Deployment for Office Project Server 2007

Microsoft Corporation

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Abstract

The content in this guide is designed to provide instructions for deploying a new solution based on Office Project Server 2007. The audiences for this guide are business application specialists, line-of-business specialists, and IT administrators who are ready to deploy Office Project Server 2007 and want installation steps.

Before using the instructions in this book you should read the Planning Guide for Project Server 2007 and plan your deployment. Also note that upgrade and migration content is available through the Upgrade and Migration Guide for Office Project Server 2007. For a complete listing of downloadable books for Office Project Server 2007, see Downloadable books for Office Project Server 2007.

The content in this book is a copy of selected content in the Office Project Server 2007 technical library (*http://go.microsoft.com/fwlink/?LinkId=84740*) as of the publication date. For the most current content, see online content available in the technical library.

Microsoft

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Getting Help

Every effort has been made to ensure the accuracy of this book. This content is also available online in the Office System TechNet Library, so if you run into problems you can check for updates at:

http://technet.microsoft.com/office

If you do not find your answer in our online content, you can send an e-mail message to the Microsoft Office System and Servers content team at:

o12ITdx@microsoft.com

If your question is about Microsoft Office products, and not about the content of this book, please search the Microsoft Help and Support Center or the Microsoft Knowledge Base at:

http://support.microsoft.com

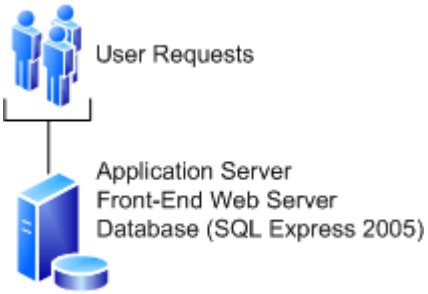
I. Install Project Server 2007 to a stand-alone computer

Install Project Server 2007 to a stand-alone computer

This article discusses the advantages and disadvantages of installing Microsoft Office Project Server 2007 in stand-alone mode, and it also provides the installation steps.

Overview of Project Server 2007 stand-alone mode

Office Project Server 2007 can be installed not only to a farm, but can also be installed to a single computer in stand-alone mode. In stand-alone mode, the application server, front-end Web server, and database are all installed to a single computer using default settings.



Stand-alone mode is best used for evaluating the product. It is important to note the following limitations of Office Project Server 2007 when it is installed in this way:

- Stand-alone mode supports single-server deployments only, therefore precluding your options for configuring redundancy.
- SQL Server Express 2005 is installed as the database server. Unlike the advanced installations of Office Project Server 2007 in which SQL Server 2000 or 2005 is installed independently of the Office Project Server 2007 installation, in stand-alone mode the database engine is installed automatically during the installation. If you are familiar with MSDE 2000, you may want to read Feature Comparison of MSDE and SQL Server 2005 Express (*http://www.microsoft.com/technet/prodtechnol/sql/2005/msde2sqlexpress.mspx#EIE*).

  Important:

  If you are planning to change to a larger Project Server deployment later, be aware that the SQL Server Express 2005 database cannot be migrated to SQL Server 2000.

Installation and configuration is simple:

- Project Web Accesss site, Web applications, and the Shared Services Provider are automatically provisioned.

- Service account information is not required for installation. The installation uses Network Service accounts to finish.

System requirements

Before installing Office Project Server 2007 in stand-alone mode, verify that the computer meet the hardware and software requirements listed in this section.

Hardware requirements

Component	Minimum	Recommended
Processor	2.5 gigahertz (GHz)	Dual processors that are each 3 GHz or faster
RAM	1 gigabyte (GB)	2 GB
Disk	NTFS file system–formatted partition with a minimum of 3 GB of free space	NTFS file system–formatted partition with 3 GB of free space plus adequate free space for your Web sites
Drive	DVD drive	DVD drive or the source copied to a local or network-accessible drive
Display	1024 × 768	1024 × 768 or higher resolution monitor
Network	56 kilobits per second (Kbps) connection between client computers and server	56 Kbps or faster connection between client computers and server

Software Requirements

Office Project Server 2007 has the following software requirements. It is important to note that because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the requirements that apply to Windows SharePoint Services 3.0 also apply to Office Project Server 2007.

Operating system

Office Project Server 2007 runs on Windows Server 2003 with SP1 or later. We recommend that you apply all critical updates. You can use the following Windows Server 2003 editions:

- Windows Server 2003, Standard Edition
- Windows Server 2003, Enterprise Edition

- Windows Server 2003, Datacenter Edition
- Windows Server 2003, Web Edition

Web browser

Internet Explorer 6.0 with the most recent service packs or Internet Explorer 7.0.

Internet Information Services 6.0

Internet Information Services (IIS) 6.0 must be enabled on the computer. You also must configure the server to use worker process isolation mode. This is the default setting in new installations. However, if you have upgraded from IIS 5.0 on Windows Server 2000, then IIS 5.0 isolation mode is enabled and you must change this setting to worker process isolation mode. Worker process isolation mode takes advantage of the redesigned architecture for IIS 6.0 and uses the worker process core component.

Microsoft .NET Framework 3.0

The Microsoft .NET Framework 3.0 download installs the required Windows Workflow Foundation component (Build 4203.2) needed for workflow functionality.

On the Microsoft .NET Framework 3.0 download page, follow the instructions for downloading and installing Microsoft .NET Framework 3.0. There are separate downloads for x86-based computers and x64-based computers: be sure to download and install the appropriate version for your computer. The Microsoft .NET Framework 3.0 download installs the required Windows Workflow Foundation components.

Install .NET Framework 3.0

1. In your Web browser, go to the Microsoft .NET Framework 3.0 Redistributable Package download site: (http://www.microsoft.com/downloads/details.aspx?FamilyId=10CC340B-F857-4A14-83F5-25634C3BF043&displaylang=en).
2. Click **Download**, and then click **Run**.
3. On the Welcome to Microsoft. NET Framework Setup page, click **Next**.
4. Select the **I accept the terms of the License Agreement** check box, and then click **Install**.
5. When installation is complete, click **Finish**.

After installing .NET Framework 3.0, you must verify that ASP.NET 2.0.50727 is enabled.

Enable ASP.NET 2.0.50727 in Internet Information Services (IIS)

1. Click **Start**, and then click **Run**.
2. In the **Open** box, type **inetmgr**, and then click **OK**.
3. In the left pane of the Internet Information Services (IIS) Manager, select the computer on which you want to enable ASP.NET.

4. In the right pane, double-click the Web Service Extensions folder.
5. Right-click **ASP.NET v2.0.50727**, and then choose **Allow**.

Enable ASP.NET 2.0.50727 in Internet Information Services (IIS) from a command prompt

1. Open a Command Prompt window.
2. Change to the following directory: %COMMONPROGRAMFILES%\Microsoft.net\Framework\v2.0.50727.
3. Run the following command:

   aspnet_regiis.exe –i –enable

Notification requirements

If, in your deployment planning for Office Project Server 2007, you determined that you will need to send e-mail notifications, you need a Simple Mail Transfer Protocol (SMTP) server. If you need to receive e-mail notifications, you need a mail client that uses one of the following protocols to receive mail from the SMTP server, such as:

- Post Office Protocol 3 (POP3)
- Internet Message Access Protocol 4 (IMAP4)

Alternatively, your mail client can receive e-mail notifications if you have Microsoft Messaging Application Programming Interface (MAPI)-compliant messaging software.

Installing Project Server 2007 in stand-alone mode

1. Navigate to the installation location for Project Server and double-click the Setup.exe file to begin setup.
2. In the Enter Product Key page, type the 25-character product key, and click **Continue**.
3. In the End User License Agreement page, view the terms of the agreement. Check **I accept the terms of the agreement**, and then click **Continue**.
4. On the Installation Types page, click **Basic** to start the installation.
5. On the page that appears when installation is complete, select **Run the SharePoint Products and Technologies Configuration Wizard now** and then click **Close**. You must run the SharePoint Products and Technologies Configuration Wizard to automatically complete the required provisioning steps.
6. At the Welcome to SharePoint Products and Technologies page, click **Next**.
7. A confirmation dialog message appears, stating that the following services might need to be restarted or reset during the configuration:
   - Internet Information Services
   - SharePoint Administration Service
   - SharePoint Timer Service

- Click **Yes** to continue. A status bar appears to show the configuration progress.

8. When configuration is complete, the Configuration Successful page will appear. Click **Finish**.
9. The Manage Project Web Access page appears and will list the Project Web Access instance that is being provisioned. Click the **Refresh Status** button from time to time to check if the Project Web Access instance has been provisioned. When the status appears as provisioned, click on the URL to go to the Project Web Access home page.

    **Note:**

   You may need to add the URL to the Project Web Access home page to the list of trusted sites in Internet Explorer.

See Also

Deploy Project Server 2007 to a server farm environment

Deploy Office Project Server 2007 with Office SharePoint Server 2007

Configure Office Project Server 2007 client connectivity

II. Deploy Project Server 2007 to a server farm environment

Deploy Project Server 2007 to a server farm environment

In this article:

- Project Server 2007 architecture overview
- Project Server 2007 installation roadmap
- Verify that servers meet hardware and software requirements
- Security account requirements
- Prepare the database server
- Project Server 2007 installation procedures

This article describes how to install Microsoft Office Project Server 2007 in a server farm environment. You can deploy Office Project Server 2007 in a server farm environment if you are hosting a large number of sites, if you want the best possible performance, or if you want the scalability of a multi-tier topology. A server farm consists of one or more servers dedicated to running the Office Project Server 2007 application.

Important:

Because a deployment of Office Project Server 2007 in a farm environment is more complex than a stand-alone installation, we recommend that you plan your deployment before beginning. Planning your deployment can help you to gather the information you need and to make important decisions before beginning to deploy. For more information, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*).

This article does not cover upgrading from previous versions of Project Server. For information on upgrading to Project Server 2007, see Migration guide for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc303388.aspx*).

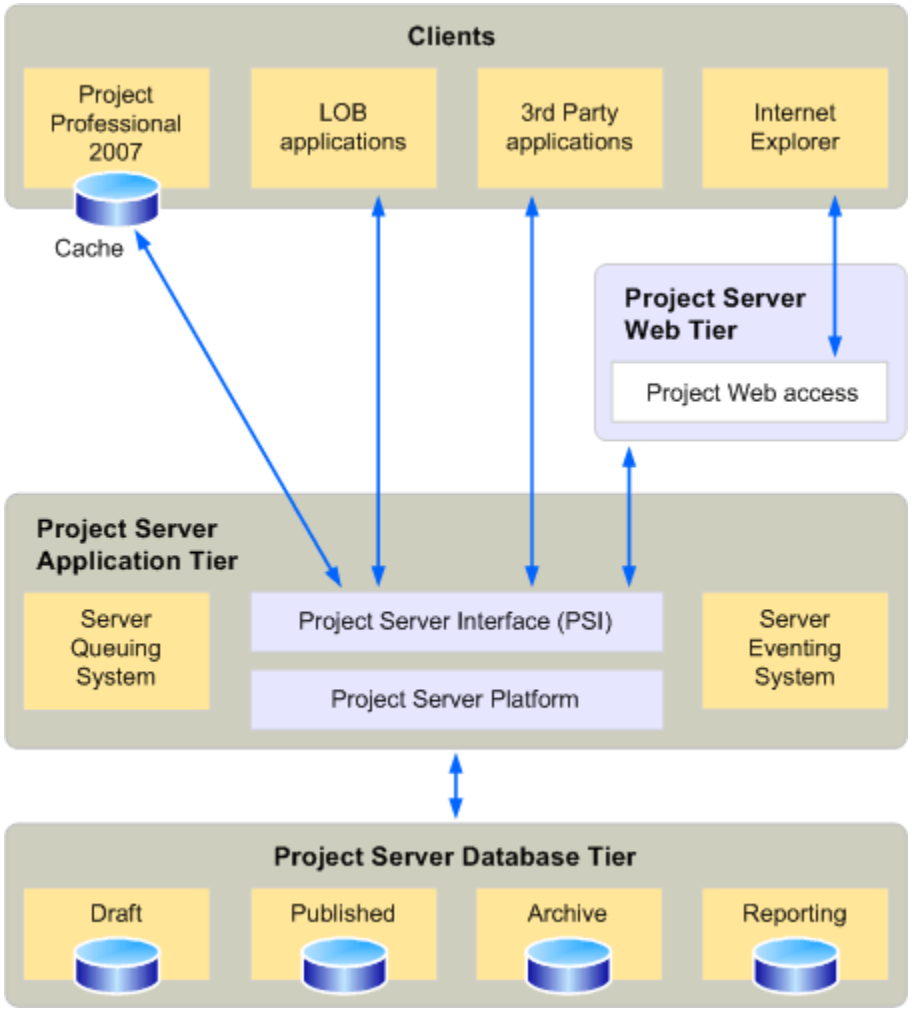
Project Server 2007 architecture overview

Note:

For more detailed information about Office Project Server 2007 architecture, see the chapter Plan EPM Solution architecture (*http://technet.microsoft.com/en-us/library/cc303386.aspx*).

Office Project Server 2007 installation includes these three main components:

- Office Project Server 2007 Web tier
- Office Project Server 2007 application tier
- Office Project Server 2007 database tier (Microsoft SQL Server 2000 with the most recent service pack, or Microsoft SQL Server 2005)



The Office Project Server 2007 Web tier includes two components:

- Microsoft Office Project Web Access is designed for use by all project team members, administrators, and anyone else who needs access to Project Server data. Office Project Web Access is essentially a set of Microsoft ASP.NET 2.0 applications that use the Project Server Interface (PSI).
- Windows SharePoint Services 3.0 is a Web-based team collaboration and document management application. Office Project Web Access is built on Windows SharePoint Services 3.0 for ease of use, improved administration, and ease of customization and integration with other applications.

Note:

For more information, see Plan the Web tier (*http://technet.microsoft.com/en-us/library/cc197513.aspx*).

The Office Project Server 2007 application tier includes:

- **Project Server Interface (PSI)**: The Project Server Interface is the application programming interface (API) of Office Project Server 2007. The Project Server Interface object model exposes Project Server functionality to all external applications. Microsoft Office Project Professional 2007, Office Project Web Access, line of business, and other third-party applications use the PSI to access Project Server data in the Draft, Published, and Archive databases.
- **Project Server platform**: This platform includes the Project Server business objects accessed by users through the PSI.
- **Project Server services**: These services include the Server Reporting service, the Server Eventing service, and the Server Queuing service.

  Note:

  For more information, see Plan the application tier (*http://technet.microsoft.com/en-us/library/cc197746.aspx*).

The Office Project Server 2007 database tier includes the following Project Server databases:

- **Draft**: The Draft database contains tables for saving unpublished projects from Office Project Professional 2007. Project data in the Draft database is not accessible by using Office Project Web Access.
- **Published**: The Published database contains all of the published projects. Published projects are viewable in Office Project Web Access. The Published database also contains tables that are specific to Office Project Web Access (timesheets, views, and so on) and global data tables (outline codes, security, and metadata).
- **Archive**: The Archive database saves backed-up and older versions of projects.
- **Reporting**: The Reporting database is the staging area for generating reports and OLAP cubes. Data in the Reporting database is comprehensive, optimized for read-only report generation, and is updated near real-time.

  Note:

  For more information, see Plan the database tier (*http://technet.microsoft.com/en-us/library/cc197534.aspx*).

Project Server 2007 installation roadmap

This section describes three examples of farm deployments for Office Project Server 2007. Each example includes a roadmap of, or high-level steps for, the installation process for your deployment. Identify the deployment roadmap in this article that most closely matches the architecture that you require for your organization, and then follow associated the procedures in to complete your installation. The high-level steps can be followed in more detail in the "Office Project Server 2007 Installation Procedures" section of this article.

Note:

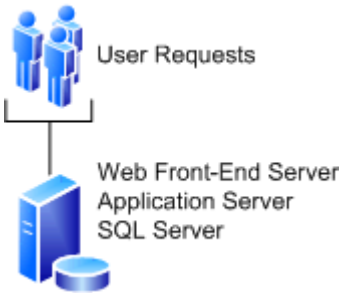
Office Project Server 2007 stand-alone installation will not be covered in this chapter. For information about installing Office Project Server 2007 to a stand-alone computer, see Install Project Server 2007 to a stand-alone computer.

Small farm installation

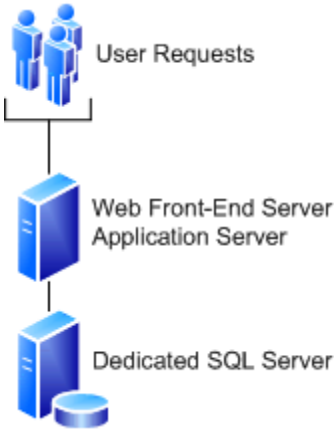
Office Project Server 2007 in a small farm is characterized by the front-end Web server and the application server residing on the same computer. A small farm deployment can support a small- to medium-sized organization and can be used by a large organization to test Office Project Server 2007. A small-scale deployment supports up to 500 users, but is not ideal for a large-scale production environment.

A small farm can exist in a one-tier or two-tier configuration:

- One tier: The front-end Web server, application server, and the database server all reside on the same computer.



- Two tier: The front-end Web server and application server reside together on the same computer, and the database server resides on another computer. If possible, the two-tier configuration is preferable, because database processing is removed from the server hosting the front-end Web server and application server.



Deploying Office Project Server 2007 to a small farm requires installing both the Project Server front-end Web server and the application server to the same computer.

Install the farm on a single server

1. Install the binary files.

   Select **Complete** for the server installation type.
2. Run the SharePoint Products and Technologies Configuration Wizard:
   - Create a new farm.
   - Create a new configuration database.
3. Configure the farm services:

   Start the Project Application service.
4. Create Web applications:
   - Create a Web application for the Project Web Access site content
   - Create a site collection for the Web application.
   - Create a Web application for the Shared Services Provider.
5. Create the Shared Services Provider.
6. Provision the Project Server 2007 site on the farm.

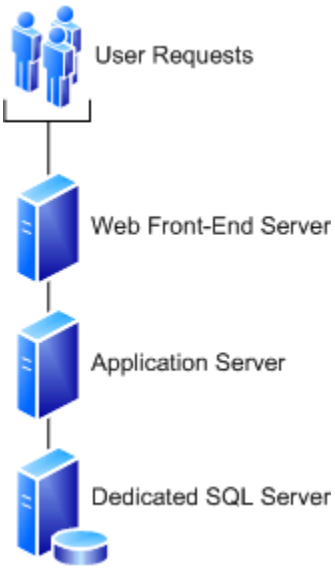
Medium farm installation

To meet the needs of a slightly larger organization, Office Project Server 2007 can be installed to a medium farm.

Note:

For more information on capacity planning, see Chapter overview: Plan for performance and capacity (*http://technet.microsoft.com/en-us/library/cc197545.aspx*).

Office Project Server 2007 in a medium farm topology is characterized by a three-tiered configuration. The Web tier, application tier, and database tier are all on separate computers. A basic medium-sized custom farm can consist of one or two front-end Web servers, a single application server, and one database server or two clustered database servers.



Installing Office Project Server 2007 to a simple medium farm (a single application server and front-end Web server on separate computers) requires the steps in the table below. Perform the sequence of steps for the Application server before starting the steps for the front-end Web server.

Server A (for the application server)	**Server B (for the front-end Web server)**
Install the binary files: Select **Complete** for the server installation type.	Install the binary files: Select **Web Front End** for the server installation type.
Run the SharePoint Products and Technologies Configuration Wizard: • Create a new farm. • Create a new Configuration database.	Run the SharePoint Products and Technologies Configuration Wizard: Connect to the existing farm (created on Server A).

After installing the binary files and running the SharePoint Products and Technologies Wizard on both servers in your farm, you need to perform the following tasks through the SharePoint Central Administration Web site:

1. Configure the farm services for the application server:
   - Start the Project Application service
2. Create Web applications:
   - Create a Web application for the Project Web Access site content

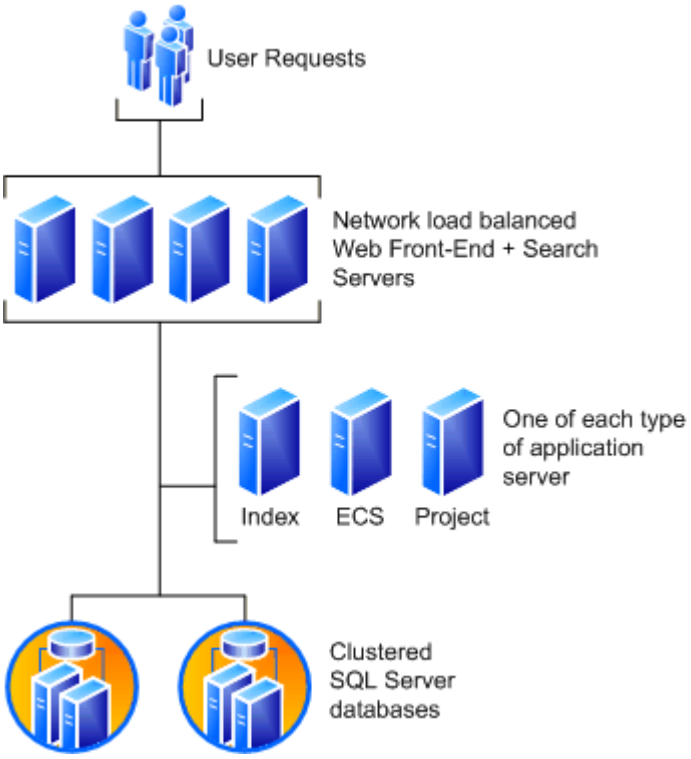
- Create a site collection for the Web application
- Create a Web application for the Shared Services Provider

3. Create the Shared Services Provider.
4. Provision the Project Server 2007 site on the farm.

Large farm installation

A medium farm can be increased in size to meet the needs of a much larger company by adding additional servers on the Web and application tiers. The database tier can also be clustered with additional database servers or to include multiple clusters.

A farm can also be integrated with Microsoft Office SharePoint Server 2007 and use other services such as Search, Index, or Excel Calculation Services.



Adding additional front-end Web servers to the farm

You can add additional front-end Web servers to the farm. When you do this, the farm will replicate all available Web sites to the new server in order to make them available to users through the server.

Note:

Multiple front-end Web servers can be configured to use Network Load Balancing to distribute the load across the servers. For more information on Network Load Balance options for front-end Web servers, see the "Plan front-end Web server availability"

section in Plan for redundancy (*http://technet.microsoft.com/en-us/library/cc263044.aspx*).

To add an additional front-end Web server to your farm, you would need to do the following:

Add another front-end Web server to the farm

1. Install the binary files.

   Select **Web Front End** for the server installation type.
2. Run the SharePoint Products and Technologies Configuration Wizard:

   Connect to the existing farm.

Adding additional application servers to the farm

The farm can also be scaled to add additional Office Project Server 2007 application servers. When more than one Office Project Server 2007 application server is available on the farm, requests from Web tiers are distributed to the application servers in a round-robin fashion. For example, in an environment in which two Project Server application servers exist, request #1 from the SharePoint Web Application service is first sent to application server A. The second request would be sent to application server B. The third request would go back to application server A again, and so on.

Note:

Load balancing is handled internally between application servers in the farm. Application servers cannot be configured to use Network Load Balancing Services for Windows Server 2003.

To add an additional application server to the farm, you would need to do the following:

Add another application server to the farm

1. Install the binary files.

   Select **Complete** for the server installation type.
2. Run the SharePoint Products and Technologies Configuration Wizard:

   Connect to the existing farm.
3. Configure the farm services:
   - Start the Project Application service.
   - Stop the Windows SharePoint Services Web Application service.

Verify that servers meet hardware and software requirements

Before installing Office Project Server 2007, verify that the computers meet the hardware and software requirements listed in the following tables.

Hardware requirements

Component	Description
Processor	(Required) Dual processors with processor speed of 2.5 gigahertz (GHz) or faster. (Recommended) Dual processors with processor speed of 3 gigahertz or faster.
Memory	• Farm deployment: 2 gigabyte (GB) RAM. • Farm deployment in which the SQL Server resides on a front-end Web or application server: 4 GB RAM recommended.
Hard disk	3 GB of available hard disk
Display	1024 ∝ 768 or higher resolution monitor
Network connection	Farm deployment: 100 megabits per second (Mbps) connection speed
Optical drive	DVD drive

Software requirements

Office Project Server 2007 has the following software requirements. It is important to note that because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the requirements that apply to Windows SharePoint Services 3.0 also apply to Office Project Server 2007.

For additional information about hardware and software requirements for Office Project Server 2007, see Determine hardware and software requirements.

Operating system

Office Project Server 2007 runs on Windows Server 2003 with Service Pack 1 (SP1) or later. We recommend that you apply all critical updates. You can use the following Windows Server 2003 editions:

- Windows Server 2003, Standard Edition

- Windows Server 2003, Enterprise Edition
- Windows Server 2003, Datacenter Edition
- Windows Server 2003, Web Edition

Web browser

Internet Explorer 6.0 with the most recent service packs or Internet Explorer 7.0 is required.

Internet Information Services 6.0

Internet Information Services (IIS) 6.0 must be enabled on the computer. You also must configure the server to use worker process isolation mode. This is the default setting in new installations. However, if you have upgraded from IIS 5.0 on Windows Server 2000, then IIS 5.0 isolation mode is enabled and you must change this setting to worker process isolation mode. Worker process isolation mode takes advantage of the redesigned architecture for IIS 6.0 and uses the worker process core component.

Microsoft .NET Framework 3.0

The Microsoft .NET Framework 3.0 download installs the required Windows Workflow Foundation component (Build 4203.2) needed for workflow functionality.

On the Microsoft .NET Framework 3.0 download page, follow the instructions for downloading and installing Microsoft .NET Framework 3.0. There are separate downloads for x86-based computers and x64-based computers: be sure to download and install the appropriate version for your computer. The Microsoft .NET Framework 3.0 download installs the required Windows Workflow Foundation components.

Install Microsoft .NET Framework version 3.0

1. In your Web browser, go to the Microsoft .NET Framework 3.0 Redistributable Package download site (http://go.microsoft.com/fwlink/?LinkID=72322&clcid=0x409).
2. Click **Download**, and then click **Run**.
3. On the Welcome to Microsoft. NET Framework Setup page, click **Next**.
4. Select the **I accept the terms of the License Agreement** check box, and then click **Install**.
5. When installation is done, click **Finish**.

After installing .NET Framework 3.0, you must verify that ASP.NET 2.0.50727 is enabled.

Enable ASP.NET 2.0.50727 in Internet Information Services (IIS)

1. Click **Start**, and then click **Run**.
2. In the **Open** box, type **inetmgr**, and then click **OK**.
3. In the left pane of the Internet Information Services (IIS) Manager, select the computer on which you want to enable ASP.NET.

4. In the right pane, double-click the Web Service Extensions folder.
5. Right-click **ASP.NET v2.0.50727**, and then choose **Allow**.

Enable ASP.NET 2.0.50727 in (IIS) at the command prompt

1. Open a Command Prompt window.
2. Change to the following directory: %COMMONPROGRAMFILES%\Microsoft.net\Framework\v2.0.50727.
3. Run the following command:

   aspnet_regiis.exe –i –enable

Notification requirements

If, in your deployment planning for Office Project Server 2007, you determined that you will need to send e-mail notifications, you need a Simple Mail Transfer Protocol (SMTP) server. If you need to receive e-mail notifications, you need a mail client that uses one of the following protocols to receive mail from the SMTP server, such as:

- Post Office Protocol 3 (POP3)
- Internet Message Access Protocol 4 (IMAP4)
- Alternatively, your mail client can receive e-mail notifications if you have Microsoft Messaging Application Programming Interface (MAPI)-compliant messaging software.

Security account requirements

During the installation and configuration, you must specify certain user accounts and passwords. For more information about administrative and security accounts, see Plan for administrative and service accounts.

Prepare the database server

The database server computer must be running Microsoft SQL Server 2005 or Microsoft SQL Server 2000 with the most recent service pack.

The Office Project Server 2007 Setup program automatically creates the necessary databases when you install and configure Office Project Server 2007. Optionally, you can pre-install the required databases if your IT environment or policies require this.

For more information about prerequisites, see Determine hardware and software requirements.

SQL Server 2005 surface area configuration settings

If you are using SQL Server 2005, you must also change the surface area configuration settings.

Configure surface area settings in SQL Server 2005

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server 2005**, point to

Configuration Tools, and then click **SQL Server Surface Area Configuration**.

2. In the **SQL Server 2005 Surface Area Configuration** dialog box, click **Surface Area Configuration for Services and Connections**.
3. In the tree view, expand the node for your instance of SQL Server, expand the **Database Engine** node, and then click **Remote Connections**.
4. Select **Local and Remote Connections**, select **Using TCP/IP only**, and then click **OK**.

SQL Server and database collation

The SQL Server collation must be configured as case-insensitive. The SQL Server database collation must be configured as case-insensitive, accent-sensitive, Kana-sensitive, and width-sensitive. This configuration ensures file name uniqueness consistent with the Windows operating system. For more information about collations, see "Selecting a SQL Collation" or "Collation Settings in Setup" in SQL Server Books Online.

Required accounts

The following table describes the accounts that are used to configure Microsoft SQL Server and to install Office Project Server 2007. For more information about the required accounts, including specific privileges required for these accounts, see Plan for administrative and service accounts.

Account	Purpose
SQL Server service account	SQL Server prompts for this account during Setup. This account is used as the service account for the following SQL Server services: • MSSQLSERVER • SQLSERVERAGENT If you are not using the default instance, these services will be shown as: • MSSQL$*InstanceName* • SQLAgent$*InstanceName*
Setup user account	The user account that is used to run Setup on each server
Server farm account	This account is also referred to as: • Database access account This account is: • The application pool account for the SharePoint Central Administration Web site • The process account for the Windows SharePoint Services Timer (SPAdmin) service

Preinstall databases (optional)

The Office Project Server 2007 databases are created automatically during the "provisioning Project Server 2007 sites on the farm" step of deployment. In many IT environments, database creation and management is handled by the database administrator (DBA). Security and other policies might require that the DBA create the databases required by Office Project Server 2007. This section provides details about how the DBA can create these databases before beginning the Office Project Server 2007 installation.

Create and configure the Project Server databases

1. Using Microsoft SQL Server Management Studio, navigate to the database server and create the four Project Server databases:
   - ProjectServer_Published
   - ProjectServer_Working
   - ProjectServer_Archive
   - ProjectServer_Reporting

     Note:

     When creating the databases, make sure to adhere to the SQL Server collation requirements mentioned previously.
2. Make sure that the database owner is the Setup user account for all databases.
3. Using Microsoft SQL Server Management Studio, add the SSP Service account to the Users group and the db_owner role in each database.

After the four Project Server databases are created and configured, you can enter the database names in the "provisioning Project Server 2007 sites on the farm" step of the deployment process to connect to them.

For more information about preinstalling Windows SharePoint Services 3.0 databases, including detailed procedures, see Deploy using DBA-created databases (*http://technet.microsoft.com/en-us/library/cc288606.aspx*).

Project Server 2007 installation procedures

This section describes installation procedures required to install Office Project Server 2007 on a computer. Use them in conjunction with the type of installation you want to do in the "Office Project Server 2007 installation roadmap" section of this article.

Install the Office Project Server 2007 binary files

Installing the Office Project Server 2007 binary files allows you to select the installation type you want to install to the server.

1. Navigate to the installation location, and then double-click the Setup.exe file to begin the Setup program.

2. On the Enter Product Key page, type the 25-character product key, and then click **Continue**.
3. On the End User License Agreement page, view the terms of the agreement. Select **I accept the terms of the agreement**, and then click **Continue**.
4. On the Choose the Installation you Want page, click **Advanced**. This gives you the option to install Office Project Server 2007 to a farm installation.

   Note:

   The **Basic** option on this page installs the stand-alone installation. Stand-alone installation is also available through the **Advanced** option. The advanced version of Stand-alone installation allows you to install to a location other than the default location. The Basic version does not. For information about installing Office Project Server 2007 to a stand-alone computer, see Install Project Server 2007 to a stand-alone computer.
5. On the next page, on the **Server Type** tab, select the type of installation you want to install to the computer:
   - **Complete** Installs the front-end Web server and application server in a farm environment
   - **Web Front End** Installs only the front-end Web server
   - **Stand-alone** Installs the front-end Web server, application server, and Microsoft SQL Server 2005 Express Edition in a non-farm environment.

     Note:

     The stand-alone installation type cannot be scaled for more users added to an existing farm. For more information, see Install Project Server 2007 to a stand-alone computer.

   On the **File Location** tab, you can specify the location to which you want the binary files to be installed. The default location is C:\Program Files\Microsoft Office Servers.

   On the **File Location** tab, if you plan on using the Windows SharePoint Services Help Search Service, you can also specify the storage location on the local hard disk for the search index files.

   Note:

   For more information about the Windows SharePoint Service Help Search Service, see Plan for search (*http://technet.microsoft.com/en-us/library/cc288477.aspx*).

   On the **Feedback** tab, you can elect to participate in the Customer Experience Improvement Program. The default selection is **I'll choose later**. This option can be configured later through Central Administration.

   Click **Install Now**. The Office Project Server 2007 components will be installed onto the computer.
6. When installation of the binary files is completed, the Setup Complete page is displayed and prompts you to complete the configuration of your server. Verify that **Run the SharePoint Products and Technologies Configuration Wizard now** is selected, and then click **Close**.

Note:

If you choose to run the SharePoint Products and Technologies Configuration Wizard at a later time, clear the check box, and then click **Close**. When you want to start the SharePoint Products and Technologies Configuration Wizard, click **Start**, click **All Programs**, click **Microsoft Office Server**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Run the SharePoint Products and Technologies Configuration Wizard

This step, commonly referred to as post-setup configuration, runs the SharePoint Products and Technologies Configuration Wizard to configure Windows SharePoint Services 3.0. Running the SharePoint Products and Technologies Configuration Wizard allows you to do the following:

- Create a new farm or connect to an existing one.
- Create a new configuration database for the farm or use the configuration database of an existing farm to which you want to connect.
- Create the SharePoint Central Administration Web site used to administer all servers and services in the farm. This starts the Central Administration service on the server.

Use the following instructions to run the SharePoint Products and Technologies Configuration Wizard.

1. On the Welcome to SharePoint Products and Technologies page, read about information that is required from you during configuration of the wizard. This includes:
   - Name of the database server and database where the server farm configuration data will be stored.
   - User name and password for the database access account that will administer the server farm.

   Click **Next**.
2. Read the warning that alerts you that some services might need to be restarted or reset during the configuration. These will include:
   - Internet Information Services
   - SharePoint Administration Service
   - SharePoint Timer Service

   Click **Yes**.
3. On the Connect to a Server Farm page, select either:
   - **Yes, I want to connect to an existing farm —** Select this option if you are adding this server to an existing farm.
   - **No, I want to create a new server farm —** Select this option if this is the first server in the farm.

   Click **Next**.

4. On the Specify Configuration Database Settings page, use the information you gathered earlier to specify the name of the instance of SQL Server and the name of the configuration database, and to specify a Windows account that the computer will use to connect to the configuration database.
    a. In the **Database server** box, if you are creating a new farm, type the name of the instance of SQL Server on which the database will be created.

       If you are connecting to an existing farm, type the name of the instance of SQL Server on which the configuration database exists.
    b. In the **Database name** box, if you are creating a new farm, type the name that you want to give the configuration database. The default entry is **SharePoint_Config**.

       If you are connecting to an existing farm, click the **Retrieve Database Names** button. This will search for the configuration databases on the instance of SQL Server that you specified. The configuration database names on the server are then shown in the **Database name** list. Select the name of the configuration database for the existing farm.
    c. In the **Specify Database Access Account** section, in the **Username** box, type the name of the Server farm account.

       Important:

       The server farm account is used to access your SharePoint configuration database. It also acts as the application pool identity for the SharePoint Central Administration application pool and it is the account under which the Windows SharePoint Services Timer service runs. The SharePoint Products and Technologies Configuration Wizard adds this account to the SQL Server Logins, the SQL Server Database Creator server role, and the SQL Server Security Administrators server role. The user account that you specify as the service account must be a domain user account, but it does not need to be a member of any specific security group on your Web servers or your back-end database servers. We recommend that you follow the principle of least privilege and specify a user account that is not a member of the Administrators group on your Web servers or your back-end servers.
    d. In the **Password** box, type the password for this account.
    e. Click **Next**.
5. On the Configure SharePoint Central Administration Web Application page, configure the following options:
    a. On the Configure SharePoint Central Administration Web Application page, select the **Specify port number** check box and type a port number if you want the SharePoint Central Administration Web application to use a specific port, or leave the **Specify port number** check box cleared if you do not care which port number the SharePoint Central Administration Web site uses. If you do not specify an available port number, one will be selected automatically.

b. In the **Configure Security Settings** section, select **NTLMauthentication** (the default) or **Negotiate (Kerberos)**. If you are unsure which to choose, contact your network administrator. Then click **Next**.

Note:

In most cases, you should use the default setting (NTLM). Use **Negotiate (Kerberos)** only if Kerberos is supported in your environment. Using the **Negotiate (Kerberos)** option requires you to configure a Service Principal Name for the domain user account. To do this, you must be a member of the Domain Admins group. For more information about configuring Kerberos, see Microsoft Knowledge Base article KB 832769: HOW TO: Configure Windows SharePoint Services to Use Kerberos Authentication (*http://support.microsoft.com/?kbid=832769*).

6. On the Completing the SharePoint Products and Technologies Configuration Wizard page, verify that your configuration settings are correct. If any settings are not correct, use the **Back** button to change the setting. Click **Next**.
7. When configuration is finished, the Configuration Successful page appears. Click **Finish**. This will automatically open Central Administration.

Note:

If you are prompted for your user name and password, you might need to add Central Administration to the list of trusted sites in Internet Explorer. Instructions for configuring this setting are provided later in this article.

Note:

If you see a proxy server error message, you might need to configure your proxy server settings so that local addresses bypass the proxy server. Instructions for configuring this setting are provided later in this article.

Add the SharePoint Central Administration Web site to the list of trusted sites

1. In Internet Explorer, on the **Tools** menu, click **Internet Options**.
2. On the **Security** tab, in the **Select a Web content zone to specify its security settings** box, click **Trusted Sites**, and then click **Sites**.
3. Clear the **Require server verification (https:) for all sites in this zone** check box.
4. In the **Add this Web site to the zone** box, type the URL for Central Administration, and then click **Add**.
5. Select the **Require server verification (https:) for all sites in this zone** check box.
6. Click **Close** to close the **Trusted Sites** dialog box.
7. Click **OK** to close the **Internet Options** dialog box.

Configure proxy server settings to bypass the proxy server for local addresses

1. In Internet Explorer, on the **Tools** menu, click **Internet Options**.
2. On the **Connections** tab, in the **Local Area Network (LAN) Settings** area, click **LAN Settings**.
3. In the **Proxy Server** area, select the **Bypass proxy server for local addresses** check box.
4. Click **OK** to close the **Local Area Network (LAN) Settings** dialog box.
5. Click **OK** again to close the **Internet Options** dialog box.

Configure the farm services

The following procedures use the SharePoint Central Administration Web site to enable or disable services based on your server role. The following table lists the services you need to start or stop on the computer depending on the type of server you had installed.

Server role	Service configuration
Front-end Web server	None
Application server	• Start the Project Application Service • Stop the Windows SharePoint Services Web application service **Note:** Stop the Windows SharePoint Services Web Application service only if you do not want the server to serve content.
Application server and front-end Web server	• Start the Project Application Service

To configure the farm services:

1. On the top navigation of the Central Administration page, click **Operations**.
2. On the Operations page, in the **Topology and Services** section, select **Services on server**.
3. On the **Services on Server** page for this computer, in the section titled **Select server role to display services you will need to start in the table below**, select **Custom** (to list all farm services on the server).
4. In the **Start services in the table below** list, find the service you would like to configure. In the same row under the **Action** column, click **Start** to enable the service. If you would like to disable the service, click **Stop**.
5. To see whether the status has changed to its desired status, you might need to refresh the page.

Create Web applications

After you install the Office Project Server 2007 binary files, run post-setup configuration, and configure services in your server farm, you can create Web applications and a site collection.

For Office Project Server 2007, you will need to create Web applications for two sites:

- The Project Web Access site
- The Shared Services Provider home site

You will also need to create a site collection for the Web application (hosting the Project Web Access site). Doing so creates the top-level site in which the Project Web Access home site and Project workspaces reside.

Create the Web application to host the Project Web Access site

The following procedure allows you to create the Web application for Project Web Access. During this process you create a new Web site and create the site collection for the Project Web Access site and Project workspace sites. When finished, you will have a new top-level site for the site collection (although this site will contain no data at this point).

1. On the top navigation of the Central Administration page, click **Application Management**.
2. On the Application Management page, in the **SharePoint Web Application Management** section, click **Create or extend Web application**.
3. On the Create or Extend Web Application page, in the **Adding a SharePoint Web Application** section, select **Create a new Web Application**.
4. On the Create New Web Application page, do the following:
   a. In the **IIS Web Site** section, choose either **Use an existing IIS web site** or **Create a New IIS Web site**.

      Note:

      When creating or specifying an existing site, it is preferable for the site to use port 80. If the site is using port 80, then host headers are not needed and users accessing the site do not need to remember to type the port number as a part of the URL.

   b. In the **Security Configuration** section, under **Authentication provider**, select either **Negotiate (Kerberos)** or **NTLM**, depending on your network. If you are uncertain, contact your network administrator.
   c. In the **Load Balanced URL** section, specify the URL that will be used to access the Web application, or use the default entry. The URL should be in the format http://*servername*:*port*. If multiple zones have been configured on the server, you can optionally click a zone in the **Zone** list.
   d. In the **Application Pool** section, select **Create new application pool**.
   e. In the **Application pool name** box, a unique name is automatically generated based on the extended Web site you selected. You can use this entry or you can type another unique name.

f. Select **Configurable**, and then, in the **User name** box, type the Windows account of the farm administrator. In the **Password** box, type the password for the account.

Note:

For more information on accounts, see Plan for administrative and service accounts.

g. Click **OK**.

h. On the Application Created page that appears, select **Create a new Windows SharePoint Services site collection**.

Creating a site collection allows you to configure the top-level site for the Web application.

5. On the Create Site Collection page, do the following:

a. In the **Title and Description** section, in **Title**, type a title for the new site.

b. In **Description**, type a description of the site collection.

c. In the **Web Site Address** section, specify the URL name and path to create new sites. In the URL list, select a managed path to append to the URL under which new sites will be created.

Note:

If you would like to add new paths to the list, click the **Define Managed Paths** link and enter the information in the Add a New Path section. For more information on Managed Paths, see Determine paths for sites (*http://technet.microsoft.com/en-us/library/cc197465.aspx*).

d. In the **Primary Site Collection Administrator** section, type the user name of the site collection administrator in the corresponding field. (You can do this for the secondary site administrator as well.)

Note:

You can use the Windows SharePoint Services service account as the user name.

e. The **Quota Template** section is used to limit the amount of storage available on the site. The default template is **No Quota**. You can keep this option or choose from any additional quota templates you have created.

Note:

You can create additional quota templates and change this setting later through the SharePoint Central Administration site in the SharePoint Site Management section of Application Management.

f. In the **Template Selection** section, in the **Select a template** list, select the template you want to use when the top-level site of the site collection is created, and then click **OK**.

6. On the Top-Level Site Successfully Created page, the URL for the new, empty top-level site is displayed. Click **OK** to return to Central Administration.

Create the Web application to host the Shared Services Provider

The following procedure creates the Shared Services Provider Web application.

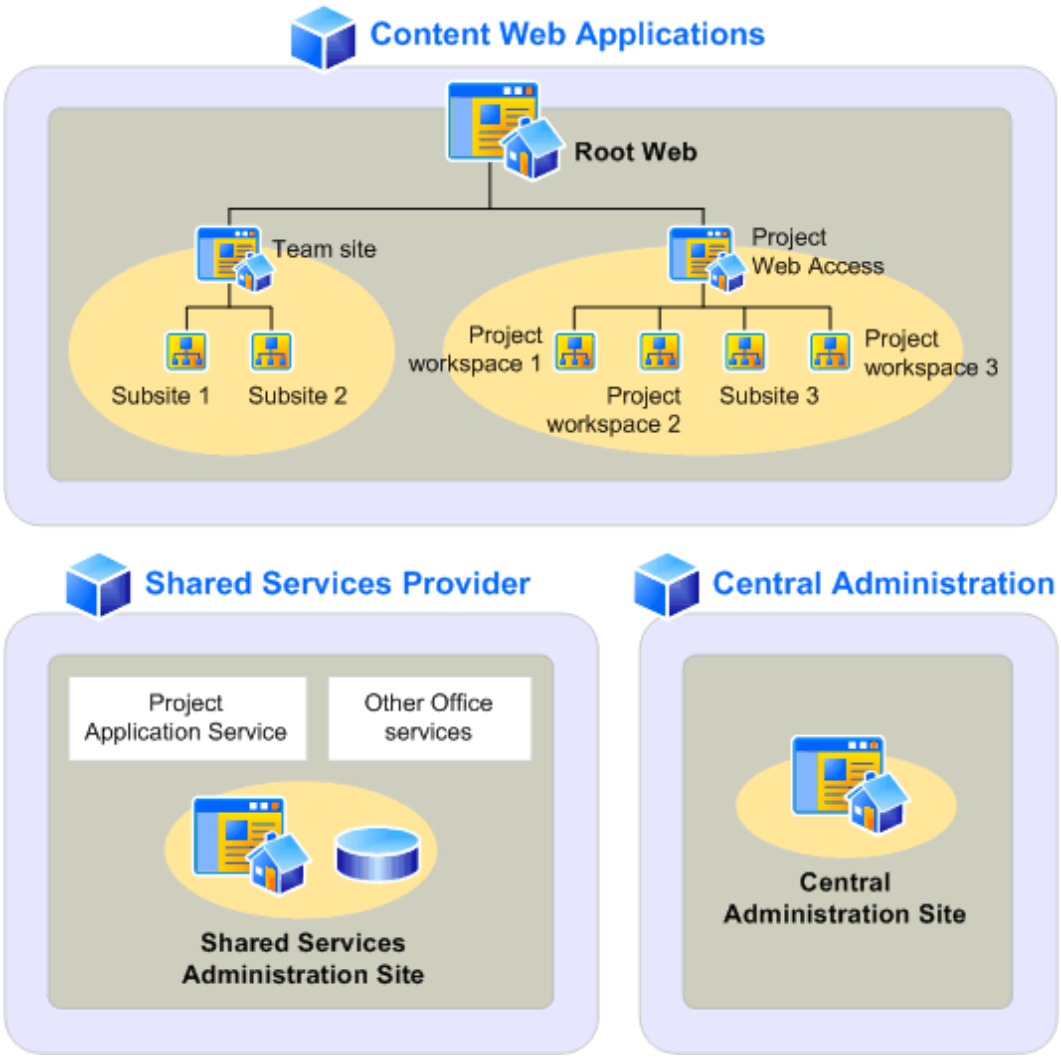
1. On the top navigation of the Central Administration page, click **Application Management**.
2. On the Application Management page, in the **SharePoint Web Application Management** section, click **Create or extend Web application**.
3. On the Create or Extend Web Application page, in the **Adding a SharePoint Web Application** section, click **Create a new Web Application**.
4. On the Create New Web Application page, do the following:
    a. In the **IIS Web Site** section, select **Create a new IIS web site**. You can either use the default name and port, or you can specify different ones. However, make sure to note the port number associated with the new site. This will enable you to choose the correct site later when you are setting up the Shared Services Provider.
    b. In the **Security Configuration** section, under **Authentication provider**, select either **Negotiate (Kerberos)** or **NTLM**, depending on your network configuration.
    c. In the **Load Balanced URL** section, you can specify the URL that will be used to access the Web application, or you can use the default entry. The URL should be in the format http://*servername*:*port*. If multiple zones have been configured on the server, you can optionally click a zone in the **Zone** list.
    d. In the **Application Pool** section, select **Create new application pool**.
    e. Select **Configurable**, and then, in the **User name** and **Password** boxes, type the user name and password of the user account that you want to act as the application pool identity for your Web application.
5. Click **OK**. After the Web site is completed, the Application Created page will appear.

Create the Shared Services Provider

Office Project Server 2007 is completely dependent upon Windows SharePoint Services 3.0 to support its user interface, farm topology, and administration features. Office Project Server 2007 shares the same administration infrastructure as Windows SharePoint Services 3.0 and other Office SharePoint Server 2007 products. One of the core features of this infrastructure is the Shared Services Provider.

A Shared Services Provider groups shared services so that they can be used to share content among users across servers in the farm, multiple server farms, Web applications and site collections.

Office Project Server 2007 middle-tier services are contained inside a Shared Services Provider, while the front-end Web sites are managed in the associated Web applications.



The following procedures allow you to create the Shared Services Provider by using the Web application you created previously to host the Shared Services Provider.

1. On the top navigation of the Central Administration page, click **Application Management**.
2. On the Application Management page, in the **Office SharePoint Server Shared Services** section, click **Create or Configure this Farm's Shared Services**.
3. On the Manage this Farm's Shared Services page, click **New SSP**.
4. On the New Shared Services Provider page, do the following:
   a. In the **SSP Name** section, in the **Web Application** list, select the Web application that you created when you created the Web application to host the Shared Services Provider.
   b. In the **SSP Service Credentials** section, type the name and password for a Windows user who is the SSP administrator.

Note:

For more information on this account, see Plan for administrative and service accounts.

c. Each Shared Services Provider requires a database to store service-specific data. In the **SSP Database** section, the database server name by default will list the one hosting the configuration database. The database name will also be automatically generated for you. You can keep the default settings, or you can change them if needed.

5. Click **OK**.

Note:

This process might take several minutes to complete.

6. After the SSP is successfully created, the Success! page is displayed. Click **OK** to go to the Manage this Farm's Shared Services page needed for the next section.

Provision the Project Server 2007 site on the farm

This final procedure allows you to create the Project Server instance on the farm. During this process, you are able to specify the Project Server Administrator account, point to the database server that will be used to host the Office Project Server 2007 databases, and name the Office Project Server 2007 databases.

1. On the Manage this Farm's Shared Services page, in the **SSP and associated Web applications** list, click the Shared Services Provider you just created.

