**Deploy Project Server 2010**

<http://technet.microsoft.com/en-in/library/ff603997%28en-us,office.14%29.aspx>

Plan for deployment (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

This article provides links to articles about deployment planning. Before installing Microsoft Project Server 2010, be sure you have reviewed the information in these articles.

In this section:

* [Determine project management requirements (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197644%28en-us,office.14%29.aspx)   
    
  It is important to determine the project management needs and requirements for your organization. Your configuration will vary according to the kind of work that your organization performs and whether you use Project Server 2010 for time tracking, collaboration, or portfolio management.
* [Determine the number and types of users (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197612%28en-us,office.14%29.aspx)   
    
  The number and types of users in your organization who use Project Server features have a direct effect on the scalability and performance needs of your organization.
* [Plan EPM Solution architecture (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc303386%28en-us,office.14%29.aspx)   
    
  This chapter describes the components of a Microsoft Enterprise Project Management (EPM) Solution. This material is written for executives, managers, and system administrators who are responsible for planning the deployment of an EPM Solution.
* [Plan the project life cycle (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc303414%28en-us,office.14%29.aspx)   
    
  This article alerts those who are responsible for planning the deployment and configuration of Project Server 2010 that some choices will have to be made that relate to the features described in this chapter.
* [Plan reporting and business intelligence (Project Server 2010)](http://technet.microsoft.com/en-in/library/ff603998%28en-us,office.14%29.aspx)   
    
  In Project Server 2010, Project Server has been integrated with Excel Services in Microsoft SharePoint Server 2010 to make it easier to create custom reports.
* [Plan for administrative and service accounts (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197607%28en-us,office.14%29.aspx)   
    
  Use this article to plan for the account requirements and recommendations for accounts that are required to install, configure, and use Microsoft Project Server 2010.
* [Podcast: Project Server planning (Project Server 2010)](http://technet.microsoft.com/en-in/library/ff641863%28en-us,office.14%29.aspx)   
    
  In this podcast, Microsoft Program Manager Treb Gatte and consultant, author, and Microsoft MVP Gary Chefetz discuss planning considerations for Microsoft Project Server 2010.

<http://technet.microsoft.com/en-in/library/cc197644%28en-us,office.14%29.aspx>

Determine project management requirements (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

It is important to determine the project management needs and requirements for your organization. Your configuration will vary according to the kind of work that your organization performs and whether you use Project Server 2010 for time tracking, collaboration, or portfolio management. After you characterize the typical projects for your organization, determine which Project Server scenarios that you need to support.

**Characterize your projects**

Understanding the characteristics of the projects in your organization enables you to plan your Project Server 2010 configuration. The following characteristics have a significant effect on your configuration:

* The number of projects that your organization is working on at a particular time.
* The size of your projects, which varies with the number of tasks and assignments that your projects include.
* The length of time that is required to complete a project.
* The number of team members that are assigned tasks in projects.

Most organizations manage projects that vary in size and duration, but the degree to which they vary is a function of the size of the organization and the kind of work that it performs. For example, a large consulting company might manage several thousand projects that range from small, 10-task projects that last two weeks to large projects that include 1,500 tasks and last for over a year.

Organizations typically have many projects that range in size from small to medium to large. For planning, make sure that you can adequately support the kind of project that your organization works on most frequently.

**Determine your Project Server 2010 scenario**

Your project management needs and requirements vary according to the kind of work that your organization performs. As part of your configuration planning process, determine which scenario that you need to support. For example, you can use Project Server 2010 to support the following kinds of scenarios:

* Enterprise Project Management
* Time tracking
* Demand management

**Using Project Server 2010 for Enterprise Project Management**

The Project Server 2010 scenario for EPM applies to a large organization whose area of focus is top-down planning driven through the Project Management Office (PMO). This scenario is more frequently seen in the product development and manufacturing markets. It has the following characteristics:

* A small number of large projects that are often related
* Focus on the PMO
* Extensive use of Microsoft Project Professional 2010
* Work Tracker usage

Critical considerations for this kind of deployment include the following:

* The level of detail to track
* Using leveling as a process
* How to prioritize capacity
* How to use skill tracking

In this scenario, client usage is as follows:

|  |  |
| --- | --- |
| **Client application** | **Rate of usage** |
| Project Professional 2010 | High |
| Project Web App | High |

In this scenario, server usage is as follows:

|  |  |
| --- | --- |
| **Project Web App feature** | **Rate of usage** |
| Work Tracker | High |
| Programs | High |
| Timesheets | Medium |
| Portfolio management | Medium |
| Master projects | High |
| Project workspaces | Low |
| Risk management | Medium |
| Issues management | High |
| Document management | Medium |
| Resource management | Medium |
| Task management | Medium |

**Using Project Server 2010 for time tracking**

The Project Server 2010 scenario for professional services/timesheet deployment can apply to a large organization that wants to use Project Server 2010 mainly to capture and report time. In this scenario, employees and contractors use Project Server 2010 timesheet functionality to submit hours worked on tasks during specific time periods. This scenario has the following characteristics:

* Minimal use of Project Professional 2010
* Time and material billing
* A large number of projects that have fairly few tasks
* A predictable peak period of usage that corresponds to scheduled timesheet entry in Project Web App

Organizations that support this scenario typically use a limited set of Project Professional 2010 features to track time and costs by using timesheets to capture information. This scenario presents scalability issues, because, when many timesheets are submitted in a short period of time, system resources can become severely strained.

Critical considerations for this kind of deployment include the following:

* What time classifications to use
* What time periods to use
* Calendars and overtime setup
* What fiscal periods to use
* Source of cost data
* Custom field configuration — process control custom fields vs. reporting custom fields
* Currency configuration
* Auditing

There are additional factors that can be affected by the processes that are used within your organization, including the following:

* Types of usage
* What the project update cycle is
* What the reporting cycle is

In this scenario, client usage is as follows:

|  |  |
| --- | --- |
| **Client application** | **Rate of usage** |
| Project Professional 2010 | Medium |
| Project Web App | High |

In this scenario, server usage is as follows:

|  |  |
| --- | --- |
| **Project Web App feature** | **Rate of usage** |
| Work Tracker | High |
| Programs | Low |
| Timesheets | High |
| Portfolio management | Low |
| Master projects | Low |
| Project workspaces | Low |
| Risk management | Low |
| Issues management | Low |
| Document management | Low |
| Resource management | High |
| Task management | Medium |

**Using Project Server 2010 for Demand Management**

The Project Server 2010 scenario for Demand Management deployment can apply to any medium-to-large organization that wants to use Project Server 2010 to manage project portfolios. These organizations typically have the following characteristics:

* A large number of projects that have many assignments
* A high percentage of project managers
* Frequent use of Project Professional 2010

Organizations that support this scenario typically use the breadth of Project Server 2010 features that include timesheets, document libraries, issues, risks, the Enterprise Global Template, and the Enterprise Resource Pool.

The organization to which this scenario can apply can be as small as a medium-size organization (or a department in a larger organization) whose users all share the same physical location on the same LAN, or it can be a large organization whose users work in several different physical locations.

These organizations use Project Professional 2010 and Project Web App daily to publish or update projects to the Project Server 2010 database, and they use Project Web App to view assignments; report actuals; and access documents, issues, and risks. Additionally, these organizations generate online analytical processing (OLAP) cubes weekly.

Critical considerations for this kind of deployment include the following:

* Level of resource data to track
* What project nomination process to use
* What kind of review process to use
* What the report cycle will be
* Workflow requirements
* What kind of work to track
* Who manages the process
* What demand is captured

In this scenario, client usage is as follows:

|  |  |
| --- | --- |
| **Client application** | **Rate of usage** |
| Project Professional 2010 | Medium |
| Project Web App | High |

In this scenario, server usage is as follows:

|  |  |
| --- | --- |
| **Project Web App feature** | **Rate of usage** |
| Work Tracker | Low |
| Timesheets | Medium |
| Portfolio management | High |
| Programs | Low |
| Administrative projects | Low |
| Collaboration | Medium |
| Document management | Medium |
| Risk management | Medium |
| Issues management | Medium |
| Resource management | Medium |
| Project workspace sites | Medium |

<http://technet.microsoft.com/en-in/library/cc197612%28en-us,office.14%29.aspx>

Determine the number and types of users (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

The number and types of users in your organization who use Project Server features have a direct effect on the scalability and performance needs of your organization.

**Number of users**

When you determine the number of Project Server users that your organization needs to support, also consider the maximum number of concurrent users. This is especially critical if your organization plans to support the time tracking scenario.

It is helpful to categorize users to determine the different types of them that you need to support, as well as how many of each type. For example, project managers who use Project Professional create the greatest load on the system; viewers create the smallest amount of load.

**Types of users**

The types of users that you need to support, and the percentage of each compared to the total number, affects the configuration decisions that you make during your planning process. Each user type places a load on the system. The most common user types are as follows:

* Project managers
* Resource managers
* Team members
* Executives
* Administrators

**Project managers**

Project managers are responsible for overseeing and completing projects, sometimes coordinating with other project managers and resource managers in the organization. Project managers use Microsoft Project Professional 2010 to do the following:

* Create and publish projects to the Project Server database
* Modify projects based on feedback
* Assign team members to project tasks
* Track progress by incorporating task updates from team members
* Determine target and actual project timelines and costs

**Resource managers**

Resource managers are responsible for managing resources and defining skills based on capabilities. They work with project managers and other resource managers to ensure that qualified resources are assigned to tasks in projects. Resource managers use Microsoft Project Web App (PWA) to do the following:

* View workload and availability by project over time
* View workload and availability by resource over time
* Add team members to project teams
* Post issues and upload documents
* Use Portfolio Modeler to determine resource availability
* Modify resource skills and other codes

**Team members**

Team members are resources who are assigned to tasks in projects. A team member typically works on multiple projects at any given time and is responsible for completing tasks according to a schedule. Team members can use both Project Web App and Microsoft Outlook 2007 or 2010. (Exchange Server integration with Project Server enables team members to integrate Project Server data with Outlook.) Team members use PWA to do the following:

* Meet deadlines by identifying current and upcoming tasks to prioritize daily work
* Report time spent working on tasks by entering progress in timesheets
* Delegate and add tasks
* Record and respond to project-related issues and risks
* Link issues to tasks
* Submit status reports
* Work collaboratively with other team members on project-related documents

Team members use Outlook to do the following:

* View assigned tasks
* Report on assigned tasks

**Executives**

An executive is a user who uses PWA to view status or reporting on a project or multiple projects. For example, an executive can oversee several different projects that are managed by different project managers to gain an overall perspective on schedule and budget. Executives use PWA to do the following:

* View project and resource reports in Portfolio Analyzer
* Submit issues to project and resource managers

**Administrators**

Administrators deploy and manage Project Server 2010 and related applications. These users manage access to the server and the server database. PWA provides access to the Project Server administrative tools. Administrative tools are also provided with Microsoft Windows Server and SQL Server. Administrators use PWA to do the following:

* Define timesheet views
* Lock reporting periods and actuals in timesheets
* Create standardized reports for Portfolio Analyzer views
* Add team members to, and delete team members from, the Enterprise Resource Pool

<http://technet.microsoft.com/en-in/library/cc303386%28en-us,office.14%29.aspx>

**Plan EPM Solution architecture (Project Server 2010)**

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

This chapter describes the components of a Microsoft Enterprise Project Management (EPM) Solution. This material is written for executives, managers, and system administrators who are responsible for planning the deployment of an EPM Solution.

An EPM Solution that is based on Microsoft Project Server 2010 is deployed across multiple tiers: a client tier, a Web tier, an application tier, and a database tier. Applications and services in each tier provide for availability and scalability, which enables any size organizations to manage projects of a range of sizes and levels of complexity. You can configure the application and database tiers of your EPM Solution to best meet the needs and requirements of your organization.

