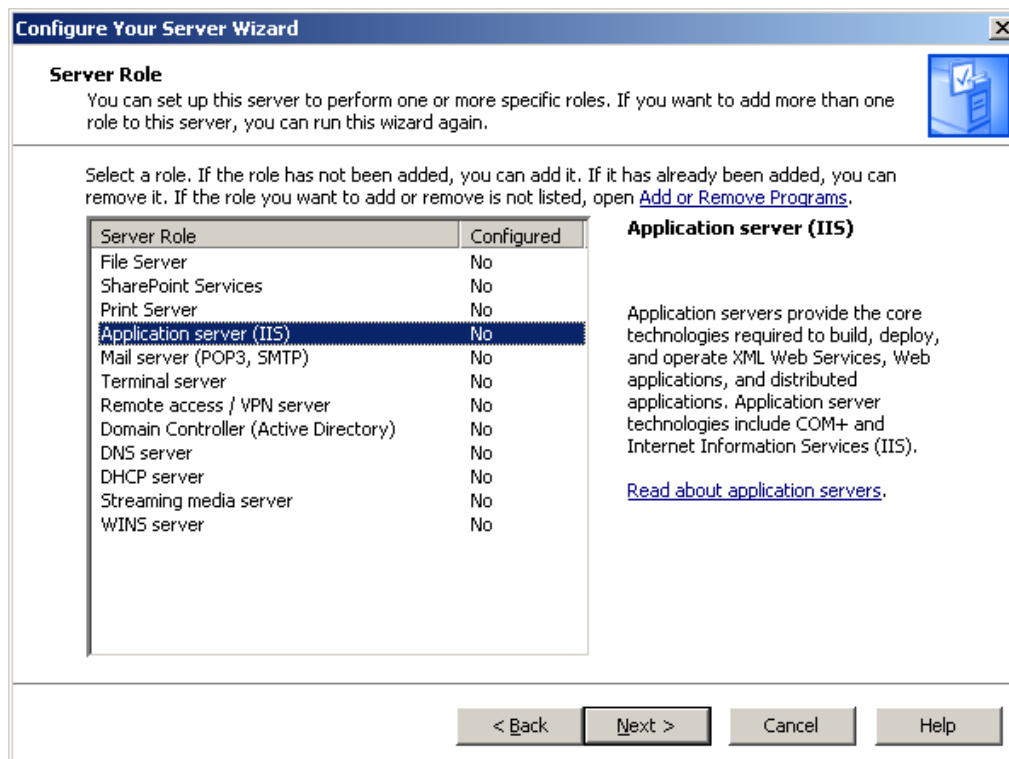
- Install and configure prerequisite software (page 10)
- Install and deploy ProjectWise Mobile Access Server (page 11)
- Configure this computer to retrieve ProjectWise datasource list information (page 14)

Installing and Configuring Prerequisite Software

ProjectWise Mobile Access Server requires Internet Information Services (IIS) and .NET Framework 4. If these items are not already installed, please install them now before installing ProjectWise Mobile Access Server.

TO INSTALL AND CONFIGURE IIS

1. Open the Configure Your Server Wizard (Windows Start menu > Programs > Administrative Tools > Configure Your Server Wizard).
2. Click Next until you get to the Server Role page.
3. Select Application Server (IIS) and click Next.



4. Complete the installation.

TO INSTALL .NET FRAMEWORK 4

1. Download and install Windows Imaging Component (64-bit) from:
<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=1385>
2. Then download and install either:
.NET Framework 4 (Web Installer) at:
<http://www.microsoft.com/download/en/details.aspx?id=17851>
Note: Must be connected to the internet for installation to take effect.
or
.NET Framework 4 (Standalone Installer) at:
<http://www.microsoft.com/download/en/details.aspx?id=17718>

Installing and Deploying ProjectWise Mobile Access Server

For this product preview, installation of ProjectWise Mobile Access Server is the same on Windows Server 2003 as it is on Windows Server 2008, however deployment to IIS currently requires manual configuration on Windows Server 2003.

Note: Do not deploy ProjectWise Mobile Access Server to an IIS website to which you have already deployed ProjectWise Web Server. This configuration is not supported.

TO INSTALL PROJECTWISE MOBILE ACCESS SERVER

1. Download and install the ProjectWise Mobile Access Server installation package:
<http://www.bentley.com/en-US/Free+Software/>

TO MANUALLY DEPLOY PROJECTWISE MOBILE ACCESS SERVER

1. Create a virtual directory for ProjectWise Mobile Access Server:
 - a. Open IIS Manager (Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manager).
 - b. Right click the IIS web site you plan to use and select New Virtual Directory.
 - c. Enter a name for the virtual directory, such as **"pwmobileaccess"**.
 - d. Set the location of the virtual directory to where ProjectWise Mobile Access Server is installed.
 - e. Click Next to completion.

When the “**pwmobileaccess**” is the name of the virtual directory, users connecting to this ProjectWise Mobile Access Server from ProjectWise Explorer for the iPad only need to specify the fully-qualified domain name of the computer on which ProjectWise Mobile Access Server is installed (for example, [servername.domain.com](#)). If you make the virtual directory name anything other than “**pwmobileaccess**”, then ProjectWise Explorer for the iPad users will have to specify the fully-qualified domain name of the computer *plus* the virtual directory name, when entering the address (for example, [servername.domain.com/virtualdirectoryname](#)).