Note:

Make sure to click the Shared Services Provider and not a Web application listed under the Shared Services Provider. You can also open the Shared Services Provider through the **Shared Services Administration** section of the Quick Launch.

2. On the home page for this core service, in the **Project Server** section, click **Project Web Access Sites**.
3. On the Manage Project Web Access page, click **Create Project Web Access Site**.
4. On the Create a New Project Web Access page, do the following:
   a. In the **Project Web Access Site Location** section, from the **SharePoint Web Application to host PWA** list, select the name of the extended Web site. Do not select the Web site being used for the Shared Services Provider.
   b. In the **Project Web Access path** box, the default name of the Project Web Access path appears. You can type a different name if you want.
   c. In the **Administrator Account** section, type the Windows user account that will be given administrative credentials to the Project Server instance.

Note:

For more information on this account, see Plan for administrative and service accounts.

d. In the Primary Database section, in the **Primary Database Server** field, enter the name of the instance of SQL Server on which the Publish, Draft, and Archive databases will be located. In the Published, Draft, and Archived database name fields, enter unique names for each Office Project Server 2007 database.

   Note:

   You can use the default database names. However, make sure they do not already exist on the SQL Server.

e. In the **Reporting Database** section, if the instance of SQL Server that hosting the Reporting database is the same as the primary database server that you specified, select **Use the primary database server**. If it exists on a different instance of SQL Server, clear this option and then type the name of the instance of SQL Server in the **Reporting database server** field. In the **Reporting database name** field, type a unique name for the Reporting database.

   Note:

   You can use the default database name. However, make sure it does not already exist on the SQL Server.

5. Click **OK**. The provisioning process starts.
6. You will return to the Manage Project Web Access page. Click the **Refresh Status** button to update the status of the provisioning process. When provisioning is complete, an entry in the **Status** column will say **Provisioned**. When that happens, you can click the URL to go to the Project Web Access site.

   Note:

   Provisioning is an asynchronous process, so it might take a few minutes before the job is complete.

Create a site collection for project workspaces

We recommend that you create a site collection for your project workspaces that is different than the site collection used by Office Project Web Access. Using a separate site collection allows for easier migration should you decide to move your Project Server installation to a different farm in the future.

The following procedure creates a new site collection on the same Web application as your Office Project Web Access instance and connects it to your PWA instance in **PWA Server Settings**:

1. In Central Administration, click **Application Management**.
2. On the Application Management page, under **SharePoint Web Application Management**, click **Define managed paths**.
3. On the Define Managed Paths page, do the following:
   a. In the **Web Application** section, select the Web application you created for PWA from the **Web Application** list.

b. In the **Add a New Path** section, type a new path (for example, **ProjectWorkspace**) in the **Path** box.

c. From the **Type** list, choose **Explicit inclusion**, and then click **OK**.

d. Click **Application Management**.

4. On the Application Management page, under **SharePoint Site Management**, click **Create site collection**.
5. On the Create Site Collection page, do the following:

a. In the **Web Application** section, in the **Web Application** dropdown list box, select the Web application that you are using for PWA.

b. In the **Title and Description** section, in the **Title** text box, type a title for the new site.

c. In the **Description** text box, type a description of the site collection.

d. In the **Web Site Address** section, select the managed path that you just created from the **URL** list.

e. In the **Primary Site Collection Administrator** section, type the user name of the site collection administrator in the corresponding field. (You can do this for the secondary site administrator as well.)

Note:

You can use the Windows SharePoint Services service account as the user name.

f. The **Quota Template** section is used to limit the amount of storage available on the site. The default template is **No Quota**. Keep this option or choose from any additional quota templates you have created.

g. Click **OK**.

6. In Internet Explorer, navigate to your Project Web Access site.
7. In the left pane, click **Server Settings**.
8. On the Server Settings page, under **Operational Policies**, click **Project Workspace Provisioning Settings**.
9. On the Project Workspace Provisioning Settings page, in the **Site URL** section, in the **Site URL** text box, type the name of the managed path you created.
10. In the **Automatic Provisioning** section, choose whether you want to automatically create a new workspace for each new project.
11. Click **Save**.

See Also

Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*)

Plan Project Server 2007 authentication method (*http://technet.microsoft.com/en-us/library/cc197633.aspx*)

Install Project Server 2007 to a stand-alone computer

Configure Office Project Server 2007 client connectivity

Deploy Office Project Server 2007 with Office SharePoint Server 2007

Walkthrough: Deploy Project Server 2007 to a server farm environment (*http://technet.microsoft.com/en-us/library/dd630722.aspx*)

III. Determine hardware and software requirements

Determine hardware and software requirements

In this article:

- About hardware and software requirements
- Stand-alone installation
- Server farm installation

This article describes the hardware and software requirements for installing Microsoft Office Project Server 2007.

About hardware and software requirements

An installation of Office Project Server 2007 can range from a single computer (stand-alone installation) to many computers (server farm). The requirements for your installation will depend on the availability and scale requirements for your solution. This article describes the minimum and recommended hardware requirements based on whether you are deploying a stand-alone installation or a server farm. This article also lists the software prerequisites for installing Office Project Server 2007.

This article does not provide guidance about choosing a farm topology or hardware based on availability requirements or performance and capacity requirements. For more information about designing your solution to address these requirements, see Plan for performance and capacity (*http://technet.microsoft.com/en-us/library/cc303416.aspx*).

The hardware and software requirements described in this article apply to both 32-bit–based and 64-bit–based systems. However, if you installed the 64-bit version of Windows Server 2008 and then modified the **Enable32bitAppOnWin64** registry key so that Internet Information Server (IIS) is running in **32-bit emulation mode**, you cannot install Office Project Server 2007. To install either 32-bit or 64-bit Office Project Server 2007 you must run IIS in 64-bit mode.

Note:

Itanium-based systems are not supported.

Using a mix of 32-bit servers and 64-bit servers in a server farm is supported. However, this scenario is not recommended because of the potential performance problems that could occur. For example:

- With a clustered front-end Web server that uses round robin, the 32-bit server will be the bottleneck.
- If a 64-bit front-end Web server is making calls to a 32-bit SQL Server database, there may be a bottleneck if SQL Server does not have adequate resources. This also applies to a 64-bit indexer that is working against a 32-bit SQL Server database.

If circumstances require a heterogeneous server architecture, we recommend that you use homogeneous (32-bit or 64-bit) servers on each application tier — for example, 32-bit servers for all the front-end Web servers.

If server farm performance in a heterogeneous environment becomes problematic, the recommended solution is to migrate all of the Office Project Server 2007 farm servers to the 64-bit architecture. We highly recommend that you have a migration plan in place to move to an entirely 64-bit environment as soon as possible. Our support and test data shows that Office Project Server 2007 and SharePoint Products and Technologies that are installed on 64-bit servers have significant gains in system throughput and performance during peak loads.

Note:

While migrating 32-bit servers to 64-bit servers, there will be times that you cannot maintain homogenous servers on each tier. However, performance problems will only occur during the migration process.

Stand-alone installation

You can install Office Project Server 2007 on a single computer by using either of the following methods:

- By selecting **Basic**.
- By selecting **Advanced**, and then selecting **Stand-alone** in Office Project Server 2007 Setup.

Hardware requirements

The following table lists the minimum and recommended hardware requirements for deploying Office Project Server 2007, including the deployment of Microsoft SQL Server 2005 Express Edition, for a stand-alone installation.

Component	Minimum	Recommended
Processor	2.5 gigahertz (GHz)	Dual processors that are each 3 GHz or faster
RAM	1 gigabyte (GB)	2 GB
Disk	NTFS file system–formatted partition with a minimum of 3 GB of free space	NTFS file system–formatted partition with 3 GB of free space plus adequate free space for your Web sites
Drive	DVD drive	DVD drive or the source copied to a local or network-accessible drive
Display	1024 × 768	1024 × 768 or higher resolution monitor

Component	Minimum	Recommended
Network	56 kilobits per second (Kbps) connection between client computers and server	56 Kbps or faster connection between client computers and server

Software requirements

Because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the requirements that apply to Windows SharePoint Services 3.0 also apply to Office Project Server 2007.

We recommend that you perform the installation on a computer that has a new installation of the Microsoft Windows Server 2003 operating system with Service Pack 1 (SP1) or later and all critical updates.

Note:

Because the Office Project Server 2007 installation and configuration wizard marshals many components, if you uninstall Office Project Server 2007, and then later install Office Project Server 2007 on the same computer, the Setup program could fail when creating the configuration database, which would cause the entire installation process to fail. You can prevent this failure by deleting the existing configuration database or by using the **psconfig** command to create a new configuration database.

Database

When you perform a Basic installation, SQL Server 2005 Express Edition is automatically installed. When you perform an Advanced installation on a stand-alone computer that already has Microsoft SQL Server installed, ensure that the computer meets the hardware and software requirements for a database server. For more information, see Database server later in this article.

Because of Windows licensing restrictions, if you are using Windows Server 2003, Web Edition in a single server environment, you can only perform a Basic installation. This is because the full SQL Server editions cannot be installed on Windows Server 2003, Web Edition. However, you can install SQL Server 2005 Express Edition or SQL Server 2000 Desktop Engine (Windows) (WMSDE).

Operating system

Office Project Server 2007 runs on Windows Server 2003 with SP1 or later. We recommend that you apply all critical updates. You can use the following Windows Server 2003 editions:

- Windows Server 2003, Standard Edition
- Windows Server 2003, Enterprise Edition
- Windows Server 2003, Datacenter Edition

- Windows Server 2003, Web Edition

Because of Windows licensing restrictions, if you are using Windows Server 2003, Web Edition in a single server environment, you can only perform a Basic installation. This is because the full SQL Server editions cannot be installed on Windows Server 2003, Web Edition. However, you can install SQL Server 2005 Express Edition or SQL Server 2000 Desktop Engine (Windows) (WMSDE).

Office Project Server 2007 administration functions require Microsoft Internet Explorer 6.0 with the most recent service packs or Internet Explorer 7.0.

Windows components

After you have installed the operating system and applied all critical updates, you must configure the computer to be a Web server by enabling Internet Information Services (IIS) 6.0, including:

- Common files
- WWW
- Simple Mail Transfer Protocol (SMTP)

You must configure the server to use **IIS 6.0 worker process isolation mode**. This is the default setting in new installations. However, if you have upgraded from IIS 5.0 on Windows Server 2000, **Run WWW in IIS 5.0 isolation mode** is enabled, and you must change this setting to use **IIS 6.0 worker process isolation mode**.

To enable e-mail notifications, you need to configure incoming and outgoing e-mail settings. To configure sending e-mail alerts and notifications, you must specify an SMTP e-mail server. To configure your installation so that your SharePoint sites can accept and archive incoming e-mail, you must install the IIS SMTP service.

Microsoft .NET Framework 3.0

Before installing Office Project Server 2007, you must install the Microsoft .NET Framework 3.0 and then ensure that ASP.NET 2.0 is enabled.

Note:

You can also use the Microsoft .NET Framework version 3.5. You can download the .NET Framework version 3.5 from the Microsoft Web site (*http://go.microsoft.com/fwlink/?LinkId=110508*).

To enable ASP.NET v2.0.50727, open the Web service extension in the IIS snap-in on the Microsoft Management Console (MMC). If ASP.NET 2.0 is installed on the computer before IIS is enabled, you must enable ASP.NET 2.0 by running the command **aspnet_regiis -i**.

Server farm installation

The primary difference between a single server and a server farm topology is that you can use one or more computers to host the following server roles:

- Application server
- Front-end Web server
- Database server

This section describes the minimum and recommended system requirements for each server role. If you install more than one role on a single computer, ensure that the computer meets the minimum requirements for all server roles.

Application server

Hardware requirements

The following table lists the minimum and recommended hardware requirements for deploying an Office Project Server 2007 application server.

Component	Minimum	Recommended
Processor	2.5 GHz	Dual processors that are each faster than 2.5 GHz
RAM	2 GB	4 GB
Disk	NTFS file system–formatted partition with a minimum of 3 GB of free space	NTFS file system–formatted partition with 3 GB of free space plus adequate free space for your data storage requirements
Drive	DVD drive	DVD drive or the source copied to a local or network-accessible drive
Display	1024 × 768	1024 × 768 or higher resolution monitor
Network	• 56 Kbps connection between client computers and server • For connections between computers in your server farm, 100 megabits per second (Mbps) connection	• 56 Kbps or faster connection between client computers and server • For connections between computers in your server farm, 1 gigabit per second (Gbps) connection

Software requirements

Because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the requirements that apply to Windows SharePoint Services 3.0 also apply to Office Project Server 2007.

We recommend that you install Office Project Server 2007 on a computer that has a new installation of Windows Server 2003 with SP1 or later and all critical updates.

Operating system

Office Project Server 2007 runs on Windows Server 2003 with SP1 or later. We recommend that you apply all critical updates. You can use the following Windows Server 2003 editions:

- Windows Server 2003, Standard Edition
- Windows Server 2003, Enterprise Edition
- Windows Server 2003, Datacenter Edition
- Windows Server 2003, Web Edition

Office Project Server 2007 administration functions require Internet Explorer 6.0 with the most recent service packs or Internet Explorer 7.0.

Windows components

After you have installed the operating system and applied all critical updates, you must configure the computer to be a Web server by enabling IIS 6.0, including:

- Common files
- WWW
- SMTP

You must configure the server to use **IIS 6.0 worker process isolation mode**. This is the default setting in new installations. However, if you have upgraded from IIS 5.0 on Windows Server 2000, **Run WWW in IIS 5.0 isolation mode** is enabled, and you must change this setting to use **IIS 6.0 worker process isolation mode**.

To enable e-mail notifications, you need to configure incoming and outgoing e-mail settings. To configure sending e-mail alerts and notifications, you must specify an SMTP e-mail server. To configure your installation so that your SharePoint sites can accept and archive incoming e-mail, you must install the IIS SMTP service.

Microsoft .NET Framework 3.0

After you have configured the server as a Web server, you must install the Microsoft .NET Framework 3.0 and then ensure that ASP.NET 2.0 is enabled.

Note:

You can also use the Microsoft .NET Framework version 3.5. You can download the .NET Framework version 3.5 from the Microsoft Web site (*http://go.microsoft.com/fwlink/?LinkId=110508*).

To enable ASP.NET v2.0.50727, open the Web service extension in the IIS snap-in on the MMC. If ASP.NET 2.0 is installed on the computer before IIS is enabled, you must enable ASP.NET 2.0 by running the command **aspnet_regiis -i**.

Front-end Web server

Hardware requirements

The following table lists the minimum and recommended hardware requirements for deploying an Office Project Server 2007 front-end Web server.

Component	Minimum	Recommended
Processor	2.5 GHz	Dual processors that are each 3 GHz or faster
RAM	2 GB	More than 2 GB
Disk	NTFS file system–formatted partition with a minimum of 3 GB of free space	NTFS file system–formatted partition with 3 GB of free space plus adequate free space for your data storage requirements
Drive	DVD drive	DVD drive or the source copied to a local or network-accessible drive
Display	1024 × 768	1024 × 768 or higher resolution monitor
Network	• 56 Kbps connection between client computers and server • For connections between computers in your server farm, 100 Mbps connection	• 56 Kbps or faster connection between client computers and server • For connections between computers in your server farm, 1 Gbps connection

Software requirements

Because a front-end Web server is a subset of an application server, all features on a front-end Web server are available on an application server. The software requirements for the front-end Web server are the same as the software requirements for the application server before you add specific resources to meet the demands that you forecast as a result of your capacity planning phase.

Database server

The computer that hosts the database server role must have SQL Server 2000 with SP3a or later or Microsoft SQL Server 2005 SP1 or later. Some advanced features require SQL Server 2005 Analysis Services SP1 or later. For information about the hardware and software required to deploy a database server, see SQL Server 2005 System Requirements (*http://go.microsoft.com/fwlink/?LinkID=75010&clcid=0x409*).

Notes

- Office Project Server 2007 supports Microsoft SQL Server 2008. However, your Office Project Server 2007 farm must have the following service packs applied to use SQL Server 2008:
- For information about applying both service packs, see Deploy Service Pack 2 for Office Project Server 2007.

Because of Windows licensing restrictions, if you are using Windows Server 2003, Web Edition in a single server environment, you can only perform a Basic installation. This is because the full SQL Server editions cannot be installed on Windows Server 2003, Web Edition. However, you can install SQL Server 2005 Express Edition or SQL Server 2000 Desktop Engine (Windows) (WMSDE).

IV. Plan browser support

Plan browser support

In this article:

- About browser support
- Browsers supported for use with Project Server 2007
- Browsers not supported for use with Project Server 2007

About browser support

Microsoft Office Project Web Access is used for online access to Microsoft Office Project Server 2007. The Web browsers used by Office Project Web Access require the download and installation of required ActiveX controls. This requirement means that only Level 1 Web Browsers are supported for use with Office Project Web Access.

As part of planning your deployment of Office Project Server 2007, we recommend that you review the browsers used in your organization to ensure optimal performance with Office Project Server 2007.

Browsers supported for use with Project Server 2007

Level 1 Web browsers take advantage of advanced features provided by ActiveX controls and provide the most complete user experience. Level 1 browsers also offer full functionality on all SharePoint sites, including the Central Administration Web site. Level 1 browsers are:

- Microsoft Internet Explorer 6.*x* (32-bit)
- Windows Internet Explorer 7.*x* (32-bit)

Note:

Level 1 browser support is only available for computers running the Windows operating system.

Browsers not supported for use with Project Server 2007

All other browsers other than Level 1 browsers are not supported for use with Office Project Server 2007. This includes all Level 2 browsers such as Firefox 1.5, Mozilla, and Netscape Navigator 8.1.

Older browsers — such as Internet Explorer 5.01, Internet Explorer 5.5*x*, Internet Explorer for Macintosh, and older versions of third-party level 2 browsers — are not supported.

Enabling ActiveX controls on the client in secure environments

Some of the features in Office Project Server 2007 use ActiveX controls on the client to provide functionality. In secured environments, these controls might not have been downloaded and the user might be prevented from downloading them because of security restrictions. You must download and enable these controls on the client for these features to work.

The ActiveX controls reside in two .cab files that are located on your Project Server site in the following folder:

C:\Program Files\Common Files\Microsoft Shared\web server extensions\12\TEMPLATE\LAYOUTS\PWA\OBJECTS\1033

The following are the two .cab files:

- Pjclient.cab
- Pjcintl.cab (in the 1033 subfolder or other language folders)

These two cab files contain the following files:

Pjcintl.cab:

- langcabENU12.inf (This file is not required to manually install controls.)
- Pj12ENUc.dll

Pjclient.cab:

- Microsoft.vc80.crt.manifest (This file is not required for the manual installation of controls.)
- Msvcr80.dll
- Pjgrid12.ocx
- Pjprint12.dll
- Pjquery12.ocx
- Pjres12c.dll
- Pjtextconv12.dll

To enable client-side controls

1. Log on to the client computer as Administrator.
2. Connect to the Project Server, and then copy the Pjclient.cab file and the Pjcintl.cab file from the following folder: C:\Program Files\Common Files\Microsoft Shared\web server extensions\12\TEMPLATE\LAYOUTS\PWA\OBJECTS\1033
3. Paste the files in a folder on the computer.
4. Double-click the Pjcintl.cab file to open it, and then click the Pj11enuc.dll file.
5. On the **File** menu, click **Extract**.
6. Expand My Computer, expand Local Disk, expand Windows, and then click **Downloaded Program Files**.
7. Click **Extract**.

8. Close the Pjcintl.cab file.
9. Double-click Pjclient.cab to open it, and then click **Select all** on the **Edit** menu.
10. On the **File** menu, click **Extract**.
11. Expand My Computer, expand Local Disk, expand Windows, and then click **Downloaded Program Files**.
12. Click **Extract**.
13. Close the Pjclient.cab file.
14. Click Start, click **Run**, type `CMD`, and then click **OK**.
15. Type `CD %COMMONPROGRAMFILES%\Downloaded Program Files`, and then press **ENTER**.
16. Type `regsvr32 pj12enuc.dll` , and then press **ENTER**.
17. Type `regsvr32 pjres12c.dll`, and then press **ENTER**.
18. Type `for %i in (pj*.dll) do regsvr32 %i`, and then press **ENTER**.
19. Confirm that registration was successful in each window that opens. Click OK to close each regsvr32 window.
20. Type for `%i in (pj*.ocx) do regsvr32 %i`, and then press **ENTER**.
21. Confirm that registration was successful in each window that opens. Click OK to close each command window.

V. Plan for administrative and service accounts

Plan for administrative and service accounts

In this article:

- About administrative and service accounts
- Standard account requirements
- Planning recommendations for accounts

Use this article to plan for the account requirements and recommendations for accounts that are required to install, configure, and use Microsoft Office Project Server 2007.

You must provide credentials for these accounts when you run Setup and during configuration. This article does not discuss accounts for which you do not need to configure or provide credentials.

About administrative and service accounts

This section lists and describes the accounts that you must plan for. The accounts are grouped according to scope. If an account has a limited scope, you might need to plan multiple accounts for this category.

For example, if you are implementing multiple Shared Services Providers (SSPs), you must designate multiple SSP accounts.

Note:

All Office Project Server 2007 and SharePoint Products and Technologies service accounts must be granted interactive logon permissions for the computer where the service is running. Such permissions are normally granted by default when a new account is set up, but you may need to make manual adjustments if your organization normally denies interactive logon permissions for service accounts. For more information about configuring interactive logon access, see Allow log on locally (*http://go.microsoft.com/fwlink/?LinkId=129546&clcid=0x409*) in the Windows Server 2003 Product Help on Microsoft TechNet.

Server farm-level accounts

The following table describes the accounts that are used to configure Microsoft SQL Server and to install Office Project Server 2007.

Account	Purpose
SQL Server service account	SQL Server prompts for this account during SQL Server Setup. This account is used as the service account for the following SQL Server services: • MSSQLSERVER • SQLSERVERAGENT If you are not using the default instance, these services will be shown as: • MSSQL$*InstanceName* • SQLAgent$*InstanceName*
Setup user account	The user account that is used to run Setup on each server
Server farm account	This account is also referred to as: • Database access account This account is: • The application pool account for the SharePoint Central Administration Web site • The process account for the Windows SharePoint Services Timer (SPAdmin) service

SSP accounts

The following table describes the accounts that are used to set up and configure an SSP.

Account	Purpose
SSP application pool security account	Security account for the application pool that the SSP resides in.
SSP service account	Used by the following: • SSP Web services for inter-server communication • SSP Timer service to run timer jobs

Windows SharePoint Services Search accounts

The following table describes the accounts that are used to set up and configure Windows SharePoint Services Search. In Office Project Server 2007, this service is referred to as the Windows SharePoint Services Help Search service because this service is used to provide search capability for Help. If you are installing Office Project Server 2007, plan for these accounts only if you plan to implement the service to search Help content.

Account	Purpose
Windows SharePoint Services Search service account	Used as the service account for the Windows SharePoint Services Search service. There is only one instance of this service in a farm.
Windows SharePoint Services Search content access account	Used by the Windows SharePoint Services Search application server role to crawl content across sites.

Content application pool accounts

The following table describes the application pool account. Plan one application pool account for each application pool you plan to implement.

Account	Purpose
Application Pool process account	Used to access content databases associated with the Web application

Standard account requirements

This section details the requirements for each of the accounts. The specific requirements for each account depend on whether you are configuring a single server environment or a server farm environment. The account requirements detail the specific permissions that you need to grant prior to running Setup. In some cases, additional permissions that are automatically granted by running Setup are noted.

At this time, this article does not include account requirements for environments that use SQL authentication.

Server farm-level accounts

The following table describes the standard account requirements for server farm-level accounts.

Account	Single server requirements	Server farm requirements
SQL Server service account	Local system account (default)	• Database system administrator
Setup user account	Member of the Administrators group on the local computer	• Domain user account • Member of the Administrators group on each server on which Setup is run

Server farm account	Network Service (default)
	No manual configuration is necessary.
		• Domain user account
		• Additional permissions are automatically granted for this account when Office Project Server 2007 is installed and when additional computers are added to the farm, including additional permissions on front-end Web servers and application servers.
		• This account is automatically added to the following SQL Server security roles:
		  • Logins
		  • Dbcreator
		  • Securityadmin
		  • Database owner (db_owner) for all databases

SSP accounts

The following table describes the standard account requirements for SSP accounts.

Account	Single server requirements	Server farm requirements
SSP application pool account	No manual configuration is necessary.	The following permissions are automatically granted for this account when Office Project Server 2007 is installed: • Database owner for the SSP content database • Read/write to the SSP content database • Read/write to content databases for Web applications that are associated with the SSP • Read from the configuration database • Read from the Central Administration content database • Additional permissions on front-end Web servers and application servers
SSP service account	No manual configuration is necessary.	The same permissions as the SSP application pool account are automatically granted.

Windows SharePoint Services Search accounts

The following table describes the standard account requirements for Windows SharePoint Services Search accounts.

Account	Single server requirements	Server farm requirements
Windows SharePoint Services Search service account	By default, this account runs as the local service account. If you want to crawl remote content by using crawl rules, change this to a domain account. If you do not change this account to a domain account, you cannot change the default content access account to a domain account. This behavior is designed to prevent elevation of privilege for any other process running as the local service account.	• Must be a domain account • Must not be a member of the Farm Administrators group Permissions are automatically granted for this account when Office Project Server 2007 is installed: • Read/write to content databases for Web applications • Read from the configuration database • Read/write to the Windows SharePoint Services Search database
Windows SharePoint Services Search Content access account	Must not be a member of the Farm Administrators group Read access to Web applications	• Same requirements as the Windows SharePoint Services Search service account • Read access to Web applications Permissions are automatically granted for this account when Office Project Server 2007 is installed: • Added to the Web application Full Read policy for your farm

Application pool accounts

The following table describes the standard account requirements for application pool accounts.

Account	Single server requirements	Server farm requirements
Application pool process account	No manual configuration is necessary.	The following SQL Server roles and permissions are automatically assigned to this account: • Database owner role for content databases associated with the Web application • Read/write access to the associated SSP database • Read from the configuration database Additional permissions for this account on front-end Web servers and application servers are automatically granted by Office Project Server 2007.

Planning recommendations for accounts

This section describes planning recommendations for implementing accounts in the following two deployment scenarios:

- Secure farm environment
- Single-server environment

These recommendations are practical for most environments.

Secure farm environment

These planning recommendations are for individual accounts in a secure farm environment.

Server farm-level accounts

The following table describes the planning recommendations for server farm-level accounts in a secure farm environment.

Account	Recommendation
SQL Server service account	A domain account is recommended over a SQL Server account or a local account. No special domain permissions are required. Do not use the server farm account for this account.
Setup user account	A domain account is recommended. For a workgroup environment, this can be a local Windows account. **Note:** Using a local Windows account is only valid in a single-server environment.
Server farm account	A domain account is recommended.

SSP accounts

The following table describes the planning recommendations for SSP accounts in a secure farm environment.

Account	Recommendation
SSP Application Pool account	A domain account is recommended. Use a domain account that is unique (different from the farm or content application pool accounts).
SSP service account	Use the SSP application pool account.

Windows SharePoint Services Search accounts

The following table describes the planning recommendations for Windows SharePoint Services Search accounts in a secure farm environment.

Account	Recommendation
Windows SharePoint Services Search service account	The local service account is used by default. After completing Setup, change this account to a domain account.
Windows SharePoint Services Search content access account	The local service account is used by default. After completing Setup, change this account to a domain account. You can use the same account used by the Windows SharePoint Services Search service. However, if you implement multiple search servers for isolation, use a separate account. It is recommended that you select a unique user account that cannot modify content and is not a member of the Administrators group on your front-end Web servers or on your database servers.

Application pool accounts

The following table describes the planning recommendations for application pool accounts in a secure farm environment.

Account	Recommendation
Application pool process account	Plan a unique domain account for each application pool. We recommend that you select a unique user account that does not have administrative rights on any server or resource in the server farm.

Single-server environment

The following table describes the planning recommendations for several different single-server environments. These are environments where a single server hosts all server roles.

Scenario	Recommendation
Microsoft SQL Server 2005 Express Edition	Use the standard administrator account to run Setup. Use the default accounts assigned by Setup. Assign to the Network Service account the necessary permissions to SQL Server.
SQL Server in a domain environment	Use the recommendations provided for a secure farm environment.
SQL Server in a workgroup environment	Use the recommendations provided for a secure farm environment, except use Windows accounts instead of domain accounts.

VI. Configure Office Project Server 2007 client connectivity

Configure Office Project Server 2007 client connectivity

This article describes how to configure client connectivity with Microsoft Office Project Professional 2007 and Microsoft Office Project Web Access after installing Microsoft Office Project Server 2007.

Configuring Office Project Professional 2007 to connect to Project Server 2007

After Office Project Server 2007 is installed, you can configure Office Project Professional 2007 to connect to your instance of Office Project Server 2007. By default, Office Project Server 2007 uses Windows authentication, which means that when you initially connect with Office Project Professional 2007 or Office Project Web Access, you will be using a Windows account. When you make the initial connection to Office Project Server 2007, you must be logged on as the Windows user who installed Office Project Server 2007. Use this account to create other user accounts that can access Office Project Server 2007.

Important:

Previous versions of Project Professional cannot connect to Office Project Server 2007. You must use Office Project Professional 2007 if you want to connect to Office Project Server 2007.

After installing Office Project Professional 2007, you must create an account profile by which Office Project Professional 2007 can connect to Office Project Server 2007.

Configure an account profile to connect to Project Server 2007

1. Open Office Project Professional 2007. On the **Tools** menu, point to **Enterprise Options**, and then click **Microsoft Office Project Server accounts**.
2. In the **Project Server Accounts** window, click **Add**.
3. In the **Account Properties** window, do the following:
   a. In the **Account Name** box, type a unique name for this account.
   b. In the **Project Server URL** box, type the URL to connect to this instance of Office Project Server 2007.
4. In the **When Connecting** section, select one of the following:
   - **Use Windows user account** This allows you to connect to Project Server by using the credentials of the Windows user that is currently logged on to the computer. This is the default setting.

     You can also specify another user's Windows credentials to connect to Office Project Server 2007. Doing so allows you to log on to the computer as one user, but log on

to Office Project Server 2007 as another user.

- **Use a Forms authenticated account** If you select this option, you must type the user name for this account in the **User name** box and then supply the password when you attempt to make the connection.

  Note:

  Forms authentication is a new authentication method used in Office Project Server 2007. Project Server authenticated accounts were used in Project Server 2003, but are no longer used in Office Project Server 2007. For more information on Project Server 2007 authentication methods, see Plan Project Server 2007 authentication method.

If you want Office Project Professional 2007 to use this profile as the default profile when connecting to Project Server, select **Set as default account**.

5. Click **OK**.
6. The account appears in the **Project Server Accounts** window.
7. In the **Project Server Accounts** window, you can configure your preference on how you connect to Office Project Server 2007 in the **When Starting** section:
   - Select **Automatically detect connection state** if you want Project to automatically detect and make a connection to the specified default server. If a default server is not specified, then Project will open offline with no server connections.
   - Select **Manually control connection state** if you prefer to select a server to connect to each time that you open Project. Use this option if you have multiple servers you frequently access, or if you sometimes prefer to use Project offline.
8. Click **OK**.

Connecting to Office Project Server 2007 by using Office Project Web Access

To initially connect to Office Project Server 2007 with Office Project Web Access, type the Project Server URL into a Web browser. Verify that you are logged on to the computer with the Windows user account that was used to install Office Project Server 2007, because by default Office Project Web Access uses Windows authentication. After logging on to Office Project Web Access, you can create additional accounts to access the server.

VII. Deploy language packs

Deploy language packs

In this article:

- Planning a multi-language environment
- User interface elements unchanged by language packs
- Preparing your servers for language packs
- Installing language packs on your front-end Web servers and application servers
- Viewing Project Web Access in other languages
- Uninstall language packs

Language packs enable you to provide Project Server sites and site collections in multiple languages without requiring separate installations of Microsoft Office Project Server 2007. To add language support after you install Office Project Server 2007, you can install the language pack for the language that you want to add. Although Project Server must be installed with a primary language (for example, English or Japanese), language packs enable users of Microsoft Office Project Web Access to interact with Office Project Server 2007 in any of the supported languages. The same languages are also available to users of Microsoft Office Project Professional 2007.

You install language packs to all front-end Web servers and application servers in your farm. In Office Project Web Access, a user can select a language in Internet Explorer to display. If the Office Project Server 2007 language pack for that language is installed, the Project Web Access pages will appear in the selected language.

Note:

Project Server and Windows SharePoint Services differ in how they take advantage of language packs. While Project Server uses language settings selected by the user in Internet Explorer, Windows SharePoint Services language-pack installations contain language-specific site templates. An administrator must create a site or a site collection based on a template. The text that appears on the site or the site collection is shown in the site template's language.

Planning a multi-language environment

With some planning, your organization can install, customize, and maintain a single deployment of Office Project Server 2007 in a multi-language environment. Language packs enable users in foreign locales to continue working in their own languages. Alternatively, you can deploy a localized version of Office Project Server 2007 for each language-speaking area. You might install a Project Server language pack instead of a unique, localized version of Office Project Server 2007 in the following scenarios:

- To simulate a localized version of Office Project Server 2007 for a small group of users who do not actually need a localized version of Office Project Server 2007.

- To make different language options available on the same computer for users who need to change languages while using Office Project Server 2007.

Language packs for Office Project Server 2007 are not bundled into multilingual installation packages. You must install a specific language pack for each language that you want to support.

The following table lists the language packs that are planned to be available for Office Project Server 2007.

Language	Language-country/region code
Japanese	ja-jp
Korean	ko-kr
Chinese (Taiwan)	zh-tw
Chinese (China)	zh-cn
Arabic	ar-sa
German	de-de
French	fr-fr
Spanish	es-es
Hebrew	he-il
Swedish	sv-se
Italian	it-it
Dutch	nl-nl
Brazilian	pt-br
Polish	pl-pl
Finnish	fi-fi
Danish	da-dk
Russian	ru-ru
Norwegian	nb-no
Czech	cs-cz
Turkish	tr-tr
Portuguese	pt-br
Hungarian	hu-hu
Greek	el-gr

Note:

This list will be updated with additional language packs as they become available.

User interface elements unchanged by language packs

Text in some user interface elements does not change from the Office Project Server 2007 primary language. Even when language packs are applied and users view these elements through Project Web Access with the appropriate Internet Explorer language settings, the text for these elements remains in the base language. These elements include:

- Default groups (for example, Administrator, project manager, team member)
- View names
- Enterprise custom field names
- The **Home** button
- Web part titles
- Some pages under **Site Settings** (in the **Site Actions** menu)
- Custom links
- Windows SharePoint Services content (lists) in Project Web Access

Preparing your servers for language packs

Before you install language packs on your front-end Web servers, you must do the following:

- Install the necessary language files on your front-end Web and application servers.
- Install Office Project Server 2007 on each of your front-end Web and application servers.
- Run the SharePoint Products and Technologies Configuration Wizard on each of your front-end Web and application servers.

Language files are used by the operating system and provide support for displaying and entering text in multiple languages. Language files include:

- Keyboard files
- Input Method Editors (IMEs)
- TrueType font files
- Bitmap font files
- Code page conversion tables
- National Language Support (.nls) files
- Script engines for rendering complex scripts

Most language files are installed by default on the Microsoft Windows Server 2003 operating system. However, you must install supplemental language files for East Asian languages and languages that use complex script or require right-to-left orientations. The East Asian languages include Chinese, Japanese, and Korean; the complex script and right-to-left oriented languages

include Arabic, Armenian, Georgian, Hebrew, the Indic languages, Thai, and Vietnamese. Instructions for installing these supplemental language files are provided in the following procedure.

We recommend that you install these language files only if you need them. The East Asian files require about 230 megabytes of hard disk space. The complex script and right-to-left languages do not use much disk space, but installing either set of files might reduce performance when entering text.

Note:

You must be a member of the Administrators group on the computer to install these language files. After the language files are installed, the languages are available to all users of the computer.

Note:

You will need your Windows Server 2003 product disc to perform this procedure, or you will need to know the location of a shared folder that contains your operating system installation files.

Note:

You must restart your computer after you install supplemental language files.

Install additional language files

1. On your server, click **Start**, point to **Settings** and then **Control Panel**, and then click **Regional and Language Options**.
2. In the **Regional and Language Options** dialog box, on the **Languages** tab, in the **Supplemental Language Support** section, select one or both of the following checkboxes:
   - **Install files for complex script and right-to-left languages**
   - **Install files for East Asian languages**
3. Click **OK** in the dialog box that alerts you that additional disk space is required for the files.
4. Click **OK** to install the additional language files.
5. When prompted, insert your Windows Server 2003 product disc or provide the location of your Windows Server 2003 installation files.
6. When prompted to restart your computer, click **Yes**.

After you install the necessary language files on your servers, you need to install Office Project Server 2007 and run the SharePoint Products and Technologies Configuration Wizard. The wizard creates and configures the configuration database and performs other configuration tasks that must be done before you install language packs. For more information about installing Office Project Server 2007 and running the SharePoint Products and Technologies Configuration Wizard, see Deploy Project Server 2007 to a server farm environment and Install Project Server 2007 to a stand-alone computer.

Installing language packs on your front-end Web and application servers

After you install the necessary language files on your front-end and application servers in your farm, you can install your language packs. Language packs are available as individual downloads (one download for each supported language). If you have a server farm environment, and you are installing language packs to support multiple languages, you must install the language packs on each of your Web front-end and application servers.

Important:

The language pack installs in its native language, for example the Russian language pack executable file is localized into Russian. The procedure provided below is for the English language pack.

Install a language pack

1. Run setup.exe.
2. On the Read the Microsoft Software License Terms page, review the terms, select the **I accept the terms of this agreement** check box, and then click **Continue**.
3. On the Installation Types page, click **Basic**.
4. The setup wizard runs and installs the language pack.
5. Rerun the SharePoint Products and Technologies Configuration Wizard, using the default settings. If you do not run the SharePoint Products and Technologies Configuration Wizard after you install a language pack, the language pack will not be installed properly.

Rerun the SharePoint Products and Technologies Configuration Wizard

1. Click **Start**, point to **All Programs**, point to **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.
2. On the Welcome to SharePoint Products and Technologies page, click **Next**.
3. Click **Yes** in the dialog box that alerts you that some services might need to be restarted during configuration.
4. On the Modify server farm settings page, click **Do not disconnect from this server farm**, and then click **Next**.
5. If the Modify SharePoint Central Administration Web Administration Settings page appears, do not modify any of the default settings, and then click **Next**.
6. On the Completing the SharePoint Products and Technologies Configuration Wizard page, click **Next**.
7. On the Configuration Successful page, click **Finish**.

After rerunning the SharePoint Products and Technologies Configuration Wizard on all servers in your farm, you need to start the Windows SharePoint Services Timer service on each server.

Note:

This service is not listed in the SharePoint Central Administration Web site's Services on Server page.

Start the Windows SharePoint Service Timer service

1. Click **Start**, point to **All Programs**, point to **Administrative Tools**, and then click **Services**.
2. On the Services page, in the Name list find **Windows SharePoint Services Timer**.
3. If the status of this service is stopped, right-click the service name and click **Start**.
4. If the status of this service is started, right-click the service name and click **Stop**. Once the service is stopped, right-click the service name to restart it.

After starting the SharePoint Timer Service on all servers, you need to reset Internet Information Services on each server. When IIS is reset, the SharePoint Timer service will start the provisioning job required to apply the language pack to the databases for each Project Web Access instance.

Important:

During this time, Project Web Access may not be accessible until this process completes.

Reset Internet Information Services

1. Click **Start**, point to **All Programs**, point to **Accessories**, and then click **Command Prompt**.
2. In the Command Prompt window, type **iisreset/noforce**, and hit the enter button.

Viewing Project Web Access in other languages

Office Project Server 2007 supports the use of multiple languages as long as the appropriate language pack is installed on the servers in the farm. Users of Project Web Access can then change the language that is displayed in the user interface from the primary language for Office Project Server 2007 to any language that is added by means of a language pack. Users can configure support for a language pack in Internet Explorer as follows:

Configure support for a language in Internet Explorer

1. Start Internet Explorer.
2. On the **Tools** menu, click **Internet Options**.
3. On the **General** tab, click **Languages**.
4. In the **Language Preference** dialog box, click **Add** to open the **Add Languages** dialog box.
5. In the **Add Languages** dialog box, choose the language for which you want to add support.

6. Click **OK** to close the **Add Languages** dialog box.
7. In the **Language Preferences** dialog box, move the language you selected to the top of the list.
8. Click **OK** to close the **Language Preferences** dialog box.
9. Click **OK** to close the **Internet Options** dialog box.
10. Restart Internet Explorer.

Uninstalling language packs

If you no longer need to support a language for which you have installed a language pack, you can remove the language pack by using Add/Remove Programs in Control Panel. After removing the language pack, you will need to rerun the SharePoint Products and Technologies Configuration Wizard on the server. Both must be done on each server in the farm.

Note:

You cannot remove the language pack for the version of Office Project Server 2007 that you have installed on your server. For example, if you are running the Japanese version of Office Project Server 2007, you cannot uninstall the Japanese language support for Office Project Server 2007.

VIII. Install Project Server 2007 in Windows Server 2008 (single-server installation)

Install Project Server 2007 in Windows Server 2008 (single-server installation)

This article discusses the requirements and steps for installing Microsoft Office Project Server 2007 in a stand-alone Windows Server 2008 environment. It covers a new installation of Project Server 2007 on the Windows Server 2008 operating system and does not cover upgrading from Windows Server 2003.

Overview of setting up Project Server 2007 on Windows Server 2008

Project Server 2007, Windows SharePoint Services 3.0, and Office SharePoint Server 2007 RTM versions are not supported on Windows Server 2008. Installing updated versions of Project Server 2007, Windows SharePoint Services 3.0, and Office SharePoint Server 2007 is required for installation on Windows Server 2008. Installing Project Server 2007 RTM without updates causes a program compatibility issue with Office SharePoint Server 2007.

Important:

Updated versions of Project Server 2007, Windows SharePoint Services 3.0, and Office SharePoint Server 2007 include Service Pack 1, Infrastructure Updates, Cumulative Updates, and Service Pack 2.

System requirements

Before installing Office Project Server 2007 on Windows Server 2008, verify that the computer meets the hardware and software requirements listed in this section.

Hardware requirements

Component	Minimum	Recommended
Processor	2.5 gigahertz (GHz) **Note:** An Intel Itanium 2 processor is required for Windows Server 2008 for Itanium-Based Systems	Dual processors that are each 3 GHz or faster
RAM	1 gigabyte (GB)	2 GB

Component	Minimum	Recommended
Disk	NTFS file system–formatted partition with a minimum of 3 GB of free space	NTFS file system–formatted partition with 3 GB of free space plus adequate free space for your Web sites
Drive	DVD-ROM drive	DVD drive or the source copied to a local or network-accessible drive
Display	1024 × 768	1024 × 768 or higher resolution monitor
Network	56 kilobits per second (Kbps) connection between client computers and server	56 Kbps or faster connection between client computers and server

Software requirements

Office Project Server 2007 has the following software requirements. Because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the requirements that apply to Windows SharePoint Services 3.0 also apply to Office Project Server 2007.

Operating system

We highly recommend that you apply all critical updates. You can use the following editions of Windows Server 2008:

- The Windows Server 2008 Standard operating system
- The Windows Server 2008 Enterprise operating system
- The Windows Server 2008 Datacenter operating system
- The Windows Web Server 2008 operating system
- The Windows Server 2008 for Itanium-Based Systems operating system
- The 64-bit edition of the Windows Server 2008 Standard operating system without Hyper-V
- The 64-bit edition of the Windows Server 2008 Enterprise operating system without Hyper-V
- The 64-bit edition of the Windows Server 2008 Datacenter operating system without Hyper-V

Web browser

Internet Explorer 7.0 with the most recent service packs.

Windows SharePoint Services 3.0 or Office SharePoint Server with recent updates

Windows Server 2008 requires an updated version of Office SharePoint Server 2007 and Windows SharePoint Services 3.0.

Application Server role

The Application Server role must be installed on the computer.

Internet Information Services 7.0

The Web Server (IIS) role must be installed on the computer with the Application Server Foundation and Web Server (IIS) Support role services.

Microsoft .NET Framework 3.0

Installing the Application Server role installs the Microsoft .NET Framework 3.0 by default on Windows Server 2008.

Add server roles

1. Navigate to the **Server Manager** in Windows Server 2008, and then click **Roles**.
2. Click **Add Roles** and select the **Application Server** and **Web Server (IIS)** roles.
3. When prompted in the **Add Roles Wizard** to **Add features required for Application Server**, click **Add Required Features**, and then click **Next** to continue in the **Add Roles Wizard** dialog box.
4. In the **Add Roles Wizard – Select Role Services** dialog box, select **Web Server (IIS) Support**, and verify that the **Application Server Foundation** box is selected.
5. Click **Next** to begin the installation process.

Install Project Server 2007 on Windows Server 2008

1. Navigate to the local setup directory and run setup.exe.
2. In the **Enter Product Key** page, type the 25-character product key, and then click **continue**.
3. On the Installation Types page, click **Basic** to start the installation.
4. On the page that appears when the installation is complete, select **Run the SharePoint Products and Technologies Configuration Wizard now** and then click **Close**. You must run the SharePoint Products and Technologies Wizard to automatically complete the required provisioning steps.
5. On the Welcome to SharePoint Products and Technologies page, click **Next**.
6. A confirmation dialog box appears stating that the following services must be restarted or reset during the configuration:
   - Internet Information Services

- SharePoint Administration Service
- SharePoint Timer Service

7. Click **Yes** to continue. A progress indicator appears.
8. When configuration is complete, the Configuration Successful page will appear. Click **Finish**.
9. The Manage Project Web Access page appears and will list the Project Web Access instance that is being provisioned. Click the **Refresh Status** button from time to time to check whether the Project Web Access instance has been provisioned. When it has been provisioned, click the URL to go to the Project Web Access home page.

See Also

Deploy a simple farm on the Windows Server 2008 operating system (*http://technet.microsoft.com/en-us/library/cc287748.aspx*)

Create an installation source that includes software updates (*http://technet.microsoft.com/en-us/library/cc287882.aspx*)

IX. Deploy Office Project Server 2007 with Office SharePoint Server 2007

Deploy Office Project Server 2007 with Office SharePoint Server 2007

In this article:

- Why deploy Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007
- Deployment scenarios

This article describes how to install Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007.

Important:

Before installing Office Project Server 2007 or Office SharePoint Server 2007, it is very important to thoroughly plan for the deployment. For information on planning for Office Project Server 2007, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*). For information on planning for Office SharePoint Server 2007, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx).*

Why deploy Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007

A major benefit of integrating Office Project Server 2007 with Office SharePoint Server 2007 is the other capabilities offered by Office SharePoint Server 2007, such as:

- Workflow functionality. If you plan on using the automated proposals feature in Office Project Server 2007, you need the workflow functionality provided through Office SharePoint Server 2007. For more information about project proposals and other Office Project Server 2007 features, see What's new in Office Project 2007 (*http://technet.microsoft.com/en-us/library/cc197654.aspx*). For more information about workflow functionality in Office SharePoint Server 2007, see What are workflows? (*http://technet.microsoft.com/en-us/library/cc263148.aspx*) and Understanding Workflow (*http://technet.microsoft.com/en-us/library/cc263374.aspx*).
- Rich business intelligence and dashboard capabilities in the Project Server Report Center when used with Excel Services. For more information, see Plan for business intelligence (*http://technet.microsoft.com/en-us/library/cc262935.aspx*).
- Easier Windows SharePoint Services workspace administration with the features in the document management system. For more information, see Plan document management (*http://technet.microsoft.com/en-us/library/cc263266.aspx*).
- Richer search capabilities. For more information, see Plan search (*http://technet.microsoft.com/en-us/library/cc263400.aspx*).

Deployment scenarios

There are three different deployment scenarios when integrating Office Project Server 2007 with Office SharePoint Server 2007:

- You have an existing Office SharePoint Server 2007 deployment and would like to integrate Office Project Server 2007.
- You have an existing Office Project Server 2007 deployment and would like to integrate Office SharePoint Server 2007.
- You currently have neither Office Project Server 2007 or Office SharePoint Server 2007 installed, and want to install and integrate them both.
- These three scenarios are covered in detail in the following articles:
- Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007
- Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007
- Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Merging an existing Office SharePoint Server 2007 farm with an existing Project Server 2007 farm

We do not support using Inter-Farm Shared Services to merge an existing Office SharePoint Server 2007 farm with an existing Office Project Server 2007 farm while retaining the deployments on the same hardware configuration. This is due to functionality, performance, and security issues that can occur when Office Project Server 2007 is deployed in this manner.

As an alternative, you should use the following general steps to merge the two farms:

Important:

You must follow the steps in the order provided.

1. Install Office Project Server 2007 on the Office SharePoint Server 2007 farm. For more information, see Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007.
2. Migrate Office Project Server 2007 sites and workspaces from the Office Project Server 2007 farm to the Office SharePoint Server 2007 farm (on which you just installed Project Server 2007). For information on migrating Office Project Server 2007 data, see Back up and restore the Project Server 2007 farm (*http://technet.microsoft.com/en-us/library/dd207295.aspx*).
3. Disconnect the Office Project Server 2007 farm from its Configuration database. You can do this by rerunning the SharePoint Products and Technologies Configuration Wizard on all servers in the farm and selecting the option to disconnect from the farm.
4. Install Office SharePoint Server 2007 on the computers on which you disconnected Office Project Server 2007 from the Configuration database. When running post-setup configuration, connect to the Configuration database being used on the farm in step 1. For more information about installing Office SharePoint Server 2007 on a Office Project Server 2007 farm, see Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007.

The final results will be a single farm with Office SharePoint Server 2007 and Office Project Server 2007, spanning servers from both farms.

See Also

Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007

Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Upgrading Windows SharePoint Services to Office SharePoint Server 2007
(*http://technet.microsoft.com/en-us/library/dd630738.aspx*)

Whitepaper: EPM and Office SharePoint Server 2007 Coexistence: Intranet Scenario
(*http://technet.microsoft.com/en-us/library/dd835339.aspx*)

Deploy Project Server 2007 to a server farm environment

Deploy Office SharePoint Server 2007 in a server farm environment
(*http://technet.microsoft.com/en-us/library/cc303428.aspx*)

Configure Excel Calculation Services with Project Server 2007

Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007

This article describes how to deploy Microsoft Office Project Server 2007 to an existing deployment of Microsoft Office SharePoint Server 2007.