Microsoft SharePoint Server 2010 is a necessary part of the EPM Solution for Project Server 2010. It is important that you include planning for SharePoint Server 2010 as part of your EPM Solution deployment plans. For more information, see [Planning and architecture for SharePoint Server 2010](http://technet.microsoft.com/en-in/library/cc261834%28en-us,office.14%29.aspx).

In this chapter:

* [Plan the client tier (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197704%28en-us,office.14%29.aspx)   
    
  This article identifies the key components of the client tier and helps you distinguish from the parts of the other tiers in the Microsoft Enterprise Project Management (EPM) Solution.
* [Plan the application tier (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx)   
    
  This article discusses the components included in the application tier in an EPM Solution.
* [Plan the database tier (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197534%28en-us,office.14%29.aspx)   
    
  This article identifies the key components of the database tier and helps you to distinguish from the parts of the other tiers in the EPM Solution.

Plan the client tier (Project Server 2010)

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[This article is pre-release documentation and is subject to change in future releases.]

This article identifies the key components of the client tier and helps you distinguish from the parts of the other tiers in the Microsoft Enterprise Project Management (EPM) Solution.

The client tier of the EPM Solution includes Microsoft-based applications and any custom applications that are specific to your organization.

**Microsoft Project Professional 2010**

Microsoft Project Professional 2010 is a desktop application that enables project managers to create, publish, and manage projects. In addition to scheduling and tracking tools, Project Professional 2010 provides project managers with enterprise resource and portfolio management capabilities.

**Microsoft Outlook**

Microsoft Project Server 2010 provides integration with Microsoft Exchange, which lets users access Project Server tasks from within Outlook. Users can also receive e-mail reminder notifications for tasks that they are assigned in projects that are stored in the Project Server 2010 database.

**Internet Explorer**

Microsoft Project Web App is a rich Web-based client that is designed for users who are not project managers, such as resource managers, viewers, and team members. These users access project information in Project Web App by using Windows Internet Explorer. Project Web App provides access to timesheets, project views, status reports, document libraries, and risks.

Project Web App requires Internet Explorer 7.0 or 8.0. If your organization is still using previous versions of Internet Explorer, you can consider using Windows Terminal Services to provide users access to Internet Explorer 7.0 or 8.0 without deploying it to the desktop. For more information about Terminal Services, see the following references:

**Windows Server 2003:**

1. [Terminal Server](http://go.microsoft.com/fwlink/?LinkId=187190) (http://go.microsoft.com/fwlink/?LinkId=187190)
2. [Terminal Server Licensing](http://go.microsoft.com/fwlink/?LinkId=187192) (http://go.microsoft.com/fwlink/?LinkId=187192)

**Windows Server 2008:**

1. [Terminal Services Overview](http://go.microsoft.com/fwlink/?LinkId=187191) (http://go.microsoft.com/fwlink/?LinkId=187191)
2. [Terminal Services RemoteApp](http://go.microsoft.com/fwlink/?LinkId=187194) (http://go.microsoft.com/fwlink/?LinkId=187194)
3. [Terminal Services Licensing](http://go.microsoft.com/fwlink/?LinkId=187193) (http://go.microsoft.com/fwlink/?LinkId=187193)
4. [Plan for Remote Desktop Services (Terminal Services)](http://technet.microsoft.com/en-in/library/cc179055%28en-us,office.14%29.aspx)

**Third-party and line of business applications**

Many organizations use line-of-business client applications or develop business-specific applications. These applications call Project Server 2010 by using the Project Server Interface — an extensible set of Web services — and must also be integrated with a Microsoft Windows-based platform.

Project Server 2010 provides a complete Software Development Kit (SDK). For more information, see [Project 2010 SDK Documentation](http://go.microsoft.com/fwlink/?LinkId=187195) (http://go.microsoft.com/fwlink/?LinkId=187195).

Plan the application tier (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

The application tier in a Microsoft Enterprise Project Management (EPM) Solution includes the following components:

* [SharePoint Server 2010](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#SharePointServer)
* [Project Server 2010](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#section1)
* [Project Server Interface](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#section2)
* [Project Server 2010 Events service](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#section3)
* [Project Server 2010 Queue service](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#section4)
* [Exchange Server](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#exchange)
* [Other applications](http://technet.microsoft.com/en-in/library/cc197746%28en-us,office.14%29.aspx#section5) (described in this article)

**SharePoint Server 2010**

The Enterprise edition of Microsoft SharePoint Server 2010 is required for Microsoft Project Server 2010. SharePoint Server 2010 has many features in its own right, and deployment of SharePoint Server 2010 should be carefully planned. For information about how to plan your SharePoint Server 2010 deployment, see [Planning and architecture for SharePoint Server 2010](http://technet.microsoft.com/en-in/library/cc261834%28en-us,office.14%29.aspx).

**Project Server 2010**

Microsoft Project Server 2010 is the central component of a Microsoft Enterprise Project Management (EPM) Solution. Project Server 2010 is a robust and highly scalable Web-based server application that is integrated with several client applications, the Microsoft Windows Server platform, and Microsoft SQL Server 2005 or 2008.

You can run the Project Server 2010 service on one or more application servers in a SharePoint Server 2010 farm. Project Server 2010 is supported on a computer that is running Windows Server 2008 or Windows Server 2008 R2 with the Enterprise edition of SharePoint Server 2010 installed.

**Project Server Interface**

The Project Server Interface is the application programming interface (API) of Project Server 2010. The Project Server Interface object model exposes Project Server 2010 functionality to all external applications. Microsoft Project Professional 2010, Microsoft Project Web App, and line-of-business and other third-party applications use the Project Server Interface (PSI) to access Project Server 2010 data that is stored in the Draft, Published, and Archive databases. The PSI is available through Web service calls by back-end line-of-business applications, or through a Project Server Interface proxy for client applications having a user interface.

**Project Server 2010 Events service**

The system-level Project Server 2010 Events service manages the Project Server 2010 events. Other applications can subscribe to Project Server 2010 pre-events and post-events, and register event handler methods through Project Web App. Event handlers can check business rules and cancel an operation through a pre-event, or extend Project Server 2010 with additional processing such as workflow by using a post-event (for example, ProjectPublished).

**Project Server 2010 Queue service**

There are two Project Server 2010 queues that operate in the system-level Microsoft Project Server 2010 Queue service:

* To manage heavy peak loads, the Timesheet queue handles submission and updates of timesheet and status reports.
* The Save and Publish queue manages new and incremental saves of working projects to the Draft database and also manages publishing a project — that is, moving the project from the Draft to the Published database.

**Exchange Server**

Exchange Server integration allows for Project Server 2010 users to view Project Server tasks in Microsoft Office Outlook. This functionality replaces the Outlook Add-in task statusing functionality for non-time-phased tasks that was available in previous versions of Project Server.

To configure Exchange integration, the Project Server administrator must grant access to the instance of Exchange Server and the Exchange administrator must grant Exchange access to the Project Server farm administrator account.

**Other applications**

Third-party and line-of-business applications can be used with Project Server 2010. By using the Project Server Interface, you can address many project management needs with these applications. The following are some sample scenarios:

* **Project proposals**   Create placeholder projects during project initiation and use project custom fields to tag the project with information needed for the initiation and approval process. Add tasks to identify project phases for key milestones or deliverables. When approved, project proposals can evolve into full-scale projects that are managed by using Project Professional 2010.
* **Maintenance projects**   Create placeholder projects to use with resource plans. Reserve or book time against resources for maintenance work or base business. Maintenance projects generally do not have tasks.
* **Financial projects**   Create projects for time capture through the timesheet for integration with a financial system. Create tasks for a hierarchy of financial codes that reflect the cost breakdown structure of the financial system. These projects do not require scheduling or status updates.
* **Integration with project accounting systems**   Capture the resource costs and expenses associated with projects to feed financial and billing systems and for budget comparison purposes. Synchronize tasks, resources, and assignments between the systems. Capture timesheet data in one system to feed the other (which timesheet is used depends on the needs of the organization or of individual projects).
* **Integration with work or task management systems**   Synchronize tasks and assignments between Project Server 2010 and systems such as Microsoft Visual Studio Team System. Microsoft Visual Studio Team System is integrated with Microsoft Project Standard 2010 and Project Professional 2010, but integration with Project Server 2010 requires developing components by using the PSI.
* **Process updates from team members**   For projects that are not actively managed, automatically update them on the server by using information from team members about progress and other changes. Projects can be updated and republished without a project manager reviewing the results or making adjustments to the plan.

Plan the database tier (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

This article identifies the key components of the database tier and helps you to distinguish from the parts of the other tiers in the Microsoft Enterprise Project Management (EPM) Solution.

The data access layer is internal to Project Server 2010 and is not exposed to external applications. The data access layer translates between the logical business entity representation of the data and the physical database tables. Each logical entity is stored in a number of different tables. The data access layer encapsulates the work required to manage connections, execute queries, and begin, commit, and roll back transactions. Project Server 2010 data is partitioned into four databases in Microsoft SQL Server:

* The Draft database contains tables for saving unpublished projects from Microsoft Project Professional 2010. Project data in the Draft database is not accessible by using Microsoft Project Web App.
* The Published database contains all of the published projects. Published projects are visible in Project Web App. The Published database also contains tables that are specific to Project Web App (timesheets, models, views, and so on), and global data tables (outline codes, security, and metadata).
* The Archive database saves backed-up and older versions of projects.
* The Reporting database is 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.

Only the Reporting database schema is documented. You should access the Drafts, Published, and Archive databases only through the Project Server Interface. You can add data tables, fields (properties), and entities that are not defined in the Project Server 2010 database schema. If you do, you must also provide the full stack of a custom assembly, Web service, business objects, and data access.

**Plan the project life cycle (Project Server 2010)**

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

There are many methodologies and systems that effectively manage a project life cycle. This chapter does not advocate for any one of these over another. The chapter is written for Project Server administrators, and it provides a list of project creation, maintenance, and archival activities. These tasks are general and will be the same, or at least similar, regardless of the methodology being used by your organization. Planning these activities can help ensure that projects are being managed in a way that is consistent with the purpose of your organization and can foster a satisfactory experience for the end user. The various options and processes available with the features described in this chapter are discussed in greater detail in [Operations for Project Server 2010](http://technet.microsoft.com/en-in/library/cc197578%28en-us,office.14%29.aspx). This article alerts those who are responsible for planning the deployment and configuration of Project Server 2010 that some choices will have to be made that relate to these features.

**Create projects**

Projects have many ways of moving from concept to reality. Sometimes the process is informal and may be the result of a brainstorm on a whiteboard that happened in under an hour. Other times a project is created after years of study and careful analysis. If it is not planned and managed, this creation process can become chaotic. This chaos can cost your organization in many ways: reduced efficiency, misallocated resources, misaligned priorities, duplication of effort, conflicting approaches, and missed opportunities, to name a few. What follows are some key things to consider when you are using Microsoft Project 2010 to create projects for your organization.

**Plan proposals**

The project proposal feature provides a mechanism for controlling the entry of projects into Project Server. It provides added value for business decision makers by storing proposal data together with project data. This feature provides better reporting, modeling, and pipeline analysis and helps automate proposal management business processes.

Proposals are limited projects. They are limited because all of the features that are available when you are using Microsoft Project Professional 2010 are not available when you are using proposals. Project proposals are not enterprise projects. This limited or lighter kind of project is helpful and useful to many users. The proposal lets users submit project proposals (aided with simple project and resource planning features) — and provides a simple gating mechanism for projects to be added to Project Server. Project proposals are subject to a review before they can be transformed into enterprise projects. Project proposals contain basic information that allows a business decision-maker to approve or reject the proposal. The proposal may contain information such as the following:

* Project name
* Project description
* Proposed start date and end date
* Proposed cost
* Resource requirements

Proposals are created in Microsoft Project Web App (PWA). Anyone who has access to PWA can view proposals. To create project proposals, you must be assigned the Create New Maintenance Project permission.

Proposals can be configured to work with workflows that are available in Microsoft SharePoint Server 2010.

When the proposal feature is configured for a workflow, the workflow automatically does much of the work. When a proposal is created, the workflow generates task assignments for proposal reviewers and the proposal 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.