2. (64-bit Windows Server 2003 only) Register ASP.NET for IIS:
 - a. Open a command prompt and enter the following command:

```
cd %systemdrive%\inetpub\AdminScripts
```
 - b. Next, enter:

```
cscript.exe adsutil.vbs set W3SVC/AppPools/Enable32BitAppOnWin64 1
```
 - c. Next, enter:

```
C:\WINDOWS\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe -r
```
3. Allow ASP.NET 4 extension:
 - a. In IIS Manager, under your web site, go to Web Services Extension.
 - b. On 32-bit operating systems, set **ASPNET v.4.0.30319** to Allowed.
On 64-bit operating systems, set **ASPNET v.4.0.30319 (32-Bit)** to Allowed.
4. Configure your ProjectWise Mobile Access Server virtual directory:
 - a. In IIS Manager, go to your web site.
 - b. Right-click the ProjectWise Mobile Access Server virtual directory you created in step 1 and select Properties.
 - c. On the Virtual Directory tab, under Application name, click Create, then click Configuration.
 - d. Select the .axd extension and click Edit.
 - e. In Verbs, select Limit to and add “DELETE,PUT” to the list in the field.
 - f. Click OK.
 - g. Click Insert.
 - h. In the dialog that opens, in the Executable field, type:

```
C:\WINDOWS\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll
```
 - i. Uncheck Verify that file exists and click OK.
5. Configure a secure connection:
 - a. In IIS Manager, right-click your web site and select Properties.
 - b. Select the Directory Security tab.
 - c. Click Server Certificate and click Next to completion.
 - a. Add the SSL port 443 to the Windows Firewall exception list on this computer.

6. Enable anonymous authentication:
 - a. In IIS Manager, right-click your web site and select Properties.
 - b. Select the Directory Security tab.
 - c. Click Edit in the Authentication and Access Control section.
 - d. In the Authentication Methods dialog, turn on **Enable anonymous authentication**, and turn off all other authentication methods.
7. Create a working directory for ProjectWise Mobile Access Server:
 - a. In Windows Explorer, create a folder on the file system to use as the ProjectWise Mobile Access Server's working directory. For example, "**C:\pwwms_workdir**".

This working directory is used by ProjectWise Mobile Access Server to store files that are being transferred between the main ProjectWise server and the iPad client making the request. The same rules apply to the working directory you set up on Windows Server 2003 as on Windows Server 2008 – see step 4 of the procedure "To Deploy ProjectWise Mobile Access Server" (on Windows Server 2008) for details.
8. Add ProjectWise Mobile Access Server settings to the Registry:
 - a. Open your Windows Registry Editor.
 - b. On 64-bit computers, navigate to:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Bentley\ProjectWise Mobile  
Access Server\01.00
```

Or
On 32-bit computers, navigate to:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Bentley\ProjectWise Mobile Access  
Server\01.00
```
 - c. Under 01.00, right-click `WorkingDir` and select Modify. In the Value data field, enter the name of the local working directory you created in step 7.
9. Restart the service for IIS.

Retrieving Datasource List Information (on either Windows Server 2003 or 2008)

Now that you have set up ProjectWise Mobile Access Server, you need to install ProjectWise Explorer on this computer, so that you can configure the datasource list that ProjectWise Explorer for the iPad users will see when they connect to this ProjectWise Mobile Access Server.

TO CONFIGURE THE DATASOURCE LIST

1. Install ProjectWise Explorer on this computer.
2. Open ProjectWise Explorer and select Tools > Network Configuration Settings.
The ProjectWise V8i Network Configuration Settings dialog opens.
3. On the General tab, turn on Prevent UDP for DNS and Listing.
4. On the DNS Services tab:
 - a. In the Name field, enter a descriptive name for the ProjectWise server you are connecting to. For example, Main Production Server
 - b. In the Hostname field, enter the fully-qualified domain name (FQDN) of the computer on which the ProjectWise server you want to connect to is installed.
 - c. If the ProjectWise server's listener port is set to the default (5800), then you can leave the Port field empty. If the ProjectWise server's listener port is set to something other than 5800, then you must enter the server's listener port in the Port field.
 - d. Click Add
 - e. At the bottom of the tab, turn on Prevent UDP
5. On the Datasource Listing tab, repeat the steps described in step 4 for the DNS Services tab.
6. When finished, click Apply, then OK.
7. In ProjectWise Explorer, right-click the 'ProjectWise Explorer Datasources' item at the top of the datasource list and select Refresh.

If you have configured everything correctly, the datasource list will be refreshed to display the list of datasources that the specified ProjectWise server is running.

TO TEST YOUR DATASOURCE CONNECTION CONFIGURATION

1. Enter your web site's address into a web browser. For example:
<https://localhost/<VirtualDirectoryName>/datasources/>

A Save As dialog opens for you to save the datasource list information to a text file. When you open this file, it will list the datasources to which your users can connect.