This is one of three deployment scenario in deploying Office SharePoint Server 2007 with Office Project Server 2007. The other two scenarios are:

- Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007
- Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

For additional information about deploying Office SharePoint Server 2007 with Office Project Server 2007, see Deploy Office Project Server 2007 with Office SharePoint Server 2007.

Important:

Before installing Office Project Server 2007 or Office SharePoint Server 2007, it is very important to thoroughly plan for the deployment. For information on planning for Office Project Server 2007, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*). For information on planning for Office SharePoint Server 2007, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*.

Deployment overview

This scenario is typically used in an environment in which an Office SharePoint Server 2007 farm is deployed, its services are in use, and your organization wants to integrate Office Project Server 2007 functionality. For more information about features and functionality available through Office Project Server 2007 and the Project 2007 family of products, see What's new in Office Project 2007 (*http://technet.microsoft.com/en-us/library/cc197654.aspx*).

When deploying Office Project Server 2007 to an existing Office SharePoint Server 2007 farm, you must do the following general steps:

1. Install Office Project Server 2007 to all front-end Web and application servers in the farm.
2. Enable the Project Application service on any application servers on which you intend to run Office Project Server 2007.
3. Provision the Office Project Server 2007 site on the farm.

Quiescing the farm

Prior to deploying Office Project Server 2007 with Office SharePoint Server 2007, it is important to plan when to quiesce the farm (gradually take the farm offline). The farm needs to be offline when installing binary files to a server on the farm so that it receives no incoming requests. This

enables the farm to be in a consistent state after the binary files are installed to servers in the farm and the farm is brought back online.

The process of quiescing the farm can be performed through the SharePoint Central Administration Web site.

Note:

You can run the SharePoint Products and Technologies Configuration Wizard on each server after resetting the farm.

Install Project Server 2007 on all Office SharePoint Server 2007 front-end Web and application servers

On all of the Office SharePoint Server 2007 front-end Web and application servers, you need to install the Office Project Server 2007 binary files required for Office Project Server 2007 and then run the SharePoint Products and Technologies Configuration Wizard.

Note:

For detailed information about installing Office Project Server 2007, see Deploy Project Server 2007 to a server farm environment.

Install the Office Project Server 2007 binary files

Important:

Installing the Office Project Server 2007 binary files and running the SharePoint Products and Technologies Configuration wizard are required steps required on all servers in the Office SharePoint Server 2007 farm. Afterwards you can turn on the services you want to run on each server through Central Administration.

When you are installing the Office Project Server 2007 binary files to a server in an existing Office SharePoint Server 2007 farm, the installation will automatically detect the Office SharePoint Server 2007 server type installed to the computer and will then install the appropriate Office Project Server 2007 server type. For example, if a server is installed as an Office SharePoint Server 2007 application server, the Office Project Server 2007 installation will detect the server type and install the Office Project Server 2007 application server binary files. This feature makes the process of installing the Office Project Server 2007 binary files identical on different server types.

Important:

Installing Office Project Server 2007 binary files to an Office SharePoint Server 2007 application server does not make the server a Project Server application server. The Project Application service needs to be started on any application servers that you want to serve as Project Server application servers.

To install Office Project Server 2007 to a server in an Office SharePoint Server 2007 farm, do the following:

Install Project Server 2007 binary files to a server in an Office SharePoint Server 2007 farm

1. Navigate to the installation location for Office Project Server 2007, and then double-click the Setup.exe file to begin the setup process.
2. On the Enter Product Key page, type the 25-character product key, and then click **Continue**.
3. On the End User License Agreement page, view the terms of the agreement. Select **I accept the terms of the agreement**, and then click **Continue**.
4. When installation of the binary files is completed, the Setup Complete page is displayed and prompts you to complete the configuration of your server. Verify that **Run the SharePoint Products and Technologies Configuration Wizard now** is selected, and then click **Close**.

   Note:

   If you choose to run the SharePoint Products and Technologies Configuration Wizard at a later time, click to clear the check box, and then click **Close**. To start the SharePoint Products and Technologies Configuration Wizard later, click **Start**, click **All Programs**, click **Microsoft Office Server**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Run the SharePoint Products and Technologies Configuration Wizard

After installing the Project Server binary files on a server in the farm, you need to run the SharePoint Products and Technologies Configuration Wizard.

The optimal time to run the wizard is right after installing the binary files to the server. This needs to occur on each server in the farm. It is also important not to concurrently run operations on a server in the farm while running the wizard on another server in the farm.

To run the wizard, perform the following steps on the server after installing the binary files:

Run the SharePoint Products and Technologies Configuration Wizard

1. After you start the SharePoint Products and Technologies Configuration Wizard, the Welcome to SharePoint Products and Technologies page appears, stating that the wizard will upgrade SharePoint Products and Technologies. Click **Next**.
2. Click **Yes** to the message alerting you that specified services might need to be restarted or reset during the installation. These services will include:
   - Internet Information Services
   - Windows SharePoint Services Administration Service

- Windows SharePoint Services Timer Service

3. In the Completing the SharePoint Products and Technologies Configuration Wizard page, the configuration will point to the existing configuration settings for the Office Project Server 2007 farm. Click **Next** to start the configuration process.
4. When configuration is finished, the Configuration Successful page displays the configuration settings. Click **Finish**. This automatically opens Central Administration.

Configure the farm services for Project Server application servers

On each application server on which you want the Project Server application server to run, you must enable the Project Application service by using Central Administration.

As noted previously, the Office Project Server 2007 binary files need to be installed on all front-end Web and application servers in the farm. However, the Project Application service only needs to be started on servers that you want to be Project Server application servers.

Start the Project Application service

1. From the top navigation on the Central Administration Web site, click **Operations**.
2. On the Operations page, in the **Topology and Services** section, select **Servers in farm**.
3. On the Servers in Farm page, in the **Server** list, click the server on which you want to start the Project Application service.
4. On the Services on Server page for this computer, in the **Service** list, find **Project Application Service**. In the same row under the **Action** column, click **Start**.

   Note:

   To see a complete list of all the services on the computer, in the **Select server role to display services you will need to start in the table below** section, select **Custom**.
5. In the Service list, find **Project Application Service**. In the same row under the **Action** column, click **Start**.

   To see whether the status has changed, you might need to refresh the page.
6. The status for the Project Application service will appear as **Started.**

Provision the Project Server 2007 site on the farm

This final procedure allows you to create the Office Project Server 2007 instance on the farm, which is done through Central Administration. During this process, you specify the Project Server administrator account, point to the database server that will host the Office Project Server 2007 databases, and name the Office Project Server 2007 databases.

Provision the Project Server 2007 site on the farm

1. From the top navigation on Central Administration, click **Application Management**.
2. On the Application Management page, in the **Office SharePoint Server Shared Services** section, select **Create or configure this farm's shared services**.
3. On the Manage this Farm's Shared Services page, in the **SSP Name** list, select the Shared Services Provider in which you would like to provision Project Web Access.
4. On the home page for this core service, in the **Project Server** section, click **Project Web Access Sites**.
5. On the Manage Project Web Access page, click **Create Project Web Access Site**.
6. On the Create a New Project Web Access page, do the following:
   a. In the **Project Web Access Site Location** section, from the **SharePoint Web Application to host Project Web Access** list, select the name of the extended Web site you created to host the SharePoint site.
   b. In the **Project Web Access path** box, type the name you will use to specify the URL to the Project Web Access home page. (For example, if you type **PWA**, the URL to the home page would be http://*servername*/PWA.)
   c. In the **Administrator Account** section, type the Windows user account that will be given administrative credentials to the Project Server instance.
   d. In the **Primary Database** section, type the name of the computer running SQL Server on which the Published, Draft, and Archive databases will be located. In the three **Database Name** fields, type unique names for each of the three Office Project Server 2007 databases.

      Note:

      You can use the default database names. However, make sure that they do not already exist on the computer running SQL Server.

   e. In the **Reporting Database** section, select **Use the primary database server** if you want the reporting database to be created on the Primary database server that you specified in the previous section. If you want the Reporting database to be created on another computer hosting SQL Server, clear this option and type the name of the SQL Server on which you want it to be created. In the **Reporting database name** field, type a unique name that you want to use for the Reporting database.

      Note:

      You can use the default database name. However, make sure that it does not already exist on the computer running SQL Server.
7. Click **OK**. The provisioning process starts.
8. You will be returned to the Manage Project Web Access page. Click the **Refresh Status** button to update the status of the provisioning process. When provisioning is finished, **Provisioned** will appear as an entry in the **Status** column. When provisioning has been completed, you can click the URL to go to the Project Web Access site.

Note:

Provisioning is an asynchronous process, so it might take a few minutes before the job is complete.

Using proposals in Project Server 2007

In order to enable the automated proposals feature Office Project Server 2007, no additional configuration is required. If Office Project Server 2007 is installed on an existing farm deployment of Office SharePoint Server 2007, workflow is automatically configured for the automated proposal feature.

Uninstalling from an Office SharePoint Server/Project Server 2007 deployment

Removing either Office SharePoint Server 2007 or Office Project Server 2007 from a joint installation is not supported. Installing Office SharePoint Server 2007 with Office Project Server 2007 extends the farm schema, and it cannot be undone by uninstalling one of the applications.

See Also

Deploy Office Project Server 2007 with Office SharePoint Server 2007

Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*)

Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*

Deploy Project Server 2007 to a server farm environment

Deploy Office SharePoint Server 2007 in a server farm environment (*http://technet.microsoft.com/en-us/library/cc303428.aspx*)

Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

This article describes how to deploy Microsoft Office SharePoint Server 2007 on an existing deployment of Microsoft Office Project Server 2007. This is one of three deployment scenarios used in deploying Office SharePoint Server 2007 with Office Project Server 2007. The other two scenarios are:

- Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007
- Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

For additional information about deploying Office SharePoint Server 2007 with Office Project Server 2007, see Deploy Office Project Server 2007 with Office SharePoint Server 2007.

Important:

Before installing Office Project Server 2007 or Office SharePoint Server 2007, it is very important to thoroughly plan for the deployment. For information on planning for Office Project Server 2007, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*). For information on planning for Office SharePoint Server 2007, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*).

Deployment overview

This scenario is typically used in an environment in which a Office Project Server 2007 farm is deployed, its services are in use, and your organization wants to integrate Office SharePoint Server 2007 functionality. Another common scenario is that the organization wants to enable the Office Project Server 2007 proposal feature, which requires Office SharePoint Server 2007 workflows.

For information about the advantages of integrating Office SharePoint Server 2007 with Office Project Server 2007, see Deploy Office Project Server 2007 with Office SharePoint Server 2007.

Installing Office SharePoint Server 2007 on an existing Office Project Server 2007 farm involves the following general steps that need to occur on each server in the farm:

1. Install Office SharePoint Server 2007 on all computers in the Office Project Server 2007 farm.
2. Start the Office SharePoint Server Search service.
3. Start the Windows SharePoint Services Search service (optional).
4. Configure additional Office SharePoint Server 2007 services.

When installing Office SharePoint Server 2007 to an existing Office Project Server 2007 farm, prior to configuring the Shared Services Provider to use any additional Office SharePoint Server 2007 services, you need to determine which Office SharePoint Server 2007 services you plan on

using. For example, if you plan on using the Excel Calculation Services functionality, you need to determine what the requirements are for using this service.

Note:

For more information on Office SharePoint Server 2007 services, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*.

Additional configuration is required to enable the Office Project Server 2007 proposal feature. This information is in the Deployment requirements for the Project Server 2007 Proposals feature section of this article.

Quiescing the farm

Prior to deploying Office SharePoint Server 2007 with Office Project Server 2007, it is important to plan when to quiesce the farm (gradually take the farm offline). The farm needs to be offline when installing binary files to a server on the farm so that it receives no incoming requests. This enables the farm to be in a consistent state after the binary files are installed to servers in the farm and the farm is brought back online.

The process of quiescing the farm can be performed through the SharePoint Central Administration Web site.

Note:

You can run the SharePoint Products and Technologies Configuration Wizard on each server after resetting the farm.

Install Office SharePoint Server 2007 on all Project Server 2007 Front-end Web and Application Servers

On all of the Office Project Server 2007 front-end Web and application servers, you need to install the Office SharePoint Server 2007 binary files and then run the SharePoint Products and Technologies Configuration Wizard.

Note:

For detailed information about installing Office SharePoint Server 2007, see Deploy Office SharePoint Server 2007 in a server farm environment (*http://technet.microsoft.com/en-us/library/cc303428.aspx*).

Install Office SharePoint Server 2007

Important:

Installing the Office SharePoint Server 2007 binary files and running the SharePoint Products and Technologies Configuration Wizard is required on all servers in the Office

Project Server 2007 farm. Afterwards you can turn on the services you want to run on each server through Central Administration.

When installing the Office SharePoint Server 2007 binary files to servers in an existing Office Project Server 2007 farm, the installation will auto-sense the Office Project Server 2007 server type installed to the computer and will then install the appropriate Office SharePoint Server 2007 server type. For example, if a server is installed as a Office Project Server 2007 application server, the Office SharePoint Server 2007 installation will detect the server type and will automatically install the Office SharePoint Server 2007 application server binary files. This makes the process of installing the Office SharePoint Server 2007 binary files identical on different server types.

To install Office SharePoint Server 2007 to a server in a Office Project Server 2007 farm, do the following on each server:

1. Navigate to the installation location for Office SharePoint Server 2007, and then double-click the Setup.exe file to begin the setup process.
2. On the Enter your Product Key page, type the 25-character product key, and then click **Continue**.
3. On the Read the Microsoft Software License Terms page, view the terms of the agreement. Select **I accept the terms of the agreement**, and then click **Continue**. This will start the installation of the binary files.
4. When installation of the binary files is completed, a page that prompts you to run the SharePoint Products and Technologies Configuration Wizard is displayed. Verify that **Run the SharePoint Products and Technologies Configuration Wizard now** is selected if you want to run it now, and then click **Close**.

   If you choose to run the SharePoint Products and Technologies Configuration Wizard at a later time, click to clear the check box, and then click **Close**. To start the SharePoint Products and Technologies Configuration Wizard later, click **Start**, click **All Programs**, click **Microsoft Office Server**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Run the SharePoint Products and Technologies Configuration Wizard

After installing the Office SharePoint Server 2007 binary files on each front-end Web and application server in the farm, you need to run the SharePoint Products and Technologies Configuration Wizard on each server. To do this, after installing the binary files on a server in the farm, perform the following steps:

1. After starting the SharePoint Products and Technologies Configuration Wizard, the Welcome to SharePoint Products and Technologies page appears, stating that the wizard will upgrade SharePoint Products and Technologies. Click **Next**.
2. Click **Yes** to the message alerting you that specified services might need to be restarted or reset during the installation. These services will include:
   - Internet Information Services

- Windows SharePoint Services Administration Service
- Windows SharePoint Services Timer Service

3. In the Completing the SharePoint Products and Technologies Configuration Wizard page, the configuration will point to the existing configuration settings for the Office Project Server 2007 farm. Click **Next** to start the configuration process.
4. When configuration is finished, the Configuration Successful page displays the configuration settings. Click **Finish**. This will automatically start Central Administration.

Start the Office SharePoint Server Search service

The Office SharePoint Server Search service is based on the search service that is provided with earlier versions of SharePoint Products & Technologies, but with many improvements. You should use the Office SharePoint Server Search service to crawl and index all content that you want to be searchable (other than the Help system).

Important:

It is important to understand how you plan to crawl and index content in your environment. For more information on the Office SharePoint Server Search Service, see Plan search (*http://technet.microsoft.com/en-us/library/cc263400.aspx*).

Starting the Office SharePoint Server Search service requires you to designate Index and query servers. Once you have determined which server in your farm will serve as an Index server and query server, use the following steps on that server to start the Office SharePoint Server Search service.

Note:

An Index server can only be designated on an application server in the farm. We also recommend that a dedicated application server be used for indexing. Do not use a Project Server application server for indexing. Doing so would have an adverse affect on throughput.

Start the Office SharePoint Server Search service on the index server

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server that you want to configure as an index server and optionally a query server.
4. On the Services on Server page, next to **Office SharePoint Server Search**, click **Start**.
5. Select the **Use this server for indexing content** check box. This expands the page and adds the **Index Server Default File Location**, **Indexer Performance**, and **Web Front End and Crawling** sections.

   Note:

   Properly plan your Indexer Performance settings. Indexing is very resource

intensive and could affect performance when run with other application services. If you plan on running the Project Application service on an index server, you may want to run indexing at reduced or partially reduced settings.

6. If you want to use this server to service search queries, select the **Use this server for servicing search queries** check box. This expands the page and adds the **Query Server Index File Location** section. If not, skip to the next step.
7. In the **Contact E-mail Address** section, type the e-mail address you want external site administrators to use to contact your organization if problems arise when their sites are being crawled by your index server.
8. In the **Farm Search Service Account** section, specify the **User name** and **Password** of the account under which the search service will run. This account must be a member of the Administrators group on the server and be a member of the Farm Administrators group in the Central Administration Web site (the WSS_ADMIN_WPG Windows security group).
9. Optionally, you can also configure other settings or accept the default settings.
10. When you have configured all the settings, click **Start**.

You can optionally use the following steps to start the Office SharePoint Server Search service to deploy query servers. Query servers can only be deployed to application servers in the farm.

Important:

If you selected the **Use this server for serving search queries** option in step 6 of the previous procedure, you cannot deploy additional query servers unless you first remove the query server role from the index server.

Start the Office SharePoint Server Search service on query servers

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server that you want to configure as a query server.
4. On the Services on Server page, next to **Office SharePoint Server Search**, click **Start**.
5. Select the **Use this server for servicing search queries** check box. This expands the page and adds the **Query Server Index File Location** section.
6. In the **Farm Search Service Account** section, specify the **User name** and **Password** of the account under which the search service will run. This account must be a member of the Administrators group on the server and be a member of the Farm Administrators group in the Central Administration Web site (the WSS_ADMIN_WPG Windows security group).
7. In the **Query Server Index File Location** section, in the **Query server index file location** box, either type the location on the local drive of the query server on which you want to store the propagated index or accept the default path.

8. In the **Query Server Index File Location** section, select one the following:
    - **Configure share automatically** Select this option to automatically configure the share on which you want to store the propagated index. Type the user name and password of the account that you want to use to propagate the index. (Recommended)

      Important:

      This account must a member of the Administrators group and a member of the WSS_ADM_WPG group on the query server before you proceed to the next step or propagation of the index will fail.
    - **I will configure the share with STSAdm** Select this option if you want to use the Stsadm.exe command-line tool to create this share at a later time.
    - **Do nothing. The share is already configured** Select this option if the share already exists and the permissions to the share are configured as described above.
9. When you have configured all the settings, click **Start**.

Start the Windows SharePoint Services Search service (optional)

You must start the Windows SharePoint Services Search service on every computer that you want to search over Help content. If you do not want users to be able to search over Help content, you do not need to start this service.

Start the Windows SharePoint Services Search service (optional)

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server on which you want to start the service.
4. On the Services on Server page, next to **Window SharePoint Services Search**, click **Start**.
5. On the Configure Windows SharePoint Services Search Service Settings page, in the **Service Account** section, type the user name and password for the user account under which the Windows SharePoint Services Search service account will run.
6. In the **Content Access Account** section, type the user name and password for the user account that the search service will use to search over content. This account must have read access to all the content you want it to search over. If you do not specify credentials, the same account used for the search service will be used.
7. In the **Indexing Schedule** section, either accept the default settings, or specify the schedule that you want the search service to use when searching over content.
8. After you have configured all the settings, click **Start**.

Configure additional Office SharePoint Server 2007 services

You may want to configure additional Office SharePoint Server 2007 services that are available to you. For information on configuring additional Office SharePoint Server 2007 services, see the following articles:

- Configure personalization (*http://technet.microsoft.com/en-us/library/cc263497.aspx*)
- Configure business intelligence features (*http://technet.microsoft.com/en-us/library/cc262804.aspx*)
- Configure Excel Services (*http://technet.microsoft.com/en-us/library/cc263517.aspx*)
- Configure InfoPath Forms Services (*http://technet.microsoft.com/en-us/library/cc262263.aspx*)
- Configure portal usage reporting (*http://technet.microsoft.com/en-us/library/cc262541.aspx*)

Note:

Prior to configuring these services, we recommend that you see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx* for planning information on the services you intend to use.

Deployment requirements for the Project Server 2007 Proposals feature

In order to enable the automated project proposals feature in Office Project Server 2007, additional configuration is required. This additional work includes the following procedures:

1. Restrict access to non-approved proposals.
2. Add the Approval workflow as the project proposal workflow.
3. Add the UID for the proposal workflow to the ProjectServer_Published database.
4. Configure the State field to be governed by an external workflow.
5. Add proposals creators and reviewers to the Proposal Reviewers security group.
6. Add the Web part for Proposal Workflow Tasks to Project Web Access.

Note:

These additional configuration steps are only required in the scenario in which you are adding Office SharePoint Server 2007 to and existing Office Project Server 2007 deployment and want to use the automated project proposals feature. If, on the other hand, you are adding Office Project Server 2007 to an existing Office SharePoint Server 2007 deployment, you are not required to do these additional configuration steps to use the automated project proposal feature.

Note:

For more information about project proposals, see Create Projects (*http://technet.microsoft.com/en-us/library/cc197588.aspx*).

Restrict access to non-approved proposals

Enabling the **Require content approval for submitted items** option is a security measure that prevents non-approved proposals from being shown to unauthorized users. When this setting is enabled, only the proposal creator and proposal reviewers are able to view non-approved proposals.

Enable the "Require content approval for submitted items" option

1. In Project Web Access, in the Quick Launch, in the **Documents** section, click **Shared Documents**.
2. On the "Shared Documents" page, in the Quick Launch, click **View All Site Content**.
3. On the "All Site Content" page, in the **List** section, click **Proposal Proxy list**.
4. On the "Proposal proxy list" page, click **Settings**, and then click **List Settings**.
5. On the "Customize Proposal proxy list" page, in the **General Settings** section, click **Versioning settings**.
6. On the "List Versioning Settings: Proposal proxy list" page, in the **Content Approval** section, for the **Require content approval for submitted items** option, select **Yes**, and then click **OK**.

Add the approval workflow as the project proposal workflow

To use project proposals in an automated manner, a Office SharePoint Server 2007 workflow must be added through the Customize Proposal proxy list page. The Approval workflow is a default Office SharePoint Server 2007 workflow needed by the automated project proposals feature.

Note:

For more information about the Approval workflow, see What are workflows? (*http://technet.microsoft.com/en-us/library/cc263148.aspx*).

Add the Approval workflow as the project proposal workflow

1. On the "Customize Proposal proxy list" page, in the **Permissions and Management** section, click **Workflow settings**.
2. On the "Change Workflow Settings: Proposal proxy list" page, click **Add a workflow**.
3. On the "Add a Workflow: Proposal proxy list" page, in the **Workflow** section, from the **Select a workflow template** list, select **Approval**.
4. In the **Name** section, in the **Type a unique name for this workflow** box, type **Project Proposal Workflow**.
5. In the **Start Options** section, click **Allow this workflow to be manually started by an authenticated user with Edit Items Permissions**. Click **Next**.
6. On the "Customize Workflow: Project Proposal Workflow" page, in the **Post-completion Workflow Activities** section, select **Update the approval status (use this workflow to**

control content approval).

Note:

Do not configure anything else on this page or click **OK** yet.

7. From the end of the URL for this page, copy the unique identifier (UID). The UID is contained in the query string value and consists of 32 hexadecimal characters surrounded by curly braces at the end of the URL (for example, {9E541880-3580-4484-B1E4-196B47D07AF8}). You will need this UID for the next procedure.
8. Click **OK**.

Add the unique identifier for the project proposal workflow page to the ProjectServer_Published database

After copying the UID from the **Customize Workflow: Project Proposal Workflow** page, you must add the UID value to the ProjectServer_Published database.

Add the UID value from the Customize Workflow: Project Proposal Workflow page to the ProjectServer_Published database

1. Start SQL Server 2005 Management Studio and log on to the Database Engine.
2. In SQL Server 2005 Management Studio, in the **Object Explorer** pane, expand the **Databases** folder, and then expand the **ProjectServer_Published** folder. Expand the **Tables** folder and locate the **dbo.MSP_WEB_ADMIN** table. Right-click the entry and click **Open Table**.

   The table opens in the document window.
3. Scroll to the **WADMIN_PROPOSAL_LIST_UID** column. For the column value, enter the UID you copied from the Customize Workflow: Project Proposal Workflow page in the previous procedure (for example, {9E541880-3580-4484-B1E4-196B47D07AF8}). Be sure to include the curly braces.
4. Scroll to the **WADMIN_IS_PROPOSAL_DLC_INSTALLED** column. Change the value for this column to **True**.
5. On the **File** menu, choose **Save All**.

Configure the State field to governed by an external workflow

Each project proposal has a State field that provides its current status (either proposed, approved, or rejected). The State field is workflow-aware, meaning that it can be configured to work with workflows that are available through Office SharePoint Server 2007. To use project proposals in an automated manner, the State field must be configured to work with the Office SharePoint Server 2007 workflow selected for project proposals. When the State field is configured to be governed by an external workflow, the field is read-only in Project Web Access and cannot be changed manually.

Note:

If you intend to use the project proposal feature manually (in which a workflow is not used), the **Is the state field governed by an external workflow** value can be set to **No**.

Configure the State field to be governed by an external workflow

1. In Project Web Access, in Quick Launch, click **Server Settings**.
2. On the Server Settings page, in the **Operational Policies** section, click **Additional Server Settings**.
3. On the Additional Server Settings page, in the **Project State Field** section, for the **Is the state field governed by an external workflow** option, select **Yes**.
4. Click **Save**.

Add proposal creators and reviewers to the Proposal Reviewers security group

Users within your organization who need to create and review proposals must have the required permissions. You can add these users to the Proposal Reviewers security group. The Proposal Reviewers security group is a default group that is installed with Office Project Server 2007 and provides users permissions that are needed to create and review proposals. You can edit the default permissions for this group.

Note:

For details about the default permissions allowed for the Proposal Reviewers security group, see Microsoft Office Project Server 2007 default template and group global permissions (*http://technet.microsoft.com/en-us/library/cc197658.aspx*).

Add users to the Proposal Reviewers security group

1. In Project Web Access, in Quick Launch, click **Server Settings**.
2. On the "Server Settings" page, in the **Security** section, click **Manage Users**.
3. On the "Manage Users" page, in the **User Name** list, click the user to which you want to add the permission.
4. On the "Edit User" page for the selected user, in the **Security Groups** section, select **Proposal Reviewers** from the **Available Groups** list.
5. Click **Add**. **Proposal Reviewers** will now appear in the **Groups that contain this user** list.
6. Click **Save**.

Add the Web part for Proposal Workflow Tasks to Project Web Access

When a proposal is created, the proposal workflow generates task assignments for proposal reviewers and the creator as the proposal makes its way through the proposal process. These tasks are shown to their owners through the Web part for Proposal Workflow Tasks. We

recommend adding this Web part to the Project Web Access home page of all users who create or review proposals.

Add the Proposal Workflow Tasks Web part to the Project Web Access home page

1. On the Project Web Access Home page, click **Site Actions**, and then click **Edit Page**.
2. On the Edit Mode version of your Project Web Access Home page, select a location in which you want to embed the Web part (**Header**, **Left**, **Middle**, **Right**, or **Footer**). In this location, click **Add a Web Part**.
3. On the "Add Web Parts Web Page Dialog" page, in the **List and Libraries** section, select **Proposal Workflow Tasks**, and then click **Add**.
4. On the Edit Mode version of your Project Web Access Home page, verify that the Web part named **Proposal Workflow Tasks** appears in the proper location. Click **Exit Edit Mode**.

Use project proposals manually

Project proposals can also be used without automation. If you are going to use project proposals manually, then you do not need to install Office SharePoint Server 2007, because the workflow component is not needed. Because the workflow component is not used, proposal creators and reviewers must manually set the State field. To allow proposal creators and reviewers to set the value of the State field in Project Web Access, you must:

- Configure the State field to not be governed by an external workflow
- Grant the Change Project State security permission to your proposal creators and reviewers. This global permission is automatically assigned to the Proposal Reviewers security group.

Configure the State field to not be governed by an external workflow

1. In Project Web Access, in Quick Launch, click **Server Settings**.
2. On the "Server Settings" page, in the **Operational Policies** section, click **Additional Server Settings**.
3. On the "Additional Server Settings" page, in the **Project State Field** section, for the **Is the state field governed by an external workflow** option, select **No**.
4. Click **Save**.

Uninstalling from an Office SharePoint Server/Project Server 2007 deployment

Removing either Office SharePoint Server 2007 or Office Project Server 2007 from a joint installation is not supported. Installing Office SharePoint Server 2007 with Office Project Server 2007 extends the farm schema, and it cannot be undone by uninstalling one of the applications.

See Also

Deploy Office Project Server 2007 with Office SharePoint Server 2007

Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007

Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*)

Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*

Deploy Project Server 2007 to a server farm environment

Deploy Office SharePoint Server 2007 in a server farm environment (*http://technet.microsoft.com/en-us/library/cc303428.aspx*)

Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

This article describes how to deploy Microsoft Office SharePoint Server 2007 and Microsoft Office Project Server 2007 to a new environment. This is the third deployment scenario in deploying Office SharePoint Server 2007 with Office Project Server 2007. The other two scenarios are:

- Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007
- Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

For additional information about deploying Office SharePoint Server 2007 with Office Project Server 2007, see Deploy Office Project Server 2007 with Office SharePoint Server 2007.

Important:

Before installing Office Project Server 2007 or Office SharePoint Server 2007, it is very important to thoroughly plan for the deployment. For information on planning for Office Project Server 2007, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*). For information on planning for Office SharePoint Server 2007, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*.

Deployment overview

This scenario is typically used in an environment in which you do not have a pre-existing deployment of either Office SharePoint Server 2007 or Office Project Server 2007 and want to deploy both to a new environment.

For information about the advantages of integrating Office SharePoint Server 2007 with Office Project Server 2007, see Deploy Office Project Server 2007 with Office SharePoint Server 2007.

To deploy a new installation of Office SharePoint Server 2007 with Office Project Server 2007 in a new environment, you will take the following steps:

1. Install the first server in the farm:
    a. Install the Office SharePoint Server binary files to your first server.
    b. Install the Project Server binary files to the same server.
    c. Run the SharePoint Products and Technologies Configuration Wizard.
2. Add additional servers to the farm (if needed):
    a. Install the Office SharePoint Server binary files to the new server.
    b. Install the Project Server binary files to the same server.
    c. Run post setup configuration.
3. Configure the farm services for Project Server application servers.

4. Designate Index and Query servers and start the Office SharePoint Server Search Service.
5. Create Web applications.
6. Create the Shared Services Provider.
7. Provision Project Server sites to the farm.
8. Configure additional Office SharePoint Server 2007 services.

We recommend that you install and configure Office SharePoint Server 2007 and Office Project Server 2007 on all of the farm servers before you configure services and create sites. This means completing steps 1 and 2 on all servers you want to include in your farm before proceeding to the subsequent steps.

System requirements

Office SharePoint Server 2007 and Office Project Server 2007 have identical system requirements for installation.

Hardware and software requirements

Prior to deploying Office SharePoint Server 2007 and Office Project Server 2007, refer to the following article for detailed information about required hardware and software requirements:

Determine hardware and software requirements (*http://technet.microsoft.com/en-us/library/cc262485.aspx*)

Install the Microsoft .NET Framework version 3.0

Go to the Microsoft Download Center Web site (*http://go.microsoft.com/fwlink/?LinkID=72322&clcid=0x409*), and on the Microsoft .NET Framework 3.0 Redistributable Package page, follow the instructions for downloading and installing the Microsoft .NET Framework version 3.0. There are separate downloads for x86-based computers and x64-based computers. Be sure to download and install the appropriate version for your computer. The Microsoft .NET Framework version 3.0 download contains the Windows Workflow Foundation technology, which is required by workflow features.

Enable ASP.NET 2.0

You must enable ASP.NET 2.0 on all servers on which you plan to install Office SharePoint Server 2007 and Office Project Server 2007.

Enable ASP.NET 2.0

1. Click **Start**, point to **All Programs**, point to **Administrative Tools**, and then click **Internet Information Services (IIS) Manager**.
2. In the IIS Manager tree, click the plus sign (+) next to the server name, and then click the **Web Service Extensions** folder.
3. In the details pane, click **ASP.NET v2.0.50727**, and then click **Allow**.

Security account requirements

During the installation and configuration, you must specify certain user accounts and passwords. For more information about administrative and security accounts, see Plan for administrative and service accounts (*http://technet.microsoft.com/en-us/library/cc263445.aspx*).

Prepare the database server

The database server computer must be running Microsoft SQL Server 2005 or Microsoft SQL Server 2000 with the most recent service pack.

The Office SharePoint Server 2007 and Office Project Server 2007 Setup programs automatically create the necessary databases when you install and configure them. Optionally, you can preinstall the required databases if that is required by your IT environment or policies.

For more information about prerequisites, see Determine hardware and software requirements (*http://technet.microsoft.com/en-us/library/cc262485.aspx*).

If you are using SQL Server 2005, you must also change the surface area settings.

Configure surface area settings in SQL Server 2005

1. Click **Start**, point to **All Programs**, point to **Microsoft SQL Server 2005**, point to **Configuration Tools**, and then click **SQL Server Surface Area Configuration**.
2. In the **SQL Server 2005 Surface Area Configuration** dialog box, click **Surface Area Configuration for Services and Connections**.
3. In the tree view, expand the node for your instance of SQL Server, expand the **Database Engine** node, and then click **Remote Connections**.
4. Select **Local and Remote Connections**, select **Using both TCP/IP and named pipes**, and then click **OK**.

SQL Server and database collation

The SQL Server database collation must be configured for case-insensitive, accent-sensitive, Kana-sensitive, and width-sensitive. This configuration is used to ensure file-name uniqueness consistent with the Windows operating system. For more information about collations, see "Selecting a SQL Collation" or "Collation Settings in Setup" in SQL Server Books Online.

Required accounts

The following table describes the accounts that are used to configure Microsoft SQL Server and to install Office SharePoint Server 2007 and Office Project Server 2007. For more information about the required accounts, including specific privileges required for these accounts, see Plan for administrative and service accounts (*http://technet.microsoft.com/en-us/library/cc263445.aspx*).

Account	Purpose
SQL Server service account	SQL Server prompts for this account during SQL Server Setup. This account is used as the service account for the following SQL Server services: • MSSQLSERVER • SQLSERVERAGENT If you are not using the default instance, these services will be shown as: • MSSQL$*InstanceName* • SQLAgent$*InstanceName*
Setup user account	The user account that is used to run Setup on each server
Server farm account	This account is: • The application pool account for the SharePoint Central Administration Web site • The process account for the Windows SharePoint Services Timer (SPAdmin) service This account is also referred to as: Database access account

Deploying the first server in the farm

Use the following steps to install Office SharePoint Server 2007 and Office Project Server 2007 to the first server in the farm. If you are planning a one-server farm installation, the steps still apply.

Important:

If you uninstall Office SharePoint Server 2007 from the first server on which you installed it, your farm might experience problems. We recommend that you do not install Office SharePoint Server 2007 on an index server first.

Note:

Setup installs Central Administration on the first server on which you run Setup.exe. Therefore, we recommend that the first server on which you install Office SharePoint Server 2007 is a server from which you want to run Central Administration.

Install the Office SharePoint Server 2007 binary files

Use the following procedures to install the Office SharePoint Server 2007 binary files to the first server in your farm:

Install the Office SharePoint Server 2007 binary files on the first server

1. From the product disc, run Setup.exe, or from the product download, run Officeserver.exe, on one of your Web server computers.
2. On the Enter your Product Key page, enter your product key, and then click **Continue**.

   Note:

   Setup automatically verifies the product key, places a green check mark next to the text box, and enables the **Continue** button after it validates the key. If the key is not valid, Setup displays a red circle next to the text box and notifies you that the key is incorrect.
3. On the Read the Microsoft Software License Terms page, review the terms, select the **I accept the terms of this agreement** check box, and then click **Continue**.
4. On the Choose the installation you want page, click **Advanced**. The **Basic** option is for stand-alone installations.
5. On the **Server Type** tab, select **Complete**.
6. Optionally, to install Office SharePoint Server 2007 at a custom location, select the **File Location** tab, and then type the location or **Browse** to the location.
7. Optionally, to participate in the Customer Experience Improvement Program, select the **Feedback** tab and select the option you want. To learn more about the program, click the link. You must have an Internet connection to view the program information.
8. When you have chosen the correct options, click **Install Now**.
9. When Setup finishes, a dialog box appears that prompts you to complete the configuration of your server. Clear the **Run the SharePoint Products and Technologies Configuration Wizard now** check box.

   Important:

   Be sure that the **Run the SharePoint Products and Technologies Configuration Wizard now** check box is not selected. You will run the **Run the SharePoint Products and Technologies Configuration Wizard** after installing the Office Project Server 2007 binary files.
10. Click **Close**.

Install the Office Project Server 2007 binary files

When installing the Office Project Server 2007 binary files to a server in an existing Office SharePoint Server 2007 farm, the installation will automatically detect the Office SharePoint Server 2007 server type installed to the computer and will then install the appropriate Office Project Server 2007 server type. For example, if a server is installed as a Office SharePoint

Server 2007 application server, the Office Project Server 2007 installation detects the server type and automatically installs the Office Project Server 2007 application server binary files. This makes the process of installing the Office Project Server 2007 binary files identical on different Office SharePoint Server 2007 server types.

To install Office Project Server 2007 to a server in a Office SharePoint Server 2007 farm, do the following:

Install Office Project Server 2007 binary files to the first server in a farm

1. Navigate to the installation location for Office Project Server 2007, and then double-click the Setup.exe file to begin the setup process.
2. On the Enter Product Key page, type the 25-character product key, and then click **Continue**.
3. On the End User License Agreement page, view the terms of the agreement. Select **I accept the terms of the agreement**, and then click **Continue**.
4. When installation of the binary files is completed, the Setup Complete page is displayed and prompts you to complete the configuration of your server. Verify that **Run the SharePoint Products and Technologies Configuration Wizard now** is selected, and then click **Close**.

   Note:

   If you choose to run the SharePoint Products and Technologies Configuration Wizard at a later time, click to clear the check box, and then click **Close**. To start the SharePoint Products and Technologies Configuration Wizard later, click **Start**, click **All Programs**, click **Microsoft Office Server**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Run the SharePoint Product and Technologies Configuration Wizard

After installing the Office SharePoint Server 2007 and Office Project Server 2007 binary files on the initial server, you need to run the SharePoint Products and Technologies Configuration Wizard on the server.

To run the wizard, perform the following steps on the server after installing the binary files:

Run the SharePoint Products and Technologies Configuration Wizard on the first server

1. The Welcome to SharePoint Products and Technologies page lists information that is required from you during configuration. You will need the following information to configure later in the procedure:
   - Name of the database server and database where the server farm configuration data will be stored.
   - User name and password for the database access account that will administer the server farm.

Click **Next**.

2. A warning dialog alerts you that some services might need to be restarted or reset during the configuration. These will include:
   - Internet Information Services
   - SharePoint Administration Service
   - SharePoint Timer Service

   Click **Yes**.
3. On the Connect to a Server Farm page, select:
   - **No, I want to create a new server farm** - Select this option since this is the first server in the farm.

   Click **Next**.
4. On the Specify Configuration Database Settings page, use the information you gathered earlier to specify the name of the computer running SQL Server and the name of the configuration database, and to specify a Windows account that the computer will use to connect to the configuration database.
   a. In the **Database server** box, if you are creating a new farm, type the name of the computer running SQL Server on which the database will be created.

      If you are connecting to an existing farm, type the name of the computer running SQL Server on which the configuration database exists.

   b. In the **Database name** box, if you are creating a new farm, type the name that you want to give the configuration database. The default entry is **SharePoint_Config**.

      If you are connecting to an existing farm, click the **Retrieve Database Names** button. This will search for the configuration databases on the SQL Server you specified. The configuration database names on the server will then display in the **Database name** drop down list. Select the name of the configuration database for the existing farm.

   c. In the **User name** box, type the user name of the Server farm account. (Be sure to type the user name in the format *DOMAIN\username*).

      Important:

      The server farm account is used to access your configuration database. It also acts as the application pool identity for the Central Administration application pool, and it is the account under which the Windows SharePoint Services Timer service runs. The SharePoint Products and Technologies Configuration Wizard adds this account to the SQL Server Logins, the SQL Server Database Creator server role, and the SQL Server Security Administrators server role. The user account that you specify as the service account must be a domain user account, but it does not need to be a member of any specific security group on your Web servers or your back-end database servers. We recommend that you follow the principle of least privilege and specify a user account that is not a member of the

Administrators group on your Web servers or your back-end servers.

d. In the **Password** box, type the password for this account.

e. Click **Next**.

5. On the Configure SharePoint Central Administration Web Application page, configure the following options:

   a. On the Configure SharePoint Central Administration Web Application page, select the **Specify port number** check box and type a port number if you want the SharePoint Central Administration Web site to use a specific port, or leave the **Specify port number** check box cleared if you do not care which port number Central Administration uses. If you do not specify an available port number, one will be selected automatically.

   b. In the **Configure Security Settings** section, select **NTLM** authentication (the default) if you would like to use NTLM authentication. Select **Negotiate (Kerberos)** if you want to use Kerberos authentication. If you are unsure, contact your network administrator. Then click **Next**.

      Note:

      In most cases, you should use the default setting (NTLM). Use Negotiate (Kerberos) only if Kerberos is supported in your environment. Using the Negotiate (Kerberos) option requires you to configure a Service Principal Name for the domain user account. To do this, you must be a member of the Domain Admins group. For more information about configuring Kerberos, see Microsoft Knowledge Base article KB 832769: HOW TO: Configure Windows SharePoint Services to Use Kerberos Authentication (*http://support.microsoft.com/?kbid=832769*).

6. On the Completing the SharePoint Products and Technologies Configuration Wizard page, verify that your configuration settings are correct. If any settings are not correct, use the **Back** button to change the setting. Click **Next**.

7. When configuration is finished, the Configuration Successful page displays. Click **Finish**. This automatically opens Central Administration.

   Note:

   If you are prompted for your user name and password, you might need to add Central Administration to the list of trusted sites in Internet Explorer. Instructions for configuring this setting are provided later in this article.

   Note:

   If you see a proxy server error message, you might need to configure your proxy server settings so that local addresses bypass the proxy server. Instructions for configuring this setting are provided later in this article.

Add Central Administration to the list of trusted sites

1. In Internet Explorer, on the **Tools** menu, click **Internet Options**.
2. On the **Security** tab, in the **Select a Web content zone to specify its security settings** box, click **Trusted Sites**, and then click **Sites**.
3. Clear the **Require server verification (https:) for all sites in this zone** check box.
4. In the **Add this Web site to the zone** box, type the URL for Central Administration, and then click **Add**.
5. Select the **Require server verification (https:) for all sites in this zone** check box.
6. Click **Close** to close the **Trusted Sites** dialog box.
7. Click **OK** to close the **Internet Options** dialog box.

Configure proxy server settings to bypass the proxy server for local addresses

1. In Internet Explorer, on the **Tools** menu, click **Internet Options**.
2. On the **Connections** tab, in the **Local Area Network (LAN) Settings** area, click **LAN Settings**.
3. In the **Proxy Server** area, select the **Bypass proxy server for local addresses** check box.
4. Click **OK** to close the **Local Area Network (LAN) Settings** dialog box.
5. Click **OK** again to close the **Internet Options** dialog box.

Deploying additional servers to the farm

After installing Office SharePoint Server 2007 and Office Project Server 2007 on the initial server and creating the farm, you can easily deploy additional server to the farm by installing the Office SharePoint Server 2007 and Office Project Server 2007 binary files and running the SharePoint Products and Technologies Configuration Wizard on the new servers.

When you add servers to the farm and run the SharePoint Products and Technologies Configuration Wizard, the wizard does not create additional Central Administration sites on the servers that you add, nor does it create any databases on your database server.

Install the Office SharePoint Server 2007 binary files

This procedure, which installs the Office SharePoint Server 2007 binary files when adding additional servers to the farm, is almost the same as the earlier procedure that added the first server to the farm. The only difference is that you have the option to make the server a front-end Web or application server.

Install the Office SharePoint Server 2007 binary files to an additional server

1. From the product disc, run Setup.exe, or from the product download, run Officeserver.exe, on one of your Web server computers.

2. On the Enter your Product Key page, enter your product key, and then click **Continue**.

   Note:

   Setup automatically verifies the product key, places a green check mark next to the text box, and enables the **Continue** button after it validates the key. If the key is not valid, Setup displays a red circle next to the text box and notifies you that the key is incorrect.

3. On the Read the Microsoft Software License Terms page, review the terms, select the **I accept the terms of this agreement** check box, and then click **Continue**.
4. On the Choose the installation you want page, click **Advanced**. The **Basic** option is for stand-alone installations.
5. On the **Server Type** tab, select the server type you want to install:
   - **Complete** Select this option if you want the computer to serve as an application server.

     Note:

     If you want the computer to serve solely as an application server, later you can configure the farm services on the computer to stop the Windows SharePoint Services Web Application service. If you want the computer to serve content to users as well, leave the service started.

   - **Front end Web** Select this option if you want the computer to serve content to users.
6. Optionally, to install Office SharePoint Server 2007 at a custom location, select the **File Location** tab, and then type or **Browse** to the location.
7. Optionally, to participate in the Customer Experience Improvement Program, select the **Feedback** tab and select the option you want. To learn more about the program, click the link. You must have an Internet connection to view the program information.
8. When you have chosen the correct options, click **Install Now**.
9. When Setup finishes, a dialog box appears that prompts you to complete the configuration of your server. Clear the **Run the SharePoint Products and Technologies Configuration Wizard now** check box.

   Important:

   Be sure that the **Run the SharePoint Products and Technologies Configuration Wizard now** check box is not selected. You will run the **Run the SharePoint Products and Technologies Configuration Wizard** after installing the Office Project Server 2007 binary files.

10. Click **Close**.

Install the Office Project Server 2007 binary files

When installing Office Project Server 2007 on a server with an existing Office SharePoint Server 2007 installation, the Setup program detects the server type and installs the corresponding Office

Project Server 2007 binary files. This eliminates the need for you to determine the server type and select the appropriate one to install. It also allows you to run the same procedure on any added server on which you have installed the Office SharePoint Server 2007 binary files, regardless of server type.

Run the following procedure on any server you are adding to the farm on which you have already installed the Office SharePoint Server 2007 binary files.

Install the Office Project Server 2007 binary files to an additional server

1. Navigate to the installation location for Office Project Server 2007, and then double-click the Setup.exe file to begin the setup process.
2. On the Enter Product Key page, type the 25-character product key, and then click **Continue**.
3. On the End User License Agreement page, view the terms of the agreement. Select **I accept the terms of the agreement**, and then click **Continue**.
4. When installation of the binary files is completed, the Setup Complete page is displayed and it prompts you to complete the configuration of your server. Verify that **Run the SharePoint Products and Technologies Configuration Wizard now** is selected, and then click **Close**.

   Note:

   If you choose to run the SharePoint Products and Technologies Configuration Wizard at a later time, click to clear the check box, and then click **Close**. To start the SharePoint Products and Technologies Configuration Wizard later, click **Start**, click **All Programs**, click **Microsoft Office Server**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Run the SharePoint Products and Technologies Configuration Wizard

After installing the binary files for Office SharePoint Server 2007 and Office Project Server 2007, you need to run the SharePoint Products and Technologies Configuration Wizard on any server that is added to the farm. During this process, you connect the new server to the existing server farm. You will be using the existing Configuration database that was created when running the wizard on the first server in the farm.

Run the SharePoint Products and Technologies Configuration Wizard on additional servers

1. On the Welcome to SharePoint Products and Technologies page, click **Next**.
2. Click **Yes** in the dialog box that notifies you that some services might need to be restarted during configuration.
3. On the Connect to a server farm page, click **Yes, I want to connect to an existing server farm**, and then click **Next**.

4. In the **Specify Configuration Database Settings** dialog box, in the **Database server** box, type the name of the computer that is running SQL Server.
5. Click **Retrieve Database Names**, and then from the **Database name** list, select the database name that you created when you configured the first server in your server farm.
6. In the **User name** box, type the user name of the account used to connect to the computer running SQL Server. (Be sure to type the user name in the format *DOMAIN\username*.) This must be the same user account you used when configuring the first server.
7. In the **Password** box, type the user's password, and then click **Next**.
8. On the Completing the SharePoint Products and Technologies Configuration Wizard page, click **Next**.
9. On the Configuration Successful page, click **Finish**.

Configure the farm services for Project Server application servers

On each application server on which you want the Project Server application server to run, you will need to enable the Project Application service. This is done through Central Administration.

As noted previously, the Office Project Server 2007 binary files need to be installed on all front-end Web and application servers in the farm. However, the Project Application service only needs to be started on any application server you want to serve as a Project Server application server.

Use the following procedures to start the Project Application service on any server you want to serve as a Project Server application server.

Start the Project Application service on the application server

1. From the top navigation on the Central Administration Web site, click **Operations**.
2. On the Operations page, in the **Topology and Services** section, select **Servers in farm**.
3. On the Servers in Farm page, in the **Server** list, click the server on which you want to start the Project Application service.
4. On the Services on Server page for this computer, in the **Service** list, find **Project Application Service**. In the same row under the **Action** column, click **Start**.

   Note:

   To see a complete list of all the services on the computer, in the **Select server role to display services you will need to start in the table below** section, select **Custom**.
5. In the Service list, find **Project Application Service**. In the same row under the **Action** column, click **Start**.

   To see whether the status has changed, you might need to refresh the page.

   The status for the Project Application Service will be displayed as **Started.**

6. In the Service list, find the **Windows SharePoint Services Web Application** service. If you want the server to function solely as an application server, click **Stop** to stop this service. If you want this server to also server content to users, leave this service running.

Start the Office SharePoint Server Search service

You should use the Office SharePoint Server Search service to crawl and index all content that you want to be searchable (other than the Help system).

Important:

It is important to understand how you plan to crawl and index content in your environment. For more information on the Office SharePoint Server Search Service, see Plan search (*http://technet.microsoft.com/en-us/library/cc263400.aspx*).