**Plan resources**

*Enterprise resources* are the people, equipment, and materials that are used to complete tasks in an enterprise project. Enterprise resources are part of your organization's pool of resources and are stored centrally in the Project Server 2010 databases. You can create the Enterprise Resource Pool that project managers will use when assigning resources to tasks in projects by adding resources to the Enterprise Resource Pool or by importing resources. You should define the contents of the Enterprise Global Template before you add resources to the Enterprise Resource Pool.

Before you can properly create and maintain the Enterprise Resource Pool for your organization, you must carefully define and document your Enterprise Resource custom fields and create them. In addition, for large organizations, initially populating the Enterprise Resource Pool is just as important as the process of keeping the Enterprise Resource Pool accurate and up-to-date. Tracking significant changes to the resource information that is stored and managed in the Enterprise Resource Pool can be a full-time activity

Before you create your Enterprise Resource Pool for Project Server 2010, you must determine your starting point. The process of adding resources to the Enterprise Resource Pool varies according to whether you are:

* **Starting with new projects** — Minimal preparation is necessary for this scenario. The process is simplified if you can gather all required resource information in a single document. You could make a list on paper. Then you would import your identified resources from Active Directory, or from a membership store if you were using forms authentication. Alternatively, you can gather this information by using Microsoft Excel. Then you would import the resulting spreadsheet into Project Professional 2010 and save it to the Project Server database.
* **Creating the enterprise resource pool** — In this scenario, you are creating the Enterprise Resource Pool in Project Professional 2010. Using Project Professional 2010, connect to Project Server 2010 and check out the Enterprise Resource Pool. Enter the resources and save the Enterprise Resource Pool.

**Plan custom fields**

Project Server 2010 includes lookup tables and fields that you can customize. A custom field can contain information about a task, resource, or assignment. In Project Server 2010, fields that can contain customized data are text, flags, numbers, dates, cost, start and finish dates, and durations. You can customize these fields to obtain the information you want using formulas, specific value calculations, or graphical indicators.

You can write your own formulas, including references to other fields, to be calculated in a custom field. You can create a list of values for a custom field to ensure fast and accurate data entry. You can display a graphical indicator in a custom field instead of the actual data. That way, you can quickly see when the data in that field meets certain criteria, such as when the data exceeds a specified range or when resources are over-allocated. You can also create a hierarchical structure of custom fields for information in your project. For instance, you might want to associate your company's cost codes with your project data. After you create this structure and apply these custom fields to your data, you can easily use them to filter, sort, and group project data.

In Project Server 2010 there are two types of custom fields — local and enterprise. Local custom fields are used by the project manager within the scope of a particular project. Enterprise custom fields are used by the Project Management Office (PMO) to collect data for rollup reporting across the organization. For enterprise task and project custom fields, Project Server 2010 supports the notion of scoping to a specific program (collection of projects). In this way, an enterprise custom field can be defined that applies to a subset of projects.

**Retire projects**

There are certain activities that you should consider when retiring projects. Doing some basic clean-up when a project is retired can help to improve Project Server performance. Also, you can secure projects to ensure that only those who need the information — for example, for historical purposes — can see the projects. Deleting other enterprise objects that are not being used, such as resources and assignments, can help to prevent degradation of server performance.

**Plan archiving**

A number of enterprise objects can be backed up in PWA:

* Projects
* Enterprise Resource Pool and Calendars
* Enterprise Custom Fields
* Enterprise Global
* View Definitions
* System Settings
* Category and Group Settings

Backing up these objects allows you to selectively restore specific items, and you can retain multiple versions of these items.

Backups are done on the Server Settings page under **Database Administration**. There are two methods available:

* Schedule Backup
* Administrative Backup

Administrative Backup allows you to back up enterprise objects at any time. Schedule Backup, as the name implies, allows you to back up enterprise objects daily at a scheduled time. We recommend that you back up your enterprise objects regularly and, if scheduled, at a time when server utilization is low. You should also have a plan for backing up your databases.

When an object is backed up, it is saved to the Project Server 2010 Archive database.

When a project is complete, there are a few options available for retiring the project.

* Delete the enterprise objects from the Project Server 2010 Published and Draft databases, and retain copies in the Archive database.
* Delete enterprise objects from all Project Server 2010 databases and rely upon database backups for archival.
* Place the project in a special Project Server category that denies access to all but a few users.

**Placing projects in a special Project Server category**

To allow only certain users to view a retired project, you can create a special Project Server category for that purpose. Add the project and all users whom you do not want to have access to the project and set all of their permissions to deny. For more information about Users, Groups, and Categories, see [Plan groups, categories, and RBS in Project Server 2010](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx).

**Plan cleanup**

Deleting unused enterprise objects when a project is completed can help to prevent degradation of server performance. It is particularly beneficial for long term server performance to delete assignments. It is also a good idea to delete resources if they are no longer being used in the enterprise. Deleting unused enterprise objects when a project is completed also saves disk space on your database server.

Plan reporting and business intelligence (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

In Microsoft Project Server 2010, Project Server has been integrated with Excel Services in Microsoft SharePoint Server 2010 to make it easier to create custom reports. As part of this integration, blank data-connected spreadsheets and sample reports are provided. The data available for reporting includes timesheet custom fields, project properties, and portfolio planner and optimizer data. The default online analytical processing (OLAP) cubes can now be customized to only include data for a given department.

**Reports using Office Excel 2007 or Excel 2010**

Excel Reports are data-connected spreadsheets that you use to visualize the data retrieved from the Reporting Database or the OLAP databases. In Microsoft Excel 2010, you can present data in Tables, Pivot Tables, or Pivot Charts, and have access to additional visualization features. In Microsoft Office Excel 2007, you can only use Pivot Tables or Pivot Charts. Excel Reports use Office Data Connections to access and retrieve data from the Reporting database and OLAP databases.

**Dashboards**

Dashboards are enabled by using the SharePoint Server 2010 infrastructure and Excel Services integration.

Business Intelligence Center Dashboard pages are pages that can host Web Parts. Together with Web Parts, you can present Project Server data by using several different options:

* Excel Services
* Microsoft PowerPivot
* Microsoft SQL Server Reporting Services (SSRS) 2005 or 2008
* PerformancePoint Services in Microsoft SharePoint Server 2010
* SharePoint Server 2010 Business Connectivity Services functionality
* Microsoft Search Server 2010

Each of the six methods listed can be added to a dashboard page by using the relevant Web Part for the reporting function. For example, in order to put an Excel Report on a dashboard page, you would add an Excel Web Access Web Part to the dashboard page and link the Web Part to the specific Excel .xlsx file to show in the Web Part.

Dashboard pages have built in page filters which can be linked to Report Web Parts to filter the contents by user other information. Reporting Web Parts can also be linked to one another so that when you select a value in one report, the other connected reports are filtered by the current selection.

**Security and access**

The only user that has access to the Business Intelligence Center after you install Project Server is the account that was used for installation. You must grant access to other users before they can use reporting content.

Business Intelligence Center does not use Project Server 2010 security mechanisms. It uses SharePoint Server 2010 security for site access and the Secure Store Service for data access. This enables you to delegate Business Intelligence Center administrative duties to a non-Project Server user.

The Business Intelligence Center is a subsite of the Microsoft Project Web App (PWA) site. Although a subsite usually inherits its security permissions from the parent site, security inheritance can be disconnected to enable separate site security management. This allows the Business Intelligence Center to include Project Server 2010 users and other information users in the enterprise who need Project Server 2010 data but do not need access to the Project Server transaction system.

Three SharePoint Server 2010 site permission levels are required for enabling basic usage of the site:

* **Web Administrators Group** — for Business Intelligence Center site administrators
* **Team members** — for report viewers
* **Project managers** — for report authors

These roles give the user access permissions to a set of items within the site. These items can be Reports, Report Templates, and Office Data Connections. For items that are Office Data Connections, the Secure Store credentials that are used for a given ODC provide access to data within the Reporting and OLAP databases.

If you must secure access to specific items within the site, such as restricting access to report folders, specific reports or Office Data Connections, you can customize security permissions on an exception basis by either creating a specific security group that helps secure these items or by editing the security permissions for each item. All of this is accomplished by using SharePoint Server 2010 security.

If you have implemented the Business Intelligence Center, we recommend that you do not rename or delete the default content or its containing folders. When patches and service packs are released in the future, the default content may be recreated.

**Office Data Connections**

Office Data Connections are external files that can be used by multiple Excel Reports. These files contain:

1. The connection information that is needed to connect and access the correct target database.
2. The security credentials needed to read data from the target database.
3. The specific description of what data will be retrieved from the target database. This can include a Structured Query Language (SQL) select query.

Access to these files can be secured by using SharePoint Server 2010 security. You can also secure access to reporting data by creating separate Secure Store application definitions for each account.

**Data Analysis with Microsoft SQL Server**

Data Analysis requires Analysis Services, which is part of SQL Server 2005 and SQL Server 2008.

**Data Analysis users**

Users can use PWA to create and work with Data Analysis views and can use Microsoft Project Professional 2010 to work with Data Analysis views. In order for users to create and work with Data Analysis views, the following must be true:

* Users must be assigned permission to access the Data Analysis pages in PWA that allow for interaction with Data Analysis, and they must have permissions to access the data that will be part of the Data Analysis view.
* Users must be assigned permission to view Data Analysis from the Business Intelligence site in PWA or from Project Professional 2010.

In order to use the Data Analysis feature, users must be assigned the following permissions:

* **View Data Analysis**   This is a global permission that allows a user to view the Data Analysis by using PWA or Project Professional 2010.
* **Manage Project Web App Views**   This is a global permission that allows a user to create new views in PWA.

**Enterprise Settings**

Settings in the Project Server 2010 Enterprise Global Template and Enterprise Resource Pool can have a significant effect on the way that data is handled when users are using Data Analysis. Before you use Data Analysis, consider the following questions:

* Has your organization defined Enterprise Project custom fields and Enterprise Resource custom fields?
* Have you added all required resources to the Enterprise Resource Pool?
* Have values been assigned to any of the Enterprise custom fields?
* Have you assigned resources in the Enterprise Resource Pool to the correct Project Server security categories to allow for access to Data Analysis views? (If you import resources or synchronize the Enterprise Resource Pool with the Active Directory directory service, all resources are added to the Team Members security category.)

Plan for administrative and service accounts (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

Use this article to plan for the account requirements and recommendations for accounts that are required to install, configure, and use Microsoft Project Server 2010.

You must provide credentials for these accounts during Setup and configuration. This article does not discuss accounts that you do not have to configure or provide credentials for.

**Administrative and service accounts**

This section lists and describes the accounts that are required by Project Server 2010. The accounts are grouped according to scope. If an account has a limited scope, you might have to plan multiple accounts for this category.

|  |
| --- |
| **Cc197607.note(en-us,office.14).gifNote:** |
| All Project Server 2010 and Microsoft SharePoint Server 2010 service accounts must be granted interactive logon permissions for the computer where the service is running. By default, such permissions are normally granted when a new account is set up. However, you may have to make manual adjustments if your organization normally denies interactive logon permissions for service accounts. |

The following table describes the standard account requirements for Project Server 2010.

|  |  |  |
| --- | --- | --- |
| **Account** | **Purpose** | **Required permissions** |
| Farm Administrator | This account is also known as:   * Database access account   This account servers as the following:   * The application pool account for the SharePoint Central Administration Web site * The process account for the SharePoint 2010 Timer (SPTimerV4) service   Log in with this account when you install SharePoint Server 2010 and Project Server 2010.  (This account may already exist if you are deploying Project Server 2010 to an existing SharePoint Server 2010 farm.) | This account must be a member of the local Administrators group on each application server in the farm.  Additional permissions are automatically granted for this account when Project Server 2010 is installed and when additional application servers are added to the farm.  A logon is automatically created for this account in SQL Server, and that logon is automatically added to the following SQL Server Server Roles:   * dbcreator * public * securityadmin * sysadmin |
| Application Pool | Runs the application pools associated with each SharePoint Server 2010 service application. (This account may already exist if you are deploying Project Server 2010 to an existing SharePoint Server 2010 farm.) | 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 Service Application database * Read from the configuration database   Additional permissions for this account on front-end Web servers and application servers are automatically granted by Project Server 2010. |
| Workflow Proxy | Runs Project Server workflow activities. This account makes the Project Server Interface (PSI) calls associated with each workflow. | This domain account must also be configured as a Project Server user account that has the following permissions:  Global permissions:   1. Log On 2. Manage Users and Groups 3. Manage Workflow and Project Detail Pages   Category permissions:   * Open Project * Save Project to Project Server |

**Accounts and groups for business intelligence**

In addition to the accounts listed earlier in this article, the following accounts and Active Directory directory service groups are required when you configure reporting for Project Server 2010.

|  |  |  |
| --- | --- | --- |
| **Account** | **Purpose** | **Required permissions** |
| Report Authors Group | Active Directory security group to which you add users who will create reports. | This group requires db\_datareader permissions on the Project Server 2010 Reporting database. |
| Report Viewers Group | Active Directory security group to which you add users who will view reports. | None. (This group is used as part of Secure Store configuration.) |
| External Report Viewers Group | (Optional.) Active Directory security group for users who do not have a PWA user account but require access to the Project Server 2010 Business Intelligence Center to view reports. | This group requires read permissions to the Business Intelligence Center site. |
| Secure Store Target Application account | This account provides the credentials necessary for report viewers to view reports generated from data in the Project Server 2010 reporting database. This account is used as part of Secure Store configuration. | This account must have db\_datareader permissions on the Project Server 2010 reporting database. We recommend that you add this account to the Report Authors Active Directory group described earlier in this section to give it the necessary permissions. |

Overview of the deployment process (Project Server 2010)

**Updated: 2009-11-12**

[This article is pre-release documentation and is subject to change in future releases.]

This series of articles describes the steps necessary to install Microsoft Project Server 2010 in a server farm environment. These steps include:

* Configuring Microsoft SQL Server and Analysis Services
* Installing Microsoft SharePoint Server 2010
* Installing Project Server 2010
* Creating a Microsoft Project Web App site

**Configure SQL Server and Analysis Services**

Configuring SQL Server and Analysis Services includes the following steps:

* Configure SQL Server network settings
* Add a login for the Farm Administrator account
* Enable the common language runtime
* Configure Analysis Services

Additionally, depending on your needs, you may want to implement some recommended performance enhancements by configuring AUTO\_CLOSE and AUTO\_UPDATE\_STATISTICS\_ASYNC. Additionally, you may want to create the Project Web App databases.

**Install SharePoint Server 2010**

Project Server 2010 requires SharePoint Server 2010 Enterprise Edition. Before you can install and configure Project Server 2010, you must install SharePoint Server 2010 and create a server farm. This article guides you to the proper SharePoint Server 2010 resources to configure your server farm.

**Install and configure Project Server 2010**

Once you have set up a SharePoint Server 2010 server farm, you can install Project Server 2010. The Project Server 2010 software must be installed on each application server and front-end Web in the farm. Once the Project Server 2010 software is installed and configured, you must configure several service applications in SharePoint Server 2010 before you can create a Project Web App site.

**Create a Project Web Access site**

Once the initial Project Server 2010 configuration within SharePoint Server 2010 is completed, you can create a Project Web App site. When the Project Web App site has been completed, you can proceed with further configuration, including setting up reporting and configuring Exchange Server integration.

**Getting started**

The first step, prior to installation, is to make sure you have the needed permissions to accomplish the required tasks. For more information, see [Prepare for deployment (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662110%28en-us,office.14%29.aspx).

Prepare for deployment (Project Server 2010)

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

To successfully complete a deployment of Microsoft Project Server 2010, the following permissions are required:

* **Domain Administrator** — Required to set up two domain groups for report authors and report viewers.
* **SQL Server Administrator** — Required for various Microsoft SQL Server and Microsoft SQL Server Analysis Services (SSAS) configuration tasks as denoted in [Configure SQL Server and Analysis Services (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx).
* **Exchange Administrator** — Required to configure Microsoft Exchange Server for Exchange integration.
* **Farm Administrator** — Required to install Microsoft Project Server 2010 and configure a Microsoft Project Web App site.

|  |
| --- |
| **Ee662110.note(en-us,office.14).gifNote:** |
| The Farm Administrator account is created when you install Microsoft SharePoint Server 2010. |

**Creating users and groups in the Active Directory directory service**

Deploying Microsoft Project Server 2010 requires that you have certain Active Directory users and groups available. The deployment instructions assume that the necessary groups already exist. If you have not yet created the necessary users and groups, do so now before deploying Project Server. For detailed information about the users and groups required for Project Server deployment, see [Plan for administrative and service accounts (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197607%28en-us,office.14%29.aspx).

**Configuring SQL Server and Analysis Services**

Before deploying your farm, you must configure SQL Server and SQL Server Analysis Services.

If you are deploying Project Server to an existing SharePoint Server 2010 farm, some of these steps may already have been done when the server farm was deployed. We recommend that you confirm these settings before installing Project Server.

To configure SQL Server and Analysis Services, follow the procedures in [Configure SQL Server and Analysis Services (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx).

Configure SQL Server and Analysis Services (Project Server 2010)

**Updated: 2009-11-12**

[This article is pre-release documentation and is subject to change in future releases.]

Before installing Microsoft SharePoint Server 2010 and Microsoft Project Server 2010, you must first configure Microsoft SQL Server and Analysis Services.

|  |
| --- |
| **Ee662108.note(en-us,office.14).gifNote:** |
| If you are installing Project Server 2010 to an existing SharePoint Server farm, some of these steps may already be completed. |

Complete the procedures in each section below:

* [Configure SQL Server network settings](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx#section1)
* [Add a login for the Farm Administrator account](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx#section2)
* [Enable the common language runtime](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx#section3)
* [Configure Analysis Services](http://technet.microsoft.com/en-in/library/ee662108%28en-us,office.14%29.aspx#section4)

Additionally, depending on the needs of your organization, you may want to do the following:

* Create the Project Server databases
* Create additional TempDB files

We also recommend that you start the SQLSERVERAGENT service on the instance of SQL Server where your SharePoint Server databases are located. SharePoint Server and Project Server 2010 use the SQL Server Agent service to perform various database cleanup activities.

When you have finished configuring SQL Server and Analysis Services, go to the next article, [Install SharePoint Server 2010 (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662114%28en-us,office.14%29.aspx).

# Configure SQL Server network settings

For Microsoft Project Server 2010 to work correctly, the associated instance of SQL Server must be configured to enable remote connections using TCP/IP. This is the default configuration for SQL Server, but we recommend confirming that the configuration is correct before you install Project Server 2010.

Use one of the next two procedures, depending on your version of SQL Server.

### To configure SQL Server 2005 network settings

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

|  |
| --- |
| **Ee662108.note(en-us,office.14).gifNote:** |
| The **Using both TCP/IP and names pipes** option will also work. If your instance of SQL Server is already configured to use both TCP/IP and named pipes, you can keep that setting. |

1. Click **OK**.

### To configure SQL Server 2008 network settings

1. Click **Start**, click **All Programs**, click **Microsoft SQL Server 2008**, click **Configuration Tools**, and then click **SQL Server Configuration Manager**.
2. In the left pane, expand **SQL Server Network Configuration**, and then select the instance of SQL Server where you will be installing Project Server 2010 databases.
3. In the right pane, ensure the Status for TCP/IP is Enabled.

# Add a login for the Farm Administrator account

In order for Project Server 2010 setup and configuration to function, you must create a SQL Server login for the Farm Administrator domain account and give it the required server roles.

### To create a SQL Server login

1. Open SQL Server Management Studio.
2. Connect to the database engine of the instance of SQL Server that you will be using with Project Server 2010.
3. Expand the **Security** node.
4. Right-click **Logins** and then click **New Login**.
5. On the **New** page, in the **Login name** text box, type the domain account that you created for the Farm Administrator.
6. In the **Select a page** list, click **Server Roles**.
7. In the **Server roles** list, select the **dbcreator**, **public**, **securityadmin**, and **sysadmin** check boxes.
8. Click **OK**.

# Enable the common language runtime

The common language runtime will improve the performance of your Project Server 2010 deployment. To enable the common language runtime, execute the following query:

sp\_configure 'clr enabled', 1

go

reconfigure

go

Enabling the common language runtime provides a significant improvement in performance for custom field operations.

# Configure Analysis Services

There are two configuration steps that you must follow for the instance of Analysis Services that you will be using with Project Server 2010:

* Add the Farm Administrator account to the OLAP users local group.
* Configure the Farm Administrators account to have administrative permissions in SQL Server Analysis Services.

### To add the Farm Administrator account to the OLAP users local group

1. Log on to the computer that is running Analysis Services.
2. Click **Start**, point to **All Programs**, point to **Administrative Tools**, and then click **Computer Management**.
3. On the Computer Management page, in the left pane under **System Tools**, expand **Local Users and Groups**. Click the **Groups** folder.
4. In the right pane, under the **Name** list, double-click **SQLServer2005MSOLAPUser$<SERVERNAME>$MSSQLSERVER (SQL Server 2005)** or **SQLServerMSASUser$<SERVERNAME>$MSSQLSERVER (SQL Server 2008)**.
5. On the properties page, click **Add**.
6. On the Select Users, Computers, or Groups page, type the name of the Farm Administrator account.
7. Click **OK**. The Farm Administrator account will appear in the Members list.
8. Click **OK**.

### To add the Farm Administrator as an Analysis Services server administrator

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 with Project Server 2010.
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**.
4. Click **Add**.
5. On the Select Users, Computers, or Groups page, type the name of the Farm Administrator account.
6. Click **OK**. The Farm Administrator account appears in the Members list.
7. Click **OK**.

# Creating the Project Server databases

When you create a Microsoft Project Web App (PWA) site, Project Server databases are created automatically. You can also create these databases manually before creating the PWA site. Doing so may be desirable if you want to place the databases in a particular location (for example, on a specific LUN) or if the Administrator creating the PWA site has insufficient permissions to create databases in SQL Server.

When creating Project Server databases in SQL Server, create an empty database for the Draft, Published, Archive, and Reporting databases using the SQL\_Latin1\_General\_CP1\_CI\_AS collation. Create a full set of databases for each instance of PWA that will be created.

# Create additional TempDB files

Both Project Server 2010 and Microsoft SharePoint Server 2010 make extensive use of TempDB during SQL transactions. To optimize performance, create additional TempDB files.

As a rule, create an additional TempDB file for each processor (core) in the computer that is running SQL Server. Create the files on a separate partition from other database files.

[Install SharePoint Server 2010 (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662114%28en-us,office.14%29.aspx)

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[Deployment](http://technet.microsoft.com/en-in/library/cc197280%28en-us,office.14%29.aspx)

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[Deploy Project Server 2010 to a ser...](http://technet.microsoft.com/en-in/library/cc197479%28en-us,office.14%29.aspx)

Please Wait

**Install SharePoint Server 2010 (Pro...**

We were unable to locate this content in en-in.

Here is the same content in en-us.

Install SharePoint Server 2010 (Project Server 2010)

**Updated: 2009-11-12**

[This article is pre-release documentation and is subject to change in future releases.]

Before you can install Microsoft Project Server 2010, you must install Microsoft SharePoint Server 2010 and create a SharePoint Server 2010 farm.

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| --- |
| **Ee662114.Important(en-us,office.14).gifImportant:** |
| Project Server 2010 requires the Enterprise edition of SharePoint Server 2010. Prior versions of SharePoint Server and Microsoft SharePoint Foundation 2010 are not supported. |

If you have a SharePoint Server 2010 farm configured and you are ready to install Project Server 2010, proceed to the next article, [Install and configure Project Server 2010](http://technet.microsoft.com/en-in/library/ee662109%28en-us,office.14%29.aspx).