Starting the Office SharePoint Server Search service requires you to designate Index and query servers. Once you have determined which server in your farm will serve as an Index server and query server, use the following steps on that server to start the Office SharePoint Server Search service on that server.

Note:

An Index server can only be designated on an application server in the farm. We also recommend that a dedicated application server be used for indexing. Do not use a Project Server application server for indexing. Doing so would have an adverse affect on throughput.

Start the Office SharePoint Server Search service on the index server

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server that you want to configure as an index server and optionally a query server.
4. On the Services on Server page, next to **Office SharePoint Server Search**, click **Start**.
5. Select the **Use this server for indexing content** check box. This expands the page and adds the **Index Server Default File Location**, **Indexer Performance**, and **Web Front End and Crawling** sections.
6. If you want to use this server to service search queries, select the **Use this server for servicing search queries** check box. (This option expands the page and adds the **Query Server Index File Location** section.) If not, skip to the next step.
7. In the **Contact E-mail Address** section, type the e-mail address that you want external site administrators to use to contact your organization if problems arise when their sites are being crawled by your index server.
8. In the **Farm Search Service Account** section, specify the **User name** and **Password** of the account under which the search service will run. This account must be a member of

the Administrators group on the server and be a member of the Farm Administrators group in the Central Administration Web site (the WSS_ADMIN_WPG Windows security group).

9. Optionally, you can also configure other settings or accept the default settings.
10. When you have configured all the settings, click **Start**.

You can optionally use the following steps to start the Office SharePoint Server Search service to deploy query servers. Query servers can only be deployed to application servers in the farm.

Important:

If you selected the **Use this server for serving search queries** option in step 6 of the previous procedure, you cannot deploy additional query servers unless you first remove the query server role from the index server.

Start the Office SharePoint Server Search service on query servers

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server that you want to configure as a query server.
4. On the Services on Server page, next to **Office SharePoint Server Search**, click **Start**.
5. Select the **Use this server for servicing search queries** check box. This expands the page and adds the **Query Server Index File Location** section.
6. In the **Farm Search Service Account** section, specify the **User name** and **Password** of the account under which the search service will run. This account must be a member of the Administrators group on the server and be a member of the Farm Administrators group in the Central Administration Web site (the WSS_ADMIN_WPG Windows security group).
7. In the **Query Server Index File Location** section, in the **Query server index file location** box, either type the location on the local drive of the query server on which you want to store the propagated index or accept the default path.
8. In the **Query Server Index File Location** section, select one the following:
   - **Configure share automatically** Select this option to automatically configure the share on which you want to store the propagated index and type the user name and password of the account that you want to use to propagate the index. (Recommended)

     Important:

     This account must a member of the Administrators group and a member of the WSS_ADM_WPG group on the query server before you proceed to the next step, or propagation of the index will fail.
   - **I will configure the share with STSAdm** Select this option if you want to use the Stsadm.exe command-line tool to create this share at a later time.

- **Do nothing. The share is already configured** Select this option if the share already exists and the permissions to the share are configured as described above.

9. When you have configured all the settings, click **Start**.

Start the Windows SharePoint Services Search service (optional)

You must start the Windows SharePoint Services Search service on every computer that you want to search over Help content. If you do not want users to be able to search the Help content, you do not need to start this service.

Start the Windows SharePoint Services Search service (optional)

1. On the Central Administration home page, click the **Operations** tab on the top link bar.
2. On the Operations page, in the **Topology and Services** section, click **Services on server**.
3. In the **Server** list, select the server on which you want to start the service.
4. On the Services on Server page, next to **Window SharePoint Services Search**, click **Start**.
5. On the Configure Windows SharePoint Services Search Service Settings page, in the **Service Account** section, type the user name and password for the user account under which the Windows SharePoint Services Search service account will run.
6. In the **Content Access Account** section, type the user name and password for the user account that the search service will use to search over content. This account must have read access to all the content you want it to search over. If you do not specify credentials, the same account used for the search service will be used.
7. In the **Indexing Schedule** section, either accept the default settings, or specify the schedule that you want the search service to use when searching over content.
8. After you have configured all the settings, click **Start**.

Create Web applications

After you install the Office SharePoint Server 2007 and Office Project Server 2007 binary files, run the SharePoint Products and Technologies Configuration Wizard, and configure services in your server farm, you need to create Web applications and a site collection through Central Administration.

You will need to create Web applications for at least two sites:

- The Project Web Access site
- The Shared Services Provider Home site

You also need to create a site collection for this Web application (hosting the Project Web Access site). Creating the site collection will create the top-level site in which the Project Web Access home site and Project Workspaces will reside.

Create the Web application to host the Project Web Access site

The following procedure allows you to create the Web application for the Project Web Access site. During this process you create a new Web site and create the site collection for the Project Web Access site and Project Workspace sites. When finished, you will have a new top-level site for the site collection (although this site will contain no data at this point).

Create the Web application to host the Project Web Access site

1. On the Central Administration page top navigation, click **Application Management**.
2. On the Application Management page, in the **SharePoint Web Application Management** section, click **Create or extend Web application**.
3. On the Create or Extend Web Application page, in the **Adding a SharePoint Web Application** section, select **Create a new Web Application**.
4. On the Create New Web Application page, do the following:
   a. In the **IIS Web Site** section, choose **Use an existing IIS web site** or **Create a New IIS Web site**.

      Note:

      When you are creating or specifying an existing site, it is preferable for the site to use port 80. If the site is using port 80, host headers are not needed and users accessing the site do not need to remember to type the port number as a part of the URL.

   b. In the **Security Configuration** section, under **Authentication provider**, select either **Negotiate (Kerberos)** or **NTLM**, depending on your network. If you are uncertain, contact your network administrator.
   c. In the **Load Balanced URL** section, specify the URL that will be used to access the Web Application, or use the default entry. The URL should be in the format http://*servername*:*port*. If multiple zones have been configured on the server, you can optionally click a zone in the **Zone** list.
   d. In the **Application Pool** section, select **Create new application pool**.
   e. In the **Application pool name** box, a unique name is automatically generated based on the extended Web site you selected. Use this entry or type another unique name.
   f. Select **Configurable**, and then, in the **User name** box, type the Windows account of the farm administrator. In the **Password** box, type the password for the account.

      Note:

      For more information on accounts, see Plan for administrative and service accounts.

g. Click **OK**.

5. On the Application Created page that appears, select **Create a new Windows SharePoint Services site collection**.

Creating a Windows SharePoint Service site collection allows you to configure the top-level site for the Web application. You will need to create a site collection for the Web application you have just created.

Create a site collection for the Web application

1. On the Create Site Collection page, do the following:
   a. In the **Title and Description** section, in **Title**, type a title for the new site.
   b. In **Description**, type a description of the site collection.
   c. In the **Web Site Address** section, specify the URL name and path to create new sites. In the URL drop-down list, select a managed path to append to the URL under which new sites will be created.

      Note:

      If you would like to add new paths to the list, click the **Define Managed Paths** link and type the information in the **Add a New Path** section. For more information on Managed Paths, see Determine paths for sites (*http://technet.microsoft.com/en-us/library/cc197465.aspx*).

   d. In the **Primary Site Collection Administrator** section, type the user name of the site collection administrator in the corresponding field. (You can do this for the secondary site administrator as well.)

      Note:

      You can use the Windows SharePoint Services service account.

   e. The **Quota Template** section is used to limit the amount of storage available on the site. The default template is **No Quota**. You can keep this option or choose from any additional quota templates you have created.

      Note:

      You can create additional quota templates or change this setting later through Central Administration in the SharePoint Site Management section of Application Management.

   f. In the **Template Selection** section, in the **Select a template** list, select the template you want to use when the top-level site of the site collection is created, and then click **OK**.
2. On the Top-Level Site Successfully Created page, the URL for the new, empty top-level site is displayed. Click **OK** to return to Central Administration.

Create the Web application to host the Shared Services Provider

The following procedure creates the Shared Services Provider Web application.

Create the Web application to host the Shared Services Provider

1. On the Central Administration page top navigation, click **Application Management**.
2. On the Application Management page, in the **SharePoint Web Application Management** section, click **Create or extend Web application**.
3. On the Create or Extend Web Application page, in the **Select Create New or Extend Existing** section, click **Create a new Web Application**.
4. On the Create New Web Application page, do the following:
   a. In the **IIS Web Site** section, select **Create a new IIS web site**. Use the default name and port, or specify different ones. However, make sure to note the port number associated with the new site. This enables you to choose the correct site later when you are setting up the Shared Services Provider.
   b. In the **Security Configuration** section, under **Authentication provider**, select either **Negotiate (Kerberos)** or **NTLM**, depending on your network configuration.
   c. In the Load Balanced URL section, specify the URL that will be used to access the Web application, or use the default entry. The URL should be in the format http://*servername*:*port*. If multiple zones have been configured on the server, you can optionally click a zone in the **Zone** list.
   d. In the **Application Pool** section, select **Create new application pool**.
   e. Select **Configurable**, and then, in the **User name** and **Password** boxes, type the user name and password of the user account that you want to act as the application pool identity for your Web application.
5. Click **OK**. After the unextended Web site is completed, the Application Created page will appear.

Create the Shared Services Provider

A Shared Services Provider groups shared services so that they can be used to share content among users across servers in the farm, multiple server farms, Web applications and site collections. For more information about Shared Services Providers, see Plan shared services providers (*http://technet.microsoft.com/en-us/library/cc263276.aspx*).

The following procedures allow you to create the Shared Services Provider by using the Web application you created previously to host it.

Create the Shared Services Provider

1. On the Central Administration page top navigation, click **Application Management**.
2. On the Application Management page, in the **Office SharePoint Server Shared Services** section, click **Create or Configure this Farm's Shared Services**.

3. On the Manage this Farm's Shared Services page, click **New SSP**.
4. On the New Shared Services Provider page, do the following:
   a. In the **SSP Name** section, in the **Web Application** list, select the Web application that you created when you created the Web application to host the Shared Services Provider.
   b. In the **SSP Service Credentials** section, type the name and password for a Windows user who is the SSP administrator into the corresponding boxes.

      Note:

      For more information on this account, see Plan for administrative and service accounts.
   c. Each Shared Services Provider requires a database to store service-specific data. In the **SSP Database** section, the database server name by default will list the one hosting the Configuration database. The database name will also be automatically generated for you. You can keep the default settings or change them if needed.
5. Click **OK**.

   Note:

   This process might take several minutes to complete.
6. After the SSP is successfully created, the Success! page is displayed. Click **OK** to go to the Manage this Farm's Shared Services page needed for the next section.

Provision Office Project Server 2007 sites on the farm

This final procedure allows you to create the Office Project Server 2007 instance on the farm, which is done through Central Administration. During this process, you specify the Project Server administrator account, point to the database server that will host the Office Project Server 2007 databases, and name the Office Project Server 2007 databases.

Provision Office Project Server 2007 sites on the farm

1. From the top navigation on Central Administration, click **Application Management**.
2. On the Application Management page, in the **Office SharePoint Server Shared Services** section, select **Create or configure this farm's shared services**.
3. On the Manage this Farm's Shared Services page, in the **SSP Name** list, select the Shared Services Provider in which you would like to provision Project Web Access.
4. On the home page for this core service, in the **Project Server** section, click **Project Web Access Sites**.
5. On the Manage Project Web Access page, click **Create Project Web Access Site**.
6. On the Create a New Project Web Access page, do the following:
   a. In the **Project Web Access Site Location** section, from the **SharePoint Web**

Application to host Project Web Access list, select the name of the extended Web site you created to host the SharePoint site.

b. In the **Project Web Access path** box, enter the name you will use to specify the URL to the Project Web Access home page (for example, if you enter **PWA**, the URL to the home page would be http://*servername*/PWA).

c. In the **Administrator Account** section, type the Windows user account that will be given administrative credentials to the Project Server instance.

d. In the **Primary Database** section, type the name of the computer running SQL Server on which the Published, Draft, and Archive databases will be located. In the three **Database Name** fields, type unique names for each of the three Office Project Server 2007 databases.

Note:

You can use the default database names. However, make sure that they do not already exist on the computer running SQL Server.

e. In the **Reporting Database** section, select **Use the primary database server** if you want the reporting database to be created on the Primary database server that you specified in the previous section. If you want the Reporting database to be created on another computer hosting SQL Server, clear this option and enter the name of the SQL Server on which you want it to be created. In the **Reporting database name** field, type a unique name that you want to use for the Reporting database.

Note:

You can use the default database name. However, make sure that it does not already exist on the computer running SQL Server.

7. Click **OK**. The provisioning process starts.
8. You will return to the Manage Project Web Access page. Click the Refresh Status button to update the status of the provisioning process. When provisioning is complete, **Provisioned** will appear as entry in the **Status** column. When provisioning has been completed, you can click the URL to go to the Project Web Access site.

Note:

Provisioning is an asynchronous process, so it might take a few minutes before the job is complete.

Configuring additional Office SharePoint Services 2007 services

You may want to configure additional Office SharePoint Server 2007 services that are available to you. For information on configuring additional Office SharePoint Server 2007 services, see the following articles:

Configure personalization (*http://technet.microsoft.com/en-us/library/cc263497.aspx*)

Configure business intelligence features (*http://technet.microsoft.com/en-us/library/cc262804.aspx*)

Configure Excel Services (*http://technet.microsoft.com/en-us/library/cc263517.aspx*)

Configure InfoPath Forms Services (*http://technet.microsoft.com/en-us/library/cc262263.aspx*)

Note:

Prior to configuring these services, we recommend that you see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx* for planning information on the services you intend to use.

Using proposals in Project Server 2007

In order to enable the automated proposals feature in Office Project Server 2007, no additional configuration is required. If Office Project Server 2007 is installed on an existing farm deployment of Office SharePoint Server 2007, workflow is automatically configured for the automated proposal feature.

Uninstalling from an Office SharePoint Server/Project Server 2007 deployment

Removing either Office SharePoint Server 2007 or Office Project Server 2007 from a joint installation is not supported. Installing Office SharePoint Server 2007 with Office Project Server 2007 extends the farm schema, and it cannot be undone by uninstalling one of the applications.

See Also

Deploy Office Project Server 2007 with Office SharePoint Server 2007

Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007

Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*)

Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*

Deploy Project Server 2007 to a server farm environment

Deploy Office SharePoint Server 2007 in a server farm environment (*http://technet.microsoft.com/en-us/library/cc303428.aspx*)

Configure Excel Calculation Services with Project Server 2007

If your Microsoft Office Project Server 2007 installation is associated with a Microsoft Office SharePoint Server 2007 installation, you can configure Excel Calculation Services to allow easy report generation from the Office Project Server 2007 Reporting database.

With this functionality, you can create reports in Microsoft Office Excel 2007 and publish them to Office SharePoint Server 2007 where others in your organization can view them and save them offline for further customization.

There are two major steps to configuring this functionality:

- **Report Author Configuration** — This involves configuring Microsoft SQL Server to allow report authors access to the Office Project Server 2007 Reporting database.
- **Report Consumer Configuration** — This involves configuring Office SharePoint Server 2007 for report publishing.

Note:

The procedures in this article assume that you are using SQL Server 2005. SQL Server 2000 can also be used and will provide identical functionality.

Note:

Depending on your existing configuration, you may find that some of the procedures in this article have already been completed.

Configuring SQL Server

In order for the report author to be able to access the Office Project Server 2007 Reporting database from Office Excel 2007, it is necessary to configure SQL Server access and add a SQL Server login. This is due to the fact that Office Excel 2007 uses a different method of data access than does Excel Calculation Services.

To configure SQL Server access, you must ensure that the SQL Server database engine and SQL Server Analysis Services allows remote connections. This is done using the SQL Server Surface Area Configuration Tool.

Configure the SQL Server surface area

1. On the computer running SQL Server 2005, click **Start**, **All Programs**, **Microsoft SQL Server 2005**, **Configuration Tools**, and then **SQL Server Surface Area Configuration**.
2. Click **Surface Area Configuration for Services and Connections**.
3. Select the **View by Component** tab.
4. Expand **Database Engine** and then expand the instance of SQL Server that you are

configuring.

5. Click **Remote Connections** and select the **Local and remote connections and Using both TCP/IP and named pipes** option.
6. Expand **Analysis Services** and then expand the instance of SQL Server that you are configuring.
7. Select the **Local and remote connections** option.
8. Click **OK**.

If you made changes to the SQL Server database engine configuration or the Analysis Services configuration using the procedure above, restart the SQL Server service and the SQL Server Analysis Services service for the instance of SQL Server that you are configuring.

Once SQL Server access is configured, you need to add a SQL Server login to allow specific access to the Office Project Server 2007 Reporting database to get schema information and data. We recommend that you use a domain group for easiest administration. If you do not use a domain group, you will need to repeat this procedure for each report author.

Add a login for a report author

1. Click **Start**, **All Programs**, **Microsoft SQL Server 2005**, **SQL Server Management Studio**.
2. Select the instance of SQL Server where your Office Project Server 2007 databases reside, and then click **Connect**.
3. Expand **Security**, right-click **Logins**, and then click **New Login**.
4. On the **General** page, type a user or group name in the **Login name** text box.
5. Select the **User Mapping** page.
6. In the **Users mapped to this login** list box, select the row containing the Office Project Server 2007 Reporting database.
7. Select the **Map** check box for the Office Project Server 2007 Reporting database, and then select the **db_datareader** database role membership.
8. Click **OK**.

Configuring Microsoft Office SharePoint Server 2007 Publishing

The publishing functionality provided in Office SharePoint Server 2007 enables authors to create and modify content and make it available to users with the appropriate levels of viewing permissions. Excel Calculation Services requires this functionality to allow for publishing from Office Excel 2007 to Office SharePoint Server 2007.

You must activate the Office SharePoint Server 2007 Publishing Infrastructure feature for the site collection used by Microsoft Office Project Web Access (PWA), and then activate the Office SharePoint Server 2007 Publishing feature for the PWA site. After the Office SharePoint Server

2007 Publishing Infrastructure feature is activated, additional permission levels and Office SharePoint Server 2007 groups that are used to delegate publishing responsibilities for users are automatically created.

Activate the Publishing Infrastructure site collection feature

1. On the Office Project Web Access home page, click **Site Actions**, and then click **Site Settings**.
2. On the Site Settings page, under **Site Collection Administration**, click **Site collection features**.
3. On the Site Collection Features page, click **Activate** for the **Office SharePoint Server Publishing Infrastructure** feature.
4. Return to the Site Settings page by clicking **Site Settings** in the breadcrumb.

Activate the Publishing site feature

1. On the Site Settings page, under **Site Administration**, click **Site features**.
2. On the Site Features page, click **Activate** for the **Office SharePoint Server Publishing** option.

Starting the Excel Calculation Services service

In order to use Excel Calculation Services, the Excel Calculation Services service must be running on your farm. This service can be configured through the SharePoint Central Administration Web site.

Start the Excel Calculation Services service

1. In SharePoint Central Administration, click the **Operations** tab.
2. On the Operations page, under **Topology and Services**, click **Services on server**.
3. In the services list, click **Start** for the **Excel Calculation Services** service.

Creating a report center

You need to create a site to host the reports published from Office Excel 2007. This is done by creating a site collection using the Report Center template.

Create a report center

1. In Project Web Access, click **Site Actions**, and then click **Create Site**.
2. In the **Title** text box, type a title for your report center.
3. In the **URL name** text box, type the URL you want to use for the report center.
4. In the **Template Selection** area, click the **Enterprise** tab, and then select the **Report Center** option.

5. In the **Permissions** area, select the **Use unique permissions** option if you want to restrict permissions on the reporting Web site; otherwise keep the default option of **Use same permissions as parent site**.
6. Click **Create**.

Configuring the Project Server Shared Services Provider

To use Excel Calculation Services with Office Project Server 2007, you must configure the Shared Services Provider that hosts PWA. This process includes three major steps:

- Configuring an unattended service account
- Adding a trusted file location
- Adding a trusted data connection library

You must configure an Unattended Service account to connect to external data sources that require both a user name string and a password string. These strings are required for authentication in Excel Calculation Services. For additional information, see How to configure the Excel Services Unattended Service account in Microsoft Office SharePoint Server 2007 (http://support.microsoft.com/kb/928738).

Configure the unattended service account

1. In SharePoint Central Administration, under **Shared Services Administration**, click the Office Project Server 2007 SSP.
2. On the Shared Services Provider home page, under **Excel Services Settings**, click **Edit Excel Services settings**.
3. Under **External Data**, type the name and password of the service account you want to use, and then click **OK**.

In Office SharePoint Server 2007, a trusted file location is an Office SharePoint Server 2007 document library, a UNC path, or an HTTP Web site that is configured as a trusted repository for workbooks that Excel Calculation Services can access. Excel Calculation Services opens workbooks that are stored in trusted file locations only.

Configure a trusted location for Excel Services

1. On the Shared Services Provider home page, under **Excel Services Settings**, click **Trusted file locations**.
2. Click **Add Trusted File Location**.
3. In the **Address** box, type the trusted location address: **http://***<servername>***/***<pwaname>***/***<reportcentersite>*.
4. Select the **Windows SharePoint Services** Location Type.
5. Under **Trust Children**, select the **Children trusted** check box.

6. Under **Workbook Calculation Mode**, select the **Automatic** option.
7. Under **Allow External Data**, select the **Trusted data connection libraries and embedded** option.
8. In the **User-Defined Functions** area, specify whether you plan to use user-defined functions.
9. Click **OK**.

Excel Calculation Services can be configured to require the use of .odc files for all data connections. These files are used to centrally manage connections to external data sources and are stored in data connection libraries. The data connection libraries have to be explicitly trusted before Excel Calculation Services will allow workbooks to access them.

Set up trusted data connection libraries

1. In SharePoint Central Administration, under **Shared Services Administration**, click the Office Project Server 2007 SSP.
2. On the Shared Services Provider home page, under **Excel Services Settings**, click **Trusted data connection libraries**.
3. Click **Add Trusted Data Connection Library**.
4. On the Add Trusted Data Connection Library page, in the **Address** box, type **http://***<servername>***/***<pwaname>***/***<reportcentersite>***/Data Connections**.
5. Click **OK**.

Configuring Single Sign-On

In Office SharePoint Server 2007, single sign-on (SSO) authentication enables users to access multiple system resources without having to provide authentication credentials more than once. Office SharePoint Server 2007 implements SSO authentication by including a Windows service and a secure credentials database.

To authenticate a data connection in a workbook against an external data source, you can configure Excel Calculation Services to retrieve authentication credentials from an SSO store. To enable SSO functionality for Office SharePoint Server 2007, you need to start the Microsoft Single Sign-On service and then manage SSO settings in Central Administration.

Configure the Microsoft Single Sign-On Service

1. Click **Start**, **Administrative Tools**, **Services**.
2. Double-click **Microsoft Single Sign-On Service**.
3. On the **General** tab, select **Automatic** from the **Startup type** drop-down list.
4. On the **Log On** tab, select **This account**, and then type the user name and password for the administrator of your Office Project Server 2007 Shared Services Provider.
5. Click **OK**.

6. Select **Microsoft Single Sign-On Service** in the services list, and then click **Start**.

Configure settings for Single Sign-On

1. In SharePoint Central Administration, click the **Operations** tab.
2. Under **Security Configuration**, click **Manage settings for single sign-on**.
3. On the Manage Settings for Single Sign-On page, click **Manage server settings**.
4. In the **Single Sign-On Administrator Account** section, in the **Account name** text box, type the user name under which the Microsoft Single Sign-On Service is running.
5. In the **Enterprise Application Definition Administrator Account** section, in the **Account name** text box, type the user name under which the Microsoft Single Sign-On Service is running.
6. Optionally, in the **Database Settings** area, update the database server name and database name that you want to use.
7. Click **OK**.

Create a Single Sign-On Enterprise Application Definition

1. On the Manage Settings for Single Sign-On page, under **Enterprise Application Definition Settings**, click **Manage settings for enterprise application definitions**.
2. On the Manage Enterprise Application Definition page, click **New Item**.
3. In the **Display name** text box, type a name.
4. In the **Application name** text box, type a name. This name is used in the Excel Office Data Connection SSO field to identify which set of credentials should be used when retrieving the data.
5. In the **Contact e-mail address** text box, type an appropriate contact e-mail address.
6. Select the **Windows authentication** check box if your Office Project Server 2007 deployment uses Integrated Windows authentication.
7. Leave the default values for the remaining fields, and then click **OK**.

Add security credentials to your SSO application definition

1. In SharePoint Central Administration, click the **Operations** tab.
2. Under **Security Configuration**, click **Manage settings for single sign-on**.
3. On the Manage Settings for Single Sign-On page, click **Manage account information for an enterprise application definition**.
4. From the **Enterprise application definition** drop down list, choose the single sign-on application definition you created in the previous procedure.
5. In the **Group account name** text box, type the name of the security group that you want to allow access to your data sources.
6. Click **Set**.

7. On the Provide <*Application Definition*> Account Information page, enter the user name and password of a user that has access to the data sources that you will be accessing.
8. Click **OK**.
9. Click **Done**.

Office Project Server 2007 and Office SharePoint Server 2007 are now configured to allow report creation and publishing using Office Excel 2007 and data from the Office Project Server 2007 Reporting Database.

Creating a sample report

This section describes how to create a sample report in Office Excel 2007 and publish it to the report center that you created.

Create a sample report

1. In Office Excel 2007, on the **Data** tab, click **From Other Sources**, and then click **From SQL Server**.
2. In the Data Connection Wizard, on the **Connect to Database Server** page, type the name of the instance of SQL Server where your Office Project Server 2007 Reporting database is located in the **Server name** text box, and then click **Next**.
3. On the Select Database and Table page, select the Office Project Server 2007 Reporting database from the drop-down list, and then click **Next**.
4. On the Save Data Connection File and Finish page, click **Authentication Settings**.
5. On the **Excel Services Authentication Settings** dialog box, select the **SSO** option and type the SSO ID in the **SSO ID** text box. (This is the ID that you created in the "To create a Single Sign-On Enterprise Application Definition" procedure earlier in this article.)
6. Click **OK**.
7. Click **Finish**.
8. In the **Import Data** dialog box, select the **PivotTable Report** option, and then click **OK**.
9. Using the fields available in the **Pivot Table Field** list, create a pivot table.
10. Click the Office button, point to **Publish** and then click **Excel Services**.
11. In the **File name** text box, type the location of your report library: **http://**<*servername*>**/**<*pwaname*>**/**<*reportcentername*>**/ReportsLibrary**, and then press ENTER.

    Office Excel 2007 opens the report center.
12. In the **File name** text box, type a file name, and then click **Save**.
13. On the **Choose Document Type** dialog box, keep the default value of **Report**, and then click **OK**.

You can now view the report in the report library.

X. Migrate an existing server farm to a 64-bit environment

Migrate an existing server farm to a 64-bit environment

To upgrade Microsoft Office Project Server 2007 to a 64-bit environment, you must migrate existing servers to a new farm. You cannot upgrade Office Project Server 2007 directly from the 32-bit edition of Office Project Server 2007 to the 64-bit edition.

You must determine which migration strategy is appropriate for your environment. This article provides instructions for a clean migration — in phases — of a Project Server farm to servers in a 64-bit environment. For information about the advantages of a 64-bit environment, see Advantages of 64-bit hardware and software (*http://technet.microsoft.com/en-us/library/dd745012.aspx*).

You can migrate an existing farm to a 64-bit environment in several ways; for example, by adding 64-bit servers to an existing farm and then removing the 32-bit servers. The phased approach described in this article is designed to mitigate possible performance issues. A phased approach also spreads out the periods of downtime required for a migration and enables you to perform the appropriate level of testing after farm servers are migrated.

Service is disrupted during the migration so you must plan the migration and conduct the migration during a time that has the least impact on users.

This article contains the following sections:

- Constraints and known issues
- Before you migrate your farm
- Migrate servers to a 64-bit environment

Constraints and known issues

Prerequisites, constraints, and known issues in the following areas apply to the deployment of Office Project Server 2007 in a 64-bit environment.

Project Server and Windows SharePoint Services software updates and service packs

Since Windows SharePoint Services 3.0 is installed with Office Project Server 2007, update both to the same service pack or software update level on all computers in both the source and destination farms. This is necessary to prevent potential post-migration errors that can occur if software versions are not the same on all the servers.

If your migration goal also includes crossing operating system or database versions, we recommend that you identify and install any public updates released and installed on Windows Server 2003 and Microsoft SQL Server 2005 that also apply to Windows Server 2008 and Microsoft SQL Server 2008.

Existing applications

You must recompile existing 32-bit applications and custom assemblies (for example, Web Parts and event receivers) to run on the 64-bit architecture because the 64-bit edition of Project Server cannot load a 32-bit assembly. Before you recompile existing applications or custom assemblies, verify that they are compiled to run on both architectures. If this is the case, do not compile them for a single architecture. (In Microsoft Visual Studio this build option is AnyCPU.)

If the existing applications are third-party applications, check with the third-party vendor regarding 64-bit versions and compatibility. In the case of custom contracted solutions for which you do not have the source, verify the solutions in a test 64-bit environment to ensure compatibility.

Maintaining homogenous servers on each tier in the farm

As a best practice, we recommend that you maintain homogenous servers on each tier during migration. A tier is a grouping of servers that provide similar services that cannot be broken apart from the perspective of end-user serviceability (front-end Web Servers, Project application servers, Project database servers).

If you follow the procedures in this document, each tier will contain servers that have the same architecture.

If you choose to migrate your servers to a 64-bit environment by simply adding 64-bit servers to an existing farm, you cannot always maintain homogenous servers on each tier and thus might experience poor or inconsistent performance. These issues are identified in Determine hardware and software requirements. This approach (migration by adding 64-bit servers to an existing farm) is supported, but we do not recommend it for farm migration because of the potential performance risks associated with mixing architectures in a tier.

Windows Server 2008

To install Office Project Server 2007 on a computer running Windows Server 2008, you must install Office Project Server 2007 with SP1 or later.

For Office Project Server 2007 you can create a slipstream installation that contains SP1 or later. For more information, see:

- Create an installation source that includes software updates (Project Server 2007)
- Dan Winter's article, How to create a SharePoint slipstream using the latest updates (*http://go.microsoft.com/fwlink/?LinkID=139512&clcid=0x409*) also provides information about creating a slipstream version of Microsoft Office SharePoint Server.

Important:

When planning to migrate your Office Project Server 2007 farm to a 64-bit environment, we highly recommend migrating to Windows Server 2008 64-bit (as opposed to Windows Server 2003 64-bit). By migrating to the newer version of Windows server, you are in a better position to make an easier transition to any upgrade to Office Project Server 2007. Future versions of Project Server and other Office Server applications may require operating systems that are newer than Windows Server 2003.

Windows SharePoint Services 3.0 installed on Windows Server 2008

There is a known issue in Windows SharePoint Services 3.0 where sites that are running on Windows Server 2008 time out when you try to upload a large file to a SharePoint site. Since Windows SharePoint Services 3.0 installs Office Project Server 2007, you should take this into consideration. For more information, see:

- MVP Shane Young's blog post, Windows Server 2008 WFE will not allow large file uploads (*http://go.microsoft.com/fwlink/?LinkId=145881&clcid=0x409*)
- KB article 925083, Error message when you try to upload a large file to a document library on a Windows SharePoint Services 3.0 site: "Request timed out" (*http://go.microsoft.com/fwlink/?LinkId=145916&clcid=0x409*)

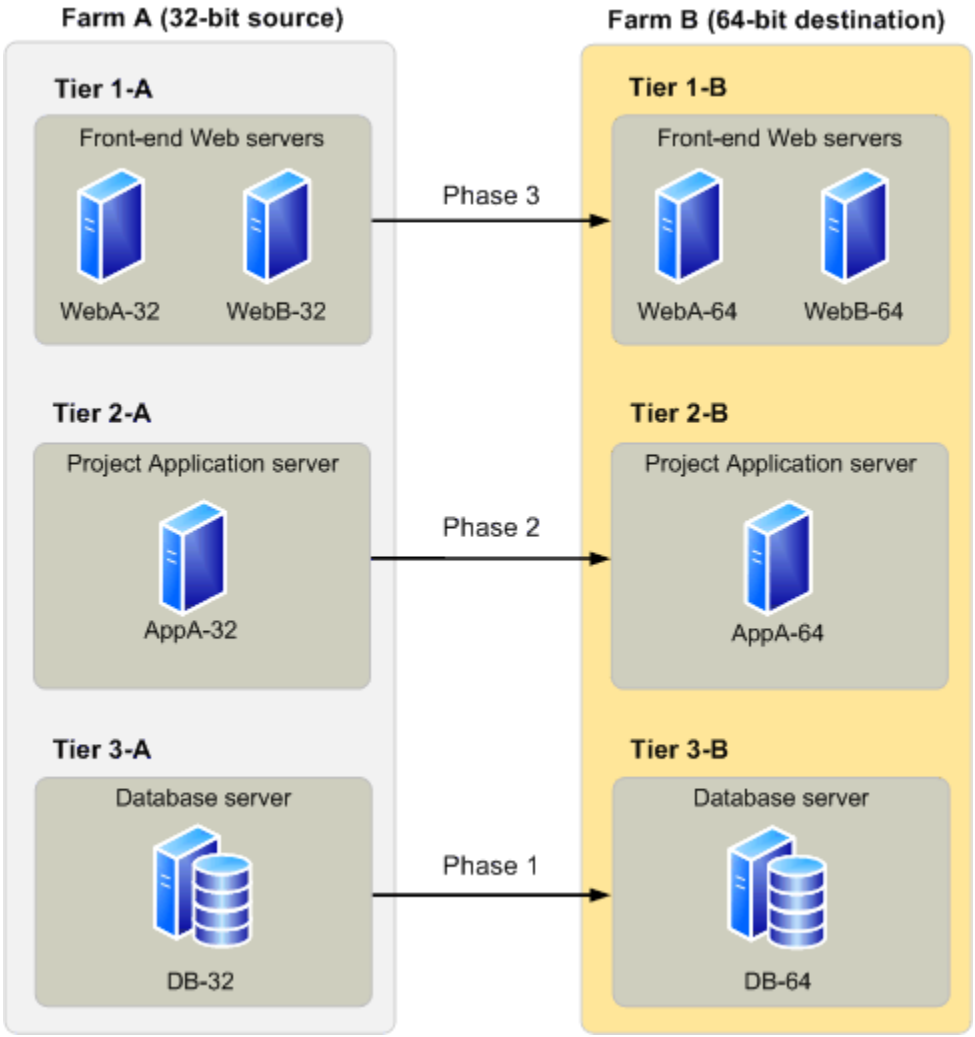
Before you migrate the farm

Before you migrate the farm, review the example farm topology model and the strategy that we recommend for migrating a multiple tier farm from one environment to another. This migration strategy is designed to provide the cleanest possible migration for this type of farm topology.

Farm topology

The following figure shows the farm topology used for the source (Farm A) and destination (Farm B) farms. For ease of reference, the servers in each farm are grouped as tiers, based on their tier.

Farm topology for migration



In the previous figure, note the following:

- Tiers 1-A and 1-B consist of two load-balanced front-end Web servers (WebA-32 and WebB-32, WebA-64 and WebB-64).
- Tiers 2-A and 2-B consist of a single Project application server (AppA-32 and AppA-64).
- Tiers 3-A and 3-B consist of one database server (DB-32, DB-64).

The following table lists the software installed on the servers in each farm.

Software installed on farm servers

Software	Farm A (32-bit)	Farm B (64-bit)
Operating system	Windows Server 2003, SP2	Windows Server 2008
Database	SQL Server 2005, SP2	SQL Server 2008
Office Server applications	Office Project Server 2007 with the latest service pack and cumulative update installed	Windows SharePoint Services 3.0 with the latest service pack and cumulative update installed

Referring to the preceding table, note the following:

- As a best practice, we recommend that you update the operating system on the destination servers with any hotfixes that are common to Windows Server 2003 and Windows Server 2008.
- You cannot install Office Project Server 2007 on a server core installation of Windows Server 2008.
- The migration described in this document supports any version and patch level of SharePoint (RTM to the latest service pack or software update). We recommend that you consider patching Office Project Server 2007 and Windows SharePoint Services 3.0 at least to the level of the latest service pack.

Migration strategy

The strategy is to migrate and test the farm servers in separate phases for each tier in the farm in the following sequence:

1. Tier 3-A: Migrate the existing database server to the new database server. This tier is done first to mitigate any potential performance issues that might occur if a 64-bit system is querying or writing to a 32-bit database. The following options are available:
    - Keep the same host server name on the destination server that you have on the source server.
    - Change the host server name on the destination server. This is the database migration option used in this article.
2. Tier 2-A: Test the new database server and then migrate the existing application server to the new farm.

3. Tier 1-A: Test the application server and then add the 64-bit front-end Web servers to the new farm.

The preceding systematic approach is not mandatory, but we strongly recommend it because it provides an environment for migration and testing that ensures the cleanest possible migration. The benefits are minimization of unexpected results, such as missing files and corrupt data, and the ability to effectively manage service downtime during migration.

Migrating servers to 64-bit environment

You can use the steps in this section to migrate to a farm that has any of the following operating systems and databases installed:

- The 64-bit version of Windows Server 2003
- The 64-bit edition Windows Server 2008
- The 64-bit version of SQL Server 2005
- The 64-bit version of SQL Server 2008

From a migration perspective, the notable differences between these operating systems and databases lies in the preparation of the destination servers.

Read the following section before conducting Phase 1 (back-end databases), Phase 2 (application servers), and Phase 3 (front-end servers) of the migration.

Important:

As mentioned previously, when planning to migrate your Office Project Server 2007 farm to a 64-bit environment, we highly recommend migrating to Windows Server 2008 64-bit (as opposed to Windows Server 2003 64-bit).

Before you begin

Before you start a farm migration you must complete the following tasks:

- Obtain updated reference material
- Document your farm configuration
- Identify and document required accounts and permissions
- Prepare the destination farm

Obtain updated reference material

Obtain a copy of Migrate Project Server data from one farm to another (*http://technet.microsoft.com/en-us/library/dd857479.aspx*). This topic contains comprehensive instructions, including SQL Server and Stsadm commands for moving a SharePoint database server. These instructions cover the following scenarios:

- Moving a database to a new database server that has the same name.
- Moving a database to a new database server that has a different name.

Document your farm configuration

Some elements of a farm must be migrated manually. Ensure that you have documented the following:

- The Web applications associated with SSPs
- Customized master pages and other pages
- Other customized content
- Features
- Custom applications and compiled DLLs
- Any other customized farm elements

Identify and document required accounts and permissions

In order to work on the source and destination servers, refer to Move all databases (*http://technet.microsoft.com/en-us/library/dd207290.aspx*) to ensure that you have the correct permissions for using Office Project Server 2007 tools, Microsoft SQL Server database tools, and operating system commands.

Prepare the destination farm

The following preparation work is required for the application and database servers on the destination farm:

- Apply the appropriate operating system updates to the servers.
- Use Install Project Server 2007 in Windows Server 2008 (single-server installation) as a reference for configuring SQL Server and deploying Project Server on Windows Server 2008.
- Install SQL Server 2008 on the database server.
- Complete a farm installation of Project Server on AppA-64. When you finish, you will have a new farm with one Project application servers (AppA-64) and a database server (DB-64).

  Important:

  Do not give the new content databases the same name as the content databases on the source farm. You cannot share content databases between two Project Server farms.

Phase 1: Migrate the back-end databases

During this phase, you migrate the back-end databases by using one of the following procedures:

- Move the database to a host server that has the same name.
- Move the database to a host server that has a different name.

  Note:

  You change the name of a Project Server database server, but you cannot change the instance name. For example, DB-32\projserv can be renamed to DB-64\projserv, but DB-32\projserv cannot be renamed to DB-32\projserv2.

The following procedure requires a full backup of the content databases.

Move the database to a host server that has the same name

1. Completely stop Farm A by stopping the services associated with Office Project Server 2007 (Microsoft Office Project Server Queuing and Events services) and by stopping Internet Information Services (IIS).
2. Use SQL Server 2005 tools to back up all the SharePoint databases on the source database server (DB-32).
3. Shut down the source database server (DB-32).
4. Copy all the backup files to a server share folder that is not part of Farm A or Farm B. This share folder provides a restoration point for all the critical Project Server files.
5. Copy the database backup files to the destination database server.
6. Restore the databases from DB-32 to DB-64 by using SQL Server 2008 tools.
7. Copy all the SQL Server logins, fixed server roles, fixed database roles, and permissions for the databases to the destination server (DB-64).
8. Reattach the databases to the new database server.
9. Restart the AppA-32 application server to apply the changes and ensure that the services, Web sites, and application pools associated with Office Project Server 2007 are started.
10. Configure all the servers on Farm A to point to DB-64.
11. Restart Farm A.
12. Conduct the appropriate tests for your environment to ensure that Farm A is working with the new database.

The following procedure requires a full backup of all the SSPs and content databases.

Note:

Backing up and restoring SSPs is not required if a farm is using a SQL Server alias to connect to the SQL Server database.

Move the database to a host server that has a different name

1. Use the Stsadm operation to do a full backup of all the SSPs on AppA-32.
2. Delete all the SSPs from Farm A.
3. Completely stop Farm A by stopping the services associated with Office Project Server 2007 (Microsoft Office Project Server Queuing and Events services) and by stopping Internet Information Services (IIS).
4. Use SQL Server 2005 tools to back up the following databases on the source database server (DB-32):
   - All content databases
   - Central Administration content database

- Project Server databases (Archived, Draft, Published, and Reporting)
- Windows SharePoint Service Help search database (if you are using Windows SharePoint Services Search)

5. Copy all the backup files to a server share folder that is not part of Farm A or Farm B. This share folder provides a restoration point for all the critical files.
6. Copy the database backup files to the destination database server.
7. Restore the databases from DB-32 to DB-64 by using SQL Server 2008 tools.
8. Copy all the SQL Server logins, fixed server roles, fixed database roles, and permissions for the databases to the destination server (DB-64).
9. Run the Stsadm **renameserver** operation on AppA-32 to rename the database server in Farm B.
10. Restart the AppA-32 application server to apply the changes and ensure that the services, Web sites, and application pools associated with Office Project Server 2007 are started.
11. Restore the SSPs on AppA-32 using **Stsadm –restore** with the **[keepindex]** option.
12. Add all of the restored SSPs to Farm A.
13. Set the new default SSP and then delete the original default SSP.
14. Configure all the servers on Farm A to point to DB-64.
15. Restart Farm A.
16. Conduct the appropriate tests for your environment to ensure that Farm A is working with the new database.

When you complete this phase your active farm has the following topology:

- Front-end Web servers: WebA-32, WebB-32
- Application servers: AppA-32
- Database server: DB-64

Phase 2: Migrate the application servers

During this phase you backup and restore SSPs. During this phase you can copy the farm elements that you documented in Document your farm configuration to a location on the server share you created in Phase 1. Use the following procedure to migrate the application servers.

Migrate the application servers

1. Prepare the front-end Web Servers for Farm B, but do not add them to the farm.
2. Use the Stsadm operation to perform a full backup of all the SSPs on AppA-32.
3. Delete all the SSPs from Farm A by issuing the following command:

   stsadm -o deletessp -title SharedServices -force
4. Completely stop Farm A by stopping the services associated with Office Project Server 2007 and by stopping Internet Information Services (IIS).

5. Copy farm elements that need to be moved manually from the server share to locations on Farm B (WebA-64, WebB-64, and AppA-64) that correspond to their locations on Farm A.
6. Copy all the backup files to a server share folder that is not part of Farm A or Farm B. This share folder provides a restoration point for all the critical SharePoint files.
7. Copy all the backup files to AppA-64.
8. Start AppA-64 to apply the changes and ensure that the services, Web sites, and application pools associated with Office Project Server 2007 are started.
9. Configure AppA-64 to point to the content databases restored from Farm A and use SQL Server 2008 tools to delete the original content databases that were created when you built Farm B, from DB-64.
10. Restore the SSPs on AppA-64 using **Stsadm –restore** with the **[keepindex]** option.
11. Add all of the restored SSPs to Farm B.
12. Set the new default SSP and then delete the original default SSP.
13. Restart Farm A.
14. Conduct the appropriate tests for your environment to ensure that the source farm is working with the new application servers and the database.

When you complete this phase your active farm has the following topology:

- Front-end Web servers: WebA-32, WebB-32
- Application servers: AppA-64
- Database server: DB-64

Phase 3: Migrate the front-end Web servers

During this phase you complete the migration by adding 64-bit front-end Web servers to the farm. Use the following procedure to migrate the front-end Web servers.

Migrate the front-end Web servers.

1. Completely stop Farm A by stopping the services associated with Office Project Server 2007 and by stopping Internet Information Services (IIS).
2. Start Farm B.
3. Add WebA-64 and WebB-64 to Farm B and configure them so they are pointing to DB-64.
4. Conduct the appropriate tests for your environment to ensure that the destination farm is working.

When you complete this phase, the migration to a 64-bit environment is complete and your active farm has the following topology:

- Front-end Web servers: WebA-64, WebB-64
- Application servers: AppA-64
- Database server: DB-64

See Also

Move all databases (*http://technet.microsoft.com/en-us/library/dd207290.aspx*)

Determine hardware and software requirements

Migrate an existing server farm to a 64-bit environment (*http://technet.microsoft.com/en-us/library/dd622865.aspx*)

Install Project Server 2007 in Windows Server 2008 (single-server installation)

Deploy Project Server 2007 to a server farm environment

Advantages of 64-bit hardware and software (*http://technet.microsoft.com/en-us/library/dd745012.aspx*)

Move all databases (*http://technet.microsoft.com/en-us/library/cc512725.aspx*)

XI. Configure Office Project server 2007 to use the Cube Building Service

Configure Office Project Server 2007 to use the Cube Building Service

Chapter overview: Configure Office Project Server 2007 to use the Cube Building Service

Cube building process overview

Deployment configuration options for the Project Server 2007 Cube Building Service

Requirements for using SQL Server 2000 Analysis Services with the Project Server 2007 Cube Building Service

Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service

Chapter overview: Configure Office Project Server 2007 to use the Cube Building Service

This chapter provides information and directions for configuring Microsoft Office Project Server 2007 to use the Cube Building Service. This chapter does not include information about selecting cube configuration options (for example, selecting custom fields as cube dimensions or measures) nor does it include information about creating views for the cube data. For information about managing cube build configuration options and settings, see Managing the Cube Building Service in Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197625.aspx*).

In this chapter:

- Cube building process overview Provides a breakdown of the steps involved in building an OLAP cube through the Office Project Server 2007 Cube Building Service. This involves processes that occur on the Project Server application server, SQL Server Analysis Services, and the Reporting database.
- Deployment configuration options for the Project Server 2007 Cube Building Service Provides supported configuration options that are available to customers who plan to deploy the Cube Building service.
- Requirements for using SQL Server 2000 Analysis Services with the Project Server 2007 Cube Building Service Provides information and procedures for configuring the Cube Building Service with SQL Server 2000 Analysis Services. Office Project Server 2007 is supported to use either SQL Server 2000 Analysis Services or SQL Server 2005 Analysis Services. This article describes permission and configuration requirements on the Project Server Application Server, Analysis Services, and the Reporting database.
- Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service Provides information and procedures for configuring the Cube Building Service with SQL Server 2005 Analysis Services. This article describes permission and configuration requirements on the Project Server Application Server, Analysis Services, and the Reporting database.
- Requirements for using SQL Server 2008 Analysis Services with the Project Server 2007 Cube Building Service Provides information and procedures for configuring the Cube Building Service with SQL Server 2008 Analysis Services. This article describes permission and configuration requirements on the Project Server Application Server, Analysis Services, and the Reporting database. It also describes error messages you can encounter while building cubes with this version of Analysis Services, and possible solutions for these errors.

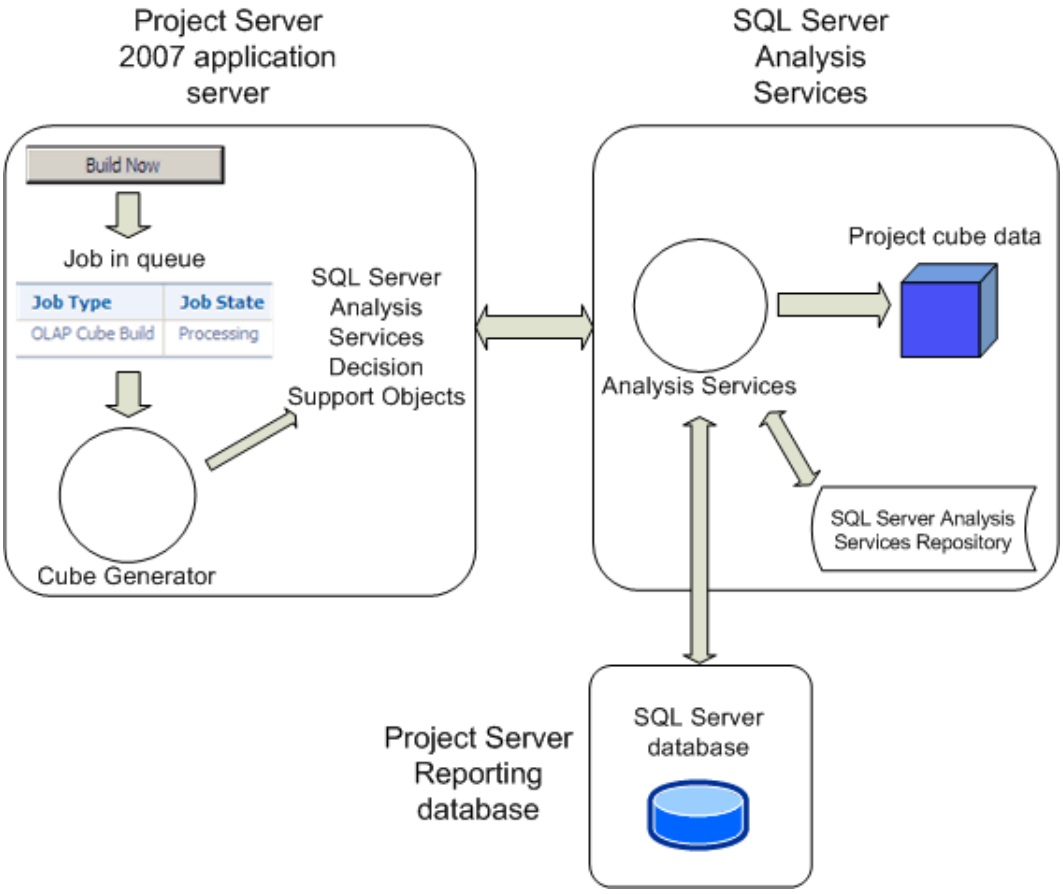
Cube building process overview

The Microsoft Office Project Server 2007 Cube Building Service is a reporting and analysis feature in Microsoft Project Server that allows you to perform complex analysis of project data. It uses SQL Server Analysis Services to create an online analytical processing (OLAP) database containing several cubes that are used for data analysis reporting. It is administered through the Project Web Access Site Settings page and allows for data cubes to be built from selections within the Reporting database. This article describes an overview of the cube building process.

New features in Office Project Server 2007 make cube building more convenient to do than in Microsoft Office Project Server 2003. Microsoft Office Project Server 2007 is multithreaded, and the new Project Server Queue service prioritizes cube builds amidst other actions taking place in a Project Server deployment. But it can take several hours for a cube to build and errors can occur during this process that require troubleshooting. Therefore, it is valuable to understand how the process works.

Overview

Once you have configured your cube and your build settings, you are ready to build your cube. At that point, you simply click a button to start the process, but the process has several complex steps that happen in the background. The process of building the Office Project Server 2007 OLAP cube database goes as follows.



1. Clicking the **Build Now** button in the **Server Settings** section of Project Web Access creates a cube build request that generates an OLAP cube build job in the Project Server Queue. The Microsoft Office Project Server Queue service takes the job and calls ProjectServerOlapCubeGenerator.exe, which in turn starts the Cube Generator process. This executable file is located by default in C:\Program Files\Microsoft Office Servers\12.0\Bin and is not load-balanced.
2. The identity running the Queue service and the Cube Generator process manages Analysis Services through the Analysis Services Decision Support Objects (DSO). The Cube Building Service uses the SQL Server 2000 Analysis Services DSO compatibility mode. SQL Server 2005 Analysis Service is backwards compatible and can still be used.

3. Analysis Services accesses the SQL Server Analysis Services Repository of metadata used to define the cubes. As a best practice, the repository should be stored in a SQL Server database. In SQL Server 2005 Analysis Services, it can also reside in a shared folder.
4. The cube database is built by Analysis Services (Msmdsrv.exe), based on the instructions given by the Cube Generator process. These instructions are based on the cube build and configuration settings you have specified in Project Web Access. During this process, Analysis Services accesses staging tables for the cube database from the Project Server Reporting database.
5. The Project OLAP cube database is complete.

The cube database

With a successful cube build, a cube database is created in SQL Server Analysis Services. Three virtual cubes are available, based on 14 Office Project Server 2007 and Windows SharePoint Services 3.0 cubes.

Following are the three default virtual cubes. These cubes contain consolidated sets of dimensions and measures in the underlying cube component. Users that view the cube data will see a virtual cube as a single cube. These virtual cubes are recommended for use in reporting on your Office Project Server 2007 and related Windows SharePoint Services 3.0 data.

- **MSP_Project_Timesheet** Combines the Assignment Timephased, Resource Timephased, and EPM Timesheet cubes.
- **MSP_Project_WSS** Combines Project Non-timephased, Issues, Risks, and Deliverables cubes. This cube is most useful for reporting on Windows SharePoint Services 3.0 data.
- **MSP_Portfolio_Analyzer** Combines the Assignment Timephased and Resource Timephased cubes. This Portfolio Analyzer cube is backward-compatible with the Project Server 2003 MSP_Portfolio_Analyzer cube. This cube is most useful for reporting on project data and project plans.

For best results, consider the following when creating reports based on cube data:

- Timesheet cubes contain details on non-working time.
- Timesheet data may not align with the actual time data in the project plan. If changes are made in the project plan after the timesheet is created, the actual time listed in each may not match.
- Historical timesheet related information that has been removed, renamed, or deleted in the project plan will not be available in the timesheet cubes.
- When you are tracking project information where time has been submitted and accepted, we recommend that you use the MSP_Portfolio_Analyzer cube.

Note:

Office Project Server 2007 OLAP cube schema information can be found in the Project 2007 SDK: Software Development Kit (*http://go.microsoft.com/fwlink/?LinkId=86947&clcid=0x409*).

Following are the eight primary enterprise project management (EPM) cubes and the three default Windows SharePoint Services 3.0 cubes. These cubes serve as aggregation points for the virtual cubes listed above and are not recommended for direct use in reporting.

EPM cubes:

- Project Non-timephased
- Task Non-timephased
- Resource Non-timephased
- Resource Timephased
- Assignment Non-timephased
- Assignment Timephased
- Timesheet
- EPM Timesheet

Windows SharePoint Services 3.0 cubes:

- Risks
- Issues
- Deliverables

See Also

Configure Office Project Server 2007 to use the Cube Building Service

Deployment configuration options for the Project Server 2007 Cube Building Service

Deployment configuration options for the Project Server 2007 Cube Building Service

This article describes supported deployment configuration options that you can consider when planning to use the Microsoft Office Project Server 2007 Cube Building Service.

Important:

OLAP cube creation and processes that occur on the Project Server application server can consume a large portion of the server's resources. . When considering deployment options, refer to Chapter overview: Plan for performance and capacity (*http://technet.microsoft.com/en-us/library/cc303416.aspx*).

Configuration options

There are three components to configure in your cube-building deployment:

- **Project Server 2007** The Office Project Server 2007 application server with the Queuing service.
- **SQL Server Analysis Services** Any of three versions can be used: SQL Server 2000 Analysis Services with Service Pack 4 (or a subsequent SP), SQL Server 2005 Analysis Services with SP 1 (or a subsequent SP), or SQL Server 2008 Analysis Services.
- **Project Server Reporting database** The Project Server Reporting database is one of the four project databases created by Office Project Server 2007. Analysis Services accesses the tables in the Project Server Reporting database to create the Analysis Services cube database with Project cube data. The Project Server Reporting database can exist in either SQL Server 2000, SQL Server 2005, or SQL Server 2008.

Office Project Server 2007 supports using different versions of SQL Server for your database component and for SQL Server Analysis Services. For example, you can use SQL Server 2000 SP4 as your database server, and use SQL Server 2005 SP2 Analysis Services.

One-server configuration

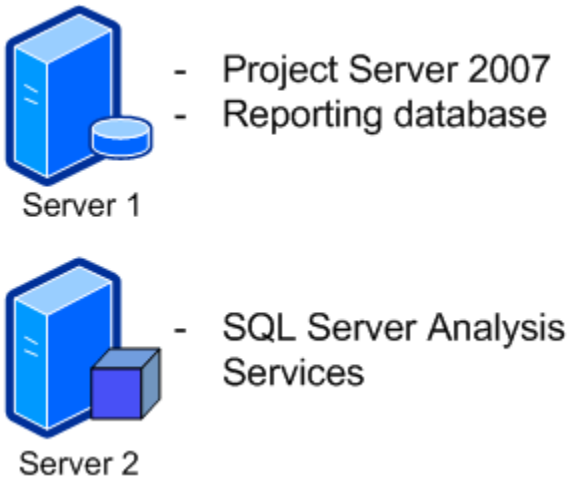
The one-server configuration deploys all three components on the same computer.

This configuration should only be used for a very small company or for a small pilot deployment. This is not recommended for larger companies or for customers who are using many or larger projects.

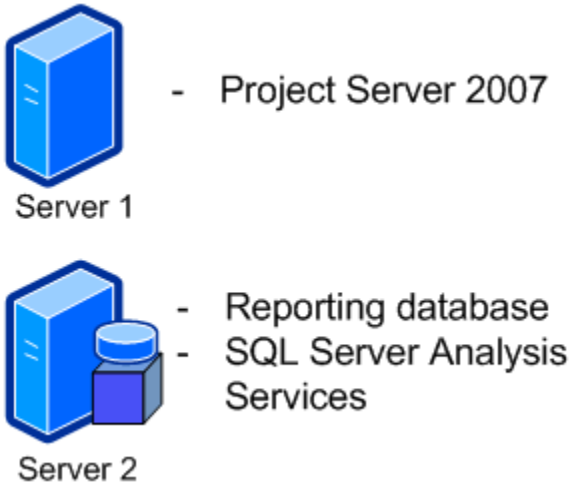
Two-server configuration

There are two supported two-server configurations.

- The first option deploys the Project Server application server and the Project Server Reporting database on one server. SQL Server Analysis Services is deployed to the second server.



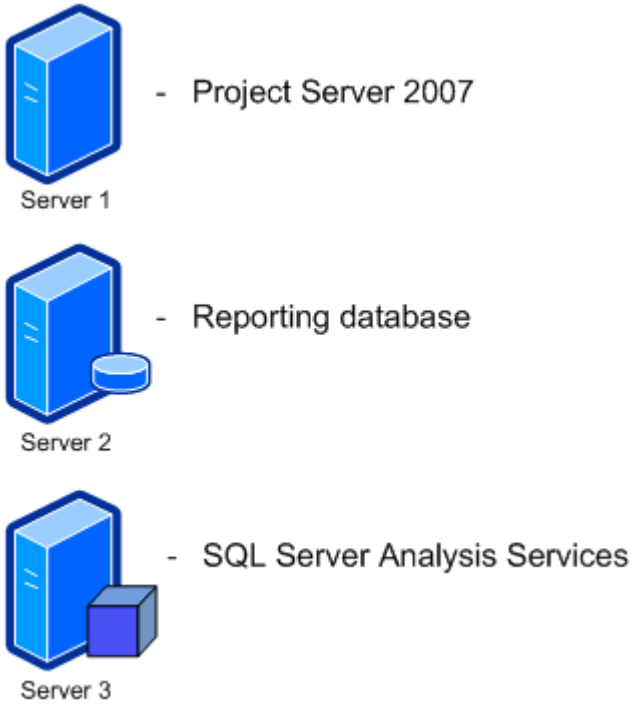
- The second option deploys the Project Server application server on the first server. Both the Project Server Reporting database and SQL Server Analysis Services are deployed to the second server.



OLAP cube builds and updates can be consume a large share of memory and processor cycles on the server, so both configurations improves performance by moving this functionality off of the Project Server application server.

Three-server configuration

The three-server configuration deploys each component on its own server.



This configuration provides better performance by allowing a dedicated server for each component.

Requirements for using SQL Server 2000 Analysis Services with the Project Server 2007 Cube Building Service

For cube building, you can use SQL Server 2000 Analysis Services, SQL Server 2005 Analysis Services, or SQL Server 2008 Analysis Services. This article describes requirements for using SQL Server 2000 Analysis Services with the Microsoft Office Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2005 Analysis Services, see Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2008 Analysis Services, see Requirements for using SQL Server 2008 Analysis Services with the Project Server 2007 Cube Building Service.

Service pack requirements

In order for SQL Server 2000 Analysis Services to function correctly with the Office Project Server 2007 Cube Building Service, you must apply SQL Server 2000 Service Pack 4 for Analysis Services.

If you are using the SQL Server 2000 database component as your database server, you must apply Service Pack 4 to the database component as well. Both the SQL Server 2000 database component and SQL Server 2000 Analysis Services must be at that same service pack level.

You can check the service pack version for both the SQL Server 2000 database component and SQL Server 2000 Analysis Services by doing the following.

Verify the SQL Server 2000 service pack version

1. From the **Start** menu, select **Control Panel**.
2. Double-click **Add or Remove Programs**.
3. Click the product on which you would like to check the version (either **Microsoft SQL Server 2000** or **Microsoft SQL Server 2000 Analysis Services**).
4. Click **Click here for support information**.
5. Note the version number. The version for Service Pack 4 is **8.00.2039**.

To apply Service Pack 4 to SQL Server 2000 Analysis Services, you can use the following procedure.

Apply SQL Server 2000 Service Pack 4 to the Analysis Services component

1. Go to the Microsoft SQL Server 2000 Service Pack 4 download page (*http://go.microsoft.com/fwlink/?LinkId=86989*).

2. Download the Analysis Services Components (download file: SQL2000.AS-KB884525-SP4-x86.EXE).
3. When you run the download, you are prompted to select a location for saving the file. After specifying the location, click **Next**. The files will be extracted to this location.
4. Click **Finished**.
5. Browse to the location you specified on the server and run \msolap\install\Setup.exe.
6. Follow the directions that appear to complete the installation of the service pack.

Install SQL Server 2000 Analysis Services Decision Support Objects

If you are using SQL Server 2000 Analysis Services with Office Project Server 2007, you need to install the Analysis Services DSO (Decision Support Objects) component on your Project Server application servers. You also need to install SQL Server 2000 Service Pack 4 for Analysis Services on the DSO component as well.

Note:

If SQL Server 2000 Analysis Services is installed on the Project Server application server (for example, a single-computer installation), you do not need to install DSO on that server.

Install SQL Server 2000 Analysis Services Decision Support Objects and Service Pack 4

1. On the Project Server 2007 application server, insert the SQL Server 2000 CD into the CD-ROM drive, or connect to a network installation point.
2. If you are installing from the SQL Server 2000 CD with AutoPlay enabled, click **SQL Server 2000 Components** in the SQL Server 2000 Setup program. Otherwise, on the SQL Server CD (or network installation point), browse for and run the file named Autorun.exe.
3. On the Install Components page, click **Install Analysis Services**.
4. Read and accept the end-user license agreement.
5. In the Analysis Services Setup program, on the **Select Components** page, clear all the components except **Decision Support Objects** and **Client components**, and then follow the wizard to install DSO.
6. Go to the Microsoft SQL Server 2000 Service Pack 4 download page (*http://go.microsoft.com/fwlink/?LinkId=86989*).
7. Download the Analysis Services Components (download file: SQL2000.AS-KB884525-SP4-x86.EXE).
8. When you run the download, you are prompted to select a location for saving the file. After specifying the location, click **Next**. The files will be extracted to this location.
9. Click **Finished**.

10. Browse to the location you specified on the server and run \msolap\install\Setup.exe.
11. Follow the directions that appear to complete the installation of the service pack.

Adding the Queue service account to the OLAP Administrators group

When you install and configure Office Project Server 2007, the Windows user account responsible for running the Microsoft Project Server Queue service is automatically designated at the time that the Shared Services Provider is created. This account must be added as a member of the OLAP Administrators group.

To find out which Windows user account is designated as the Queue service account, go to the Project Server application server and do the following procedure.

Determine the Microsoft Project Server Queue service account

1. From the **Start** menu, click **Programs**, click **Administrative Tools**, and then click **Services**.
2. In the Services **Name** list, double-click **Microsoft Office Project Server Queue Service**.
3. On properties page, click the **Log On** tab. Note the Windows user account that the service is running under. You will need to add this account to the OLAP Administrators group in a later step.
4. Click **Cancel** to exit the menu.

You will then need to add the Microsoft Project Server Queue service account to the OLAP Administrators group on the computer on which SQL Server 2000 Analysis Services is running.

Add the Queue Service account to the OLAP Administrators group

1. From the **Start** menu, click **Programs**, click **Administrative Tools**, and then click **Computer Management**.
2. In Computer Management, expand **Local Users and Groups** and then click the **Groups** folder.
3. Double-click the **OLAP Administrators** group to open the properties page.
4. In the properties page, click **Add**.
5. On the Select Users, Computers, or Groups page, in the **Enter Object Names to select** box, enter the Windows user account under which the Queue Service is running. Click **OK**.
6. In the OLAP Administrators property page, click **OK**.

Granting the OLAP Administrators group permissions to the SQL Server 2000 Analysis Services components

The OLAP Administrators group needs to have permissions to all SQL Server 2000 Analysis Services components. You may need to explicitly grant the OLAP Administrators group full control on the \bin subdirectory of the Installation directory for SQL Services 2000 Analysis Services. The default location of this directory is:

C:\Program Files\Microsoft Analysis Services\Bin

Migrating the repository

Each server running Microsoft SQL Server 2000 Analysis Services has a repository to store metadata for the objects of the computer running Analysis Services (for example, cubes and dimensions). By default, this repository is a Microsoft Jet database (.mdb) on the server on which Analysis Services is installed. Our recommendation for better scalability is that you migrate the repository to a Microsoft SQL Server 2000 database.

Note:

You can only migrate the repository to a SQL Server database. The Analysis Services 2005 management application does not support migration of the repository file. However, migrating the repository before you upgrade or obtaining a pre-defined repository database will allow you to have the repository hosted in a SQL Server database.

Migrate the repository

1. In SQL Server, create a new database and name it **Analysis Services Repository**.
2. Under **Security**, right-click **Logins** and then click **New Login**.
3. For the name of the login, click the ellipses (**...)** and select the OLAP Administrators group for this computer.
4. On the **Database Access** tab, select the Analysis Services Repository database.
5. Under **Permit in Database Role**, select **db_owner**.
6. Log in to the computer running Analysis Services 2000 by using a user account that has permissions that are equivalent to either the Administrators group or OLAP Administrators group, and start Analysis Manager.
7. In the left pane, expand **Analysis Servers**.
8. Right-click the name of your server, and then click **Migrate Repository** to start the Migrate Repository Wizard. Migrate the repository to the database that you created in step 1.

   Note:

   We recommend that you choose the Analysis Services native format when

migrating the repository.

9. After you migrate the repository to a SQL Server database, you can safely delete the old repository. By default, this database is \Program Files\Microsoft Analysis Services\Bin\msmdrep.mdb.

Granting the Analysis Services service account access to the Project Server Reporting database

Because Project Server 2007 uses the enhanced capabilities of SQL Server integrated security, you must give the Analysis Services service account explicit access to the Project Server 2007 Reporting database in each Project Server instance. Default SQL Server 2000 installations use the Windows system account to run the Analysis Services service. This must be changed to an account that can access SQL Server. A domain account is required if SQL Server is hosted on a separate server.

In Office Project Server 2007, the account running the SQL Server Analysis Services service (MSSQLServerOLAPService) is granted direct access to the Project Server Reporting database in SQL Enterprise Manager.

In order to access the Project Server Reporting Database for the Cube Generation Service, the minimum permission required is the DB_DataReader role. You must grant this permission to the SQL Server Analysis Services service account.

Grant permissions to the SQL Server Analysis Services service account to access the Project Server Reporting database

1. From the **Start** menu, select **Programs**, select **Microsoft SQL Server**, and then click **Enterprise Manager**.
2. In Enterprise Manager, expand **Microsoft SQL Servers**, **SQL Server group**, and the server.
3. Expand the **Security** folder, right-click **Logins**, and then click **New Login**.
4. On the properties page, in the **General** tab, enter the Windows Authenticated account for the user running the SQL Server Analysis Services service.
5. Click the **Database Access** tab.
6. Enable **Permit** for the Project Server Reporting database(s).
7. In the **Permit in Database Role** section, enable **db_datareader** permissions for the Project Server Reporting database(s).
8. Click **OK**.

Requirements for cube building and viewing in Project Web Access

Cube data is seen through a "Data Analysis View" in Project Web Access. Some ActiveX components are required for creating and using these Data Analysis views.

Users are prompted to download the ActiveX components to their computer when they first build a Data Analysis view or when they attempt to use such a view. The Microsoft Office Web Components are a collection of ActiveX components that allows Project Web Access users to use PivotTable and Chart components to access OLAP cube data. Make sure that your users are allowed to download these components to their computers, or else preinstall the components for your users. For more information, see Office XP Tool: Web Components (*http://go.microsoft.com/fwlink/?LinkId=87125&clcid=0x409*).

Port requirements for SQL Server Analysis Services

Traffic between your Project Server application server and your SQL Server Analysis Services server occurs when a Project Web Access user builds a cube database . Project Web Access clients building Data Analysis views or viewing Project Cube data in Data Analysis views are communicating directly with your SQL Server Analysis Services server. Make sure that any firewalls allow for this traffic, especially when you have extranet users.

The default instance of SQL Server Analysis Services normally listens on port 2383. If you are using named instances in SQL Server 2005 Analysis Services, then the SQL Server Browser service needs to be running on the server to give clients who are accessing it a port for the named instance. The SQL Browser service is normally on port 2382.

Named instances of Analysis Services will have other dynamically allocated ports. These can be discovered by looking in the configuration file for SQL Server Analysis Services.

Determine the port number SQL Server Analysis Services Named Instance

1. On the computer on which SQL Server 2005 Analysis Services is running, open the msmdredir.ini file in a text editor. The default location is C:\Program files\Microsoft SQL Server\90\Shared\ASConfig.
2. In the `<Instances>` section of the msmdredir.ini file, note the text. For example:

   ```
   <Instances>      <Instance>          <Name>AS2005</Name>
            <Port>1259</Port>      </Instance>  </Instances>
   ```

   In this example, the `AS2005` instance is listening on port 1259.

Port requirement for Office Web Components

If you have extranet users, it is also important to note that Office Web Components require port 2725 to allow a direct connection to SQL Server 2005 Analysis Services. Even though access is

enabled over port 80 via HTTPS, if port 2725 is not available, the dynamic OLAP reports will not be able to access data from Analysis Services.

Analysis Services Considerations

There are several scenarios related to the Analysis Services account that need to be taken into consideration:

- Organizations may have multiple Project Web Access instances on the farm. The information described in this article applies to each instance. The same Analysis Services account must be granted DB_DataReader Role permissions to each instance's Reporting database in order to start the Cube Building Service.
- The Windows logon account used to start the SQL Server 2000 Analysis Services service may be an account where the password will expire. When this occurs, the service will not run again until the password is reset, which could cause down time. A best practice would be to run the service using a dedicated Windows Account where the password does not expire.
- Depending on how SQL Server 2000 and SQL Server 2000 Analysis Services were installed, the MSSQLServerOLAPService may be running with a local system account. Because the Analysis Services service account needs access to the Reporting database, there are two options to use for the service account in order for the service to access the database for cube generation:
    a. Change the logon access for the service to a Windows user account with a password that never expires. Or simply be aware that you must change the password for the service whenever the account password is changed.
    b. Add the *Domain**MachineName*$ as an account in Enterprise Manager with DB_DataReader role permissions to the Project Server Reporting database.

Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service

For cube building, you can use SQL Server 2000 Analysis Services, SQL Server 2005 Analysis Services, or SQL Server 2008 Analysis Services. This article describes requirements for using SQL Server 2005 Analysis Services with the Microsoft Office Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2000 Analysis Services, see Requirements for using SQL Server 2000 Analysis Services with the Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2008 Analysis Services, see Requirements for using SQL Server 2008 Analysis Services with the Project Server 2007 Cube Building Service.

Service pack requirements

In order for SQL Server 2005 Analysis Services to function correctly with the Office Project Server 2007 Cube Building Service, you must apply SQL Server 2005 Service Pack 1 or higher.

For information about identifying your SQL Server 2005 version, see the Knowledge Base article #321185: How to Identify your SQL Server version and edition (*http://go.microsoft.com/fwlink/?LinkId=87047&clcid=0x409*).

For information about obtaining the latest service pack version for SQL Server 2005, see the Knowledge Base article #913089: How to obtain the latest service pack for SQL Server 2005 (*http://go.microsoft.com/fwlink/?LinkId=87051&clcid=0x409*).

Install the DSO client components on Project Server application servers

Although Office Project Server 2007 can be used with either Analysis Services in SQL Server 2000 or SQL Server 2005, it was built primarily to be used with SQL Server 2000 Analysis Services. The Decision Support Objects (DSO) library included with Microsoft SQL Server 2005 enables programs written for Analysis Services in SQL Server 2000 to work with Analysis Services in SQL Server 2005. Office Project Server 2007 uses the SQL Server 2000 Analysis Services DSO library to create and manage OLAP cube data. The ability of SQL Server 2005 Analysis Services to be backwards compatible allows it to use the DSO model required by Office Project Server 2007 for OLAP cube management.

By default, the DSO library is installed by the SQL Server 2005 installation process. However, for the purposes of cube building, the DSO library must be installed on every server on which the Project Server application server is running. Therefore, on any server computer running Project

Server application server where Analysis Services is not installed, you need to install the DSO library.

The way for you to install DSO is by getting a set of redistributable packages included in the SQL Server 2005 Feature Pack. That set consists of:

- Microsoft SQL Server Native Client (sqlncli.msi)
- Microsoft SQL Server 2005 Management Objects Collection (sqlserver2005_xmo.msi)
- Microsoft SQL Server 2005 Backward Compatibility Components (SQLServer2005_BC.msi)

These components can be downloaded from the Feature Pack for Microsoft SQL Server 2005 – December 2008 (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).

Always check for the most recent version, as feature packs are released periodically.

Note:

If SQL Server 2005 Analysis Services is running on the Project Server application server (for example, a single-computer installation), then the DSO library will already be installed. In that configuration, you would not need to download and apply the Microsoft SQL Server 2005 Backward Compatibility Components.

Install the Microsoft SQL Server Native Client

1. Go to the Feature Pack for Microsoft SQL Server 2005 – December 2008 download page (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).
2. Click the **X86 Package** for the Microsoft SQL Server Native Client (sqlncli.msi).

   Note:

   You can select **X64 Package** if you are using the 64-bit version of SQL Server 2005 Analysis Services.
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server Native Client Setup page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Feature Selection page, verify that both features (Client Components and SQL Server Native Client SDK) have this option selected: **This feature, and all subfeatures, will be installed on local hard drive**. Click **Next**.
9. On the Ready to Modify the Program page, click **Install**.
10. After the installation is done, click **Finish**.

Install the Microsoft SQL Server 2005 Management Objects Collection

1. Go to the Feature Pack for Microsoft SQL Server 2005 – December 2008 download page (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).

2. Click the **X86 Package** for the Microsoft SQL Server 2005 Management Objects Collection (SQLServer2005_XMO.msi).
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server Native Client Setup page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Ready to Modify the Program page, click **Install**.
9. After the installation is done, click **Finish**.

Install the Microsoft SQL Server 2005 Backward Compatibility Components

1. Go to the Feature Pack for Microsoft SQL Server 2005 – December 2008 download page (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).
2. Click the **X86 Package** for the Microsoft SQL Server 2005 Backward Compatibility Components (SQLServer2005_BC.msi).
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft to the Install Wizard for Microsoft SQL Server 2005 Backward compatibility page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Feature Selection page, verify that all listed features have this option selected: **This feature, and all subfeatures, will be installed on local hard drive**. Click **Next**.

   Note:

   Only the DSO component needs to be selected.
9. On the Ready to Modify the Program page, click **Install**.
10. After the installation is done, click **Finish**.

Configure the SSP account to access SQL Server 2005 Analysis Services

Prior to configuring SQL Server 2005 Analysis Services, you must configure the Shared Services Provider (SSP) account to have the correct permissions to access it. (The SSP account is the security account for the application pool that you are using.)

To do this, you must:

- Add the SSP account to an OLAP users local group on the computer hosting SQL Server 2005 Analysis Services.
- Add the SSP account as an administrator on the SQL Server 2005 Analysis Services instance.

To begin with, determine the SSP account, as follows.

Determine the SSP account

1. On the SharePoint Central Administration Web site, in the Quick Launch, click **Shared Services Administration**.
2. On the Manage this Farm's Shared Services page, from the drop-down list for the Shared Services Provider you are using, click **Edit Properties**.
3. On the Edit Shared Services Provider page, in the **SSP Services Credential** section, note the account name in the **Username** field. This is the SSP account.

Add the SSP account to the OLAP users group

When you install SQL Server 2005 Analysis Services, a local group is created on the server that allows users to access it. This group is named SQLServer2005MSOLAPUser$<SERVERNAME>$MSSQLSERVER. You must add the SSP account to this group.

Note:

In SQL Server 2000 Analysis Services, this group is similar to the OLAP Administrators group. However, in the group used for SQL Server 2005 Analysis Services, Administrative privileges are not automatically assigned to members.

Add the SSP account to the OLAP users local group

1. Click the **Start** menu, point to **All Programs**, point to **Administrative Tools**, and then click **Computer Management**.
2. On the Computer Management page, in the left pane under **System Tools**, expand **Local Users and Groups**. Click the **Groups** folder.
3. In the right pane, under the **Name** list, double-click SQLServer2005MSOLAPUser$<*SERVERNAME*>$MSSQLSERVER.

Note:

<*SERVERNAME*> represents the name of the computer.

4. On the SQLServer2005MSOLAPUser$<*SERVERNAME*>$MSSQLSERVER properties page, click **Add**.
5. On the Select Users, Computers, or Groups page, go to the **Enter the object names to select** section and add the name of the SSP account. Click **Check Name** to verify that the account exists.
6. Click **OK**.

Configure the SSP account to have administrative permissions in SQL Server 2005 Analysis Services

You must also add the SSP account as an administrator in SQL Server 2005 Analysis Services in order to have permissions to create databases. In SQL Server 2000 Analysis Services, this automatically occurs when a user is added to the OLAP administrators group. In SQL Server 2005 Analysis Services, the user must be added manually as a member to the server role administrative group.

Members of the server role within an instance of Microsoft SQL Server 2005 Analysis Services have unrestricted access to all Analysis Services objects and data in that instance. A member of the Analysis Services server role can add Microsoft Windows users and groups to the Analysis Services server role. A user must be a member of the Analysis Services server role to perform any server-wide task, such as creating a database, modifying server properties, or launching a trace (other than for processing events).

Add the SSP account as a server role member in SQL Server 2005 Analysis Services

1. Open SQL Server Management Studio. In the **Connect to Server** window, connect to the instance of SQL Server 2005 Analysis Services that you are using.
2. In Microsoft SQL Server Management Studio, in **Object Explorer**, right-click your SQL Server 2005 Analysis Services instance name, and then click **Properties**.
3. On the Analysis Services Properties page, in the **Select a page** pane, click **Security**. NT Users and Groups that are members of the server role will appear in a list.
4. Click **Add**. In the **Select Users or Groups** page, go to the **Enter the object names to select** field and enter the name of the SSP account that you are adding to the server role. Click **Check Name** to verify that the account exists.
5. Click **OK**.

Configure SQL Server 2005 Analysis Services

After installing the DSO client on Project Server application servers, you must also configure SQL Server 2005 Analysis Services to enable access to the repository. You can create the repository in SQL Server 2005 Analysis Services in either of two ways:

- Create the repository by using a SQL Server 2000 Microsoft Jet database
- Create the repository in a SQL Server 2005 database

Option 1: Create the repository by using a SQL Server 2000 Microsoft Jet database

In SQL Server 2000 Analysis Services, the repository file is a Microsoft Jet database (.mdb) that could easily be migrated to a SQL Server 2000 database. SQL Server 2005 Analysis Services does not include the repository file or the ability to migrate it to a SQL database. However, you can still use the Microsoft Jet database that comes with SQL Server 2000 Analysis Services to be used in SQL Server 2005 Analysis Services.

This approach requires the following steps to be performed on the computer on which SQL Server 2005 Analysis Services is running:

1. Create the shared folder for the repository
2. Download the repository file to the remote administration shared folder
3. Edit the Analysis Services configuration file

Create a shared folder for the repository

You must create a shared folder in SQL Server 2005 Analysis Services where the repository will be located. You also must make the shared folder accessible to accounts that will need to access it.

Create the shared folder

1. In Windows Explorer, browse to the folder containing the Analysis Services installation. By default, it is located at:

   C:\Program Files\Microsoft SQL Server\MSSQL.2\OLAP
2. In this folder, create a new folder and name it **DSO9**.

   Note:

   If the subfolder MSSQL.2\OLAP does not exist, use the \OLAP folder in one of the MSSQL.X subdirectories.
3. Right-click the **DSO9** folder, and choose **Sharing and Security**.
4. On the Sharing and Security page, in the Sharing tab, select **Share this folder**. In the **Share Name** box, type **MSOLAPRepository$** as the share name for the folder.
5. Click **Permissions**. On the **Share Permissions** tab, in the **Group or user names** list,

click **Add**. On the Select User, Computers, or Groups page, add the SQLServer2005MSOLAPUser$<*Servername*>$MSSQLServer account from the local computer. Click **OK**.

6. In the **Group or user names** list, select the SQLServer2005MSOLAPUser$<*Servername*>$MSSQLServer account. In the **Permissions for SQLServer2005MSOLAPUser$<Servername>$MSSQLServer** box, select **Allow** next to **Full Control**. Click **OK**.

   Note:

   For security reasons, you will want to remove the **Everyone** group from the **Group or user names** list.

7. On the **Security** tab, in the **Group or user names** list, select **SQLServer2005MSOLAPUser$SERVERNAME$MSSQLSERVER**. Select the **Allow** check box next to the **Full Control** item in the **Permissions** list, and then click **OK**.
8. Click **Add**. On the Select Users, Computers, or Group page add the account running the Project Server Queue service on the Project Server application server. Click **OK**.

   Note:

   To verify this account, on the Project Server application server, click the **Start** menu, click **Programs**, click **Administrative Tools**, and then click **Services**. Double-click **Microsoft Office Project Server Queue Service** and note the account on the **Log On** tab.

9. On the New Folder Properties page, click **OK**.

Copy the repository file to the remote administration share

DSO needs to have full access to a copy of the SQL Server 2000 Analysis Services repository (Msmdrep.mdb) for which the DSO application is being used. You can use the repository that is included with SQL Server 2000 Analysis Services. The location of the sample repository file depends on the installation path for the instance of SQL Server 2000 Analysis Services, but it is typically located as follows: C:\Program Files\Microsoft Analysis Services\ Bin.

Note:

If you do not have the SQL Server 2000 repository file, go to http://go.microsoft.com/fwlink/?LinkId=87082&clcid=0x409 to download the repository file.

After obtaining a copy of the Msmdrep.mdb file, copy the file to the remote administration share (the **DSO9** folder) you created earlier.

Edit the Analysis Services DSO configuration

You need to configure the Analysis Services DSO properties so that the repository is configured to be used from DSO in SQL Server 2005 Analysis Services. Changes made during this process will be reflected in the Analysis Services configuration file (MSMDSRV.INI).

Configure Analysis Services to use a SQL Server repository file

1. In SQL Server 2005, start SQL Server Management Studio. On the Connect to Server window, select **Analysis Services**, and then click **Connect**.
2. In SQL Server Management Studio, in the Object Explorer pane, right-click the Analysis Services name, and then choose **Properties**.

   Important:

   Do not select **Migrate Repository**. That option assumes that you do not need backwards compatibility.
3. On the Analysis Services Properties page, in the Select a page section select General. Select **Show Advanced (All) Properties**.
4. Select **DSO\RepositoryConnectionString** from the **Name** list.
   a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
   b. On the Connection Manager page, in the **Provider** list, select **Microsoft Jet 4.0 OLE DB Provider** and click **OK**.
   c. In the **Database** file name section, click **Browse**. In the Select Microsoft Access Database File window, locate the repository file and click **Open**. This action enters the path of the repository file in the **Database file name** box.
   d. In the **Logon to the database** field, enter the account information for the database. Click **OK**.
5. Select **DSO\RemoteRepositoryConnectionString** from the **Name** list.
   a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
   b. On the Connection Manager page, in the **Provider** list, select **Microsoft Jet 4.0 OLE DB Provider**.
   c. In the **Database** file name section, click **Browse**. In the Select Microsoft Access Database File window, locate the repository file and click **Open**. This action enters the path of the repository file in the **Database file name** box.
   d. In the **Logon to the database** field, enter the account information for the database. Click **OK**.
6. On the Analysis Server Properties page, click **OK**.

Option 2: Create the repository by creating a SQL Server 2005 database

If you do not have an OLAP repository file that has been migrated to a SQL Server database, it is possible to create one in SQL Server to use in SQL Server 2005 Analysis Services. The following procedure creates the repository database and runs a SQL script to create the required database schema.

Create the Repository database in SQL Server 2005

1. Open SQL Server Management Studio, for Server Type, select the Database Engine, and click Connect.
2. In Microsoft SQL Server Management Studio, right-click the Databases folder and click New Database.
3. On the New Database page, for Database Name type Analysis Services Repository. Click OK.
4. In the Object Explorer list, expand the **Security** folder. Right-click **Logins** and then click **New Login**.
5. In the Login Name section, click **Search**.
6. In the Select Users or Groups page, click **Object Type**.
7. In the Object Type page, select **Groups**, and then click **OK**.
8. In the Select Users or Groups page, go to the **Enter the object name to select** box and enter SQLServer2005MSOLAPUser$<*SERVERNAME*>$MSSQLSERVER for this computer. Click **OK**.
9. In the Select a page list, click User Mappings. In the Users mapped to this login list, select Analysis Services Repository.
10. In the Database role membership for: list for the repository database, select **db_owner**. Click **OK**.
11. In Microsoft SQL Server Management Studio, expand the Databases folder and right-click **Analysis Services Repository**. Click **New Query**.
12. In the Query Editor screen, enter the following text:

```
CREATE TABLE [dbo].[OlapObjects] (
            [ID] [varchar] (36) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ParentID] [varchar] (36) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ObjectName] [nvarchar] (150) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ClassType] [int] NOT NULL ,
            [ObjectDefinition] [ntext] COLLATE
SQL_Latin1_General_CP1_CI_AS NULL ,
            [LastUpdated] [datetime] NULL ,
            [Changed] [bit] NULL ,
            [Version] [int] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[Server] (
            [ObjectDefinition] [ntext] COLLATE
SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
```

13. Execute the script. The script will create the database scheme required for the repository.

Edit the Analysis Services DSO configuration

You need to configure the Analysis Services DSO properties so that the repository database is configured to be used from DSO in SQL Server 2005 Analysis Services. Changes made during this process will be reflected in the Analysis Services configuration file (MSMDSRV.INI).

Configure Analysis Services to use a SQL Server repository database

1. In SQL Server 2005, start SQL Server Management Studio. On the Connect to Server window, select **Analysis Services**, and then click **Connect**.
2. In SQL Server Management Studio, in the Object Explorer pane, right-click the Analysis Services name, and then choose **Properties**.

   Important:

   Do not select **Migrate Repository**. That option assumes that you do not need backwards compatibility.
3. On the Analysis Services Properties page, in the Select a page section select General. Select **Show Advanced (All) Properties**.
4. Select **DSO\RepositoryConnectionString** from the **Name** list.
   a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
   b. On the Connection Manager page, in the **Provider** list, select **Native OLE DB\SQL Native Client**.
   c. In the Server Name list, select the server on which the repository database is located.
   d. In the **Logon to the server** field, enter the account information to log onto the server.
   e. In the Connect to database section, select a database name.
   f. Click **OK**.
5. Select **DSO\RemoteRepositoryConnectionString** from the **Name** list.
   a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
   b. On the Connection Manager page, in the **Provider** list, select **Native OLE DB\SQL Native Client**.
   c. In the Server Name list, select the server on which the repository database is located.
   d. In the **Logon to the server** field, enter the account information to log onto the server.
   e. In the Connect to database section, select **Select or enter a database name** and

enter the name of the repository file.

f. Click **OK**.

6. On the Analysis Server Properties page, click **OK**.

Grant the Analysis Services service account access to the Project Server Reporting database

In Office Project Server 2007, the account running the SQL Server Analysis Service service is granted direct access to the Reporting database in SQL Management Studio.

In order to access the Project Server Reporting Database for the Cube Generation Service, the minimum permission required is the DB_DataReader role. You must grant this permission to the SQL Server Analysis Services service account.

Grant permissions to the SQL Server Analysis Service account to access the Reporting database

1. From the **Start** menu, point to **Programs**, then **Microsoft SQL Server 2005**, and then click **SQL Server Management Studio**
2. On the Connect to Server page, enter your logon information to connect to the database engine, and then click **Connect**.
3. In Management Studio, expand the **Security** folder, right-click **Logins**, and then click **New Login**.
4. On the General page, enter the Windows Authenticated account for the user running the SQL Server Analysis Services service.
5. In the **Select a page** list, click **User Mapping**.
6. In the **Database** list, select **Project Server_Reporting**. Select the corresponding **Map** check box.
7. In the **Database role membership for: ProjectServer_Reporting** section, select **db_datareader**.
8. Click **OK**.

Requirements for building and viewing cubes in Project Web Access

Cube data is seen through a "Data Analysis View" in Project Web Access. Some components and actions are required for creating and using these Data Analysis views.

- **Microsoft Office Web Components** Users are prompted to download the ActiveX components to their computer when they first build a Data Analysis view or when they attempt to use such a view. The Microsoft Office Web Components are a collection of ActiveX components that allows Project Web Access users to use PivotTable and Chart components to access OLAP cube data. Make sure that your users are allowed to download

these components to their computers, or else preinstall the components for your users. For more information, see Office XP Tool: Web Components (*http://go.microsoft.com/fwlink/?LinkId=87125&clcid=0x409*).

- **Microsoft SQL Server 2005 Analysis Services 9.0 OLE DB Provider** This component allows your users who are accessing cube data to query data stored within SQL Server 2005 Analysis Services. This component can be downloaded from the Feature Pack for Microsoft SQL Server 2005 – December 2008 (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).

  Note:

  If you are using SQL Server 2000 Analysis Services, this component is not required.

Install the Microsoft SQL Server 2005 Analysis Services 9.0 OLE DB Provider

1. Go to the Feature Pack for Microsoft SQL Server 2005 – December 2008 download page (*http://go.microsoft.com/fwlink/?LinkId=87078&clcid=0x409*).
2. Click the **X86 Package** for the Microsoft SQL Server 2005 Analysis Services 9.0 OLE DB Provider (SQLServer2005_ASOLEDB9.msi)

   Note:

   You can select **X64 Package** if you are using the 64-bit version of SQL Server 2005 Analysis Services.
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server 2005 Analysis Services 9.0 OLE DB Provider page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Ready to Install the Program page, click **Install**.
9. After the installation is done, click **Finish**.

- **Enable Access data sources across domains in Internet Explorer** Additionally, if the **Access data sources across domains** security setting in Internet Explorer is set to Disable, you must set this setting to Enable for the given security zone that you use to connect to Project Web Access.

Enable the "Access data sources across domains" security setting in Internet Explorer

1. In Internet Explorer, click **Tools**, and then click **Internet Options**.
2. Click the **Security** tab, click the zone that you use to connect to the Office Project Server 2007, and then click **Custom Level**.
3. Under **Access data sources across domains**, select **Enable**.

Port requirements for SQL Server 2005 Analysis Services

Traffic between your Project Server application server and your SQL Server Analysis Services server occurs when a Project Web Access user builds a cube database. Project Web Access clients building Data Analysis views or viewing Project cube data in Data Analysis views are communicating directly with your SQL Server Analysis Services server. Make sure that any firewalls allow for this traffic, especially when you have extranet users.

The default instance of SQL Server Analysis Services will normally be listening on port 2383. If you are using named instances in SQL Server Analysis Services, then the SQL Server Browser service needs to be running on the server to give clients who are accessing it a port for the named instance. The SQL Server Browser is normally on port 2382.

Named instances of Analysis Services will have other dynamically allocated ports. These can be discovered by looking in the configuration file for the SQL Server Browser.

Determine SQL Server Analysis Services Named Instance port number

1. On the computer on which SQL Server 2005 Analysis Services is running, open the msmdredir.ini file in a text editor. The default location is C:\Progarm files\Microsoft SQL Server\90\Shared\ASConfig.
2. In the `<Instances>` section of the msmdredir.ini file, note the text. Here is an example:

   ```
   <Instances>      <Instance>          <Name>AS2005</Name>
            <Port>1259</Port>      </Instance>  </Instances>
   ```

   In this example, the `AS2005` instance is listening on port 1259.

Port requirement for Office Web Components

If you have extranet users, it is also important to note that Office Web Components require port 2725 to allow a direct connection to SQL Server 2005 Analysis Services. Even though access is enabled over port 80 via HTTPS, if port 2725 is not available, the dynamic OLAP reports will not be able to access the Analysis Services data.

Analysis Services considerations

There are several considerations about the Analysis Services account that need to be taken into consideration:

- Organizations may have multiple Project Web Access instances on the farm. The information described in this article applies to each instance. The same Analysis Services account must be granted DB_DataReader Role permissions to each instance's Reporting database in order to start the Cube Building Service.
- The Windows logon account used to start the SQL Server 2005 Analysis Services service may be an account where the password will expire. When this occurs, the service will not run

again until the password is reset, which could cause down time. A best practice would be to run the service using a dedicated Windows Account where the password does not expire.

- Depending on how SQL Server 2005 and SQL Server 2005 Analysis Services were installed, the MSSQLServerOLAPService may be running with a local system account. Because the Analysis Services service account needs access to the Reporting database, there are two options to use for the service account in order for the service to access the database for cube generation:
  a. Change the logon access for the service to a Windows user account with a password that never expires. Or simply be aware that you must change the password for the service whenever the account password is changed.
  b. Add the *Domain**MachineName*$ as an account in Enterprise Manager with DB_DataReader role permissions to the Project Server Reporting database.

See Also

Video Demo: Using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service (*http://technet.microsoft.com/en-us/library/dd630720.aspx*)

Requirements for using SQL Server 2008 Analysis Services with the Project Server 2007 Cube Building Service

For cube building, you can use SQL Server 2000 Analysis Services, SQL Server 2005 Analysis Services, or SQL Server 2008 Analysis Services. This article describes requirements for using SQL Server 2008 Analysis Services with the Microsoft Office Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2000 Analysis Services, see Requirements for using SQL Server 2000 Analysis Services with the Project Server 2007 Cube Building Service.

For information about requirements for SQL Server 2005 Analysis Services, see Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service.

This article describes the following:

- Install the Decision Support Object (DSO) client components on Project Server application servers Describes how to correctly install the SQL Server components required on the application server in order to communicate with SQL Server 2008 Analysis Services.
- Configure the Shared Services Provider (SSP) account to access SQL Server 2008 Analysis Services Describes how to add the SSP account to the OLAP users group and as an administrator on SQL Server 2008 Analysis Services.
- Configure SQL Server 2008 Analysis Services Describes how to create the repository database through two options:
  - Create the repository database by creating a SQL Server 2008 database
  - Create the repository by using a SQL Server 2000 Microsoft Jet database
- Grant the Analysis Services service account access to the Project Server Reporting database Describes how to grant permissions to the SQL Server Analysis Services account to access the Reporting database, which is required by the cube building service.
- Requirements for building and viewing cubes in Project Web Access Describes how to install components that are required for creating and using Data Analysis views that use the OLAP cube data.
- Port requirements for SQL Server 2008 Analysis Services Describes port requirements for the traffic between the Project Server application server and SQL Server Analysis Services server.
- Port requirement for Office Web Components Describes port requirements for the Office Web Components when trying to view OLAP cube data by using Data Analysis views over an extranet.
- Error Messages and possible solutions Describes errors and possible solutions and workaround that can occur when configuring SQL Server 2008 Analysis Services with the Office Project Server 2007 cube building service.

Install the Decision Support Object (DSO) client components on Project Server application servers

Although Office Project Server 2007 can be used with Analysis Services in either SQL Server 2000, 2005, or 2008 versions, it was built primarily to be used with SQL Server 2000 Analysis Services. The Decision Support Objects (DSO) library included with Microsoft SQL Server 2008 enables programs written for Analysis Services in SQL Server 2000 to work with Analysis Services in SQL Server 2008. Office Project Server 2007 uses the SQL Server 2000 Analysis Services DSO library to create and manage OLAP cube data. The ability of SQL Server 2008 Analysis Services to be backwards compatible allows it to use the DSO model required by Office Project Server 2007 for OLAP cube management.

By default, the DSO library is installed by the SQL Server 2008 installation process. However, for the purposes of cube building, the DSO library must be installed on every server on which the Project Server application server is running. Therefore, on any server computer running Project Server application server where Analysis Services is not installed, you need to install the DSO library.

The way to install the DSO library is to get a set of redistributable packages included in the SQL Server 2005 Feature Pack. That set consists of:

1. Microsoft SQL Server Native Client
2. Microsoft SQL Server 2005 Management Objects Collection
3. Microsoft SQL Server 2005 Backward Compatibility Components

Important:

Although this article involves SQL Server 2008 Analysis Services, it is important that you download these components from the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*). At this time, do not use the feature packs for SQL Server 2008 to install and download these components, as those files will not allow you to build cubes in SQL Server 2008 Analysis Services with Project Server 2007.

Important:

Prior to installing the Microsoft SQL Server 2005 Management Objects from the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*), you must install the Microsoft SQL Server Native Client from this same feature pack collection. It is important to install this component first.

Note:

If SQL Server 2008 Analysis Services is running on the Project Server application server (for example, a single-computer installation), then the DSO library will already be installed. In that configuration, you would not need to download and apply the Microsoft SQL Server 2005 Backward Compatibility Components.

Install the Microsoft SQL Server Native Client

1. Browse to the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*) download page.
2. Click the **X86 Package** for the Microsoft SQL Server Native Client (sqlncli.msi).

   Note:

   Select the **X64 Package** if you are using the 64-bit version of Office Project Server 2007 on your application server.
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server Native Client Setup page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Feature Selection page, verify that both features (Client Components and SQL Server Native Client SDK) have this option selected: **This feature, and all subfeatures, will be installed on local hard drive**. Click **Next**.
9. On the Ready to Modify the Program page, click **Install**.
10. After the installation is done, click **Finish**.

Important:

Make sure to install the Microsoft SQL Server 2005 Native Client from the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*).

Install the Microsoft SQL Server 2005 Management Objects Collection

1. Browse to the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*) download page.
2. Click the **X86 Package** for the Microsoft SQL Server 2005 Management Objects Collection (SQLServer2005_XMO.msi).

   Note:

   Select the **X64 Package** if you are using the 64-bit version of Office Project Server 2007 on your application server.
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server Native Client Setup page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.

8. On the Ready to Modify the Program page, click **Install**.
9. After the installation is done, click **Finish**.

Install the Microsoft SQL Server 2005 Backward Compatibility Components

1. Browse to the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*) download page.
2. Click the **X86 Package** for the Microsoft SQL Server 2005 Backward Compatibility Components (SQLServer2005_BC.msi).

   Note:

   Select the **X64 Package** if you are using the 64-bit version of Office Project Server 2007 on your application server.
3. Click **Run** to start the download.
4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft to the Install Wizard for Microsoft SQL Server 2005 Backward compatibility page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Feature Selection page, verify that the DSO component has this option selected: **This feature, and all subfeatures, will be installed on local hard drive**. Click **Next**.
9. On the Ready to Modify the Program page, click **Install**.
10. After the installation is done, click **Finish**.

Configure the SSP account to access SQL Server 2005 Analysis Services

Prior to configuring SQL Server 2008 Analysis Services, you must configure the Shared Services Provider (SSP) account to have the correct permissions to access it. (The SSP account is the security account for the application pool that you are using.)