If you have not yet installed SharePoint Server 2010, it is important to carefully plan your SharePoint Server 2010 farm before installing SharePoint Server 2010. For detailed information about planning your SharePoint Server 2010 farm, see [Plan for server farms and environments (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/cc789337%28en-us,office.14%29.aspx).

If you have completed the planning phase of your SharePoint Server 2010 deployment, see [Multiple servers for a three-tier farm (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/ee805948%28en-us,office.14%29.aspx) for detailed information about deploying SharePoint Server 2010.

When you have completed SharePoint Server 2010 deployment, proceed to [Install and configure Project Server 2010](http://technet.microsoft.com/en-in/library/ee662109%28en-us,office.14%29.aspx).

Install and configure Project Server 2010

**Updated: 2010-04-01**

[This article is pre-release documentation and is subject to change in future releases.]

Microsoft Project Server 2010 runs as a service application under Microsoft SharePoint Server 2010. The full functionality of Project Server 2010 is provided by several SharePoint Server 2010 service applications:

* Project Server Service Application
* PerformancePoint Service Application
* Excel Services Application
* Secure Store Service

This article describes installing and configuring Project Server 2010, including provisioning the Project Server Service Application and the PerformancePoint Service Application. Deploying and configuring the Excel Services Application and Secure Store Service are covered in [Configure reporting for Project Server 2010](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx).

Use the procedures that follow to install Project Server 2010. The Project Server 2010 software must be installed on each application server in the farm before you can run the SharePoint Products Configuration Wizard to integrate Project Server with SharePoint Server 2010.

Before you install Project Server 2010, be sure that you have reviewed the topics under [Plan for deployment (Project Server 2010)](http://technet.microsoft.com/en-in/library/ff603997%28en-us,office.14%29.aspx) and have the necessary service accounts created as described in [Plan for administrative and service accounts (Project Server 2010)](http://technet.microsoft.com/en-in/library/cc197607%28en-us,office.14%29.aspx).

|  |
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| **Ee662109.Important(en-us,office.14).gifImportant:** |
| If you have not restarted the application servers in your SharePoint Server 2010 farm since installing SharePoint Server, restart them before installing Project Server 2010. |
| **Ee662109.Important(en-us,office.14).gifImportant:** |
| Upgrading from the Project Server 2010 Beta to the Project Server 2010 released version is explicitly blocked and not supported. This restriction applies to both in-place and db-attach upgrade methods. |

To view a video demonstration of the installation and configuration process, click one of the following links:

* For a single application server farm:
  + [Deploy Project Server - Single Application Server Farm](http://go.microsoft.com/fwlink/?LinkId=169126) (Streaming)
  + [Deploy Project Server - Single Application Server Farm](http://go.microsoft.com/fwlink/?LinkId=169127) (Download)
* For a multi application server farm:
  + [Deploy Project Server - Multi Application Server Farm](http://go.microsoft.com/fwlink/?LinkId=169128) (Streaming)
  + [Deploy Project Server - Multi Application Server Farm](http://go.microsoft.com/fwlink/?LinkId=169129) (Download)

# Install and configure Project Server 2010

This section describes how to install Project Server 2010. The basic procedure is:

* Install Project Server 2010 on each application server and web server in the farm
* Run the SharePoint Products Configuration Wizard
* Refresh the installed products on the farm

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| **Ee662109.note(en-us,office.14).gifNote:** |
| If you encounter an error during the installation process, check the log files located at \Program Files\Common Files\Microsoft shared\Web server extensions\14\logs and consult the [Project Server 2010 forum](http://go.microsoft.com/fwlink/?LinkId=169001) (http://go.microsoft.com/fwlink/?LinkId=169001). |

Complete the following procedure on each application server in the farm.

### To install Project Server 2010

1. On the Project Server 2010 DVD, run default.hta. The Setup menu opens.

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| **Ee662109.note(en-us,office.14).gifNote:** |
| default.hta may run automatically when you insert the disk. |

1. On the **Start** page, click **Install Project Server**.
2. On the Enter your Product Key page, type your product key, and then click **Continue**.
3. In the End User License Agreement page, review the terms of the agreement. To accept the agreement, select the **I accept the terms of this agreement** check box.
4. Click **Continue**.
5. On the Choose a file location page, click **Install Now**.
6. When the installation is complete, clear the **Run the SharePoint Products and Technologies Configuration Wizard now** check box.
7. Click **Close**.

Once the Project Server 2010 software has been installed on each application server in the farm, you must run the SharePoint Products Configuration Wizard to integrate Project Server with SharePoint Server 2010. You must run this wizard on each application server in the farm before you can begin using Project Server.

Complete the following procedure on each application server in the farm.

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| **Ee662109.note(en-us,office.14).gifNote:** |
| Run the SharePoint Products Configuration Wizard on one application server at a time. Do not run it on multiple servers simultaneously. |

### To run the SharePoint Products and Technologies Configuration Wizard

1. Click **Start**, **All Programs**, **Microsoft SharePoint 2010 Products**, **SharePoint 2010 Products Configuration Wizard**.
2. At the Welcome to SharePoint Products and Technologies page, click **Next**.
3. A confirmation dialog message appears, showing a list of services that may need to be restarted. Click **Yes**.
4. On the Modify server farm Settings page, select the **Do not disconnect from this server farm option**, and then click **Next**.
5. If the server is hosting the Central Administration web site, the Modify SharePoint Central Administration Web Application Settings page will be displayed. Select the **No, this machine will continue to host the web site** option, and then click **Next**.
6. On the Completing the SharePoint Products Configuration Wizard page, click **Next**.
7. On the Configuration Successful page, click **Finish**.

To complete the process of integrating Project Server 2010 with SharePoint Server 2010, you must run the Set-SPFarmConfig Windows PowerShell cmdlet to refresh the installed products in the farm.

### To refresh installed products on the farm

1. Click **Start**, click **All Programs**, click **Microsoft SharePoint 2010 Products**, and then right-click **SharePoint 2010 Management Shell** and click **Run as administrator**.
2. At the Windows PowerShell command prompt (that is, PS C:\>), type:

Set-SPFarmConfig -InstalledProductsRefresh

1. Press ENTER.
2. Close the Windows PowerShell window.

# Configure document library files

In order to be able to save documents to Project Server 2010 sites in SharePoint Server 2010, you must manually copy several files to the appropriate directory. Perform the following procedure on each application server in the farm.

### To copy document library files

1. Open Windows Explorer.
2. Navigate to the following folder:

Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\Template\Features\DocumentLibrary\DocLib

1. Copy FileDlg.htm and EditDlg.htm.
2. Navigate to the following folder:

Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\Template\Features\pwsdoclibs\pwsdoclib

1. Paste FileDlg.htm and EditDlg.htm.

# Configure services

Once Project Server 2010 is installed, the following configuration steps are required prior to creating a Microsoft Project Web App site and using Project Server:

* Start the Project Application Service
* Start the PerformancePoint Service
* Create a Project Server service application
* Create a PerformancePoint service application
* Create a top level Web site
* Set Read permissions on the top-level Web site

Before you create a Project Server service application, start the Project Application Service and the PerformancePoint service on the servers in the farm where you want to run these services.

### To start the Project Application Service

1. On the SharePoint Central Administration home page, in the **System Settings** section, click **Manage services on server**.
2. On the Services on Server page, select the server where you want to run the Project Application Service from the **Server** drop-down list.
3. On the **Service** list, click **Start** next to **Project Application Service**.

### To start the PerformancePoint Service

1. On the Central Administration home page, in the **System Settings** section, click **Manage services on server**.
2. On the Services on Server page, select the server where you want to run the PerformancePoint Service from the **Server** drop-down list.
3. On the **Service** list, click **Start** next to **PerformancePoint Service**.

Once you have started the Project Server and PerformancePoint services on the desired computers in the farm, you must create a service application for each service.

### To create a Project Server service application

1. On the Central Administration home page, in the **Application Management** section, click **Manage service applications**.
2. On the Manage Service Applications page, on the ribbon, click **New**, and then click **Project Server Service Application**.
3. On the Create Project Web App service application page:
   1. Type a name for the service application in the **Project Web App service application name** box.
   2. In the **Application Pool** section, choose an existing application pool or type the name of the application pool you want to create in the **Application pool name** box.
   3. Select the **Configurable** option, and choose the managed account you want to use to run the application pool.
   4. Click **OK**.

### To create a PerformancePoint service application

1. On the Central Administration home page, in the **Application Management** section, click **Manage service applications**.
2. On the Manage Service Applications page, on the ribbon, click **New**, and then click **PerformancePoint Service Application**.
3. On the New PerformancePoint Service Application page:
   1. Type a name for the service application in the **Name** box.
   2. Select the **Add this service application's proxy to the farm's default proxy list** check box.
   3. In the **Application Pool** area, choose an existing application pool or type the name of the application pool that you want to create in the **Application pool name** box.
   4. Select the **Configurable** button, and choose the managed account that you want to use to run the application pool.
   5. Click **Create**.
   6. When the service application has been successfully created, click **OK**.

The next step is to create a top-level Web site if one does not yet exist, and give users read permission to that site. If there is not yet a top level Web site, create one using the following procedure.

### To create a top-level Web site

1. In Central Administration, in the **Application Management** section, click **Create site collections**.
2. Choose a Web application from the **Web Application** drop-down menu.

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| **Ee662109.note(en-us,office.14).gifNote:** |
| If no Web application is available, you will need to create one. For more information, see [Create a Web application (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/cc261875%28en-us,office.14%29.aspx). |

1. Type a title for the site collection in the **Title** box.
2. In the **Template Selection** section, choose a template for the site.

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| **Ee662109.note(en-us,office.14).gifNote:** |
| Project Server 2010 does not require a specific template. You can choose one appropriate for your organization. |

1. In the **Primary Site Collection Administrator** section, type the name of the account you want to use for the site administrator.
2. Click **OK**.

### To set Read permissions on the top-level Web site

1. Navigate to the root site (that is, http://<servername>).
2. Click **Site Actions**.
3. Click **Site Permissions**.
4. Click **Grant Permissions**.
5. In the **Users/Groups** box, type **NT AUTHORITY\Authenticated Users**.
6. Under **Give Permission**, select **<SiteName> Visitors [Read]**.
7. Click **OK**.

The next step is to create a Project Web App site. Go to the next article, [Create a PWA site (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee662105%28en-us,office.14%29.aspx).

Create a PWA site (Project Server 2010)

**Updated: 2010-04-22**

[This article is pre-release documentation and is subject to change in future releases.]

Creating a Microsoft Project Web App (PWA) site creates the four Microsoft Project Server 2010 databases on the specified instance of Microsoft SQL Server.

To view a video demonstration of creating a PWA site, click one of the following links:

* [Create Project Web Access Site](http://go.microsoft.com/fwlink/?LinkId=169130) (Streaming)
* [Create Project Web Access Site](http://go.microsoft.com/fwlink/?LinkId=169131) (Download)

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| **Ee662105.Important(en-us,office.14).gifImportant:** |
| Due to a Project Server Beta issue, you must run the psconfig command before creating the first PWA site. Use the following procedure to run the psconfig command. You do not need to rerun this command for additional PWA sites on the same farm. |

### To run psconfig

1. Open a Command Prompt window as an Administrator.
2. Navigate to \program files\common files\Microsoft shared\Web server extensions\14\bin.
3. Run the following command:

psconfig -cmd upgrade -inplace b2b

# Create a PWA site

The Project Web App site requires a Web application to host it. You can use an existing Web application or create a new one for PWA. For more information about creating a Web application, see [Create a Web application (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/cc261875%28en-us,office.14%29.aspx).

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| **Ee662105.Important(en-us,office.14).gifImportant:** |
| We highly recommend that you use a separate Microsoft SharePoint Server 2010 content database for each PWA site and its associated project workspaces. To properly isolate the PWA site in its own content database, you must deploy PWA at a time when other administrators are not creating new sites on the Web application where you are deploying PWA. |

By placing PWA and its associated project workspaces in a separate content database, you vastly simplify site migration and backup and restore procedures.

Creating a PWA site takes three basic steps:

1. Create a content database to host the PWA site and its associated project workspaces.
2. Create the PWA site itself.
3. Lock down the PWA content database to prevent additional site collections being added.

### To create a content database

1. Ensure that no other administrators are adding site collections to the Web application where you plan to deploy PWA.
2. In SharePoint Central Administration, in the **Application Management** section, click **Manage content databases**.
3. Click **Add a content database**.
4. In the **Web Application** section, choose the Web application where you plan to deploy the PWA site.
5. In the **Database Name and Authentication** section, type the database server name where you plan to deploy your PWA databases, and type a name for the database.
6. In the **Database Capacity Settings** section, type a maximum value that is greater than the available space in other databases associated with this Web application.

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| **Ee662105.Important(en-us,office.14).gifImportant:** |
| SharePoint Server 2010 will add sites to the content database with the most available free space. In order for the PWA site to be created in this content database, you must set a value for **Maximum number of sites that can be created in this database** that is greater than the available space (maximum sites minus existing sites) in any other content database associated with this Web application. |

1. Click **OK**.

Once the content database has been created and configured, the next step is to create the PWA site itself.

### To create a PWA site

1. In SharePoint Central Administration, in the **Application Management** section, click **Manage service applications**.
2. On the Manage Service Applications page, click the Project Server Service Application.
3. On the Manage Project Web Access Sites page, click **Create Project Web Access Site**.
4. Complete the Create Project Web Access Site page as designated in the table below:

|  |  |
| --- | --- |
| **Option** | **Description** |
| SharePoint Web Application to Host Project Web App | The Web application for the PWA site. |
| Project Web App path | The path from the root site for this PWA site. |
| Select a language | The user interface language for this PWA site. |
| Use Project Web App path as host header | Use this option if you want to host PWA on a root URL (for example, https://www.contoso.com). |
| Administrator Account | The user account that will be added to the Project Server Administrators security group in this instance of PWA. |
| Primary database server | The instance of SQL Server where you want to host the Project Server databases. If your database administrator has already created Project Web App databases, specify the names of those databases below. If the databases were not previously created, they will be created automatically. |
| Published database name | The name of the Project Server Published database for this instance of PWA. |
| Draft database name | The name of the Project Server Draft database for this instance of PWA. |
| Archive database name | The name of the Project Server Archive database for this instance of PWA. |
| Reporting database server | The name of the Project Server Reporting database for this instance of PWA. |
| Use primary database server | Select the check box to deploy the Reporting database to the primary database server specified above. Clear the check box to deploy the Reporting database to a different database server, and specify the instance of SQL Server that you want to use in the **Reporting database name** box. |
| Reporting database name | The instance of SQL Server where you want to deploy the Reporting database (if different from the primary database server). |
| Quota for SharePoint content in this site | The maximum site storage, in megabytes, for the PWA site. |
| Quota Warning for SharePoint content in this site | The site storage level, in megabytes, at which a warning e-mail message will be sent to the site administrator. |

1. Click **OK**.

Project Server will start the PWA site creation process. This may take some time. When the site creation process is completed, the status shown on the PWA site list is **Provisioned**.

Once the PWA site has been provisioned, verify that it was created in the content database that you created. Use the Get-SPSite Windows PowerShell command, passing the new content database as a parameter:

### To verify the PWA site location

1. Verify that you meet the following minimum requirements: You are a member of the SharePoint\_Shell\_Access role on the configuration database and a member of the WSS\_ADMIN\_WPG local group on the computer where SharePoint 2010 Products is installed.
2. On the **Start** menu, click **All Programs**.
3. Click **Microsoft SharePoint 2010 Products**.
4. Click **SharePoint 2010 Management Shell**.
5. From the Windows PowerShell command prompt (that is, PS C:\>), type the following command and then press ENTER:

**Get-SPSite -ContentDatabase** <ContentDatabaseName>

The command should return the URL for your PWA site and no other URLs.

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| **Ee662105.note(en-us,office.14).gifNote:** |
| If additional URLs beyond that of the PWA site are listed in the content database, delete the PWA site and restart the procedure with a new content database. |

Once the PWA site is in the desired content database, you must lock down the database to prevent SharePoint Server 2010 from adding additional site collections to the database. This is done by configuring the maximum number of sites for the content database to one.

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| **Ee662105.note(en-us,office.14).gifNote:** |
| Configuring this setting does not prevent new project workspace sites from being created. |

### To lock down the content database

1. In SharePoint Central Administration, in the **Application Management** section, click **Manage content databases**.
2. In the **Database Name** column, click the link for the content database that you created.
3. In the **Database Capacity Settings** section:
   1. In the **Number of sites before a warning event is generated** box, type **0**.
   2. In the **Maximum number of sites that can be created in this database** box, type **1**.
4. Click **OK**.

You can now access the new PWA site.

|  |
| --- |
| **Ee662105.note(en-us,office.14).gifNote:** |
| The first invocation of the Internet Information Services (IIS) application pool that contains the Project Web App application can be slow because the .NET Framework application is being compiled and loaded. |

# Configure time reporting periods

Configuring time reporting periods is a requirement for Team Member use of Time Tracking and Task Statusing within Project Server 2010. We recommend that you create at least a year of time reporting periods. Use the following procedure to create time reporting periods.

### To create time reporting periods

1. In PWA, click **Server Settings**.
2. In the **Time and Task Management** section, click **Time Reporting Periods**.
3. On the Time Reporting Periods page:
   1. Click the calendar button next to **Date the first period starts** and choose a start date for the first time reporting period.

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| --- |
| **Ee662105.Important(en-us,office.14).gifImportant:** |
| If you choose a length of seven days for a standard reporting period, all periods will begin on the day of the week you choose for the first period start date. Choose a day of the week that conforms with the needs of your organization. |
| **Ee662105.Important(en-us,office.14).gifImportant:** |
| If you want to create variable-length periods, for example when using a period per calendar month, you will need to do these individually on the Time Reporting Periods page or programmatically through custom code. |

* 1. Click **Create Bulk**.
  2. Click **Save**.

Recommended performance enhancements (Project Server 2010)

**Updated: 2010-02-10**

[This article is pre-release documentation and is subject to change in future releases.]

There are two Microsoft SQL Server settings that we recommend that you implement to help achieve optimal performance for your deployment:

* SET AUTO\_CLOSE OFF
* SET AUTO\_UPDATE\_STATISTICS\_ASYNC ON

We recommend that you configure these settings for the four Microsoft Project Server 2010 databases (Draft, Published, Archive, and Reporting) for each Microsoft Project Web App site that you create.

These are not required settings. You should evaluate them based on the needs of your organization and any other applications that might be using the same instance of SQL Server where the Microsoft Project Server 2010 databases reside.

When you have completed this section, go to the next article, [Configure reporting for Project Server 2010](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx).

**AUTO\_CLOSE**

By default, this option is set to ON for all databases when you are using SQL Server Desktop Engine (also known as MSDE 2000), and OFF for all other editions, regardless of operating system. The AUTO\_CLOSE option should not be used for databases accessed by an application that repeatedly makes and breaks connections to SQL Server, such as Project Server. For this reason, we recommend that you set AUTO\_CLOSE to OFF for the Project Server databases.

**AUTO\_UPDATE\_STATISTICS\_ASYNC**

Statistics updates can be either synchronous (the default) or asynchronous. In synchronous statistics updates, queries always compile and execute with up-to-date statistics; when statistics are out-of-date, the query optimizer waits for updated statistics before it compiles and executes the query. For Project Server 2010, we recommend that you set AUTO\_UPDATE\_STATISTICS\_ASYNC to ON for optimal query performance. This lets queries execute immediately without waiting for the statistics to update.

Configure reporting for Project Server 2010

**Updated: 2010-02-15**

[This article is pre-release documentation and is subject to change in future releases.]

Microsoft Project Server 2010 integrates the Microsoft SharePoint Server 2010 Business Intelligence Center Web application, which provides a central point for hosting the reports, dashboards, and report connections that can be auto-created or manually authored to provide access to reporting data in Project Server for your users. The Business Intelligence Center can be used to host content created with Excel Services in Microsoft SharePoint Server 2010, Visio Services in SharePoint, PerformancePoint Services in SharePoint, PowerPivot and SQL Server Reporting Services.

To configure reporting, you must do the following steps:

* [Add a login for the report authors group](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section1) in SQL Server
* [Install SQL Server 2008 Analysis Management Objects](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section2)
* [Start Excel Services](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#StartExcelServices)
* [Configure Excel Services settings](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section3)
* [Start the Secure Store Service](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#StartSSS)
* [Configure Secure Store Service settings](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section4)
* [Populate the Report Authors and Report Viewers Active Directory groups](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#PopulateADGroups)
* [Configure Business Intelligence Center access](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#ConfigureBIAccess)

Additionally, you will need two Active Directory groups, one for report authors and one for report viewers, as well as an Active Directory account for the Secure Store target application.

To view a video demonstration of configuring reporting for Project Server 2010, click one of the following links:

* [Configure Reporting](http://go.microsoft.com/fwlink/?LinkId=169132) (Streaming)
* [Configure Reporting](http://go.microsoft.com/fwlink/?LinkId=169133) (Download)

# Accounts and security groups

The following table describes the accounts and security groups that you will need for the various procedures in this article.

|  |  |
| --- | --- |
| **Account** | **Description** |
| Report Authors group | Active Directory security group to which you add users who will create reports. This group is given read permissions to the Project Server 2010 Reporting database. Have your domain administrator create this group before proceeding with the procedures below. |
| Report Viewers group | Active Directory security group to which you add users who will view reports. Have your domain administrator create this group before proceeding with the procedures below. |
| External Report Viewers group | Active Directory security group for users who do not have a PWA user account but require access to the Project Server 2010 Business Intelligence Center to view reports.  If you have such users in your organization, have your domain administrator create this group and add it to the Report Viewers group described above. |
| Application Pool account | Active Directory account that is used to run the application pools for the Excel Services Application and the Secure Store Service. This account must be configured as a managed account in SharePoint Server 2010. (Required if you do not yet have Excel Services or the Secure Store Service deployed.)  Ee662106.note(en-us,office.14).gif**Note:**  You can use the same account that you used for to run the application pool for the Project Server Service Application. |
| Secure Store Target Application account | This account provides the credentials necessary for report viewers to view reports generated from data in the Project Server reporting database. This account must have db\_datareader permissions on the Project Server 2010 reporting database.  Ee662106.Tip(en-us,office.14).gif**Tip:**  We recommend that you add this account to the Report Authors Active Directory group described above to give it the necessary permissions. |

# Add a login for the report authors group

In order for a report author to be able to access the Project Server 2010 Reporting database from Microsoft Excel, it is necessary to configure Microsoft SQL Server access and add a SQL Server login. The login must allow specific access to the Project Server 2010 Reporting database to get schema information and data. Use the domain group you created for report authors.

Perform the following procedure on the computer where your Project Server 2010 reporting database is located.

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| --- |
| **Ee662106.note(en-us,office.14).gifNote:** |
| Alternatively, you can connect to the database engine remotely using SQL Server Management Studio. |

### To add a login for the report authors group

1. lick **Start**, **All Programs**, **Microsoft SQL Server 2008**, **SQL Server Management Studio**.
2. Select the instance of the SQL Server database engine where your Project Server 2010 reporting database resides, and then click **Connect**.
3. Expand **Security**, right-click **Logins**, and then click **New Login**.
4. On the **General** page, click **Search**.
5. Click **Object Types**, and select the **Groups** check box.
6. Click **OK**.
7. Type the name of the group you created for report authors.
8. Click **Check Names**.
9. Click **OK**.
10. Select the **User Mapping** page.
11. In the **Users mapped to this login** list box, select the row containing the Project Server 2010 Reporting database.
12. Select the **Map** check box for the Project Server 2010 Reporting database.
13. Select the **db\_datareader** database role membership check box.
14. Click **OK**.