To do this, you must:

- Add the SSP account to an OLAP users local group on the computer hosting SQL Server 2008 Analysis Services.
- Add the SSP account as an administrator on the SQL Server 2008 Analysis Services instance.

To begin with, determine the SSP account, as follows.

Determine the SSP account

1. On the SharePoint Central Administration Web site, in the Quick Launch, click **Shared**

Services Administration.

2. On the Manage this Farm's Shared Services page, from the drop-down list for the Shared Services Provider you are using, click **Edit Properties**.
3. On the Edit Shared Services Provider page, in the **SSP Services Credential** section, note the account name in the **Username** field. This is the SSP account.

Add the SSP account to the OLAP users group

When you install SQL Server 2008 Analysis Services, a local group is created on the server that allows users to access it. This group is named SQLServerMSASUser$<SERVERNAME>$MSSQLSERVER. You must add the SSP account to this group.

Note:

In SQL Server 2000 Analysis Services, this group is similar to the OLAP Administrators group. However, in the group used for SQL Server 2008 Analysis Services, Administrative privileges are not automatically assigned to members.

Add the SSP account to the OLAP users local group

1. Click the **Start** menu, point to **All Programs**, point to **Administrative Tools**, and then click **Computer Management**.
2. On the Computer Management page, in the left pane under **System Tools**, expand **Local Users and Groups**. Click the **Groups** folder.
3. In the right pane, under the **Name** list, double-click SQLServerMSASUser$<*SERVERNAME*>$MSSQLSERVER.

   Note:

   <*SERVERNAME*> represents the name of the computer.
4. On the SQLServerMSASUser$<*SERVERNAME*>$MSSQLSERVER properties page, click **Add**.
5. On the Select Users, Computers, or Groups page, go to the **Enter the object names to select** section and add the name of the SSP account. Click **Check Name** to verify that the account exists.
6. Click **OK**.

Configure the SSP account to have administrative permissions in SQL Server 2008 Analysis Services

You must also add the SSP account as an administrator in SQL Server 2008 Analysis Services in order to have permissions to create databases. In SQL Server 2000 Analysis Services, this automatically occurs when a user is added to the OLAP administrators group. Similarly to SQL Server 2005 Analysis Services, the user must be added manually as a member to the Server Administrator role in SQL Server 2008 Analysis Services.

Members of the Server Administrator role within an instance of Microsoft SQL Server 2008 Analysis Services have unrestricted access to all Analysis Services objects and data in that instance. A member of the Server Administrator role can add Microsoft Windows users and groups to the Analysis Services server role. A user must be a member of the Server Administrator role to perform any server-wide task, such as creating a database, modifying server properties, or launching a trace (other than for processing events).

Add the SSP account as a Server Administrator role member in SQL Server 2008 Analysis Services

1. Open SQL Server Management Studio. In the **Connect to Server** window, connect to the instance of SQL Server 2008 Analysis Services that you are using.
2. In Microsoft SQL Server Management Studio, in **Object Explorer**, right-click your SQL Server 2008 Analysis Services instance name, and then click **Properties**.
3. On the Analysis Services Properties page, in the **Select a page** pane, click **Security**. NT Users and Groups that are members of the server role will appear in a list.
4. Click **Add**. In the **Select Users or Groups** page, go to the **Enter the object names to select** field and enter the name of the SSP account that you are adding to the server role. Click **Check Name** to verify that the account exists.
5. Click **OK**.

Configure SQL Server 2008 Analysis Services

After installing the DSO client on Project Server application servers, you must create the repository database and then configure SQL Server 2008 Analysis Services to enable access to it. You can create the repository database in either of two ways:

- Create the repository in a SQL Server 2008 database
- Create the repository by using a SQL Server 2000 Microsoft Jet database

Option 1: Create the repository database by creating a SQL Server 2008 database

It is possible to create the repository database in SQL Server 2008 to use in SQL Server 2008 Analysis Services. The following set of procedures creates the repository database and runs a SQL script to create the required database schema.

Create the repository database in SQL Server 2008

1. Open SQL Server Management Studio. For **Server Type**, select the **Database Engine**, and then click **Connect**.
2. In Microsoft SQL Server Management Studio, right-click the **Databases** folder, and then click **New Database**.
3. On the New Database page, for Database Name type **Analysis Services Repository**.

Click **OK**.

4. In the Object Explorer list, expand the **Security** folder. Right-click **Logins** and then click **New Login**.
5. In the **Login Name** section, click **Search**.
6. On the Select Users or Groups page, click **Object Type**.
7. On the Object Type page, select **Groups**, and then click **OK**.
8. On the Select Users or Groups page, go to the **Enter the object name to select** box and enter the local OLAP users group for this computer. Click **OK**.
9. On the Select a page list, click **User Mappings**. In the **Users mapped to this login** list, select **Analysis Services Repository**.
10. In the **Database role membership for** list for the repository database, select **db_owner**. Click **OK**.
11. In Microsoft SQL Server Management Studio, expand the Databases folder and right-click **Analysis Services Repository**. Click **New Query**.
12. In the Query Editor, enter the following text:

```
CREATE TABLE [dbo].[OlapObjects] (
            [ID] [varchar] (36) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ParentID] [varchar] (36) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ObjectName] [nvarchar] (150) COLLATE
SQL_Latin1_General_CP1_CI_AS NOT NULL ,
            [ClassType] [int] NOT NULL ,
            [ObjectDefinition] [ntext] COLLATE
SQL_Latin1_General_CP1_CI_AS NULL ,
            [LastUpdated] [datetime] NULL ,
            [Changed] [bit] NULL ,
            [Version] [int] NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

CREATE TABLE [dbo].[Server] (
            [ObjectDefinition] [ntext] COLLATE
SQL_Latin1_General_CP1_CI_AS NULL
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
```

13. Execute the script. The script will create the database schema required for the repository.

Edit the Analysis Services DSO configuration

You need to configure the Analysis Services DSO properties so that the repository database is configured to be used from DSO in SQL Server 2008 Analysis Services. Changes made during this process will be reflected in the Analysis Services configuration file (Msmdsrv.ini).

Configure Analysis Services to use a SQL Server repository database

1. In SQL Server 2008, start SQL Server Management Studio. On the **Connect to Server** window, select **Analysis Services**, and then click **Connect**.
2. In SQL Server Management Studio, in the Object Explorer pane, right-click the Analysis Services name, and then choose **Properties**.
3. On the Analysis Services Properties page, in the Select a page section select General. Select **Show Advanced (All) Properties**.
4. Select **DSO\RepositoryConnectionString** from the **Name** list.
    a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
    b. On the Connection Manager page, in the **Provider** list, select **Native OLE DB\SQL Native Client**.
    c. In the **Server Name** list, select the server on which the repository database is located.
    d. In the **Logon to the server** field, enter the account information to connect to the server.
    e. In the Connect to database section, select **Select or enter a database name** and enter the name of the repository file.
    f. Click **OK**.
5. Select **DSO\RemoteRepositoryConnectionString** from the **Name** list.
    a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
    b. On the Connection Manager page, in the **Provider** list, select **Native OLE DB\SQL Native Client**.
    c. In the **Server Name** list, select the server on which the repository database is located.
    d. In the **Logon to the server** field, enter the account information to connect to the server.
    e. In the **Connect to database** section, select **Select or enter a database name** and enter the name of the repository file.
    f. Click **OK**.
6. On the Analysis Server Properties page, click **OK**.

Option 2: Create the repository by using a SQL Server 2000 Microsoft Jet database

In SQL Server 2000 Analysis Services, the repository file is a Microsoft Jet database (.mdb) that could easily be migrated to a SQL Server 2000 Analysis Services repository database. SQL Server 2008 Analysis Services does not include the repository file. However, the Microsoft Jet database that comes with SQL Server 2000 Analysis Services can still be used in SQL Server 2008 Analysis Services as the repository database. This provides another option to create the repository database.

This approach requires the following steps to be performed on the computer on which SQL Server 2008 Analysis Services is running:

1. Create the shared folder for the repository.
2. Download the repository file to the remote administration shared folder.
3. Edit the Analysis Services configuration file.

Create a shared folder for the repository

You must create a shared folder in SQL Server 2008 Analysis Services where the repository will be located. You also must make the shared folder accessible to accounts that will need to access it.

Create the shared folder

1. In Windows Explorer, browse to the folder containing the Analysis Services installation. By default, it is located at:

   C:\Program Files\Microsoft SQL Server\MSAS10.MSSQLServer\OLAP
2. In this folder, create a new folder and name it **DSO9**.
3. Right-click the **DSO9** folder, and then click **Sharing**.
4. On the Sharing and Security page, on the **Sharing** tab, click **Advanced Sharing**. On the Advanced Sharing page, select **Share this folder**. In the **Share Name** field, type **MSOLAPRepository$** as the share name for the folder.
5. Click **Permissions**. On the **Share Permissions** tab, in the **Group or user names** list, click **Add**. On the Select User, Computers, or Groups page, add the SQLServerMSASUser$<*Servername*>$MSSQLServer account from the local computer. Click **OK**.
6. In the **Group or user names** list, select the SQLServerMSASUser$<*Servername*>$MSSQLServer account. In the **Permissions for SQLServerMSASUser$<Servername>$MSSQLServer** box, select **Allow** next to **Full Control**. Click **OK**.

   Note:

   For security reasons, you will want to remove the **Everyone** group from the **Group or user names** list.

7. On the **Security** tab, in the **Group or user names** list, click **Edit**. Click **Add**, and on the Select Users, Computers, or Groups page add the **SQLServerMSASUser$SERVERNAME$MSSQLSERVER** account from the local computer. Click **OK**.
8. From the **Group or user names** list, select **SQLServerMSASUser$SERVERNAME$MSSQLSERVER**. Select the **Allow** check box next to the **Full Control** item in the **Permissions** list, and then click **OK**.
9. On the **Security** tab, click **Edit**. Click **Add**, and on the Select Users, Computers, or Group page add the account running the Project Server Queue service on the Project Server application server. Click **OK**.

   Note:

   To verify this account, on the Project Server application server, click the **Start** menu, click **Programs**, click **Administrative Tools**, and then click **Services**. Double-click **Microsoft Office Project Server Queue Service** and note the account on the **Log On** tab.
10. From the **Group or user names** list, select the account you just added. Select the **Allow** check box next to the **Full Control** item in the **Permissions** list, and then click **OK**.
11. On the DSO9 Properties page, click **OK**.

Copy the repository file to the remote administration share

DSO needs to have full access to a copy of the SQL Server 2000 Analysis Services repository (Msmdrep.mdb) for which the DSO application is being used. You can use the repository that is included with SQL Server 2000 Analysis Services. The location of the sample repository file depends on the installation path for the instance of SQL Server 2000 Analysis Services, but it is typically located as follows: C:\Program Files\Microsoft Analysis Services\ Bin.

Note:

If you do not have the SQL Server 2000 repository file, go to http://go.microsoft.com/fwlink/?LinkId=87082&clcid=0x409 to download it.

After obtaining a copy of the Msmdrep.mdb file, copy it to the remote administration share (the **DSO9** folder) that you created earlier.

Edit the Analysis Services DSO configuration

You need to configure the Analysis Services DSO properties so that the repository is configured to be used from DSO in SQL Server 2008 Analysis Services. Changes made during this process will be reflected in the Analysis Services configuration file (Msmdsrv.ini).

Configure Analysis Services to use a SQL Server repository file

1. In SQL Server 2008, start SQL Server Management Studio. In the **Connect to Server** window, select **Analysis Services**, and then click **Connect**.

2. In SQL Server Management Studio, in the Object Explorer pane, right-click the Analysis Services name, and then choose **Properties**.
3. On the Analysis Services Properties page, in the **Select a page** section, select **General**. Select **Show Advanced (All) Properties**.
4. Select **DSO\RepositoryConnectionString** from the **Name** list.
    a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
    b. On the Connection Manager page, in the **Provider** list, select **Microsoft Jet 4.0 OLE DB Provider** and click **OK**.
    c. In the **Database** file name section, click **Browse**. In the **Select Microsoft Access Database File** window, locate the repository file and click **Open**. This action enters the path of the repository file in the **Database file name** box.
    d. In the **Logon to the database** field, enter the account information for the database. Click **OK**.
5. Select **DSO\RemoteRepositoryConnectionString** from the **Name** list.
    a. Select the corresponding value for the string in the **Value** column, and then click the box that appears to the right of the value to display the Connection Manager page.
    b. On the Connection Manager page, in the **Provider** list, select **Microsoft Jet 4.0 OLE DB Provider**.
    c. In the **Database** file name section, click **Browse**. In the **Select Microsoft Access Database File** window, locate the repository file and click **Open**. This action enters the path of the repository file in the **Database file name** box.
    d. In the **Logon to the database** field, enter the account information for the database. Click **OK**.
6. On the Analysis Server Properties page, click **OK**.

Grant the Analysis Services service account access to the Project Server Reporting database

In Office Project Server 2007, the account running the SQL Server Analysis Services service needs to be granted direct access to the Reporting database in SQL Server Management Studio.

In order to access the Project Server Reporting database for the Cube Generation Service, the minimum permission required is the DB_DataReader role. You must grant this permission to the SQL Server Analysis Services service account.

Grant permissions to the SQL Server Analysis Services account to access the Reporting database

1. In SQL Server 2008, start SQL Server Management Studio. On the **Connect to Server** window, select **database engine**, and then click **Connect**.
2. In Management Studio, expand the **Security** folder, right-click **Logins**, and then click

New Login.

3. On the General page, enter the Windows authenticated account for the user running the SQL Server Analysis Services server.
4. In the **Select a page** list, click **User Mapping**.
5. In the **Database** list, select the Project Server Reporting database (the default name is **Project Server_Reporting**). Select the corresponding **Map** check box.
6. In the **Database role membership for the Project Server Reporting database** section, select **db_datareader**.
7. Click **OK**.

Requirements for building and viewing cubes in Project Web Access

Cube data is seen through a "Data Analysis View" in Project Web Access. Some components and actions are required for creating and using these Data Analysis views.

- **Microsoft Office Web Components** Users are prompted to download the ActiveX components to their computer when they first build a Data Analysis view or when they attempt to use such a view. The Microsoft Office Web Components are a collection of ActiveX components that allows Project Web Access users to use PivotTable and Chart components to access OLAP cube data. Make sure that your users are allowed to download these components to their computers, or else install the components for your users. For more information, see Office XP Tool: Web Components (*http://go.microsoft.com/fwlink/?LinkId=87125&clcid=0x409*).
- **Microsoft SQL Server 2008 Analysis Services 10.0 OLE DB Provider** This component allows your users who are accessing cube data to query data stored within SQL Server 2008 Analysis Services. This component can be downloaded from the Microsoft SQL Server 2008 Feature Pack, August 2008 download page (*http://go.microsoft.com/fwlink/?LinkID=133802&clcid=0x409*).

  Note:

  If you are using SQL Server 2000 Analysis Services, this component is not required.

Install the Microsoft SQL Server 2008 Analysis Services 10.0 OLE DB Provider

1. Browse to the Microsoft SQL Server 2008 Feature Pack, August 2008 download page (*http://go.microsoft.com/fwlink/?LinkID=133802&clcid=0x409*).
2. Click the **X86 Package** for the Microsoft SQL Server 2008 Analysis Services 10.0 OLE DB Provider (SQLServer2008_ASOLEDB10.msi).

   Note:

   Select **X64 Package** if your client operating system is a 64-bit version.
3. Click **Run** to start the download.

4. Click **Run** to start the installation.
5. On the Welcome to the Microsoft SQL Server 2008 Analysis Services 10.0 OLE DB Provider page, click **Next**.
6. On the License Agreement page, select **I accept the terms of this license agreement**, and then click **Next**.
7. On the Registration Information page, enter your name and company. Click **Next**.
8. On the Ready to Install the Program page, click **Install**.
9. After the installation is done, click **Finish**.

- **Enable Access data sources across domains in Internet Explorer** Additionally, if the **Access data sources across domains** security setting in Internet Explorer is set to Disable, you must change this setting to Enable for the given security zone that you use to connect to Project Web Access.

Enable the "Access data sources across domains" security setting in Internet Explorer

1. In Internet Explorer, click **Tools**, and then click **Internet Options**.
2. Click the **Security** tab, click the zone that you use to connect to Office Project Server 2007, and then click **Custom Level**.
3. Under **Access data sources across domains**, select **Enable**.

Port requirements for SQL Server 2008 Analysis Services

Traffic flows between your Project Server application server and your SQL Server Analysis Services server when a Project Web Access user builds a cube database. Project Web Access clients building Data Analysis views or viewing Project cube data in Data Analysis views are communicating directly with your SQL Server Analysis Services server. Make sure that any firewalls allow for this traffic, especially when you have extranet users.

The default instance of SQL Server Analysis Services is normally listening on port 2383. If you are using named instances in SQL Server Analysis Services, then the SQL Server Browser service needs to be running on the server to give clients who are accessing it a port for the named instance. The SQL Server Browser is normally on port 2382.

Named instances of Analysis Services will have other dynamically allocated ports. These can be discovered by looking in the configuration file for the SQL Server Browser.

Determine SQL Server Analysis Services Named Instance port number

1. On the computer on which SQL Server 2008 Analysis Services is running, open the Msmdredir.ini file in a text editor. The default location is C:\Progarm files\Microsoft SQL Server\90\Shared\ASConfig.

   Note:

   If you are using the 64-bit version of SQL Server 2008 Analysis Services, the default location is C:\Program files (c86)\Microsoft SQL Server\90\Shared\ASConfig.

2. In the `<Instances>` section of the Msmdredir.ini file, note the text. Here is an example:

   ```
   <Instances>      <Instance>          <Name>AS2008</Name>
            <Port>1259</Port>      </Instance>  </Instances>
   ```

   In this example, the `AS2008` instance is listening on port 1259.

Note:

As an alternative, you can also verify the port being used by checking the Analysis Services instances properties page and checking the **Port** value.

Port requirement for Office Web Components

If you have extranet users, it is also important to note that Office Web Components require port 2725 to allow a direct connection to SQL Server 2005 Analysis Services. Even though access is enabled over port 80 via HTTPS, if port 2725 is not available, the dynamic OLAP reports are not able to access the Analysis Services data.

Analysis Services considerations

There are several things about the Analysis Services account that need to be taken into consideration:

- Organizations may have multiple Project Web Access instances on the farm. The information described in this article applies to each instance. The same Analysis Services account must be granted DB_DataReader Role permissions to each instance's Reporting database in order to start the Cube Building Service.
- The Windows logon account used to start the SQL Server 2008 Analysis Services service may be an account where the password will expire. When this occurs, the service will not run again until the password is reset, which could cause down time. A best practice would be to run the service using a dedicated Windows account where the password does not expire.
- Depending on how SQL Server 2008 and SQL Server 2008 Analysis Services were installed, the MSSQLServerOLAPService may be running with a local system account. Because the

Analysis Services service account needs access to the Reporting database, there are two options to use for the service account in order for the service to access the database for cube generation:

a. Change the logon access for the service to a Windows user account with a password that never expires. Or simply be aware that you must change the password for the service whenever the account password is changed.
b. Add the *Domain\MachineName*$ as an account in Enterprise Manager with DB_DataReader role permissions to the Project Server Reporting database.

Error messages and possible solutions

Error Message 1

Symptom:

When building a cube, the following error is received: Failed to build the OLAP cubes. Error: Analysis Services session failed with the following error: The Application Server needs to have Analysis Services DSO Component installed.

Solution:

More than likely you are missing the Backwards Compatibility Components from the Decision Support Objects components. See the "Install the DSO client components on Project Server application servers" section of this article and install any that you may be missing.

Error Message 2

Symptom:

When building a cube, the following error is received: Failed to build the OLAP cubes. Error: Analysis Services session failed with the following error: Failed to connect to the Analysis Services server PetKrebbsSQL08. Error: Cannot connect to the repository. Analysis server: PetKrebbsSQL08 Error: Provider cannot be found. It may not be properly installed.

Solution:

More than likely you are missing the Native Client of the Decision Support Objects components. It is also possible that you have the incorrect version. See the "Install the DSO client components on Project Server application servers" section of this article and install any that you may be missing.

Error Message 3

Symptom:

When building a cube, the following error is received: Failed to build the OLAP cubes. Error: Analysis Services session failed with the following error: Failed to connect to the Analysis Services server PetKrebbsSQL08. Error: ActiveX component can't create object.

Solution:

More than likely you are missing the Management Objects Collection of the Decision Support Objects components. It is also possible that you have the incorrect version. See the "Install the DSO client components on Project Server application servers" section of this article and install any that you may be missing.

Error Message 4

Symptom:

When building a cube, the following error is received: Failed to connect to the Analysis Services server PetKrebbsSQL08. Error: Cannot connect to Analysis Services version '10.0.1600.22' (or Analysis Services version '10.0.1763.0' if you have loaded the Cumulative Update 1 for SQL Server 2008).

Solution:

You are not using the correct version of the Analysis Management Objects. Make sure to install the files from the Feature Pack for Microsoft SQL Server 2005 - December 2008 (*http://go.microsoft.com/fwlink/?LinkId=142288*) or later.

XII. Install the Outlook Add-In for Project Server 2007

Install the Outlook Add-In for Project Server 2007

This article describes how to install and configure the Microsoft Office Outlook Add-In for Project Web Access users for use with Project Server 2007.

Note:

Information on using the Outlook Add-in will be delivered in Operations content at a later date.

Outlook integration with Project Server 2007 overview

In Project Server 2003, a feature was re-introduced allowing team members to track progress for assignments within Outlook calendar and reminders. It provided an alternative for users who worked primarily in Outlook instead of Project Web Access to enter and update their hours back to the Project Manager.

While progress is still reported for assignments based on the selected tracking method, in Project Server 2007, the Outlook Integration has been enhanced with the following:

- A choice to integrate with Outlook Tasks or Calendars.
- Entering timesheet utilization for assignments using the following fields: Billable, Non-Billable, Overtime, and Overtime Non-Billable.

Along with the Project Web Access Task Center and Timesheet, Outlook Integration presents another method for team members to report progress and record utilization for their assignments. By importing assignments from Project Server and entering hours from Outlook, it simplifies how users track their time.

Prerequisites

The following prerequisites are required in order to install the Outlook Add-In for Project Server 2007:

- A valid Project Web Access account.
- Microsoft Office Outlook 2003 or greater.
- The Microsoft Office 2007 Project Web Access Add-in for Outlook.

Installing the Outlook Add-In

1. Open Project Web Access, and in Quicklaunch in the **My Work** section, click **My Tasks**.
2. On the **My Tasks** page, in the **Actions** menu, click **Set Up Outlook Sync**.

3. In the **Synchronize your Tasks with Outlook** page, click **Download Now**.
4. In the File Download - Security Warning dialog asking if you want to run or save this file, click **Run** to install the Outlook Add-in now.
5. In the File Download - Security Warning dialog asking to confirm your choice, click **Run** to continue.
6. In the Welcome screen, click **Install** to begin the installation.

   Note:

   It is highly recommended that you close all instances of Microsoft Outlook on the computer to which you are installing the Outlook Add-In.
7. When installation completes successfully, a dialog stating that the Outlook Add-In has installed successfully displays. Click **OK**.
8. When installation is complete, the following will be added to the Outlook menu options:

- In the Tools menu, selecting **Project Web Access** will list the following options:
  - **Import New Assignment** - Will connect to Project Server and will attempt to import any new assignment to Outlook.
  - **Update Project Web Access** - Will connect to Project Server and will attempt to update Project Web Access with changes you have made in Outlook.
  - **Project Web Access Home Page** - Will open the Project Web Access home page. The location of the Project Web Access home page is configured in the Project Web Access properties page.
  - **Help** - Will display the Integrating Outlook with Project Web Access help.

Configuring the Outlook Add-In

For Project Server 2007, configuration of the Outlook Add-in is done in the Project Web Access properties page that is added in Outlook.

To access the Project Web Access properties page:

1. Open Outlook.
2. In the **Tools** menu, click **Options**, and then click the **Project Web Access** tab.
3. The Project Web Access Properties page will allow you to configure the following options:

- Integrate with
- Assignment Import
- Assignment options
- Advanced options

Integrating Outlook with Project Web Access

The Integrate with section of the Project Web Access properties page gives you the option to integrate Outlook with Project Web Access in two ways:

- Outlook tasks - Tracks your Project assignments as tasks in the Tasks folder.
- Outlook calendars - Tracks your Project tasks as appointments on your Calendar.

Integrating with Outlook Tasks

Selecting **Outlook Tasks** in the **Integrate with** section of the Project Web Access properties page will place the imported assignments alongside tasks originally created in Outlook.

The benefits of working in Outlook tasks are:

- Seeing a list of assignments per day, week or month.
- Keeping track of multiple assignments.
- Use the flag feature to indicate as task as complete or as a reminder to work on it on a specific date.
- Report progress and utilization.

Integrating with Outlook calendars

Selecting **Outlook Calendar** in the **Integrate with** sectionof the Project Web Access properties page will place imported assignments in the Outlook calendar, where users will be able to report progress and utilization.

The benefits of working in Outlook calendars are:

- Allows users to view assignments with other appointments for the day, week, or month.
- Ability to see the specific times where there are no other appointments scheduled, the user can set aside the open timeslot in the schedule to concentrate on the assignment
- reminders can be configured to notify when they are starting or overdue
- Report progress and utilization.

Open Outlook. In the **Tools** menu, click **Options**, and then click the **Project Web Access** tab.

To configure the Integrate with option:

1. Open Outlook.
2. In the **Tools** menu, click **Options**, and then click the **Project Web Access** tab.
3. In the Project Web Access properties page, go to the Integrate with section and select either:
    - **Outlook Tasks**
    - **Outlook Calendar**
4. Click **OK**.

Assignment Import

The Assignment Import section allows you to determine how Assignments in Project Web Access will be imported to Outlook. This includes determining the criterion for an import, allowing users to administer the Date Range, and determining how assignments will come in (manually or automatically).

Date Range

The Date Range setting allows users to specify the date range for the assignments that will be imported to Outlook from Project Web Access. The following options are available:

- **Project Web Access date range** - When this option is selected, all of the assignment for the user will be imported to Outlook
- **Next (number) (days, weeks, months)** - When this option is selected, all assignments for the user that are due in the specified period (for example, **Next 2 days**) will be imported to Outlook.

Import from Project Web Access to Outlook

You can use this setting to import assignments from Project Web Access to Outlook manually (default option), or to occur at regular intervals.

- **Manually Only** - Select this option if you do not want to automatically import assignments on a regular interval and will only do this manually. To manually import assignments, click the **Import Assignments** toolbar button or in Outlook go to the **Tools** menu, select **Project Web Access**, and click **Import Assignments**.
- **Every (number) (hours, days, weeks, months) starting at (date) (time)** - Select this option if you want to import assignments upon a regular interval starting at a specific date/time. After Every, specify the number of hours, days, weeks, or months in the corresponding boxes, and then enter when you want the next update to occur.

Show confirmation dialog box before importing

The **Show confirmation dialog box before importing** option will automatically display the Import Assignment from Project Web Access confirmation screen whenever the Import New Assignment button is clicked. This screen lists which assignments will be added to Outlook. Clicking OK will complete the operation.

The **Show Confirmation dialog box before importing** option is enabled by default.

Assignment Update

After the user enters progress and utilization for an imported assignment in Outlook, this information will need to be updated to the Project Web Access Task Center and Timesheet. There are two methods to update the hours entered manually:

In the Outlook assignment detail, clicking on Save to Project Web Access will update the individual assignment.

On the Outlook toolbar, clicking on Update to Project Server will update all assignments where change is detected.

Configuring the process to automatically update for all utilization is configured in the Assignment Update section.

Update from Outlook to Project Web Access

You can use this setting to send Project Web Access your assignment updates you have made to Outlook. This can be configured to occur manually (default option), or at regular intervals.

- **Manually Only** - Select this option if you do not want to automatically send you Outlook assignment updates to Project Web Access and will only do this manually. To manually update from Outlook to Project Web Access, click the **Update Project Web Access** toolbar button or in Outlook go to the **Tools** menu, select **Project Web Access**, and click **Update Project Web Access**.
- **Every (number) (hours, days, weeks, months) starting at (date) (time)** - Select this option if you want to send your Outlook assignment updates to Project Web Access on a regular interval starting at a specific date/time. After Every, specify the number of hours, days, weeks, or months in the corresponding boxes, and then enter when you want the next update to occur.

Show confirmation dialog before updating

The **Show confirmation dialog before updating** option will automatically display a list of assignment updates in Outlook sent to Project Web Access when an update to Project Web Access is executed. This option in enabled by default.

Advanced Options

The Advanced Options section allows you to configure Project Web Access login information as well as how project assignments will display status and send reminders in Outlook.

Project Web Access Login

The Project Web Access Login section allows you to set your Project Web Access URL and login information by clicking the **Enter login information…** button.

In the Enter Login Information screen, the following options are available:

- **Project Web Access URL** - Enter the URL to your Project Web Access home page. After entering the URL, you can verify if you can connect to the page by clicking the **Test Connection** button (assuming you have permission to access the page with your account information).
- **When connecting** - You can specify whether to use a Windows Account (default option) or to user a forms-authenticated account. If you are using a forms authenticated account, you will need to enter your password for this account.

Note:

Project Server accounts are no longer valid in Project Server 2007. For more information on Project Server 2007 authentication methods, see Configuring Project Server 2007 Authentication <will enter link to doc later>.

Assignment Import

The Assignment Import section of the Advanced Options section allows you to configure the following:

- **Show availability for project assignment appointment as** – By setting the this options, when users schedule meetings the time allotted for the assignment will display with one of the selected status:
  - Free
  - Tentative
  - Busy
  - Out of Office
- **When importing from Project Web Access to Outlook** – This section governs how reminders are displayed for assignments in Outlook. There are three options to select from:
  - Follow Outlook's default settings for reminders
  - Never create reminders
  - Always create reminders - This setting also allows you to set the time period prior to the assignment in which you will receive a reminder.

XIII. Configure SQL Membership Provider forms authentication for Project Server 2007

Configure SQL Membership Provider forms authentication for Project Server 2007

In this article:

- SQL Membership Provider overview
- Configuring the infrastructure
- Updating the Web.config file to add the SQL Membership Provider
- Setting Up Form Authenticated User Accounts

This article describes how to configure SQL Membership Provider forms authentication in order for users to access Microsoft Office Project Server 2007.

SQL Membership Provider overview

The SQL Membership Provider is an identity management system that uses forms authentication to manage Office Project Server 2007 user account information.

Forms authentication is very similar to Project Server authentication, which is the authentication mechanism provided in Microsoft Office Project Server 2003, in that a user enters a user name and password for access. The main difference is that in forms authentication, the lists of users and their passwords are stored in membership stores rather than in the Project Server database. Examples of these stores include Active Directory, an LDAP store, and an SQL Membership Provider store.

For more information on Office Project Server 2007 authentication, see Plan Project Server 2007 authentication method (*http://technet.microsoft.com/en-us/library/cc197633.aspx*).

Using the SQL Membership Provider store with Office Project Server 2007 involves the following:

- **Configure the infrastructure** This step has two parts: creating the SQL Membership Provider database in which you plan to store your user account information, and creating the IIS site through which your forms-authenticated users can access Project Server.
- **Update the new site's configuration file in IIS** Add a string to the site's Web.config file that specifies the SQL Membership Provider.
- **Set up user accounts** Create an XML list of all forms-authenticated users that you want to add and import them into the SQL Membership Provider store.

  Note:

  To configure the SQL Membership Provider for Office Project Server 2007, you must install Office Project Server 2007 in a server farm configuration (versus a Basic installation) and must have a working Project Web Access site.

Configuring the infrastructure

Configuring the infrastructure in which you can add users to the SQL Membership Provider database involves the following steps:

- Create the SQL Membership Provider database
- Extend the Web application to create a site for your forms-authenticated users to access Project Server.
- Configure the new site for the SQL Membership Provider.

Creating the SQL Membership Provider database on your computer running SQL Server

The following procedure creates the SQL Membership Provider database, referred to as the SQL Membership store. All forms-authenticated accounts using the SQL Membership Provider to access Office Project Server 2007 will need to have their account information imported into this database.

The Windows account with which you are logged on to SQL Server when creating the SQL Membership store will be the Forms Administrator account needed to add users to the database later.

Create the MembershipProvider database on your SQL Server

1. Open a Command Prompt window.
2. From any directory, enter: <Windows Directory>\Microsoft.NET\Framework\v2.0.50727\aspnet_regsql.exe -A m -E

   This creates a database named aspnetdb, authenticating with your existing Windows credentials (the -E option).

   The following table describes other important parameters that you can use with the aspnet_regsql.exe command. For a complete listing of all options for the command, use the -? option.

Parameter	Description
-d	Specifies a database name other than the default (aspnetdb). Enter the database name after the parameter. For example: **-d aspnetdb_testdbs**
-S	Creates the database on a remote SQL Server. Enter the SQL Server instance name on which you are creating the database after the parameter. For example: **-s SQLServerInstance**
-E	Authenticates with current Windows credentials
-U	Specifies the SQL Server user name to authenticate with if you are using SQL authentication. Enter the user name after the parameter. This parameter requires the -P parameter.
-P	Specifies the SQL Server password to authenticate with if you are using SQL authentication. Enter the password after the parameter. This parameter requires the -U parameter.

Extending the Web application

By extending the Web application that contains your Project Web Access sites, you are creating a new IIS Web site through which forms-authenticated users can access Project Web Access. This Web site, and any other IIS Web sites using different authentication mechanisms that are created

within the same Web application, will have the same content because they share the same content database. For example, your Web application may expose its content to your employees through an IIS Web site that uses Windows authentication, but you can also extend the Web application to have a separate IIS Web site that uses forms authentication for vendors to access the same content. Because there are two separate IIS Web sites, the users need to access them on different port numbers. For example:

- http://contoso/pwa:80 (for Windows authentication)
- http://contoso/pwa:81 (for forms authentication (SQL Server))

When your forms-authenticated users attempt to log in to Project Web Access, verify that they are using the URL to the new forms-authenticated site.

Extend the Web application

1. Open the SharePoint Central Administration Web site by clicking **Start**, pointing to **Administrative Tools**, and then clicking **SharePoint 3.0 Central Administration**.
2. On the Application Management tab, select **Create or extend Web application**.
3. In the next page, select **Extend an existing Web Application**.
4. If a **Select Web Application** dialog box appears, select the Web site you want to extend (for example, Default Web Site), and then click **OK**.
5. Select **Create a new IIS web site**.
6. Change the port number to 81 (or to another unused port). Verify that the **Description** and **Path** numbers change correctly.
7. Note the URL located in the **Load Balanced URL** box. This is the URL for the new forms-authenticated site. You can use the default URL provided in the box or enter a different URL.
8. Click **OK**.

Configure the new site for the SQL Membership Provider

The following procedure allows you to set the new site for forms authentication and the SQL Membership Provider.

Configure the new site for the SQL Membership Provider

1. From the Application Management page, click **Authentication providers**.
2. For Intranet Zone, click the **Windows** link.
3. For **Authentication Type**, select **Forms**.
4. In the **Membership provider name** box, enter:

   AspNetSqlMembershipProvider
5. Click **Save**.

Updating the Web.config file to add the SQL Membership Provider

You need to add the SQL Membership Provider to the Web.config file for the new IIS site that you have created. You also need to make the same changes to the Web.config file for the Windows authenticated site of the Web Application. You can do this through IIS Manager and by adding an entry to that file that points to the SQL Membership Store database (aspnetdb).

Note:

This needs to be done on all front-end Web servers in the farm.

Add the SQL Membership Provider to the Web.config file

1. Open the Internet Information Services Manager on the front-end Web server. You can do this by clicking **Start**, choosing the **Run** command, typing **Inetmgr** in the **Open** box, and then clicking **OK**.
2. In IIS Manager, expand the computer name and then click the Web Sites folder.
3. Under the Web Sites folder, you will see the Web site you had created previously. Right-click this site and choose **Explore**.
4. Right-click web.config, choose **Open**, and then open the file using an editing tool such as Notepad.
5. Add the following entry to Web.config (the best place to add it is immediately after the `</ConfigSections>` section):

   ```
   <connectionStrings>
   <remove name="LocalSqlServer" />
   <add name="LocalSqlServer" connectionString="data
   source=127.0.0.1;Integrated Security=SSPI;Initial
   Catalog=aspnetdb" />
   </connectionStrings>
   ```

   The example above uses a value of `127.0.0.1` for the `data source` parameter. This is correct if SQL Server is installed on the local computer. If SQL Server is installed on a different computer (for example, a computer named "Computer1" and a SQL Server instance named "Project"), the `<add>` element should be:

   ```
     <add name="LocalSqlServer" connectionString="data
   source=Computer1\Project;Integrated Security=SSPI;Initial
   Catalog=aspnetdb" />
   ```

6. Make sure the connection string points to the SQL Membership Provider database in which you will be storing user accounts (for example, `Intial Catalog=aspnetdb`).

   Note:

   Make the same changes to the Web.config file for the Windows site of the Web application. This change also needs to occur on all front end Web servers in the

farm.

Setting up forms-authenticated user accounts

When setting up forms-authenticated user accounts through the SQL Membership Provider, you need to do the following:

- Create user account XML data
- Import the user data into the membership store
- Add the new user accounts to a Project Server security group

Creating XML data for user accounts

The PjFormsAuthUpgrade.exe tool is installed with Office Project Server 2007; it enables you to add your forms-authenticated users to the SQL membership store. In this step, it is used to generate an XML file that contains your account data for users you are adding to the SQL membership store.

Note:

In a later step, the PjFormsAuthUpgrade.exe tool will also be used to import the user data into the SQL Membership Provider database.

Note:

Running the PjFormsAuthUpgrade.exe tool on a basic- or digest-authenticated site is not supported.

The PjFormsAuthUpgrade.exe tool can be used to generate a file named Users.xml. The tool can be used to add two types of users:

- Project Server–authenticated users migrated from Project Server 2003
- New Office Project Server 2007 forms-authenticated users

Creating the Users.xml file for Project Server–authenticated users being migrated from Project Server 2003

Office Project Server 2007 does not support the Project Server authentication method that is used in Project Server 2003. However, if you are using Office Project Server 2007, you can migrate Project Server–authenticated users from Project Server 2003 and then add them to the SQL membership store, allowing them to access Office Project Server 2007 through forms authentication.

Note:

For more information on migrating to Office Project Server 2007, see Introduction: Project Server 2007 migration guide (*http://technet.microsoft.com/en-us/library/cc197505.aspx*).

The first step in this process is using the PJFormsAuthUpgrade.exe tool to generate the Users.xml file. This file will contain all users that need to be migrated to the SQL membership store.

The PJFormsAuthUpgrade.exe tool does the following:

- Searches for all Project Server–authenticated users migrated from Project Server 2003, based on your Office Project Server 2007 URL.
- Generates an XML file including each user's account information. And it auto-generates other information required by the store, such as GUID, logon names, and passwords.

The following procedure describes how to generate the Users.xml file.

Note:

These steps are only needed if you have migrated Project Server–authenticated users from Project Server 2003 to Office Project Server 2007. If you are only adding new users to the SQL Membership Provider database, go to the next section titled "Configuring the Users.xml file for new users."

Create a Users.xml file for migrated users

1. In a Command Prompt window, navigate to the directory containing PJFormsAuthUpgrade.exe. (The default location is Program Files\Microsoft Office Servers\12.0\Bin.) Type the following text at the command prompt and customize it for your environment:

   ```
   PjFormsAuthUpgrade.exe -createusersfile -log forms.log -
   passwordlength 8 –url http://localhost/pwa -usersfile users.xml
   ```

Option	Description
-createusersfile	Creates the Users.xml file with Project Server–authenticated accounts migrated from Project Server 2003.
-log	Generates a log file for troubleshooting issues that occur when running the PjFormsAuthUpgrade.exe tool. You can specify the path to the log file. If you do not specify a path, the file will be created in the same directory that contains the PjFormsAuthUpgrade.exe tool.
-passwordlength	Specifies the length of the random password that will be generated for each account. You can edit this password in the file or allow the user to reset this by using a password question option through the SQL membership store. **Note:** Project Server–authenticated passwords are not migrated from Project Server 2003 to Office Project Server 2007.

-URL	Specifies your Office Project Server 2007 URL, which is needed in order to search the database for the migrated accounts.
-usersfile	Creates the Users.xml file. You can specify the path to the file. If you do not specify a path, the file will be created in the same directory that contains the PjFormsAuthUpgrade.exe tool.

For example:

```
PjFormsAuthUpgrade.exe -createusersfile -log c:\mydir\forms.log -
passwordlength 8 –url http://contoso/pwa -usersfile users.xml
```

Run the command with the options customized for your environment. If the command is successful, the Users.xml file will be generated in the same directory that contains the PjFormsAuthUpgrade.exe tool (because no path was specified).

Note:

If no users are returned in your Users.xml file, then the tool has not found any migrated Project Server–authenticated users that need to be migrated to the SQL membership store.

2. Open the Users.xml file in Notepad. The file should be similar to the following:

```
<?xml version="1.0"?>
<Users xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="http://schemas.microsoft.com/Project/Users.xsd">
  <UpdateUser>
    <DisplayName>Bob Sutton</DisplayName>
    <EmailAddr>BobSutton@contoso.com</EmailAddr>
    <LogonName>Bob_Sutton</LogonName>
    <Password>?rBt8Rv(</Password>
    <Guid>c4572c86-7452-4d29-9d28-1a8a49ad5f89</Guid>
    <PasswordQuestion>Please add a password
question?</PasswordQuestion>
    <PasswordAnswer> Please add a password
question?</PasswordAnswer>
  </UpdateUser>
  <UpdateUser>
    <DisplayName>Peter Krebbs</DisplayName>
    <EmailAddr>PeterKrebbs@contoso.com</EmailAddr>
    <LogonName>Peter_Krebbs</LogonName>
```

```
    <Password>!rHtNv)</Password>
    <Guid>d2372c86-7452-4d29-8d67-1a8a49ad5f34</Guid>
    <PasswordQuestion>Please add a password
question?</PasswordQuestion>
    <PasswordAnswer> Please add a password
question?</PasswordAnswer>
   </UpdateUser>
</Users>
```

3. Add data to the `<PasswordQuestion>` and `<PasswordAnswer>` elements. These elements may be required by the SQL Membership Provider database in order for users to reset their password if they have forgotten it.
4. If you do not want your users to use the auto-generated passwords, update the file to change the password.
5. Save the file.

Note:

If you do not plan on adding new users to the SQL membership store, skip the next section and go to the section titled "Import the user data into the Membership Store."

Configuring the Users.xml file for new users

If you are not adding any users migrated from Project Server 2003, use the following steps to add a new user to the SQL Membership Provider database. The following processes will take new users that do not exist in Project Web Access and add them to both Project Server and the SQL membership store.

Create a Users.xml file for new users

1. In a Command Prompt window, navigate to the directory containing PJFormsAuthUpgrade.exe. (The default location is Program Files\Microsoft Office Servers\12.0\Bin). Type the following text at the command prompt and customize it for your environment:

   ```
   PjFormsAuthUpgrade.exe -createemptyusersfile -log forms.log –url
   http://localhost/pwa -usersfile users.xml
   ```

Option	Description
-createemptyusersfile	Creates the Users.xml file. This file can be used as a template to add new users.
-log	Generates a log file for troubleshooting issues that occur when running the PjFormsAuthUpgrade tool. You can specify the path to the log file. If you do not specify a path, the file will be created in the same directory that contains the PjFormsAuthUpgrade.exe tool.
-URL	Specifies your Project Server URL.
-usersfile	Creates the Users.xml file. You can specify the path to which the file will be created. If you do not specify a path, the file will be created in the same directory that contains the PjFormsAuthUpgrade.exe tool.

   Run the command. If it is successful, then the Users.xml file will be generated in the same directory that contains the PjFormsAuthUpgrade.exe tool (because a path was not specified).

2. Open the Users.xml file in Notepad.

   The file should be similar to the following:

   ```
   <?xml version="1.0"?>
   <Users xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns="http://schemas.microsoft.com/Project/Users.xsd">
     <CreateUser>
       <DisplayName>Display Name</DisplayName>
       <EmailAddr>newuser@project.com</EmailAddr>
       <LogonName>LogonName</LogonName>
   ```

```
    <Password>Password</Password>
    <Guid>ab3ad5fe-6b56-41e8-a9d8-44af71b91dc4</Guid>
    <PasswordQuestion>Password Question</PasswordQuestion>
    <PasswordAnswer>Password Answer</PasswordAnswer>
  </CreateUser>
  <UpdateUser>
    <DisplayName>Display Name</DisplayName>
    <EmailAddr>upgradeduser@project.com</EmailAddr>
    <LogonName>LogonName</LogonName>
    <Password>Password</Password>
    <Guid>2e8c4617-1f38-42d2-8496-9c85eb761b5f</Guid>
    <PasswordQuestion>Password Question</PasswordQuestion>
    <PasswordAnswer>Password Answer</PasswordAnswer>
  </UpdateUser>
</Users>
```

3. Modify the Users.xml file with information about the new user. It should look similar to the following example:

```
<?xml version="1.0"?>
<Users xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns="http://schemas.microsoft.com/Project/Users.xsd">
  <CreateUser>
    <DisplayName>Jeff Smith</DisplayName>
    <EmailAddr>JSmith@test.com</EmailAddr>
    <LogonName>JeffSmith</LogonName>
    <Password>p@ssword1</Password>
    <Guid>ab3ad5fe-6b56-41e8-a9d8-44af71b91dc4</Guid>
    <PasswordQuestion>Password Question</PasswordQuestion>
    <PasswordAnswer>Password Answer</PasswordAnswer>
  </CreateUser>
</Users>
```

   If you want to add additional users, add additional `<CreateUser>` sections and edit them to include the new users' information. Make sure to increment the GUIDs you are using so that the same GUID is not used for two users. (Incrementing the GUID in the XML file can also be done programmatically.)

   The data you want to import into Project Server is now contained within the Users.xml file. Because this is an XML file, it can be modified either manually or programmatically. If

you want to change the password, display name, e-mail address, or GUID that the tool automatically generates, you can modify it with whatever mechanism you choose.

Import the user data into the membership store

After the Users.xml file has been created for new or migrated users, you can use the PJFormsAuthUpgrade.exe tool to import the users into the SQL Membership Provider store.

During this process, the tool also updates Office Project Server 2007 with any new user account information. New users are not able to access Project Server until they are also added to a Project Server security group.

Migrated Project Server–authenticated user accounts will also be updated on Office Project Server 2007 with their new account information. Migrated users should still be members of their existing security groups.

Note:

The database owner of the SQL membership database is allowed to add users to the SQL membership store. Make sure you are logged in with this account when adding forms-authenticated users.

Run the PjFormsAuthUpgrade.exe tool to import users into the membership store

- In a Command Prompt window, navigate to the directory containing PjFormsAuthUpgrade.exe, and use the following command:

  ```
  PjFormsAuthUpgrade.exe -log forms.log –url http://localhost/pwa -usersfile users.xml
  ```

  For example:

  ```
  PjFormsAuthUpgrade.exe -log c:\mydir\forms.log –url http://contoso/pwa –usersfile users.xml
  ```

  Migrated users will be added to the SQL membership store and their account information in Project Server will be updated.

  New users will be added to the SQL membership store and to Project Server.

Adding users to a Project Server security group

At this point, both new and migrated Project Server 2003 users are in both the SQL membership store and Project Server. However, new users must be added to a Project Server security group in order to log in to Project Server through Project Web Access. As noted earlier, migrated Project Server 2003 users will still belong to their existing security groups.

Add a new user to a Project Server security group

1. In Project Web Access, go to the **Server Settings** page.
2. In the **Server Setting** page, go to the **Security** section, and then click **Manage Users**.
3. In the **Manage Users** page, in the **User Name** list, click the name of the new forms-

authenticated user account you had just added.

4. In the Edit User page for the user, go to the **Security Groups** section. From the **Available Groups** list, select the group or groups you want to add the user to, and then click **Add** to move the groups to the **Groups that contain this user** list.
5. Make any other changes you want to make to the user account, and then click **Save**.

You can also add a user to a security group from a command prompt by using the Stsadm.exe tool. When using the tool, you should run it as a user who has administrator rights in Project Web Access.

Add a new user to a Project Server security group through the command prompt

1. In a Command Prompt window, go to the following directory: Program Files\Common Files\Microsoft Shared\Web server extensions\12\BIN.
2. Run the following command:

   ```
   stsadm –o projmodifyuseringroup –url http://<servername>/pwa –
   groupname <group to which you want to add user> -username <forms
   user> -addorremove add
   ```

   For example:

   ```
   staadm –o projmodifyuseringroup –url http://contoso/pwa -
   groupname administrators -username Brad Sutton –addremove add
   ```

Note:

When you are adding a user to a Project Server security group by using the command-line option, you can only add one user to one security group with each running of the executable file. However, an administrator can create scripts to automate the process.

After adding the user to a security group, the users can access Project Server by using the Project Web Access forms-authenticated site.

Logging on to the site with forms authentication

When users are logging on to Project Web Access, they must use the URL to the forms-authenticated site, which was created when you extended the Web application earlier.

Log on to Project Web Access

1. In a Web browser, go to the URL for the forms-authenticated site: http://<*computername*>:<*port number*>/PWA
2. Log on as the newly added user by using your user name and password.

See Also

Plan Project Server 2007 authentication method (*http://technet.microsoft.com/en-us/library/cc197633.aspx*)

Plan authentication methods (*http://technet.microsoft.com/en-us/library/cc288475.aspx*)

Plan authentication settings for Web applications (*http://technet.microsoft.com/en-us/library/cc288081.aspx*)

Authentication samples (*http://technet.microsoft.com/en-us/library/cc288259.aspx*)

XIV. Inventory of SQL Server database for a typical Project Server 2007 deployment

Inventory of SQL Server databases for a typical Project Server 2007 deployment

This document describes the databases that are created once Microsoft Office Project Server 2007 and Microsoft Office Project Portfolio Server 2007 are installed. The following table specifies the databases that are used, assuming you install both Office Project Portfolio Server 2007 and Office Project Server 2007 on a Microsoft Office SharePoint Server 2007 farm and that they both share the same instance of SQL Server.