# Install SQL Server 2008 Analysis Management Objects

If you do not already have the SQL Server 2008 Analysis Management Objects (AMO) installed, you must install them on each application server in the farm.

Click to download the [SQL Server 2008 Analysis Management Objects](http://go.microsoft.com/fwlink/?LinkId=130655&clcid=0x409) (http://go.microsoft.com/fwlink/?LinkId=130655&clcid=0x409)

|  |
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| **Ee662106.note(en-us,office.14).gifNote:** |
| After installing the AMO objects, restart the **Project Application Service** on each application server in the farm where it is running. This service is configured in SharePoint Central Administration under **System Settings**, **Manage services on server**. |

# Start Excel Services

If Excel Services is not running on the farm, you must first configure an Excel Services service application.

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| **Ee662106.Important(en-us,office.14).gifImportant:** |
| If you are planning to use Excel Services for purposes beyond reporting for Project Server 2010, we highly recommend that you review the planning and operations articles for Excel Services to assist with your deployment of Excel Services on your SharePoint Server farm. For more information, see [Excel Services overview (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/ee424405%28en-us,office.14%29.aspx) and [Excel Services administration (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/ee681487%28en-us,office.14%29.aspx). |

If Excel Services is already running on your farm, proceed to [Configure Excel Services settings](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section3); otherwise, follow the procedures below to start Excel Services.

Starting Excel Services involves two steps:

* Turning on the Excel Calculation Services service
* Creating an Excel Services service application

### To start the Excel Calculation Services service

1. On the SharePoint Central Administration Web site, in the **System Settings** section, click **Manage services on server**.
2. If you have more than one application server on the farm, choose the application server where you want to run the Excel Calculation Services service from the **Server** list.
3. In the **Service** list, click **Start** next to **Excel Calculation Services**.

### To create an Excel Services service application

1. On the SharePoint Central Administration Web site, in the **Application Management** section, click **Manage service applications**.
2. On the **Service Applications** tab, click **New**, and then click **Excel Services Application**.
3. In the **Name** box, type a name for the service application.
4. In the **Application pool name** box, type a name for the application pool.
5. Choose the managed account that you created for application pools from the **Configurable** list.
6. Click **OK**.

# Configure Excel Services settings

When Excel Services has been started, you must configure trusted file locations for the Project Server 2010 Sample Reports and Templates libraries.

Follow this procedure twice: once for each library.

### To configure a trusted file location

1. In Central Administration, in the **Application Management** section, click **Manage service applications**.
2. Click the Excel Services service application.
3. On the Manage Excel Services page, click **Trusted File Locations**.
4. Click **Add Trusted File Location**.
5. In the **Address** box, type:

For the Templates library:

http://<servername>/<projectsitename>/ProjectBICenter/Templates/

or

For the Sample Reports library:

http://<servername>/<projectsitename>/ProjectBICenter/Sample%20Reports/

1. Under **Trust Children**, confirm that the **Children trusted** check box is selected.
2. In the **External Data** section:
   1. Under **Allow External Data**, select the **Trusted data connection libraries and embedded** option.
   2. Under **Warn on Refresh**, clear the **Refresh warning enabled** check box.
3. Leave the remaining options at their default value and click **OK**.

You must configure trusted data connection libraries in order to give users access to the connectors that link the report spreadsheets to the data in the Project Server Reporting database and OLAP databases. As part of this process, you will need the URL of the data connection library in Microsoft Project Web App (PWA).

Use the following procedure to determine the URL of the data connection library in PWA.

### To determine the URL for the data connection library

1. In PWA, in the left navigation pane, click **Business Intelligence**.
2. In the left pane, click **Data Connections**.
3. On the Data Connections page, select the **English (United States)** option (or the appropriate language for your locale).
4. On the toolbar, click **View Properties**.
5. On the Data Connections properties page, right-click the **English (United States)** (or the appropriate language for your locale) link, and then choose **Properties**.
6. On the **Properties** dialog box, select the **Address (URL)** value.
7. Right-click the selected text, and then click **Copy**.

This is the URL for the data connection library, which you will need when you set up a trusted data connection library in the next procedure.

1. Click **Cancel**.
2. On the **Data Connections** properties page, click **Close**.

### To set up trusted data connection libraries

1. In Central Administration, in the **Application Management**, click **Manage Service Applications**.
2. Click the Excel Services service application.
3. Click **Trusted Data Connection Libraries**.
4. Click **Add Trusted Data Connection Library**.
5. In the **Address** box, paste the URL for the data connection library that you copied in the previous procedure. It should be in the following format:

http://<ServerName>/<ProjectSiteName>/ProjectBICenter/Data%20Connections%20for%20PerformancePoint/English%20(United%20States)

1. Click **OK**.

# Start the Secure Store Service

In SharePoint Server, the Secure Store Service enables users to access multiple system resources without having to provide authentication credentials more than once. SharePoint Server implements Secure Store Service 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 the Secure Store Service. To enable Secure Store functionality for SharePoint Server, you need to start the Microsoft Single Secure Store service and then manage Secure Store settings in Central Administration.

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| **Ee662106.Important(en-us,office.14).gifImportant:** |
| If you are planning to use the Secure Store Service for purposes beyond reporting for Project Server, we highly recommend that you review the planning and operations articles for the Secure Store Service to assist with your deployment of the Secure Store Service on your SharePoint Server farm. For more information, see [Plan the Secure Store Service (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/ee806889%28en-us,office.14%29.aspx) and [Configure the Secure Store Service (SharePoint Server 2010)](http://technet.microsoft.com/en-in/library/ee806866%28en-us,office.14%29.aspx). |

If the Secure Store is already running on your farm, proceed to [Configure Secure Store Service settings](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#section4).

If you do not already have the Secure Store Service configured in your farm, you must do that first. This involves three steps:

* Turning on the Secure Store Service
* Creating a Secure Store Service service application
* Generating a Secure Store Service key

### To turn on the Secure Store Service

1. On the SharePoint Central Administration Web site, in the **System Settings** section, click **Manage services on server**.
2. If you have more than one application server on the farm, choose the application server where you want to run the Secure Store Service from the **Server** list.
3. In the **Service** list, click **Start** next to **Secure Store Service**.

### To create a Secure Store Service service application

1. On the SharePoint Central Administration Web site, in the **Application Management** section, click **Manage service applications**.
2. On the **Service Applications** tab, click **New**, and then click **Secure Store Service**.
3. In the **Name** box, type a name for the service application.
4. In the **Application pool name** box, type a name for the application pool.
5. Choose the managed account that you created for application pools from the **Configurable** list.
6. Click **OK**.
7. When the service application has been successfully created, click **OK**.

### To generate a Secure Store Service key

1. On the SharePoint Central Administration Web site, in the **Application Management** section, click **Manage service applications**.
2. Click the Secure Store service application.
3. On the **Edit** tab, click **Generate New Key**.
4. Type and confirm a **Pass Phrase**, and then click **OK**.

# Configure Secure Store Service settings

Once the Secure Store Service Application has been created, you must create a Secure Store target application.

### To create a Secure Store target application

1. On the SharePoint Central Administration Home page, in the **Application Management** section, click **Manage Services Applications**.
2. Click the Secure Store Service.
3. On the Secure Store Service page, select the **Edit** tab.
4. Click **New**.
5. On the Create New Secure Store Target Application page:
   1. In the **Target Application ID** box, type **ProjectServerApplication**.

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| **Ee662106.note(en-us,office.14).gifNote:** |
| This value is case-sensitive. |

* 1. In the **Display Name** box, type a name for the Secure Store Target Application.
  2. In the **Contact Email** box, type an e-mail address.
  3. From the **Target Application Type** drop-down list, select **Group**.
  4. Click **Next**.

1. On the Specify the credential fields for your Secure Store Target Application page, click **Next**.
2. On the Specify the membership settings page:
   1. In the **Target Application Administrators** box, type the user name of the farm administrator.
   2. In the **Members** box, type the name of the domain group you created for report viewers.
   3. Click **OK**.
3. On the Secure Store Service Application page, select the check box for the target application that you just created.
4. On the ribbon, click **Set Credentials**.
5. On the **Set Credentials for Secure Store Target Application (Group)** dialog box, type the user name and password of the account you created for the secure store target application.

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| **Ee662106.Important(en-us,office.14).gifImportant:** |
| This account must have **db\_datareader** permissions on the Project Server Reporting database. We recommend that you add this account to the Report Authors Active Directory group to give it the required permissions. |

1. Click **OK**.

# Populate the Report Authors and Report Viewers Active Directory groups

To provide your users with the needed access to the Business Intelligence Center in PWA and the reports within, you must populate the Report Authors and Report Viewers Active Directory groups as follows:

* Report Authors group — Add the Active Directory accounts of users who will be creating reports using Excel.
* Report Viewers — Add the Active Directory accounts of PWA users who will be viewing reports in the Business Intelligence Center.
* External Report Viewers (optional) — If you have users who do not have a PWA account but require access to the Business Intelligence Center to view reports, add their Active Directory accounts to this group and follow the procedure for granting this group access to the Business Intelligence Center in [Configure Business Intelligence Center access](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#ConfigureBIAccess), below.

# Configure Business Intelligence Center access

Users who have accounts in PWA area automatically granted access to the Business Intelligence Center as follows:

* Team Members — Members of the Team Members group in PWA are automatically added to the **Team members group (Microsoft Project Server)** SharePoint Group in the Business Intelligence Center.
* Project Managers — Members of the Project Managers group in PWA are automatically added to the **Project Managers Group (Microsoft Project Server)** SharePoint Group in the Business Intelligence Center.

If you have users who do not have PWA accounts but need to access reports in the Business Intelligence Center, you must grant them access separately. You can do this by adding those users to an Active Directory group for external report users (as noted in the [Accounts and security groups](http://technet.microsoft.com/en-in/library/ee662106%28en-us,office.14%29.aspx#AccountsAndSecurity) section above) and then granting permissions to the Active Directory group in the Business Intelligence Center.

Use the following procedure to grant permissions to external report viewers.

### To grant permissions to external report viewers

1. In PWA, in the left pane, click **Business Intelligence**.
2. In the Business Intelligence Center, click **Site Actions**, and then click **Site Permissions**.
3. On the **Edit** tab, click **Create Group**.
4. On the Create Group page:
   1. In the **Name** box, type a name for the group (for example, External Report Viewers).
   2. In the **Give Group Permissions to this Site** area, select the **Read** check box.
   3. Leave the other options at their default values and click **OK**.
5. On the People and Groups page, click **New**.
6. On the **Grant Permissions** dialog box, type the name of the Active Directory group that you created for external report viewers, and then click **OK**.

Add an application server to a farm (Project Server 2010)

**Updated: 2010-03-11**

[This article is pre-release documentation and is subject to change in future releases.]

To add a Microsoft Project Server 2010 application server to an existing farm, you must do the following:

* Install Microsoft SharePoint Server 2010 prerequisites
* Install SharePoint Server 2010
* Install Project Server 2010
* Install required updates
* Add the server to the farm by running the SharePoint Products and Technologies Configuration Wizard

To view a video demonstration of adding an application server to an existing farm, click one of the following links:

* [Add an Application Server to a Project Server Farm](http://go.microsoft.com/fwlink/?LinkId=169134) (Streaming)
* [Add an Application Server to a Project Server Farm](http://go.microsoft.com/fwlink/?LinkId=169135) (Download)

### To install SharePoint Server 2010 prerequisites

1. On the SharePoint Server DVD, run default.hta.
2. Click **Install software prerequisites**.

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| **Ee662113.note(en-us,office.14).gifNote:** |
| You must be connected to the Internet to perform this step. If you are not connected to the Internet, you must install the prerequisites manually. |

1. On the Welcome page, click **Next**.
2. Read the license agreement, and if you accept, then select the **I accept the terms of the License Agreement(s)** check box.
3. Click **Next**.