Product	Database name	Description	Requirement	Related documentation
Office SharePoint Server 2007	SharePoint Farm Configuration	SharePoint configuration database (only one per farm).	Required	Deploy using DBA-created databases (*http://technet.microsoft.com/en-us/library/cc262869.aspx*)
	SharePoint Central Administration Content	The content database for Central Administration (only one per farm).	Required	
	Shared Services Provider (SSP) Administration Database (n)	A content database for the Shared Services Administration Web application (if the SSP is using its own Web application).	Required	
	Shared Services Provider Content Database (n)	SSP Content database.	Required	
	Shared Services Provider Search Database	SSP Search database (one per SSP).	Required	

Product	Database name	Description	Requirement	Related documentation
	Portal site Web application content database (n) — PWA Site Collection	You need a content database for each SharePoint site; we recommend having a dedicated site collection to host Project Web Access.	Required	
	Portal site Web application content database (n) — PWA Workspaces	A separate site collection/content database to store all project workspaces. This helps with backup/restore and general data isolation from the rest of the farm.	Recommended	
	Portal site Web application content database (n) — My Sites	A dedicated content database to store “My Site” content; refer to the link at right for other best practices.	Recommended	Best practices for My Sites (*http://technet.microsoft.com/en-us/library/cc262706.aspx*)
Office Project Server 2007	Archive Database (n)	Saves backed-up and older versions of projects.	Required	Plan the database tier (*http://technet.microsoft.com/en-us/library/cc197534.aspx*)

Product	Database name	Description	Requirement	Related documentation
	Draft Database (n)	Contains tables for saving unpublished projects from Microsoft Office Project Professional 2007. Project data in the Draft database is not accessible by using Office Project Web Access.	Required	Plan the database tier (*http://technet.microsoft.com/en-us/library/cc197534.aspx*)
	Published Database (n)	Contains all of the published projects. Published projects are visible in Office Project Web Access. The Published database also contains tables that are specific to Office Project Web Access (timesheets, models, views, and so on), and global data tables (outline codes, security, and metadata).	Required	

Product	Database name	Description	Requirement	Related documentation
	Reporting Database (n)	The staging area for generating reports and online analytical processing (OLAP) cubes. Data in the Reporting database is updated nearly in real-time, is comprehensive, and is optimized for read-only report generation.	Required	

Product	Database name	Description	Requirement	Related documentation
Office Project Portfolio Server 2007	PPS Account Data	Contains the actual account data, such as the project, application, program and portfolio data, related cost and resource information, optimization scenarios, and other data. Even though this database can contain information from multiple accounts, we recommend having only one account per database to ease future upgrades or database migrations. For more information about setting up multiple accounts, see the "Creating multiple accounts" section of the Office Project Portfolio Server 2007 Deployment Guide.	Required	Microsoft Office Project Portfolio Server 2007 Deployment Guide (*http://www.microsoft.com/downloads/details.aspx?familyid=8977C122-A64F-4C4E-A78B-0EA8E150FE3A&displaylang=en*)

Product	Database name	Description	Requirement	Related documentation
	PPS AccountIndex	Contains information about the defined accounts in Office Project Portfolio Server 2007. Each account acts like a single instance of Office Project Portfolio Server 2007. Information cannot be shared across multiple accounts. For more information about setting up multiple accounts, see the "Creating multiple accounts" section of the Office Project Portfolio Server 2007 Deployment Guide.	Required	Microsoft Office Project Portfolio Server 2007 Deployment Guide (*http://www.microsoft.com/downloads/details.aspx?familyid=8977C122-A64F-4C4E-A78B-0EA8E150FE3A&displaylang=en*)
SQL Reporting Services 2005/2008	Report Server database: “ReportServer”	Used for primary storage of all SSRS data (reports, security settings, and so on).	Required (for Office Project Portfolio Server 2007)	Creating a Report Server Database (*http://technet.microsoft.com/en-us/library/ms157285.aspx*)
	Report Server catalog: “ReportServerTempDB”	Used to store all temporary data.	Required (for Office Project Portfolio Server 2007)	Creating a Report Server Database (*http://technet.microsoft.com/en-us/library/ms157285.aspx*)
SQL Server Analysis Services 2005/2008	Analysis Services Repository	Used to store OLAP metadata ("OlapObjects”) (for example, cubes and	Recommended	Requirements for using SQL Server 2005 Analysis Services with the Project Server 2007 Cube Building Service

Product	Database name	Description	Requirement	Related documentation
		dimensions).		
ASP.NET	aspnet	Membership provider database. It's used to store all user account/password for users that are not part of Active Directory for instance.	Required (if you are using forms-based authentication)	Configure SQL Membership Provider forms authentication for Project Server 2007

The notation "(n)" in the "Database name" column means that you could have multiple databases, depending on your configuration (for example, multiple PWA instances).

Note:

For one instance of Office Project Web Access created on an Office SharePoint Server 2007 farm with Office Project Portfolio Server 2007 and SQL Reporting Services all sharing the same SQL Server instance, you will typically have 18 relational databases. If you have another PWA instance, another SharePoint site, another SSP, Microsoft Office PerformancePoint Server 2007, and so on, you should expect additional databases. We recommend you carefully plan your EPM deployment and architect your solution based on the above recommendations and the latest TechNet content for all these products.

XV. Configure forms-based authentication against an LDAP data store in Office Project Server 2007

Configure forms-based authentication against an LDAP data store in Office Project Server 2007

When using forms-based authentication for your Microsoft Office Project Server 2007 users, you have the option of authenticating against a Lightweight Directory Access Protocol (LDAP) data store. This chapter describes how to configure your Office Project Server 2007 deployment to use an LDAP data store for forms-based authentication.

In this chapter:

- Why use forms-based authentication against an LDAP data store in Project Server 2007? Describes benefits of using forms-based authentication against an LDAP data store and common scenarios in which it is used.
- Create your LDAP data store with the Active Directory Application Mode (ADAM) directory service Describes how to use the ADAM directory service to create an LDAP data store.
- Create a Project Web Access site that uses forms-based authentication against an LDAP data store Describes how to create a Project Web Access site on the SharePoint Central Administration Web site and configure it to use forms-based authentication against an LDAP data store.
- Example Web.config files for LDAP forms-based authentication Provides examples of the site configuration settings you need when you use forms-based authentication against an LDAP data store.

See Also

Plan Project Server 2007 authentication method (*http://technet.microsoft.com/en-us/library/cc197633.aspx*)

Configure SQL Membership Provider forms authentication for Project Server 2007

Configure authentication (*http://technet.microsoft.com/en-us/library/cc262309.aspx*)

Why use forms-based authentication against an LDAP data store in Project Server 2007?

In Microsoft Office Project Server 2003, users connecting to the server can be configured to use either Windows authentication or Project Server authentication. Project Server–authenticated user account information is stored in the Project Server database. Project Server-authenticated users are not able to use Windows SharePoint Services 2.0 without the use of a cumbersome workaround.

In Microsoft Office Project Server 2007, Project Server authentication is no longer supported. Instead, Office Project Server 2007 supports both Windows authentication and ASP.NET 2.0 forms-based authentication. In ASP.NET forms-based authentication, users are authenticated through a supported third-party membership provider, such as a Lightweight Directory Access Protocol data store or Microsoft SQL Server. Unlike Project Server–authenticated accounts, accounts relying on forms-based authentication benefit from full use of Windows SharePoint Services 3.0.

The Lightweight Directory Access Protocol (LDAP) is a directory service protocol designed to allow fast and efficient access to an existing directory. Directory services that support LDAP version 2 or 3 can be used for Office Project Server 2007 forms-based authentication.

The primary advantages of using forms-based authentication against an LDAP data store are:

- It supports authentication against credentials stored in the Active Directory directory service on a Windows domain controller.
- It supports authentication against LDAP data stores that do not run on the Windows operating system, such as Novell eDirectory, Novell Directory Services (NDS), or Sun ONE. Because Office Project Server 2007 is built on ASP.NET 2.0, it supports the ASP.NET 2.0 pluggable authentication provider model. This model enables you to store user credentials in a data store other than Active Directory. Novell, Linux, and Sun networks all have LDAP-supported directory services that can be used with Office Project Server 2007.
- It allows you to manage non-employee accounts (for example, consultants or contractors) apart from Active Directory. This can be done through an external LDAP directory service, such as Active Directory Application Mode (ADAM). For more information about ADAM, see Create your LDAP data store with the Active Directory Application Mode (ADAM) directory service.

LDAP authentication scenarios

The following three scenarios are examples of how customers can use forms-based authentication against LDAP in Office Project Server 2007:

- A company wants to give certain business partners or contract workers access to a specific set of company resources through Project Web Access. Adding them to the company Active Directory structure so that they can log on to Project Web Access with Windows

authentication is not desired and is in fact prohibited through company policy. ADAM or a similar external directory service can be used to create a separate directory structure to include these users. These users can then access their company resources through an extranet site over HTTPS in which they are authenticated against the data store created with ADAM.

- The company is on a Novell network, therefore it cannot use Windows authentication. The company decides to use LDAP authentication instead of the SQL Membership Provider because its Novell network already provides an LDAP-supported data store. The company creates a Project Web Access site in the default zone that authenticates against this data store.
- A company previously used Project Server 2003 and users were authenticated through Project Server authentication. The company then migrates to Office Project Server 2007, in which Project Server authentication is not supported. The company uses ADAM, into which it recreates the Project Server 2003 user accounts. The company then creates a Project Web Access site in the default zone that authenticates against the data store created in ADAM or a similar external directory service.

Create your LDAP data store with the Active Directory Application Mode (ADAM) directory service

There may be circumstances in which the Active Directory directory service is not available (for example, in a Linux-based network) or when an organization chooses not to use its network operating system Active Directory to authenticate Project Server users. In such cases, an external directory service can be used to create the Lightweight Directory Access Protocol (LDAP) data store that users will be authenticated against.

Active Directory Application Mode (ADAM) is a directory service designed to meet the needs of organizations that cannot rely solely on Active Directory to provide directory services for directory-enabled applications, or for organizations that do not have Active Directory available. While Active Directory offers many benefits for managing network infrastructure, organizations often need a more flexible directory service to support directory-enabled applications. ADAM is an LDAP directory service designed specifically for directory-enabled applications, such as Microsoft Office Project Server 2007. ADAM runs as a user service rather than as a system service. You can run ADAM on servers and domain controllers running operating systems in the Windows Server 2003 family (except for Windows Server 2003, Web Edition) and on computers running Windows XP Professional.

ADAM can serve as a directory service for Office Project Server 2007 users in the following scenarios:

- A company wants to give business partners or contract workers access to a specific set of company resources through Project Web Access (PWA). Company policy prohibits adding them to the company Active Directory structure so that they can log into PWA with Windows authentication, because the company does not want these users having unauthorized access to company resources. ADAM can be used to create a separate directory in which these users can be authenticated when logging on to an extranet site through Project Web Access.
- A company previously used Microsoft Office Project Server 2003 in which intranet and extranet users were authenticated through Project Server authentication. Users were authenticated against a directory that was in the Project Server 2003 database. The company has now upgraded to Office Project Server 2007, in which Project Server authentication is not supported. The company uses ADAM to create a new directory and then adds the migrated Project Server 2003 accounts to it. It then creates respective PWA sites for both intranet and extranet users, both accessing the same content. These users can now access Office Project Server 2007 and are authenticated through the directory created by the ADAM instance.
- A company chooses to use its network operating system (NOS) Active Directory only for NOS authentication and authorization. It does not want to add the additional overhead of having to maintain it for application authentication. ADAM is used to create a separate directory of users that access Office Project Server 2007.

- For more information about ADAM, see ADAM Step-by-Step Guide (*http://go.microsoft.com/fwlink/?LinkId=92703&clcid=0x409*).

Downloading and installing ADAM

You can download ADAM from the Microsoft Download Center. It is also available as part of Microsoft Windows Server 2003 R2 and can be installed through the Optional Component Manager.

The procedure below describes downloading and installing ADAM on your computer. Review the system requirements located on the ADAM download page that is listed below.

Download and install ADAM

1. In a Web browser, go to the Active Directory Application Mode (ADAM) download page (*http://go.microsoft.com/fwlink/?LinkId=92704&clcid=0x409*).
2. Find the file named ADAMSP1_x86_English.exe and click **Download**.
3. On the File Download — Security Warning page, click **Run**.
4. On the initial Software Update Installation Wizard page, click **Next**.
5. On the License Agreement page, select **I Agree** and click **Next**.
6. After the installation is done, click **Finish**.

Creating a new instance of ADAM

After installing ADAM onto your computer, you can configure a new instance of ADAM to create the directory structure. The following procedure enables you to select the ports through which the directory is accessed, create an application directory partition, and import LDIF files to provide a template for your active directory.

Create a new ADAM instance

1. Click **Start**, click **All Programs**, and in the **ADAM** program group click **Create an ADAM Instance**.
2. On the Welcome to the Active Directory Application Mode Setup Wizard page, click **Next**.
3. On the Setup Options page, select **A unique instance**. Click **Next**.
4. On the Instance Name page, type a unique name for the instance in the **Instance name** box. Note that the service name will be the name that you typed, with "ADAM_" inserted in front of it. For example, if you typed "Instance1," the service name will be "ADAM_Instance1."
5. Click **Next**.
6. On the Ports page, in the **LDAP port number** box, enter an available port number (for example, type **50000**). In the **SSL port number** box, enter another available port number (for example, type **50001**). Click **Next**. If you do not enter port numbers, it selects the

default ports for LDAP and SSL.

7. On the Application Directory Partition page, select **Yes, create an application directory partition**.
8. When you create a new application directory partition during installation, you must specify a unique distinguished name for the partition. ADAM supports both DNS and X.500 style names for top-level directory partitions, including the distinguished name components in the following table:

Attribute	Description
C=	Country/region
CN=	Common name
DC=	Domain component
L=	Location
O=	Organization
OU=	Organizational unit

   In the **Partition name** box, enter the distinguished name that you want for this application directory partition. Separate each component with a comma. For example, **OU=Contoso,O=Marketing,C=US**.
9. On the File location page, type a location to store your ADAM data and data recovery files. You can use the default locations that are in the **Data file** and **Data recovery files** boxes. Click **Next**.
10. On the Service Account Selection page, enter the account under which you want to run this instance of ADAM. You can either use the Network service account for the server or specify a user account to run the service. Click **Next**.
11. On the ADAM Administration page, assign the user or groups of users that will have administrative permissions on this instance of ADAM. You can select **Currently logged on user** to specify this user account, or you can select **This account** and specify a local or domain user or group. Click **Next**.
12. On the Import LDIF files page, specify a selection of LDAP Data Interchange Format (LDIF) files. These files contain several user class schema definitions, along with objects for use with Windows Authorization Manager that can be imported into the schema of the new ADAM instance.

The following table describes each of the optional LDIF files that you can import:

LDIF file	User classes	Import this file if
MS-Users.LDF	• **Person** • **Organizational-Person** • **User**	You want to create user objects in the ADAM directory, but you do not want to create users of the **InetOrgPerson** class (as defined in RFC 2798)
MS-InetOrgPerson.LDF	• **Person** • **Organizational-Person** • **Users** • **InetOrgPerson**	You want to create user objects in the ADAM directory, and you want to create users of the **InetOrgPerson** class (as defined in RFC 2798)
MS-UserProxy.LDF	• **User-Proxy**	You want to create proxy objects in ADAM for use in bind redirection.
MS-ASMan.LDF	Not applicable	You want to use Authorization Manager with ADAM.

13. Select **Import the selected LDIF files for this instance of ADAM**, select the LDIF file from the **Available files** list, and click **Add** to move the file to the **Selected LDIF files** list. If you do not want to use an LDIF file as a template, click **Do not import LDIF files for this instance of ADAM**. Click **Next**.

    Note:

    You can choose to import LDIF files at a later time using the LDIF Directory Exchange (LDIFDE) command-line tool.

14. On the Ready to Install page, review your selections, and then click **Next** to start the installation of the instance.
15. When installation of the instance is done, click **Finish**.

Configuring the ADAM instance

You can use the ADAM ADSI Edit tool to configure your instance of ADAM. ADAM ASDI Edit is installed with ADAM and can be opened from the ADAM program group.

Configure an ADAM instance

1. Click **Start**, click **All Programs**, and in the **ADAM** program group click **ADAM ADSI Edit.**
2. In the ADAM ADSI Edit tool, on the **Action** menu, choose **Connect to**.
3. On the **Connection Setting** page, in the **Connection name** box, type a unique name.
4. In the **Port** box, enter the port number that you specified as your LDAP port when you created your LDAP instance.
5. In the **Connect to the following node** section, select **Distinguished name (DN) or naming content**. In the box, enter the partition name you entered when you created your LDAP instance. For example, **OU=Contoso,o=Marketing,C=US**.
6. In the **Connect using these credential**s section, select **The account of the currently logged on user** if the current user is the Administrator of the ADAM instance. Select **This account** if you want to specify a different account. Click **OK**.

Allowing the farm administrator access to the directory

Verify that the farm administrator's account for Windows SharePoint Services has access to the directory. The following procedure can be used to allow access to the user account by adding it to the Readers role.

Add an account to access the directory

1. In the ADAM ADSI Edit tool, your ADAM instance should appear in the left pane. Expand the instance name, and then expand the naming context to see the other containers that were created.
2. In the left pane, click **CN=Roles**. In the right pane, right-click **CN=Readers** and click **Properties**. In the CN=Readers properties page, in the Attribute list, select **member**, and then click **Edit**.
3. On the Multi-valued Distinguished Name with Security Principle Editor page, click **Add Windows Account**.
4. On the Select Users, Computers, or Groups page, enter the name of the Windows Account that you want to add, and then click **OK**.
5. On the Properties page, click **OK**.

Add users to the directory

You can now add users to the directory by using the following procedure. You can also create containers for your users within the directory. For example, you might want to create separate containers for Support users and Marketing users. The following procedure creates a single container for all users.

Add users to the directory

1. In the left pane, right-click the naming context, click **New**, and then click **Object**. On the Create Object page, in the **Select a class list**, select **container**. Click **Next**.
2. On the Create Object page, in the **Value** box, enter the unique name for the container to which you will add your users (for example, **Users** or **Support**). Click **Next**, and then click **Finish**.
3. In the left pane, right-click the user container object you just created, click **New**, and then click **Object**.
4. On the Create Object page, in the **Select a class** list, select **User**. Click **Next**.
5. On the page in which you add a user name, in the **Value** box, type the name of your user. Click **Next**.
6. On the page on which you can set attributes for the user, click **Finish**.
7. In ADAM ADSI Edit, right-click the new user in the right pane and click **Reset Password**.
8. On the Reset Password page, type the new password in the **New Password** box. Retype the password in the **Confirm Password** box. Click **OK**.

   Note:

   When you are typing a new password for a user, ADAM will enforce any password policy that exists on the server.
9. Add additional users to the user container object by repeating steps 3 through 8 as needed.

See Also

What is Active Directory Application Mode?
(*http://go.microsoft.com/fwlink/?LinkId=92963&clcid=0x409*)

Create a Project Web Access site that uses forms-based authentication against an LDAP data store

This article provides information about creating a Project Web Access site that uses forms-based authentication against a Lightweight Directory Access Protocol (LDAP) data store. The following steps for doing such authentication are described in detail in this article:

1. Have an available LDAP data store
2. Back up your site's Web.config files
3. Extend the Web application to create the forms-authenticated site
4. Specify the authentication method for the site
5. Edit the Web.config file for the new site and the SharePoint Central Administration Web site
6. Verify communication with the LDAP directory
7. Add user accounts to Project Server

Note:

These procedures are done through Central Administration, Project Web Access Server Settings, and through the Internet Information Services Manager. Verify that you have the correct permissions to perform these procedures.

Having an available LDAP data store

You must have an LDAP data store that your Project Server users can be authenticated against. This might already exist through your network operating system (NOS) directory service, or you can create one through an external LDAP directory service.

An example of an external LDAP directory service is ADAM (Active Directory Application Mode). For more information, see Create your LDAP data store with the Active Directory Application Mode (ADAM) directory service.

Backing up your site's Web.config files

Enabling forms-based authentication against an LDAP data store requires that you edit several Internet Information Services (IIS) Web site configuration files. As a best practice, you should save a backup copy of each of these files.

Create backup copies of the IIS Web Configuration files

1. In Windows Explorer, browse to <*drive*>\Inetpub\wwwroot\wss\VirtualDirectories\. This directory contains files for each Windows SharePoint Services Web application site.

By default, at this stage there should be at least three subdirectories. One subdirectory is named for the port used by the Web application for the Project Web Access default site. Another subdirectory has the name of the port used by the Web application for the Shared Services Provider. The third subdirectory is for the port used by the Web application for Central Administration.

Note:

Run Internet Information Services Manager if you need to verify which port is used by which Web application.

2. Open the folder used by the Web application for the Project Web Access site, copy the Web.config file, and save the copy to a different location. You might want to rename the file to a different name (for example, if this Web application uses port 80, save it as Web.config80).
3. Open the folder for Central Administration, copy the Web.config file, and save it to a different location. You might want to rename the file to a different name (for example, save it as Web.configCA).

   If you need to store the files from backup, copy the files to their original folders and rename them to overwrite the copy that you want to replace.

   Note:

   While you are backing up your site's Web.config files, be careful not to make any configuration changes in Windows SharePoint Services. Having your Web.config files open while attempting to make configuration changes in Windows SharePoint Services could negate your changes.

Extending the Web application

The Project Web Access site that you are using for your default zone has a Web application and a configuration database.

Note:

This Web application can use any of a number of ports. To easily refer to this Web application later in this article, let's say that it is using port 80.

You must extend your Web application to create a new site for your users that will be taking advantage of forms-based authentication. This site will use the same configuration database as the default site. However, it will be accessing Project Server through a different port, and users on this site will be authenticated against the LDAP data store that you created previously.

This procedure is performed by using Central Administration.

Extend the Web application

1. On Central Administration, go to **Application Management**. In the **SharePoint Web Application Management** section, click **Create or extend Web application**.
2. On the Create or Extend Web Application page, click **Extend an existing Web**

application.

3. On the Extend Web Application to Another IIS Web Site page, in the **Web application** section, go to the **Web Application** list and select **Change Web Application**. Click the Web application for the Project Web Access default site.
4. In the **IIS Web Site** section, type a unique port number in the **Port** box (for example, **90**). The port number will be reflected in the description for the new site (for example, **SharePoint - 90**).
5. In the **Load Balanced URL** section, in the **Zone** box, select the zone for which the site is being created.
6. Click **OK**.

Specifying the authentication method for the site

The following procedure allows you to specify the authentication method for the new Web site.

Specify the authentication method for the site

1. On the SharePoint Central Administration Web site, go to **Application Management**. In the **Application Security** section, click **Authentication providers**.
2. On the Authentication Providers page, on the **Web Application** menu, make sure that the Web application for the Project Web Access site is selected (the one using port 80 referred to in the previous section).
3. Select the zone you used for the extended site you have just created (for example, **Extranet**).
4. On the Edit Authentication page, go to the **Authentication Type** section and select **Forms**. This selection changes the other configuration options that are available to you on the page.
5. In the **Membership Provider Name** section, type the name of the membership provider in the **Membership provider name** box.

   Important:

   The name that you type must exactly match the Membership Provider name entered in the site's Web.config file. This setting is specified in the "name" attribute of the <add> element. For more information about editing the Web.config file, see Example Web.config files for LDAP forms-based authentication.
6. Click **Save**.

Editing your site's Web.config files

After creating the site and specifying the authentication provider for the site, edit the site's Web.config file. These changes are used to specify where the LDAP data store is located and where in the directory structure the user accounts for the site will be stored.

The Web.config file needs to be edited for the following sites:

- The newly created site that uses forms-based authentication against the LDAP data store
- The SharePoint Central Administration Web site

Configuring the Web.config file for Central Administration is required so that the Central Administration service knows where to go to authenticate users who are added through Windows SharePoint Services.

If you have only one site for forms-based authentication, the changes to the Web.config files for this site and Central Administration will be identical. If you have more than one site for forms-based authentication, information for both sites is needed in the Web.config file Central Administration. For more information, see Example Web.config files for LDAP forms-based authentication.

The following procedure assumes that there is one site for forms-based authentication.

Edit the Web.config files to use the LDAP forms authentication provider

1. In Windows Explorer, browse to *<drive>*:\Inetpub\wwwroot\wss\VirtualDirectories\. Browse to the folder for the new forms-based authentication site. The folder name should be reflected by port number. (For example, if the port for the site is 90, the corresponding folder is 90.)
2. In the folder for the site, open the Web.config file with a text editor.
3. Within the `<configuration> <system.web> </system.web> </configuration>` element, enter configuration information for your LDAP data store that you are using to authenticate against. For example, the following configuration information would use the example LDAP data store created with the ADAM utility in Create your LDAP data store with the Active Directory Application Mode (ADAM) directory service:

```
 <membership defaultProvider="ADAMMembership">   <providers>
<add          name="ADAMMembership"
type="Microsoft.Office.Server.Security.LDAPMembershipProvider,
Microsoft.Office.Server, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71E9BCE111E9429C"     server="ps2007ldap"
port="50000"     useSSL="false"
userDNAttribute="distinguishedName"     userNameAttribute="cn"
userContainer="CN=Users,OU=Support,O=fabricam,C=US"
userObjectClass="user"     userFilter="(ObjectClass=user)"
scope="Subtree"     otherRequiredUserAttributes="sn,givenname,cn"
/>   </providers> </membership>
```

Insert this text just before the closing `</system.web>` tag to ensure that your changes do not affect any of the other XML data. Be sure you are inserting the text in the correct location, as there are other `<system.web>` tags deeper in the XML file.

Note:

For more information about editing the Web.config file, see Example Web.config files for LDAP forms-based authentication.

4. Save the changes to the file.
5. In Windows Explorer, open the Web.config file for Central Administration. Enter the same text information you entered in step 3 into the same location of this file.
6. Save the changes to the file.

Verifying communications with the LDAP directory

After editing the Web.config files for both sites, you can now verify communication with your LDAP directory. This is done through Central Administration, on the Add Users page. You test whether one of your users is able to validate against the LDAP directory. If the account is not recognized and you know that it exists in the LDAP directory, then check your settings in the Web.config file.

Note that this procedure is optional. You can bypass this step and add users directly to Project Server through Project Web Access. However, we recommend as a best practice that you run this procedure to verify communication with the LDAP directory. When you are adding users in Project Web Access by using forms-based authentication, there is no way to verify communication with the LDAP directory.

Verify communication with the LDAP directory

1. On Central Administration, go to **Application Management**. In the **Application Security** section, click **Policy for Web Application**.
2. On the Policy for Web Application page, go to the **Web Application** list and verify that the correct one is selected (the Web application for Project Web Access).
3. Click **Add Users**.
4. On the Add Users page, in the **Select the Zone** section, select the correct zone, and then click **Next**.
5. In the **Choose Users** section of the same page, in the **Users** box, add a user to the site in the following format:

   <MembershipProviderName>:*<Username>*

   For example:

   ADAMMembership:PeterKrebs

   Click the **Check Name** icon to verify the user name against your LDAP directory. The

user name appears underlined if it is verified by the LDAP directory that you are configured to authenticate against. If the name does not verify, check the information you entered in the Central Administration Web site's Web.config file.

6. You do not need to select permissions, because you are only verifying communication with the LDAP directory and not actually adding the user to Windows SharePoint Services. Click **Back**.
7. On the Add Users page, click **Cancel**.

Adding user accounts to Project Server

After verifying communications to the LDAP directory, you can now add your forms-authenticated user accounts to Office Project Server 2007 through Project Web Access.

Add an LDAP form authenticated user to Project Server

1. Log on to your Project Web Access site in the default zone. Click **Server Settings**.
2. Click **Manage Users**.
3. On the Manage Users page, click **New User**.
4. On the New User page, type a display name for the user. Then select **Forms Authentication**.
5. Enter the user logon account (for example, **ADAMMembership:User1**).
6. Configure the user for its other security settings. Then click **Save**.

You should now be able to log onto the LDAP-authenticated site with your logon information.

Example Web.config files for LDAP forms-based authentication

When configuring forms-based authentication against an LDAP data store for Microsoft Office Project Server 2007, you must specify where the data store is located and where in the directory structure to store the user accounts for the site. You specify these settings by using the Web site's configuration file (Web.config). The same changes also must be made in the Web.config file for the SharePoint Central Administration Web site.

This article provides two examples of changes that need to occur in the Web.config files for Project Server 2007 forms-based authentication against an LDAP data store. For more information about how to implement the changes, see Create a Project Web Access site that uses forms-based authentication against an LDAP data store.

Web.config file example 1

The following is a simple example of the `<membership>` section that is required in the Web.config file for a site based on forms authentication.

In this basic example, you have a single site using forms-based authentication against a single membership provider. The LDAP directory store is located on a computer named "Contoso1" and is configured to use port 50000. Authentication would be against objects in the `userContainer` that matches the `userFilter`. In this case, the objects would be all items in the container defined by: `CN=Users,OU=WSS,O=nondomain,C=US`.

```
<membership defaultProvider="LDAPMembership">
 <providers>
  <add
   name="LDAPMembership"

type="Microsoft.Office.Server.Security.LDAPMembershipProvider,Microsoft
.Office.Server, Version=12.0.0.0,
Culture=neutral,PublicKeyToken=71E9BCE111E9429C"
   server="Contoso1"
   port="50000"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="cn"
   userContainer="CN=Users,OU=Support,O=Contoso,C=US"
   userObjectClass="user"
   userFilter="(ObjectClass=user)"
```

```
    scope="Subtree"
    otherRequiredUserAttributes="sn,givenname,cn" />
  </providers>
</membership>
```

The following table describes the parameter values that are used in the previous Web.config file example.

Parameter	Description
`name="LDAPMembership"`	Specifies the membership provider name. This value must match the membership provider name specified on the Authentication Providers page in Central Administration. In the example, `"LDAPMembership"` is the value for the membership provider name.
`server="Contoso1"`	Specifies the name of the computer hosting the LDAP service. In the example, this value states that the directory service is located on the server `"Contoso1"`. For example, this could be an instance of Active Directory Application Mode (ADAM) or a domain controller in a Windows Server Active Directory directory service environment.
`port="50000"`	Specifies the port that LDAP is listening on. The default port is 389.
`useSSL="false"`	Specifies that SSL is not being used to communicate to the LDAP data store. Only anonymous binds to the LDAP provider are currently supported. Make sure this value is set to `false`.
`userDNAttribute="distinguishedName"`	Attribute for the user's distinguished name. This name appears in Windows SharePoint Services).
`userNameAttribute="cn"`	Attribute of the user name object — in this case a common name (`cn`).
`userContainer="CN=Users,OU=WSS,O=non domain,C=US"`	Defines the full distinguished name of the container for users.
`userObjectClass="user"`	Class of the user object — in this case, `user`.

Parameter	Description
`userFilter="(ObjectClass=user)"`	The `userFilter` is a standard filter for LDAP queries that can be set to control a subset of users that should be available to authenticate against. The filter in the example is configured to resolve only against user objects. You could have groups and other objects in the OU container.
`scope="Subtree"`	Sets the search scope of the selection.
`otherRequiredUserAttributes="sn,givennname,cn" />`	Other user attributes to return. `sn` is the family name (or surname). `givenname` is the first name. `cn` is the relative distinguished name constructed from the other two attributes (for example, "John Doe").

Web.config file example 2

The following is a more complex example. In this scenario, the company uses two sites that use forms-based authentication — one for an intranet and one for an extranet. Each site uses a different LDAP membership provider.

In this scenario, the Web.config files for Central Administration, the intranet site, and the extranet site must be configured differently. Each site's Web.config file needs to contain information for the specific LDAP membership provider needed for its users to access the site.

Web.config file for Central Administration

In this scenario, the Web.config file for Central Administration must have information about both membership providers (`LDAPMembership` and `LDAPMembership2`). The `<membership>` section of the Web.config file for Central Administration is as follows:

```
<membership defaultProvider="LDAPMembership">
 <providers>
  <add
   server="ps2007ldap"
   port="50000"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="cn"
   userContainer="CN=Users,OU=Support,O=fabricam,C=US"
```

```
   userObjectClass="user"
   userFilter="(ObjectClass=user)"
   scope="Subtree"
   otherRequiredUserAttributes="sn,givenname,cn" name="LDAPMembership"
   type="Microsoft.Office.Server.Security.LDAPMembershipProvider,
Microsoft.Office.Server, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71E9BCE111E9429C" />
  <add
   server="ps2007ldap"
   port="50000"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="cn"
   userContainer="CN=Users,OU=Extranet,O=fabricam,C=US"
   userObjectClass="user"

userFilter="(&amp;(memberOf=CN=ProjectUsers,OU=Extranet,O=fabricam,C=US
)(memberOf=CN=WSSUsers,OU=Extranet,O=fabricam,C=US))"
   scope="Subtree"
   otherRequiredUserAttributes="sn,givenname,cn" name="LDAPMembership2"
   type="Microsoft.Office.Server.Security.LDAPMembershipProvider,
Microsoft.Office.Server, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71E9BCE111E9429C" />
 </providers>
</membership>
```

Web.config file for the intranet site

The `<membership>` section of the Web.config file for the intranet site is as follows:

```
<membership defaultProvider="LDAPMembership">
 <providers>
  <add
   server="ps2007ldap"
   port="50000"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="cn"
   userContainer="CN=Users,OU=Support,O=fabricam,C=US"
```

```
   userObjectClass="user"
   userFilter="(ObjectClass=user)"
   scope="Subtree"
   otherRequiredUserAttributes="sn,givenname,cn" name="LDAPMembership"
   type="Microsoft.Office.Server.Security.LDAPMembershipProvider,
Microsoft.Office.Server, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71E9BCE111E9429C" />
 </providers>
</membership>
```

The Intranet site is using the **LDAPMembership** membership provider and is authenticating against users in the **CN=Users,OU=Support,O=fabricam,C=US** container.

Web.config file for the extranet site

The membership provider for the extranet site is defined as `LDAPMembership2`. The `<membership>` section of the Web.config file for the extranet site is as follows:

```
<membership defaultProvider="LDAPMembership">
 <providers>
  <add
   server="ps2007ldap"
   port="50000"
   useSSL="false"
   userDNAttribute="distinguishedName"
   userNameAttribute="cn"
   userContainer="CN=Users,OU=Extranet,O=fabricam,C=US"
   userObjectClass="user"

userFilter="(&amp;(memberOf=CN=ProjectUsers,OU=Extranet,O=fabricam,C=US
)(memberOf=CN=WSSUsers,OU=Extranet,O=fabricam,C=US))"
   scope="Subtree"
   otherRequiredUserAttributes="sn,givenname,cn" name="LDAPMembership2"
   type="Microsoft.Office.Server.Security.LDAPMembershipProvider,
Microsoft.Office.Server, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71E9BCE111E9429C" />
 </providers>
</membership>
```

The extranet site is using the `LDAPMembership2` membership provider and is authenticating against users in the same container as `LDAPMembership ("CN=Users,OU=Extranet,O=fabricam,C=US")`. However, the extranet site is using the

filter ="(&(memberOf=CN=ProjectUsers,OU=Extranet,O=fabricam,C=US)(memberOf=CN=WSSUsers,OU=Extranet,O=fabricam,C=US))". This will only authenticate users in both the `ProjectUsers` and `WSSUsers` groups defined in the directory. Also note the `&`. It replaces the usual `&` used in LDAP queries.

The format of the `<membership>` sections in example 2 is different from the format of example 1. It still contains exactly the same attributes, but in a different order. The reason is that the second example has been edited by using the Internet Information Services Manager user interface.

Note:

There is a problem caused by using the Internet Information Services Manager user interface. The `<configuration>` element is rewritten as `<configuration xmlns="http://schemas.microsoft.com/.NetConfiguration/v2.0">`, and this causes an application error in Windows SharePoint Services. For more information, see Knowledge Base Article 917238 (*http://go.microsoft.com/fwlink/?LinkId=92744&clcid=0x409*).

XVI. Deploy software updates for Office Project Server 2007

Deploy Office Project Server 2007 with Office SharePoint Server 2007

In this article:

- Why deploy Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007
- Deployment scenarios

This article describes how to install Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007.

Important:

Before installing Office Project Server 2007 or Office SharePoint Server 2007, it is very important to thoroughly plan for the deployment. For information on planning for Office Project Server 2007, see Planning and Architecture for Office Project Server 2007 (*http://technet.microsoft.com/en-us/library/cc197605.aspx*). For information on planning for Office SharePoint Server 2007, see Planning and architecture for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc261834.aspx*.

Why deploy Microsoft Office Project Server 2007 with Microsoft Office SharePoint Server 2007

A major benefit of integrating Office Project Server 2007 with Office SharePoint Server 2007 is the other capabilities offered by Office SharePoint Server 2007, such as:

- Workflow functionality. If you plan on using the automated proposals feature in Office Project Server 2007, you need the workflow functionality provided through Office SharePoint Server 2007. For more information about project proposals and other Office Project Server 2007 features, see What's new in Office Project 2007 (*http://technet.microsoft.com/en-us/library/cc197654.aspx*). For more information about workflow functionality in Office SharePoint Server 2007, see What are workflows? (*http://technet.microsoft.com/en-us/library/cc263148.aspx*) and Understanding Workflow (*http://technet.microsoft.com/en-us/library/cc263374.aspx*).
- Rich business intelligence and dashboard capabilities in the Project Server Report Center when used with Excel Services. For more information, see Plan for business intelligence (*http://technet.microsoft.com/en-us/library/cc262935.aspx*).
- Easier Windows SharePoint Services workspace administration with the features in the document management system. For more information, see Plan document management (*http://technet.microsoft.com/en-us/library/cc263266.aspx*).
- Richer search capabilities. For more information, see Plan search (*http://technet.microsoft.com/en-us/library/cc263400.aspx*).

Deployment scenarios

There are three different deployment scenarios when integrating Office Project Server 2007 with Office SharePoint Server 2007:

- You have an existing Office SharePoint Server 2007 deployment and would like to integrate Office Project Server 2007.
- You have an existing Office Project Server 2007 deployment and would like to integrate Office SharePoint Server 2007.
- You currently have neither Office Project Server 2007 or Office SharePoint Server 2007 installed, and want to install and integrate them both.
- These three scenarios are covered in detail in the following articles:
- Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007
- Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007
- Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Merging an existing Office SharePoint Server 2007 farm with an existing Project Server 2007 farm

We do not support using Inter-Farm Shared Services to merge an existing Office SharePoint Server 2007 farm with an existing Office Project Server 2007 farm while retaining the deployments on the same hardware configuration. This is due to functionality, performance, and security issues that can occur when Office Project Server 2007 is deployed in this manner.

As an alternative, you should use the following general steps to merge the two farms:

Important:

You must follow the steps in the order provided.

1. Install Office Project Server 2007 on the Office SharePoint Server 2007 farm. For more information, see Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007.
2. Migrate Office Project Server 2007 sites and workspaces from the Office Project Server 2007 farm to the Office SharePoint Server 2007 farm (on which you just installed Project Server 2007). For information on migrating Office Project Server 2007 data, see Back up and restore the Project Server 2007 farm (*http://technet.microsoft.com/en-us/library/dd207295.aspx*).
3. Disconnect the Office Project Server 2007 farm from its Configuration database. You can do this by rerunning the SharePoint Products and Technologies Configuration Wizard on all servers in the farm and selecting the option to disconnect from the farm.
4. Install Office SharePoint Server 2007 on the computers on which you disconnected Office Project Server 2007 from the Configuration database. When running post-setup configuration, connect to the Configuration database being used on the farm in step 1. For more information about installing Office SharePoint Server 2007 on a Office Project Server 2007 farm, see Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007.

The final results will be a single farm with Office SharePoint Server 2007 and Office Project Server 2007, spanning servers from both farms.

See Also

Deploy Project Server 2007 to an existing deployment of Office SharePoint Server 2007

Deploy Office SharePoint Server 2007 to an existing deployment of Project Server 2007

Deploy Office SharePoint Server 2007 and Office Project Server 2007 to a new environment

Upgrading Windows SharePoint Services to Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc197479.aspx*)

Whitepaper: EPM and Office SharePoint Server 2007 Coexistence: Intranet Scenario (*http://technet.microsoft.com/en-us/library/dd835339.aspx*)

Deploy Project Server 2007 to a server farm environment

Deploy Office SharePoint Server 2007 in a server farm environment (*http://technet.microsoft.com/en-us/library/cc303428.aspx*)

Configure Excel Calculation Services with Project Server 2007

Deploy Service Pack 2 for Office Project Server 2007

This article provides guidance to IT professionals managing the Service Pack 2 (SP2) update to a Microsoft Office Project Server 2007 deployment. Issues covered include updating basic and farm deployments, preparing for installation, starting and finalizing the installation, verifying the installation, as well as language pack considerations.

Office Project Server 2007 SP2 is available in 2007 Microsoft Office Servers Service Pack 2 (SP2) (*http://go.microsoft.com/fwlink/?LinkId=148351*). These files include updates for the following 2007 Microsoft Office System server products:

- Microsoft Office SharePoint Server 2007
- Office Project Server 2007
- Microsoft Office Groove Server 2007
- Microsoft Office Forms Server 2007

Note:

Office Project Server 2007 SP2 includes the February 2009 cumulative update.

For detailed information about 2007 Microsoft Office Servers SP2, go here (http://go.microsoft.com/fwlink/?LinkId=149621).

Important:

Known issue: During the installation of 2007 Microsoft Office Servers SP2 (*http://go.microsoft.com/fwlink/?LinkId=148351*), a product trial expiration date is inadvertently activated that would cause the product to expire 180 days after installation. This issue is resolved by following the detailed steps in the Microsoft Knowledge Base (KB) Article 971620 (*http://go.microsoft.com/fwlink/?LinkID=153131*).

Before you begin

Important

- Office Project Server 2007 is built on Windows SharePoint Services 3.0. Before installing 2007 Microsoft Office Servers SP2, you must first install SP2 for Windows SharePoint Services 3.0; this article documents both installations. However, for detailed information about applying Windows SharePoint Services 3.0 SP2 to various deployment scenarios, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).
  In addition, when using fixed duration tasks, be aware that:
- When using fixed duration tasks, it is strongly recommended that you upgrade both the server and client computers to SP2.

For detailed information about Office Project 2007 SP2, go here (*http://go.microsoft.com/fwlink/?LinkId=149671*).

Before you install Windows SharePoint Services 3.0 SP2 and 2007 Microsoft Office Servers SP2, take these recommended actions:

- Back up the databases before you start either service pack installation.

  For more information about how to perform backups, read Prepare to back up Windows SharePoint Services 3.0 technology (*http://technet.microsoft.com/en-us/library/cc287690.aspx*).
- Stop the **World Wide Web Publishing Service** on all the Web servers to disconnect all the users from the server farm. In server farms with multiple front-end Web servers, users will not be able to browse Websites when files and databases have been updated on the first front-end Web server, while the other Web servers still contain previous files and databases.
- Verify that all Windows SharePoint Services upgrade jobs are complete. You can check for in-progress upgrade processes in the Timer Job Status page on the SharePoint Central Administration Web site. For more information, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

  Note:

  Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*) contains additional recommendations. Since Office Project Server 2007 is built on Windows SharePoint Services 3.0, we advise that you also see this article for additional recommendations before updating your Office Project Server 2007 deployment.

Update a Basic installation

Note:

If you chose Basic installation (single server with Microsoft SQL Server Desktop Engine) when you installed Office Project Server 2007, you do not need to follow the process and procedures in this article.

If you have Automatic Updates enabled for Basic installation, your computers are updated automatically.

The software update procedure checks the registry and blocks automatic installation on any Web server that does not contain the value **singleserver** in the **SERVERROLE** key.

To determine if you need to manually download and install the software update, use a registry editor to verify the value in the following key: **HKLM\Software\Microsoft\Shared Tools\web server extensions\12.0\WSS\SERVERROLE**

If you do not have Automatic Updates enabled, you can use the Microsoft Update Web site to install the software updates. After the software update is installed, the SharePoint Products and Technologies Configuration Wizard runs automatically while updating the SharePoint Products and Technologies databases. The SharePoint Products and Technologies Configuration Wizard will not prompt the user for input or display any notifications while the wizard is running.

Update a farm deployment

Important:

You cannot use Automatic Updates to install any of the required service packs on Office Project Server 2007, on Windows SharePoint Services 3.0, or on language packs in a server farm deployment.

For Office Project Server 2007 farm deployments, visit the Microsoft download center to download and then install the service pack on each server in your farm.

Also, because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the service packs for *both* products will need to be applied to *all* servers in the farm.

Installation steps

To update a Office Project Server 2007 server farm deployment with SP2, you must perform the following steps:

1. On all servers in the farm, install the Windows SharePoint Services 3.0 SP2 files, but do not run the SharePoint Products and Technologies Configuration Wizard.
2. On all servers in the farm, install the 2007 Microsoft Office Servers SP2 files, but do not run the SharePoint Products and Technologies Configuration Wizard.
3. On one server in the farm (preferably the server hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on that server.
4. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers in the farm.

   Note:

   If you have Office Project Server 2007 language packs that you would like to update as well, see the section "Deployment considerations for language pack updates" in this article.

We recommend that you use **SharePoint Central Administration v3** application pool account credentials to run the SharePoint Products and Technologies Configuration Wizard. If you then use a different account to install the service pack, that account must be a domain account with the following rights and permissions:

- Member of the Administrators group on the Web server computer
- Member of the Administrators group on the SQL Server computer

You can install the service pack by logging on to the server directly or by connecting through a terminal services console session.

Note:

For information on how to use console sessions, read the Microsoft Knowledge Base article How to connect to and shadow the console session with Windows Server 2003 Terminal Services (*http://go.microsoft.com/fwlink/?LinkID=98317&clcid=0x409*).

Install SP2 on Office Project Server 2007 in a farm deployment

1. Disconnect users from the server farm by stopping the **World Wide Web Publishing service** (w3svc) on all Web servers.
2. Download Windows SharePoint Services 3.0 SP2 from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkId=149241*). You will need to install the service pack files on each server in your Office Project Server 2007 farm. Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Windows SharePoint Services 3.0 SP2 (64-bit)	wssv3sp2-kb953338-x64-fullfile-en-us.exe
Windows SharePoint Services 3.0 SP2 (32-bit)	wssv3sp2-kb953338-x86-fullfile-en-us.exe

3. On a server in the farm, run the file. At the Microsoft Software License Terms screen, read the terms and click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.

   Important:

   After installing the files for Windows SharePoint Services 3.0 SP2, do not run the SharePoint Products and Technologies Configuration Wizard. Start the wizard *only* after installing all SP2 files to the server.

   At the end of the service pack installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel** to exit the SharePoint Products and Technologies Configuration Wizard.
4. Download 2007 Microsoft Office Servers SP2 from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkId=148351*). Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Office SharePoint Server 2007 SP2 (64-bit)	officeserver2007sp2-kb953334-x64-fullfile-en-us.exe
Office SharePoint Server 2007 SP2 (32-bit)	officeserver2007sp2-kb953334-x86-fullfile-en-us.exe

5. On the same server on which you installed Windows SharePoint Services 3.0 SP2, run the file to start the 2007 Microsoft Office Servers SP2 installation.
6. Read the terms on the Microsoft Software License Terms screen, and then click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.

7. At the end of the service pack installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel**. *Do not run the SharePoint Products and Technologies Configuration Wizard at this time.*
8. Go to each server in your Office Project Server 2007 farm and repeat steps 2-7 to install Windows SharePoint Services 3.0 SP2 and Microsoft Office Servers SP2.

   You must run setup to install new binary files for every server in your server farm. If you have multiple servers in your server farm, run setup on the other servers now.

   Note:

   After installing Windows SharePoint Services 3.0 SP2 and Microsoft Office Servers SP2 to each server, remember to click **Cancel** on the SharePoint Products and Technologies Configuration Wizard Welcome page.
9. After installing Windows SharePoint Services 3.0 SP2 and Microsoft Office Servers SP2 on each server in the farm, go to each application server. Check whether the following services (if available) are running, and if so, stop them:
   - Microsoft Office Project Server Events service
   - Microsoft Office Project Server Queue service

   If the services are not stopped, a reboot may be required at completion of setup.
10. Use the server that hosts the Central Administration Web site to finalize the installation.

    Notes

We recommend that you finalize the software update installation first on the application server hosting the Central Administration Web site, then on the other application servers, and then on the front-end Web servers.

If you host your Central Administration Web site on a front-end Web server, finalize the software update installation instead on that front-end Web server, then the application servers, and finally on the remaining front-end Web servers.

In a server farm with multiple servers, you can determine this server through the Central Administration page by clicking on **Operations**, clicking on **Servers in Farm**, and then verifying which server has **Central Administration** in the **Services Running** column.

11. On the server you selected in the previous step, run the SharePoint Products and Technologies Configuration Wizard to complete the installation. To run the SharePoint Products and Technologies Configuration Wizard, click **Start**, click **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.
12. On the Configuration Successful page, click **Finish**.
13. After you have finished updating the server that hosts the Central Administration Web site, make sure that the software update installation was successful by following the procedures in the "Verify the installation" section of this article.
14. Continue finalizing the installation on the remaining computers in the server farm, one at a time, by running the SharePoint Products and Technologies Configuration Wizard as described in steps 11 and 12.

Note:

It is important that the SharePoint Products and Technologies Configuration Wizard perform its configuration procedures on only one computer at a time. The only exception is the instance in which you have detached your content databases and upgraded them before you reattach them to the server farm. For more information, see the Microsoft TechNet article Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

15. When the service pack installation and configuration is complete on all the servers in the server farm, make the Web servers available to users by manually starting the **World Wide Web Publishing Service** on each server on which you manually stopped the service.

Verify the installation

After completing the service pack installation, review the upgrade log file. Then open the SharePoint Central Administration Web site to verify that the installation has been successful by using the procedure outlined in the table on the Web site. Next, you should verify that the updates to the Web applications were successful.

The easiest method to see whether Office Project Server 2007 is updated to SP2 on a server is to view the version of Project Server through Add/Remove Programs.

View Project Server version information in Add or Remove Programs

1. On the Windows 2003 Server computer on which you are checking the Office Project Server 2007 version, click **Start**, click **Control Panel**, and then click **Add or Remove Programs**.
2. In the list of **Currently installed programs**, click **Microsoft Office Project Server 2007**.
3. Under Microsoft Office Project Server 2007, click **Click here for support information**.
4. In the Support Info screen, check the version number. If SP2 for Office Project Server 2007 is installed on this server, the version number should be 12.0.6422.1000.

Another method to see if Office Project Server 2007 is updated with SP2 is to query the VERSIONS table in one of the Office Project Server 2007 databases.

View Project Server version information through the Versions table in a Project Server 2007 database

1. On the computer running the instance of SQL Server containing the Office Project Server 2007 databases, open SQL Server Management Studio.
2. Click **New Query**.
3. Choose one of the Office Project Server 2007 databases (Draft, Published, Reporting, or Archive) from the Available Databases drop-down list.

4. Type **select * from versions** in the query window and then click **Execute**.

   The most recent version number in the Version field should be **12.0.6422.1000**.

For information about verifying the installation and known issues, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Update Office Project Server 2007 language packs

Note:

Before installing Office Project Server 2007 Language Pack SP2, you must install Windows SharePoint Services 3.0 Language Pack SP2.
You can download WSS 3.0 Language Pack SP2, 32-bit version (*http://go.microsoft.com/fwlink/?LinkId=149244*) and WSS 3.0 Language Pack SP2, 64-bit version (*http://go.microsoft.com/fwlink/?LinkId=149245*) from the Microsoft Download Center.
For more information about installing WSS Language Pack SP2 updates, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

2007 Microsoft Office Servers Language Pack SP2 contains updates for the following Office Server language packs:

- Office SharePoint Server 2007 Language Pack
- Office Project Server 2007 Language Pack
- Office Forms Server 2007 Language Pack
- Office Groove Server 2007 Language Pack

2007 Microsoft Office Servers Language Pack SP2 will detect any required language packs on the server and will install them as needed.
You can download 2007 Microsoft Office Servers Language Pack SP2, 32-bit version (*http://go.microsoft.com/fwlink/?LinkId=149247*) and 2007 Microsoft Office Servers Language Pack SP2, 64-bit version (*http://go.microsoft.com/fwlink/?LinkId=149246*) from the Microsoft Download Center.
For more information about installing 2007 Microsoft Office Servers Language Pack SP2, see Deploy software updates for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc263467.aspx*).

Deployment considerations for language pack updates

When installing 2007 Microsoft Office Servers Language Pack SP2 on Office Project Server 2007 in a server farm deployment, you must install the files to each server in the farm. Install the language template pack updates to each server, and then return to one server and run the SharePoint Products and Technologies Configuration Wizard to complete installation. Finally, run the wizard for each remaining server.

The recommended order for installing the service pack updates on Office Project Server 2007 with language packs in a server farm deployment is:

1. On all servers in the farm, install the Windows SharePoint Services 3.0 SP2 but do not run the SharePoint Products and Technologies Configuration Wizard.
2. On all servers in the farm, install 2007 Microsoft Office Servers SP2, but do not run the SharePoint Products and Technologies Configuration Wizard.
3. On all servers in the farm, install Windows SharePoint Services 3.0 Language Pack SP2, but do not run the SharePoint Products and Technologies Configuration Wizard.
4. On all servers in the farm, install Office SharePoint Server 2007 Language Pack SP2, but do not run the SharePoint Products and Technologies Configuration Wizard.
5. On one server in the farm (preferably the server hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on this server.
6. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers on the farm.

See Also

Office Project Server TechCenter (http://go.microsoft.com/fwlink/?LinkID=105773&clcid=0x409)

Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

Deploy software updates for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc263467.aspx*)

Deploy Service Pack 1 for Office Project Server 2007

This article provides guidance to IT professionals managing the Service Pack 1 (SP1) update to a Microsoft Office Project Server 2007 deployment. Issues covered include updating basic and farm deployments, preparing for installation, starting and finalizing the installation, verifying the installation, as well as language pack considerations.

Important:

Please be aware that Office Project Server 2007 Service Pack 2 (SP2) is also currently available. Note that all fixes for Office Project Server 2007 SP1 are available in Office Project Server 2007 SP2. For information about deploying Office Project Server 2007 SP2, see Deploy Service Pack 2 for Office Project Server 2007.

Office Project Server 2007 Service Pack 1 is available in 2007 Microsoft Office Servers Service Pack 1 (SP1) (*http://go.microsoft.com/fwlink/?LinkID=105636&clcid=0x409*). These files include updates for the following 2007 Microsoft Office System server products:

- Microsoft Office SharePoint Server 2007
- Office Project Server 2007
- Microsoft Office Forms Server 2007

Office Project Server 2007 is built on Windows SharePoint Services 3.0. Before installing 2007 Microsoft Office Servers Service Pack 1, you must first install SP1 for Windows SharePoint Services 3.0; this article documents both installations. However, for detailed information about applying Windows SharePoint Services 3.0 SP1 to various deployment scenarios, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Before you begin

Before you install the Windows SharePoint Services 3.0 SP1 and 2007 Microsoft Office Servers SP1, take these recommended actions:

- Back up the databases before you start the service pack installation.

  For more information about how to perform backups, read Prepare to back up and restore a farm (*http://technet.microsoft.com/en-us/library/cc287690.aspx*).
- Stop the **World Wide Web Publishing Service** on all the Web servers to disconnect all the users from the server farm. In server farms with multiple front-end Web servers, end users will not be able to browse the Web sites when files and databases have been updated on the first front-end Web server while the other Web servers still contain previous files and databases.

- Verify that all Windows SharePoint Services upgrade jobs are complete. You can check for in-progress upgrade processes in the Timer Job Status page on the SharePoint Central Administration Web site. For more information, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

  Note:

  Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*) contains additional recommendations. Since Office Project Server 2007 is built on Windows SharePoint Services 3.0, we advise that you also see this article for additional recommendations before updating your Office Project Server 2007 deployment.

Update a Basic installation

Note:

If you chose Basic installation (single server with Microsoft SQL Server Desktop Engine) when you installed Office Project Server 2007, you do not need to follow the process and procedures in this article.

If you have Automatic Updates enabled for Basic installation, your computers are updated automatically.

The software update procedure checks the registry and blocks automatic installation on any Web server that does not contain the value **singleserver** in the **SERVERROLE** key.

To determine if you need to manually download and install the software update, use a registry editor to verify the value in the following key: **HKLM\Software\Microsoft\Shared Tools\web server extensions\12.0\WSS\SERVERROLE**

If you do not have Automatic Updates enabled, you can use the Microsoft Update Web site to install the software updates. After the software update is installed, the SharePoint Products and Technologies Configuration Wizard runs automatically while updating the SharePoint Products and Technologies databases. The SharePoint Products and Technologies Configuration Wizard will not prompt the user for input or display any notifications while the wizard is running.

Update a farm deployment

Important:

You cannot use Automatic Updates to install any of the required service packs on Office Project Server 2007, on Windows SharePoint Services 3.0, or on language packs in a server farm deployment.

For Office Project Server 2007 farm deployments, visit the Microsoft download center to download and then install the service pack on each server in your farm.

Also, because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the service packs for *both* products will need to be applied to *all* servers in the farm.

Installation steps

To update a Office Project Server 2007 server farm deployment with SP1, you must perform the following steps:

1. On all servers in the farm, install the Windows SharePoint Services 3.0 SP1 files, but do not run the SharePoint Products and Technologies Configuration Wizard.
2. On all servers in the farm, install the 2007 Microsoft Office Servers SP1 files, but do not run the SharePoint Products and Technologies Configuration Wizard.
3. On one server in the farm (preferably the one hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on that server.
4. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers on the farm.

   Note:

   If you have Office Project Server 2007 language packs that you would like to update as well, see the section "Deployment considerations for language pack updates" in this article.

We recommend that you use **SharePoint Central Administration v3** application pool account credentials to run the SharePoint Products and Technologies Configuration Wizard. If you then use a different account to install the service pack, that account must be a domain account with the following rights and permissions:

- Member of the Administrators group on the Web server computer
- Member of the Administrators group on the SQL Server computer

You can install the service pack by logging on to the server directly or by connecting through a terminal services console session.

Note:

For information on how to use console sessions, read the Microsoft Knowledge Base article How to connect to and shadow the console session with Windows Server 2003 Terminal Services (*http://go.microsoft.com/fwlink/?LinkID=98317&clcid=0x409*).

Install SP1 on Office Project Server 2007 in a farm deployment

1. Disconnect users from the server farm by stopping the **World Wide Web Publishing service** (w3svc) on all Web servers.
2. Download Windows SharePoint Services 3.0 SP1 from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkID=105655&clcid=0x409*). You will need to install the service pack files on each server in your Office Project Server 2007 farm. Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Windows SharePoint Services 3.0 SP1 (64-bit)	wssv3sp1-kb936988-x64-fullfile-en-us.exe
Windows SharePoint Services 3.0 SP1 (32-bit)	wssv3sp1-kb936988-x86-fullfile-en-us.exe

3. On a server in the farm, run the file. At the Microsoft Software License Terms screen, read the terms and click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.

   Important:

   After installing the files for Windows SharePoint Services 3.0 SP1, do not run the SharePoint Products and Technologies Configuration Wizard. Start the wizard *only* after installing all SP1 files to the server.

   At the end of the service pack installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel** to exit the SharePoint Products and Technologies Configuration Wizard.
4. Download 2007 Microsoft Office Servers SP1 from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkID=105636&clcid=0x409*). Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Office SharePoint Server 2007 SP1 (64-bit)	officeserver2007sp1-kb936984-x64-fullfile-en-us.exe
Office SharePoint Server 2007 SP1 (32-bit)	officeserver2007sp1-kb936984-x86-fullfile-en-us.exe

5. On the same server on which you installed Windows SharePoint Services 3.0 SP1, run the file to start the 2007 Microsoft Office Servers SP1 installation.
6. Read the terms on the Microsoft Software License Terms screen, and then click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the

update files.

7. At the end of the service pack installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel**. *Do not run the SharePoint Products and Technologies Configuration Wizard at this time.*
8. Go to each server in your Office Project Server 2007 farm and repeat steps 2-7 to install both SP1 files.

   You must run setup to install new binary files for every server in your server farm. If you have multiple servers in your server farm, run setup on the other servers now.

   Note:

   After installing both service packs to each server, remember to click **Cancel** on the SharePoint Products and Technologies Configuration Wizard Welcome page.
9. After installing the SP1 files on each server in the farm, go to each application server and stop the following services (if available):
   - Microsoft Office Project Server Events service
   - Microsoft Office Project Server Queue service

   If the services are not stopped, a reboot may be required at completion of setup.
10. Use the server that hosts the Central Administration Web site to finalize the installation.

Notes

We recommend that you finalize the software update installation first on the application server hosting the Central Administration Web site, then on the other application servers, and then on the front-end Web servers.

If you host your Central Administration Web site on a front-end Web server, finalize the software update installation instead on that front-end Web server, then the application servers, and finally on the remaining front-end Web servers.

In a server farm with multiple servers, you can determine this server through the Central Administration page by clicking on **Operations**, clicking on **Servers in Farm**, and then verifying which server has **Central Administration** in the **Services Running** column.

11. On the server you selected in the previous step, run the SharePoint Products and Technologies Configuration Wizard to complete the installation. To run the SharePoint Products and Technologies Configuration Wizard, click **Start**, click **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.
12. On the Configuration Successful page, click **Finish**.
13. After you have finished updating the server that hosts the Central Administration Web site, make sure that the software update installation was successful by following the procedures in the "Verify the installation" section of this article.
14. Continue finalizing the installation on the remaining computers in the server farm, one at a time, by running the SharePoint Products and Technologies Configuration Wizard as described in steps 11 and 12.

Note:

It is important that the SharePoint Products and Technologies Configuration Wizard perform its configuration procedures on only one computer at a time. The only exception is that instance in which you have detached your content databases and upgraded them before you reattach them to the server farm. For more information, see the Microsoft TechNet article Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

15. When the service pack installation and configuration is complete on all the servers in the server farm, make the Web servers available to users by manually starting the **World Wide Web Publishing Service** on each server on which you manually stopped the service.

Verify the installation

After you install the service pack, review the upgrade log file and open the SharePoint Central Administration Web site to verify that the installation has been successful by using the procedure outlined in the table that follows. Next, you should verify that the updates to the Web applications were successful.

The easiest method to see if Office Project Server 2007 is updated to SP1 on a server is to view the version of Project Server through **Add/Remove Programs**.

View Project Server version information in Add or Remove Programs

1. On the Windows 2003 Server on which you are checking the Office Project Server 2007 version, click **Start**, click **Control Panel**, and then click **Add or Remove Programs**.
2. On the Add or Remove Programs page, in the list of **Currently installed programs**, click **Microsoft Office Project Server 2007**.
3. Under Microsoft Office Project Server 2007, click **Click here for support information**.
4. In the Support Info screen, check the Version number. If SP1 for Office Project Server 2007 is installed on this server, the version number should be 12.0.6219.1000.

Another way to determine whether Office Project Server 2007 has been updated to SP1 is to query the VERSIONS table in one of the Office Project Server 2007 databases.

View Project Server version information in the Versions table in a Project Server 2007 database

1. On the computer running the instance of SQL Server containing the Office Project Server 2007 databases, open SQL Server Management Studio.
2. Click **New Query**.
3. Choose one of the Office Project Server 2007 databases (Draft, Published, Reporting, or Archive) from the Available Databases list.

4. Type **select * from versions** in the query window and then click **Execute**.

   The most recent version number in the Version field should be **12.0.6218.1000**.

For information about verifying the installation and known issues, refer to Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Update Office Project Server 2007 language packs

Note:

You must install any required Windows SharePoint Services 3.0 Language Pack Service Pack 1 (SP1) updates before installing Office Project Server 2007 Language Pack SP1 updates. For more information about installing WSS Language Pack SP1 updates, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Office Project Server 2007 language pack updates are available in 2007 Microsoft Office Servers Language Pack Service Pack 1 (SP1). This service pack contains updates for the following Office Server language packs:

- Office Forms Server 2007 Language Pack
- Office Project Server 2007 Language Pack
- Office SharePoint Server 2007 Language Pack

2007 Microsoft Office Servers Language Pack Service Pack 1 will detect any required language packs on the server and will install them as needed. For more information about installing 2007 Microsoft Office Servers Language Pack Service Pack 1, see Deploy software updates for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc263467.aspx*).

Deployment considerations for language pack updates

When installing 2007 Microsoft Office Servers Language Pack Service Pack 1 on Office Project Server 2007 in a server farm deployment, you must install the files to each server in the farm. Install the language template pack updates to each server, and then return to one server and run the SharePoint Products and Technologies Configuration Wizard to complete installation. Finally, run the wizard for each remaining server.

The recommended order for installing the service pack updates on Office Project Server 2007 with language packs in a server farm deployment is:

1. On all servers in the farm, install the Windows SharePoint Services 3.0 SP1 but do not run the SharePoint Products and Technologies Configuration Wizard.
2. On all servers in the farm, install 2007 Microsoft Office Servers SP1, but do not run the SharePoint Products and Technologies Configuration Wizard.
3. On all servers in the farm, install Windows SharePoint Services 3.0 Language Pack SP1, but do not run the SharePoint Products and Technologies Configuration Wizard.

4. On all servers in the farm, install Office SharePoint Server 2007 Language Pack Service Pack 1, but do not run the SharePoint Products and Technologies Configuration Wizard.
5. On one server in the farm (preferably the one hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on this server.
6. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers on the farm.

Deploy Project Server 2007 updates (*http://technet.microsoft.com/en-us/library/dd630752.aspx*)

Deploy Service Pack 2 for Office Project Server 2007

Checklist for deploying Project Server 2007 updates

Office Project Server TechCenter (http://go.microsoft.com/fwlink/?LinkID=105773&clcid=0x409)

Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

Deploy software updates for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc263467.aspx*)

Deploy the infrastructure update for Office Project Server 2007

This article provides guidance to IT professionals managing deployment of the Infrastructure Update to a Microsoft Office Project Server 2007 deployment. Issues covered include updating basic and farm deployments, preparing for installation, starting and finalizing the installation, verifying the installation, as well as language pack considerations.

The Infrastructure Update for Microsoft Office Servers is available in 2007 Microsoft Office Servers Infrastructure Update (*http://go.microsoft.com/fwlink/?LinkId=121879&clcid=0x409*). These files include updates for the following 2007 Microsoft Office System server products:

- Microsoft Office SharePoint Server 2007
- Office Project Server 2007

Office Project Server 2007 is built on Windows SharePoint Services 3.0. Before installing the Infrastructure Update for Microsoft Office Servers, you must first install the Infrastructure Update for Windows SharePoint Services 3.0. This article documents both installations; however, for detailed information about applying Infrastructure Update for Windows SharePoint Services 3.0 to various deployment scenarios, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Before you begin

Before you install the Infrastructure Update for Windows SharePoint Services 3.0 and the Infrastructure Update for Microsoft Office Servers, take these recommended actions:

- Back up the databases before you start the installation.

  For more information about how to perform backups, read Prepare to back up Windows SharePoint Services 3.0 technology (*http://technet.microsoft.com/en-us/library/cc287690.aspx*).
- Stop the **World Wide Web Publishing Service** on all the Web servers to disconnect all the users from the server farm. In server farms with multiple front-end Web servers, end users will not be able to browse the Web sites when files and databases have been updated on the first front-end Web server while the other Web servers still contain previous files and databases.
- Verify that all Windows SharePoint Services upgrade jobs are complete. You can check for in-progress upgrade processes in the Timer Job Status page on the SharePoint Central Administration Web site. For more information, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

  Note:

  Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*) contains additional

recommendations. Because Office Project Server 2007 is built on Windows SharePoint Services 3.0, we advise that you also see this article for additional recommendations before updating your Office Project Server 2007 deployment.

Update a Basic installation

Note:

If you chose Basic installation (single server with Microsoft SQL Server Desktop Engine) when you installed Office Project Server 2007, you do not need to follow the process and procedures in this article.

If you have Automatic Updates enabled for Basic installation, your computers are updated automatically.

The software update procedure checks the registry and blocks automatic installation on any Web server that does not contain the value **singleserver** in the **SERVERROLE** key.

To determine if you need to manually download and install the software update, use a registry editor to verify the value in the following key: **HKLM\Software\Microsoft\Shared Tools\web server extensions\12.0\WSS\SERVERROLE**

If you do not have Automatic Updates enabled, you can use the Microsoft Update Web site to install the software updates. After the software update is installed, the SharePoint Products and Technologies Configuration Wizard runs automatically while updating the SharePoint Products and Technologies databases. The SharePoint Products and Technologies Configuration Wizard will not prompt the user for input or display any notifications while the wizard is running.

Update a farm deployment

Important:

You cannot use Automatic Updates to install any of the Infrastructure Updates on Office Project Server 2007, on Windows SharePoint Services 3.0, or on language packs in a server farm deployment.

For Office Project Server 2007 farm deployments, visit the Microsoft download center to download and then install the update on each server in your farm.

Also, because Office Project Server 2007 is built on Windows SharePoint Services 3.0, the updates for *both* products will need to be applied to *all* servers in the farm.

Installation steps

To update a Office Project Server 2007 server farm deployment with the Infrastructure Update, you must perform the following steps:

1. On all servers in the farm, install the Infrastructure Update for Windows SharePoint Services 3.0 files, but do not run the SharePoint Products and Technologies Configuration Wizard.

2. On all servers in the farm, install the Infrastructure Update for Microsoft Office Servers files, but do not run the SharePoint Products and Technologies Configuration Wizard.
3. On one server in the farm (preferably the one hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on that server.
4. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers on the farm.

   Note:

   If you have Office Project Server 2007 language packs that you would like to update as well, see the section "Deployment considerations for language pack updates" in this article.

We recommend that you use **SharePoint Central Administration v3** application pool account credentials to run the SharePoint Products and Technologies Configuration Wizard. If you then use a different account to install the update, that account must be a domain account with the following rights and permissions:

- Member of the Administrators group on the Web server computer
- Member of the Administrators group on the SQL Server computer

You can install the update by logging on to the server directly or by connecting through a terminal services console session.

Note:

For information on how to use console sessions, read the Microsoft Knowledge Base article How to connect to and shadow the console session with Windows Server 2003 Terminal Services (*http://go.microsoft.com/fwlink/?LinkID=98317&clcid=0x409*).

Install the Infrastructure Update for Microsoft Office Servers in a farm deployment

1. Disconnect users from the server farm by stopping the **World Wide Web Publishing service** (w3svc) on all Web servers.
2. Download the Infrastructure Update for Windows SharePoint Services 3.0 from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkId=121881&clcid=0x409*). You will need to install the update files on each server in your Office Project Server 2007 farm. Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Infrastructure Update for Windows SharePoint Services 3.0 (64-bit)	InfrastructureUpdateForWindowsSharePointServices3.0-KB951695-fullfile-x64.exe
Infrastructure Update for Windows SharePoint Services 3.0 (32-bit)	InfrastructureUpdateForWindowsSharePointServices3.0-KB951695-fullfile-x86.exe

3. On a server in the farm, run the file. At the Microsoft Software License Terms screen, read the terms and click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.

   Important:

   After installing the files for the Infrastructure Update for Windows SharePoint Services 3.0, do not run the SharePoint Products and Technologies Configuration Wizard. Start the wizard *only* after installing all update files to the server.

   At the end of the installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel** to exit the SharePoint Products and Technologies Configuration Wizard.

4. Download the Infrastructure Update for Microsoft Office Servers from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkId=121879&clcid=0x409*). Depending on whether your system is 64-bit or 32-bit, the files are:

System	File
Infrastructure Update for Microsoft Office Servers (64-bit)	infrastructureupdateformicrosoftofficeservers-kb951297-fullfile-x64.exe
Infrastructure Update for Microsoft Office Servers (32-bit)	infrastructureupdateformicrosoftofficeservers-kb951297-fullfile-x86.exe

5. On the same server on which you installed Infrastructure Update for Windows SharePoint Services 3.0, run the file to start the Infrastructure Update for Microsoft Office Servers installation.
6. Read the terms on the Microsoft Software License Terms screen, and then click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.
7. At the end of the update installation, the SharePoint Products and Technologies Configuration Wizard Welcome page displays. Click **Cancel**. *Do not run the SharePoint Products and Technologies Configuration Wizard at this time.*
8. Go to each server in your Office Project Server 2007 farm and repeat steps 2-7 to install both update files.

   You must run setup to install new update files for every server in your server farm. If you have multiple servers in your server farm, run setup on the other servers now.

   Note:

   After installing both updates to each server, remember to click **Cancel** on the SharePoint Products and Technologies Configuration Wizard Welcome page.

9. After installing the update files on each server in the farm, go to each application server

and stop the following services (if available):

- Microsoft Office Project Server Events service
- Microsoft Office Project Server Queue service

If the services are not stopped, a reboot may be required at completion of setup.

10. Use the server that hosts the Central Administration Web site to finalize the installation.

Notes

We recommend that you finalize the software update installation first on the application server hosting the Central Administration Web site, then on the other application servers, and then on the front-end Web servers.

If you host your Central Administration Web site on a front-end Web server, finalize the software update installation instead on that front-end Web server, then the application servers, and finally on the remaining front-end Web servers.

In a server farm with multiple servers, you can determine this server through the Central Administration page by clicking on **Operations**, clicking on **Servers in Farm**, and then verifying which server has **Central Administration** in the **Services Running** column.

11. On the server you selected in the previous step, run the SharePoint Products and Technologies Configuration Wizard to complete the installation. To run the SharePoint Products and Technologies Configuration Wizard, click **Start**, click **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.
12. On the Configuration Successful page, click **Finish**.
13. After you have finished updating the server that hosts the Central Administration Web site, make sure that the software update installation was successful by following the procedures in the "Verify the installation" section of this article.
14. Continue finalizing the installation on the remaining computers in the server farm, one at a time, by running the SharePoint Products and Technologies Configuration Wizard as described in steps 11 and 12.

Note:

It is important that the SharePoint Products and Technologies Configuration Wizard perform its configuration procedures on only one computer at a time. The only exception is if you have detached your content databases and upgraded them before you reattach them to the server farm. For more information, see the Microsoft TechNet article Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

15. When the update installation and configuration is complete on all the servers in the server farm, make the Web servers available to users by manually starting the **World Wide Web Publishing Service** on each server on which you manually stopped the service.

Verify the installation

After you install the update, review the upgrade log file and verify that the updates to the Web applications were successful.

The easiest method to see if Office Project Server 2007 is updated is to query the VERSIONS table in one of the Office Project Server 2007 databases.

View Project Server version information

1. On the computer running the instance of SQL Server containing the Office Project Server 2007 databases, open SQL Server Management Studio.
2. Click **New Query**.
3. Choose one of the Office Project Server 2007 databases from the **Available Databases** drop-down list.
4. Type **select * from versions** in the query window and then click **Execute**.

   The most recent version number in the **Version** field should be 12.0.6318.5000.

For information about verifying the installation and known issues, refer to Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

Client-side requirements for the Project Server infrastructure update

Important:

It is important to note that the Project Server 2007 infrastructure update contained in the Infrastructure Update for Microsoft Office Servers requires that the Project 2007 Infrastructure Update be installed on all Office Project Professional 2007 client computers that connect to the server. The reason for this requirement is that the client and the server's scheduling engine's method for calculating Fixed Duration tasks has changed. Therefore, to ensure that Fixed Duration tasks are calculated in the same way on the server and client, install the corresponding infrastructure updates on both. Failure to apply the corresponding client update may cause data inconsistencies between Project Web Access and Project Professional 2007.

Note:

Project 2007 cumulative updates contain Project 2007 infrastructure updates, so the requirement described above is taken care of for you if you have Project 2007 cumulative updates installed on your Office Project Professional 2007 clients.

The Project Server infrastructure update is included in Project Server 2007 cumulative updates starting with the December 2008 release. Installing a Project Server cumulative update that includes the Project Server infrastructure update will not reinstall the files if it has been installed previously. However, if applying the cumulative update installs the Project Server infrastructure update (it has not been installed previously), you must remember to install a Project 2007 cumulative update or the Project 2007 infrastructure update to all Office Project Professional 2007 client computers that connect to the server.

One method for verifying whether this requirement has been met is to check the hotfix level of both Project Server 2007 and Office Project Professional 2007. If Office Project Server 2007 is at or greater than hotfix version 952000, it has the infrastructure update installed. If Office Project Professional 2007 is at or greater than hotfix version 952067, it has the client infrastructure update installed. You can check for hotfix levels for both Office Project Server 2007 and Office Project Professional 2007 by viewing the **Currently installed programs and updates** list in "Add or Remove Programs" in Control Panel.

For more information about Office Project Server 2007 cumulative updates, see Deploy cumulative updates.

For more information about the Project 2007 Infrastructure Update, see Project 2007 Infrastructure Update (*http://go.microsoft.com/fwlink/?LinkId=147660*).

See Also

Office Project Server TechCenter (*http://go.microsoft.com/fwlink/?LinkID=105773&clcid=0x409*)

Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*)

Deploy software updates for Office SharePoint Server 2007 (*http://technet.microsoft.com/en-us/library/cc263467.aspx*)

Project Server 2007 Infrastructure Update Release

Deploy Service Pack 1 for Office Project Server 2007

Deploy cumulative updates

Deploy Project Server 2007 updates (*http://technet.microsoft.com/en-us/library/dd630752.aspx*)

Project Server 2007 Infrastructure Update Release

This document provides IT administrators with information regarding updates to Project Server 2007 and Project Professional 2007. This guide includes technical information, procedures, and recommendations regarding updates to reporting data service (RDS) optimizations to custom fields, queue management, and usability improvements to timesheets and My Tasks, and also Project Professional 2007 active-cache and cost-resourcing improvements.

Download as a Microsoft Word (.doc) file
(*http://go.microsoft.com/fwlink/?LinkID=121912&clcid=0x409*) (994 KB)

Deploy cumulative updates

This article provides guidance to IT professionals managing deployment of cumulative updates to a Microsoft Office Project Server 2007 deployment. Office Project Server 2007 cumulative updates can be downloaded from the Microsoft Download Center (*http://go.microsoft.com/fwlink/?LinkID=24367*). Project Server Cumulative Update Knowledge Base articles can be found on the Office Project Server 2007 Solutions Center page (*http://go.microsoft.com/fwlink/?LinkID=91430*).

What are cumulative updates?

Cumulative updates are a new method of providing hotfix releases on a scheduled delivery basis for Office Server products, including Office Project Server 2007. Through this model, Office hotfixes are released every two months in the form of a downloadable package of current and previous hotfixes. The primary goal is to deliver high-quality fixes on a predictable schedule. The updated releases are accompanied by a Knowledge Base article describing the contents of the update. The first Project Server cumulative update was released in August, 2008.

The hotfixes found in a cumulative update include:

- Fixes for issues that meet Office hotfix acceptance criteria. These criteria include workaround availability, customer impact, reproducibility, the complexity of the code that must be changed, and other criteria. These criteria have not changed.
- Any critical on-demand hotfixes released to date.
- Any critical security or non-security updates released publicly to date.

Cumulative updates apply to all versions of Office that are currently in mainstream support. For general information about Microsoft product support, visit the Microsoft Support Lifecycle Web site)(*http://go.microsoft.com/fwlink/?LinkId=147498*).

Plan to install Project Server cumulative updates

Install a Project Server cumulative update to fix a specific problem you may be experiencing in your Project Server deployment. We recommend that you review Project Server cumulative updates as they are released to determine if any of the issues that are fixed are affecting your environment. Note that Project Server cumulative updates contain fixes from any previous cumulative update packages. Therefore, if you install the latest cumulative update to fix a problem you are currently experiencing, then you are also applying hotfixes from previously released cumulative updates. Always refer to the cumulative update's Knowledge Base (KB) article for details about what it contains and for any required dependencies.

Although Windows SharePoint Services cumulative updates are not a requirement for installing Project Server 2007 cumulative updates, you should consider applying them to your environment as well if you are experiencing any problems. You can install Cumulative updates for Windows

SharePoint Services or Office SharePoint Server at the same time as the Project Server cumulative update, eliminating the need to rerun the SharePoint Products and Technologies Configuration Wizard more than once per server. (For more information, see Installation steps later in this article.)

Note that Office Project Professional 2007 cumulative updates are released on a cycle similar to that of the Project Server 2007 cumulative updates. In most cases you are not required to install Office Project Professional 2007 client cumulative updates in correspondence with a specific Project Server cumulative update. (See the Cumulative update dependencies required for the Project Server 2007 Infrastructure Update section of this article for more information about one possible exception). However, as a best practice, read the associated knowledge base article about each cumulative update for any dependencies that may exist.

Cumulative update server packages for Project Server 2007 farms deployed with Office SharePoint Server 2007

For Microsoft Office Project Server 2007 farms deployed with Microsoft Office SharePoint Server 2007, cumulative update server packages are now available to help eliminate the confusion associated with the installation order of various Windows SharePoint Services 3.0 and Office SharePoint Server 2007 cumulative updates. A cumulative update server package consists of a package that contains the latest of every hotfix patch that Microsoft has shipped for a particular version of a product. A customer would simply need to install the latest Windows SharePoint Services 3.0 cumulative update server package and the latest Office SharePoint Server 2007 cumulative update server package for the installation to be complete. The Office SharePoint Server 2007 cumulative update server package contains the latest Office Project Server 2007 cumulative update, so there is no need to install anything other than those cumulative update server packages on a Office Project Server 2007 farm deployed with Office SharePoint Server 2007.

Rollup cumulative updates are installed in the same manner as the Project Server cumulative update. Use the same installation steps as described in this article.

Installation requirements

Office Project Server 2007 Service Pack 1 is a prerequisite for installing any Office Project Server 2007 cumulative updates. Microsoft highly recommends that you install Office Project Server 2007 Service Pack 2 (SP2) prior to installing any Office Project Server 2007 cumulative updates dated April 2009 or later. (Office Project Server 2007 SP1 fixes are also included in Office Project Server 2007 SP2). For more information about installing Office Project Server 2007 service packs, see Deploy Service Pack 1 for Office Project Server 2007 and Deploy Service Pack 2 for Office Project Server 2007.

Before you begin

Before you install a cumulative update to your Project Server 2007 deployment, take these recommended actions:

- Back up the farm databases before you start the installation. Cumulative updates cannot be uninstalled, so if you need to return to your previous deployment, you will need to restore the backed up databases.

  Note:

  For more information about how to perform backups, read Prepare to back up and restore a farm (*http://technet.microsoft.com/en-us/library/cc287690.aspx*) and Prepare to back up and restore a Project Server 2007 farm (*http://technet.microsoft.com/en-us/library/dd207294.aspx*).

- Stop the **World Wide Web Publishing Service** (w3svc) on all the Web servers to disconnect all the users from the server farm. In server farms with multiple front-end Web servers, end users will not be able to browse the Web sites when files and databases have been updated on the first front-end Web server while the other Web servers still contain previous files and databases.
- As a best practice, stop the Project Queue service prior to installing a cumulative update. This ensures that nothing will process while the update is being installed, and it prevents you from having to reboot the computer upon completion of installation.

Update a basic installation

Note:

Cumulative updates need to be installed manually. Automatic Updates will not automatically apply cumulative updates to a basic installation of Project Server 2007 (that is, the single-server installation with Microsoft SQL Server Desktop Engine).

To install a Project Server cumulative update on a basic installation of Project Server 2007, do the following:

1. Disconnect users from the server by stopping the World Wide Web Publishing service (w3svc) on the server.
2. Download the Project Server cumulative update file. Run the file. On the Microsoft Software License Terms page, read the terms and click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.
3. The next page reminds you to run the SharePoint Products and Technologies Configuration Wizard after installation of the files is finished. Click **OK** to acknowledge this and begin the installation.
4. When installation of the files is done, on the confirmation page, click **OK**.
5. Run the SharePoint Products and Technologies Configuration Wizard to complete the installation. To do so, click **Start**, click **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.

6. On the Configuration Successful page, click **Finish**.
7. Make the server available to users by manually starting the **World Wide Web Publishing Service** (w3svc).

Update a farm deployment

Important:

You cannot use Automatic Updates to install any cumulative updates on Office Project Server 2007.

For Office Project Server 2007 farm deployments, visit the Microsoft Download Center (*http://www.microsoft.com/downloads/Search.aspx?displaylang=en*) to download and then install the update on each server in your farm.

Installation steps

To update an Office Project Server 2007 server farm deployment with a cumulative update, you must perform the following steps:

1. On all servers in the farm, install the Project Server Cumulative Update files, but do not run the SharePoint Products and Technologies Configuration Wizard.
2. On one server in the farm (preferably the one hosting the Central Administration site), run the SharePoint Products and Technologies Configuration Wizard to complete the installation on that server.
3. Run the SharePoint Products and Technologies Configuration Wizard on all remaining servers on the farm.

We recommend that you use **SharePoint Central Administration v3** application pool account credentials to run the SharePoint Products and Technologies Configuration Wizard. If you then use a different account to install the update, that account must be a domain account with the following rights and permissions:

- Member of the Administrators group on the Web server computer
- Member of the Administrators group on the SQL Server computer

You can install the update by logging on to the server directly or by connecting through a terminal services console session.

Note:

For information on how to use console sessions, read the Microsoft Knowledge Base article How to connect to and shadow the console session with Windows Server 2003 Terminal Services(*http://go.microsoft.com/fwlink/?LinkID=98317&clcid=0x409*).

Install a cumulative update for Project Server in a farm deployment

1. Disconnect users from the server farm by stopping the **World Wide Web Publishing service** (w3svc) on all Web servers.
2. Download the Project Server cumulative update file. You will need to install the files on each server in your Office Project Server 2007 farm.
3. On a server in the farm, run the file. At the Microsoft Software License Terms page, read the terms and click **Click here to accept the Microsoft Software License Terms**. Click **Continue** to install the update files.
4. The next page that appears reminds you to run the SharePoint Products and Technologies Configuration Wizard after the files are installed. Click **OK** to acknowledge and begin the installation.

   Important:

   After installing the files, do not run the SharePoint Products and Technologies Configuration Wizard. Start the wizard only after installing all update files to the server.
5. When installation of the files completes, on the confirmation page, click **OK**.
6. You must run setup to install new update files for every server in your server farm. If you have multiple servers in your server farm, go to each server in your Office Project Server 2007 farm and repeat steps 2-5 to install the files.

   Note:

   If you are also installing cumulative updates for Windows SharePoint Services or Office SharePoint Server, you can install the files now to all servers on the farm. However, do not run the SharePoint Configuration Wizard on any of the servers at this point.
7. After installing the update files on each server in the farm, go to each application server and stop the **Microsoft Office Project Server Queue service** (if available). If the services are not stopped, a reboot may be required at completion of setup.
8. Use the server that hosts the Central Administration Web site to finalize the installation.

   Notes

   - We recommend that you finalize the software update installation first on the application server hosting the Central Administration Web site, then on the other application servers, and then on the front-end Web servers.
   - If you host your Central Administration Web site on a front-end Web server, finalize the software update installation instead on that front-end Web server, then the application servers, and finally on the remaining front-end Web servers.
9. On the server you selected in the previous step, run the SharePoint Products and Technologies Configuration Wizard to complete the installation. To run the SharePoint

Products and Technologies Configuration Wizard, click **Start**, click **Administrative Tools**, and then click **SharePoint Products and Technologies Configuration Wizard**.

Important:

All cumulative update installation files should be installed to all servers in the farm prior to running the SharePoint Products and Technologies Configuration Wizard. This ensures that all instances of Windows SharePoint Services are stopped on all servers so that no attempts are made to access the databases during the update.

10. On the Configuration Successful page, click **Finish**.

Important:

It is important that the SharePoint Products and Technologies Configuration Wizard perform its configuration procedures on only one computer at a time. The only exception is if you have detached your content databases and upgraded them before you reattach them to the server farm. For more information, see Deploy software updates for Windows SharePoint Services 3.0 (*http://technet.microsoft.com/en-us/library/cc288269.aspx*).

11. When the cumulative update installation and configuration is complete on all the servers in the server farm, make the Web servers available to users by manually starting the **World Wide Web Publishing Service** (w3svc) on each server on which you manually stopped the service.

Verify the installation

There are three ways that you can verify the success of the installation process:

- After you install the cumulative update, review the upgrade log file and verify that the updates to the Web applications were successful.
- Another method for determining whether the Project Server Cumulative Update is installed on the computer is to view "Add or Remove Programs" in Control Panel to see if it is listed in the **Currently installed programs** list. Make sure that **Show Updates** is selected or the updates will not display. Look under Microsoft Office Project Server 2007 for hotfixes from the Project Server cumulative update. The hotfix files should be identified with a KB number that corresponds to the specific cumulative update (for example **Hotfixes for Office (KB957696)** will correspond to the October Project Server cumulative update).
- You can also verify if Office Project Server 2007 has been updated by querying the VERSIONS table in one of the Office Project Server 2007 databases. This process is described in the procedure that follows.

View Project Server version information in a VERSIONS table

1. On the computer running the instance of SQL Server containing the Office Project Server 2007 databases, open SQL Server Management Studio.
2. Click **New Query**.

3. Choose one of the Office Project Server 2007 databases from the **Available Databases** drop-down list.
4. Type **select * from versions** in the query window and then click **Execute**.

   The most recent version number in the **Version** field should correspond to the cumulative update file. The TimeStamp value should correspond to when the update was applied.

Uninstalling cumulative updates

Project Server cumulative updates cannot be uninstalled. Therefore it is important that you back up your farm databases before applying any cumulative updates.

Important:

As mentioned at the beginning of this article, when planning to install a cumulative update, be prepared to backup and restore your farm databases in case a problem should occur during the installation.

Cumulative update dependencies required for the Project Server 2007 infrastructure update

When you are preparing to incorporate a cumulative update, be sure to read the associated knowledge base article to determine whether any dependencies exist for that specific release. An important one to note is that the October 28, 2008 Project Server 2007 cumulative update does not include the Project Server 2007 infrastructure update. However, subsequent Project Server cumulative updates (starting with December 16, 2008) do include the Project Server infrastructure update.

One of the dependencies for installing any cumulative update that includes the Project Server infrastructure update is that the Project 2007 infrastructure update needs be installed to all Project Professional 2007 client computers. For example, let's say you install the December 2008 Project Server 2007 cumulative update and the accompanying Project Server 2007 infrastructure update that is included in this cumulative update (assuming the infrastructure update has not been installed previously). You would then need to apply the Project 2007 Infrastructure Update to all Project Professional 2007 client computers that connect to the server (assuming it has not been installed previously through an update to the clients). You can install the Project 2007 Infrastructure Update directly through the Microsoft Download Center, or you can install it through a Project 2007 cumulative update, because it is included in Project Professional 2007 client cumulative updates.

The reason for this requirement is that the client and the server’s scheduling engine’s method for calculating Fixed Duration tasks has changed. Therefore, to ensure that Fixed Duration tasks are calculated in the same way on the server and client, install the corresponding infrastructure update on each. Failure to apply the corresponding client update may cause data inconsistencies between Project Web Access and Project Professional 2007.

One method for verifying whether this requirement has been met is to check the hotfix level of both Office Project Server 2007 and Office Project Professional 2007. If Office Project Server 2007 is at or greater than hotfix version 952000, it has the infrastructure update installed. If Office Project Professional 2007 is at or greater than hotfix version 952067, it has the client infrastructure update installed. You can check for hotfix levels for both Office Project Server 2007 and Office Project Professional 2007 by viewing the **Currently installed programs and updates** list in "Add or Remove Programs" in Control Panel.

The following table provides examples of when the Project 2007 clients need to be updated after installing a cumulative update on Office Project Server 2007:

If you are applying this server update	And this client update has already been applied	Then the client dependency is
October 28, 2008 Project Server Cumulative Update	<none>	None. (The infrastructure update is not required on the client because this particular cumulative update does not install the infrastructure update on the server).
December 16, 2008 Project Server Cumulative Update	<none>	The December 16, 2008 Cumulative Update for Project 2007 must be applied to all Project Professional 2007 client computers.
December 16, 2008 Project Server Cumulative Update	Infrastructure Update for Project 2007	None. (The Infrastructure Update for Project 2007 is already on the Project Professional 2007 client computers).
March 6, 2009 Project Server Cumulative Update	December 16, 2008 Project 2007 Cumulative Updates	None. (The Infrastructure Update for Project 2007 is already on the Project Professional 2007 client computers).

Note:

For more information about the Project Server 2007 Infrastructure Update, see Deploy the infrastructure update for Office Project Server 2007. For information about the features and enhancements included with the Project Server 2007 Infrastructure Update, see Project Server 2007 Infrastructure Update Release.

See Also

Deploy Project Server 2007 updates (*http://technet.microsoft.com/en-us/library/dd630752.aspx*)

Description of the Project Server 2007 hotfix package: May 29, 2008 (*http://go.microsoft.com/fwlink/?LinkId=142306*)

Description of the Project Server 2007 hotfix package (Pjsrvapp.msp, Pjsrvwfe.msp): October 28, 2008 *(http://go.microsoft.com/fwlink/?LinkId=142307)*

Description of the Project Server 2007 hotfix package: December 16, 2008 (*http://go.microsoft.com/fwlink/?LinkId=142304)*

Description of the Project Server 2007 hotfix package: March 6, 2009 *(http://support.microsoft.com/kb/968271)*

Cumulative update packages for the 2007 Microsoft Office core suite applications and for 2007 Microsoft Office servers: December 16, 2008 (*http://go.microsoft.com/fwlink/?LinkId=142305*)

Description of the standard terminology that is used to describe Microsoft software updates *(http://go.microsoft.com/fwlink/?LinkId=142308)*

Create an installation source that includes software updates

In server farm deployments, all your Web servers must have the same software update version applied. This means that, before you add a new Web server to an existing server farm, this new Web server must have the same software updates as the rest of the Web servers in your server farm. To accomplish this, we recommend that you follow the procedures in this article to create an installation source that contains a copy of the released version of the software, along with software updates that match those installed on your server farm (also known as a *slipstreamed* installation source). When you run Setup from this updated installation source, the new Web server will have the same software update version as the rest of the Web servers in your server farm.

Note:

In this article, we use the term *software update* as a general term for all update types, including any service pack, update, update rollup, feature pack, critical update, security update, or hotfix used to improve or fix this software product.

Use the updates folder

To create an installation source, you must add software updates to the updates folder of the released version of the software.

To use the updates folder

1. Copy the files from the released version source media for the product to a folder that you can use as an installation point for the servers in your server farm.
2. Download the appropriate software update package.
3. Extract the software update files, by using this command:

   <*package*> **/extract:**<*path*>

   The **/extract** switch prompts you to provide a folder name for the files, for example, for x86 systems:

   officeserver2007sp1-kb936984-x86-fullfile-en-us.exe /extract:<*C:\WSS*>**\Updates**

   <*C:\WSS*> is the location to which you copied the files that you extracted from the Microsoft Office Project Server 2007 released version.

   Note:

   You must use the default location for the updates folder. If you use the **SupdateLocation="path-list"** property to specify a different location, Setup stops responding.
4. Copy the files that you extracted from the Office Project Server 2007 software update

package to the updates folder you created in the previous step.

5. Extract the Office Project Server 2007 software update files, by using this command:

   officeserver2007sp1-kb936984-x86-fullfile-en-us.exe /extract:<*C:\rtm_product_path*>**\Updates**

   <*C:\rtm_product_path*> is the location to which you copied the files that you extracted from the Office Project Server 2007 released version.

6. Copy the files that you extracted from the Office Project Server 2007 software update package to the updates folder containing the source for the released version. You must verify that the Svrsetup.dll file has been copied from the Office Project Server 2007 software update package and you should delete the Wsssetup.dll file.

   Important:

   Delete Wsssetup.dll because it may conflict with Svrsetup.dll. Having both Wsssetup.dll and Svrsetup.dll in the updates folder for a slipstreamed installation source is not supported.

7. You can now use this location as an installation point, or you can create an image of this source that you can burn to a CD-ROM.

   Note:

   If you extracted the software update files to a location to which you had previously copied the source for a released version, the source is updated and is ready to use.

For more information about using enterprise deployment tools to deploy updates, see Distribute product updates for the 2007 Office system (*http://technet.microsoft.com/en-us/library/cc178995.aspx*).

Language template packs

Use the following procedure to create an installation location that you can use to install the language template packs with software updates already applied.

To use the updates folder with language template packs

1. Download the language template pack package for the released product.
2. Extract the files from the language template pack package.
3. Copy the extracted files to a folder that you can use as an installation point for the servers in your server farm.
4. Download the updated language template pack package for the released product.
5. Extract the files from the updated language template pack package.
6. Copy these extracted files to the updates folder, in the subfolder in which you stored the files for the released product in step 3.

   You can now use this location as an installation point, or you can create an image of this

source that you can burn to a CD-ROM.

7. To install the language template pack with the software update already applied, run Setup from this location, and then run the SharePoint Products and Technologies Configuration Wizard to complete the configuration.

Checklist for deploying Project Server 2007 updates

This checklist is an overview of how to install the latest updates to a new farm deployment of Microsoft Office Project Server 2007. For a detailed overview of the different software updates that are available for Office Project Server 2007, see Deploy Project Server 2007 updates (*http://technet.microsoft.com/en-us/library/dd630752.aspx*).

Plan and prepare

Plan and prepare	
[ ]	Create a recovery plan — how to restore the environment to its original state if the update is not successful.
[ ]	Create a communications plan to notify all stakeholders of the operational maintenance activities and expected downtimes.
[ ]	If possible, apply the update in a test environment and verify the effects on your data.

Install Service Pack 2

Note the following when planning to install Office Project Server 2007 Service Pack 2 to a Office Project Server 2007 farm.

- Office Project Server 2007 Service Pack 2 contains all the fixes that are in Office Project Server 2007 Service Pack 1, plus additional changes.
- Microsoft highly recommends that you install Windows SharePoint Services 3.0 Service Pack 2 as well.
- The infrastructure update for Project Server is included in Office Project Server 2007 Service Pack 2.

If you are installing an Office Project Server 2007 update that includes the Project Server infrastructure update, the Project 2007 infrastructure update should be installed to all Office Project Professional 2007 client computers that connect to the farm. For more information about this requirement, see Deploy the infrastructure update for Office Project Server 2007.

For detailed guidance about deploying the Service Pack 2 (SP1) update to a Office Project Server 2007 deployment, see Deploy Service Pack 2 for Office Project Server 2007.

Install Service Pack 1	
[ ]	On the server hosting the SharePoint Central Administration Web site, install the binary files for Windows SharePoint Services 3.0 Service Pack 2. Do not run the SharePoint Products and Technologies Configuration Wizard.
[ ]	On the server hosting Central Administration, install the binary files for Office Server 2007 Service Pack 2, of which Project Server 2007 Service Pack 2 is a part. Do not run the SharePoint Products and Technologies Configuration Wizard.
[ ]	On all other servers in the farm, install binary files for both Windows SharePoint Services 3.0 Service Pack 2 and Office SharePoint Server 2007 Service Pack 2. Do not run the SharePoint Products and Technologies Configuration Wizard when installation of the binary files concludes for either update.
[ ]	On the server hosting Central Administration, run the SharePoint Products and Technologies Configuration Wizard.
[ ]	On all remaining servers in the farm, run the SharePoint Products and Technologies Configuration Wizard.

Install cumulative updates

Note the following when planning to install a Project Server cumulative update to a Office Project Server 2007 farm:

- Project Server 2007 Service Pack 2 is a prerequisite for installing any current post-SP2 Project Server cumulative updates (April 2009 or later).
- Microsoft highly recommends that you install the current Windows SharePoint Services 3.0 cumulative update as well.

For detailed information about installing cumulative updates, see Deploy cumulative updates (Project Server 2007).

Install cumulative updates	
[ ]	On the server hosting Central Administration, install the binary files for the Windows SharePoint Services 3.0 cumulative update. Do not run the SharePoint Products and Technologies Configuration Wizard.
[ ]	On the server hosting Central Administration, install the binary files for the Project Server 2007 cumulative update. Do not run the SharePoint Products and Technologies Configuration Wizard.

Install cumulative updates	
[ ]	On all other servers in the farm, install binary files for both the Windows SharePoint Services 3.0 and Project Server 2007 cumulative update. Do not run the SharePoint Products and Technologies Configuration Wizard when installation of the binary files concludes for both.
[ ]	On the server hosting Central Administration, run the SharePoint Products and Technologies Configuration Wizard.
[ ]	On all remaining servers in the farm, run the SharePoint Products and Technologies Configuration Wizard.
[ ]	If required, install the corresponding Project 2007 cumulative update to all Project Professional 2007 computers that connect to the server (as per the Infrastructure Update requirement).

See Also

Deploy Project Server 2007 updates (*http://technet.microsoft.com/en-us/library/dd630752.aspx*)

Deploy Service Pack 2 for Office Project Server 2007

Deploy the infrastructure update for Office Project Server 2007

Deploy cumulative updates