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| **Ee662113.note(en-us,office.14).gifNote:** |
| Depending on your configuration, you may be required to restart the server during this process. |

### To install SharePoint Server 2010

1. On the SharePoint Server DVD, run default.hta.
2. Click **Install SharePoint Server**.
3. On the Enter your Product Key page, type your product key, and then click **Continue**.
4. Read the license agreement, and if you accept, then select the **I accept the terms of this agreement** check box, and then click **Continue**.
5. On the Choose the installation you want page, click **Server Farm**.
6. On the Server type page, click **Complete**.
7. If desired, select the **File Location** tab and change the installation location.
8. Click **Install Now**.
9. When installation has finished, clear the **Run the SharePoint Products and Technologies Configuration Wizard now** check box, and then click **Close**.

### To install Project Server 2010

1. On the Project Server DVD, run default.hta.
2. Click **Install Project Server**.
3. On the Enter your Product Key page, type your product key, and then click **Continue**.
4. Read the license agreement, and if you accept, then select the **I accept the terms of this agreement** check box.
5. Click **Continue**.
6. On the Choose a file location page, click **Install Now**.
7. When installation has finished, clear the **Run the SharePoint Products and Technologies Configuration Wizard now** check box, and then click **Close**.

Once SharePoint Server 2010 and Project Server 2010 are installed on the computer, you must install any required updates so that the updates on the new application server match those currently on the farm. Note that this includes Project Server 2010 and SharePoint Server 2010 updates, but does not include updates for other products, such as Windows Server or Microsoft SQL Server.

### To add the server to the farm

1. Click **Start**, **All Programs**, **Microsoft SharePoint 2010 Products**, **SharePoint 2010 Products Configuration Wizard**.
2. On the Welcome page, click **Next**.
3. On the warning dialog box, click **Yes**.
4. On the Connect to a server farm page, select the **Connect to an existing server farm** option.
5. Click **Next**.
6. On the Specify Configuration Database Settings page, type the name of the instance of SQL Server where the SharePoint Server 2010 configuration database is located, and then click **Retrieve Database Names**.
7. Select the configuration database for the farm you want to join from the **Database name** drop-down box, and then click **Next**.
8. On the Specify Farm Security Settings page, type the farm pass phrase, and then click **Next**.
9. On the Completing the SharePoint Products Configuration Wizard page, click **Next**.
10. When the wizard has finished, click **Finish**.

# Configure document library files

In order to be able to save documents to Project Server 2010 sites in SharePoint Server 2010, you must manually copy several files to the appropriate directory. Perform the following procedure on the new application server.

### To copy document library files

1. Open Windows Explorer.
2. Navigate to the following folder:

Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\Template\Features\DocumentLibrary\DocLib

1. Copy FileDlg.htm and EditDlg.htm.
2. Navigate to the following folder:

Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\Template\Features\pwsdoclibs\pwsdoclib

1. Paste FileDlg.htm and EditDlg.htm.

Configure Project Server 2010 to work with Exchange Server 2010

**Updated: 2010-05-05**

[This article is pre-release documentation and is subject to change in future releases.]

This article describes how to configure integration with Microsoft Exchange Server 2010, which enables Microsoft Project Server 2010 users to view Project Server tasks in Microsoft Outlook. This functionality replaces the Outlook Add-in task status reporting functionality for non-time-phased tasks that is available in previous versions of Project Server and enables task assignment updates using % complete or total work remaining. These task assignment updates are then auto-submitted to the Task Status Manager when the tasks are updated in the Exchange client.

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| **Ff468700.Important(en-us,office.14).gifImportant:** |
| Project Server uses Secure Sockets Layer (SSL) to access Exchange Server and must trust the SSL certificate that was used by the Exchange farm. If you have a certificate issued by a trusted authority such as VeriSign, Project Server will trust the certificate. If your SSL certificate has not been issued by a trusted authority, you should export the certificate from the Exchange farm and import it as a trusted certificate on the computer that is running Project Server. |

In order to perform these procedures, you must be a member of the Project Server and Exchange Server administrator groups on the local computer.

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| **Ff468700.note(en-us,office.14).gifNote:** |
| The procedures and Windows PowerShell commands in this article assume that you are using Exchange Server 2010. |

# Configure Project Web App settings

To configure Exchange integration, the Project Server administrator must grant access to the instance of Exchange Server and the Exchange administrator must grant Exchange access to the Project Server farm administrator account.

### To start Exchange Server synchronization

1. In Microsoft Project Web App (PWA), click **Server Settings**.
2. In the **Operational Policies** section, click **Additional Server Settings**.
3. On the **Additional Server Settings** page, in the **Exchange Server Details** section, select the **Synchronize tasks** check box and then click **Save**.

Each Exchange Client Access server in an Exchange farm needs a user account in PWA. This account allows for Exchange to call the Project Server Exchange Web service when there are task updates that have to be synchronized. Perform the following procedure for each Exchange Client Access server.

### To create a user account for an Exchange Client Access server

1. In Project Web App, click **Server Settings**.
2. In the **Security** section, click **Manage Users**.
3. On the **Manage Users** page, click **New User**.
4. On the **New User** page, clear the check box stating **User can be assigned as a resource** and type the name of the Exchange Client Access server in the **Display Name** box.
5. In the **User Authentication** section, select the **Windows Authentication, using the Windows account** option, and type the name of the Exchange Client Access server computer account in the **User logon account** box.
6. In the **Security Groups** section, in the **Available Groups** list, select **Administrators**, and then click **Add**.
7. Click **Save**.

Synchronization must be set up for each Project Server user for whom you want to synchronize tasks. Perform the following procedure for each user.

### To configure a user account for an Exchange Server synchronization

1. In Project Web App, click **Server Settings**.
2. In the **Security** section, click **Manage Users**.
3. In the Users list, click the name of the user whom you want to configure.
4. On the **Edit User** page, select the **Synchronize Tasks** check box, and type the user's user principal name in the **User Principal Name** box.
5. Click **Save**.

When configuring Exchange, you have to know the application pool identity that is associated with your PWA site. Use the following procedure to determine the identity.

### To determine the application pool identity for the Project Web App site

1. On the SharePoint Central Administration Web site, in the **Application Management** section, click **Manage Service Applications**.
2. On the **Application Management** page, click **Manage Service Applications**.
3. On the **Application Management** page, highlight **Project Service Application**, and on the ribbon click **Properties**.
4. In the properties window on the **Manage Project Web App Service Application** page, note the account configured to run the application pool. This account is required to configure Exchange Server settings in the next procedure.

Synchronization must be set up for each Project Server user for whom you want to synchronize tasks.

# Configure Exchange Server settings

The next step is to configure Exchange Server. Use the following procedure to grant impersonation permission to the PWA application pool account. Perform this procedure on each Exchange Client Access server in an Exchange farm.

### To grant farm administrator impersonation permissions

1. Log on as an administrator to the computer that is running Exchange Server.
2. Click **Start**, then click **All Programs**, then click **Microsoft Exchange Server 2010**, and then click **Exchange Management Shell**.
3. At the prompt, type the following command:

**Add-ADPermission -Identity (get-exchangeserver).DistinguishedName -User (Get-User -Identity** <AppPoolAccount>**| select-object).identity -extendedRights ms-Exch-EPI-Impersonation**

<AppPoolAccount> is the application pool account for the Project Server service application noted in the previous procedure.

Perform the following procedure for each Project Server user for whom you want to synchronize tasks with Exchange.

### To configure an Exchange user

1. Log on to the computer that is running Exchange Server as an administrator.
2. Click **Start, All Programs, Microsoft Exchange Server 2007, Exchange Management Shell**.
3. At the prompt, type the following command:

**Add-ADPermission -Identity** "<ProjUser>" **-User** <FarmAdministrator> **-extendedRights ms-Exch-EPI-May-Impersonate**

<ProjUser> is the name of the Project Server user whom you are configuring, and <FarmAdministrator> is the SharePoint Server farm administrator account.

Upgrade to Project Server 2010 from Project Server 2003

**Updated: 2009-11-12**

[This article is pre-release documentation and is subject to change in future releases.]

This chapter provides information and procedures about how to migrate from Microsoft Office Project Server 2003 to Microsoft Project Server 2010 .

* [Migration overview and considerations (Project Server 2010)](http://technet.microsoft.com/en-in/library/ee683979%28en-us,office.14%29.aspx)
* [Preparing your environments for migrating from Project Server 2003](http://technet.microsoft.com/en-in/library/ee683976%28en-us,office.14%29.aspx)
* [Pre-migration tasks for migrating your Project Server 2003 data](http://technet.microsoft.com/en-in/library/ee683972%28en-us,office.14%29.aspx)
* [Migration tasks for migrating to Project Server 2007](http://technet.microsoft.com/en-in/library/ee683997%28en-us,office.14%29.aspx)
* [Post-migration tasks after migrating your Project Server 2003 data](http://technet.microsoft.com/en-in/library/ee683982%28en-us,office.14%29.aspx)
* [Complete your upgrade from Project Server 2003 to Project Server 2010](http://technet.microsoft.com/en-in/library/ee683989%28en-us,office.14%29.aspx)
* [Migrate your Project Server 2003 data by using the Virtual Migration Environment (VME)](http://technet.microsoft.com/en-in/library/ee720443%28en-us,office.14%29.aspx)

Additionally, Microsoft provides a Microsoft Office Project Server 2007 virtual migration environment as an option for migrating your Project Server 2003 data to Project Server 2010. This option is an alternative to installing your Office Project Server 2007 environment manually, or it can be used if you do not have Office Project Server 2007 readily available.

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| **Ee662498.note(en-us,office.14).gifNote:** |
| You must migrate your Project Server 2003 data first to Office Project Server 2007, before migrating it to Project Server 2010. There is no way to migrate directly to Project Server 2010 from Project Server 2003. |

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Plan groups, categories, and RBS in Project Server 2010

**Updated: 2009-11-12**

[This article is pre-release documentation and is subject to change in future releases.]

Microsoft Project Server 2010 security is based on users, groups, and categories. This article addresses planning for groups and categories in your Project Server deployment.

In this article:

* [Permissions](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx#section2)
* [Groups](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx#section1)
* [Categories](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx#section3)
* [Security templates](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx#section4)
* [Resource Breakdown Structure](http://technet.microsoft.com/en-in/library/cc197354%28en-us,office.14%29.aspx#section5)

Included within this article is a series of video demonstrations illustrating and further describing the concepts associated with permissions, groups, categories, and RBS. Links to the videos are included in each section below. We recommend that you view the videos in the order of presentation in this article, as each video builds on the concepts discussed in previous videos.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| These videos were created using Microsoft Office Project Server 2007. Though there have been some changes in Project Server 2010, the basic functionality around how Project Server security works remains the same. |

# Permissions

This section describes permissions in Project Server. To view a video demonstration of how permissions work, select one of the following links:

* [Project Server Security Part 1 - Permissions](http://go.microsoft.com/fwlink/?LinkId=168549) (Streaming)
* [Project Server Security Part 1 - Permissions](http://go.microsoft.com/fwlink/?LinkId=168598) (Download)

A permission is the authority to perform a specific action within the context of Project Server. You can Allow, Deny, or not configure each permission in Project Server. For example, the **Change Password** permission can be allowed or denied for any given user or group. There are two types of permissions in Project Server:

* Global Permissions grant users and groups the ability to perform actions throughout an instance of Microsoft Project Web App (PWA). Global Permissions are assigned on a user or group level.
* Category Permissions grant users and groups the ability to perform actions on specific projects and resources. Category Permissions are assigned on a category level.

Permissions can be set in a number of different places within the Project Server 2010 administration menu. You can allow or deny permissions by selecting the check boxes in the **Allow** and **Deny** columns. If neither the **Allow** nor the **Deny** check boxes are selected, the default state is Not Allow. The Not Allow state does not prevent users from accessing the feature associated with the permission if they are granted permission in some other way. For example, a user might belong to one group for which permission is not configured (Not Allowed), but might be granted permission by means of membership in a group for which the permission is allowed. However, if the permission is explicitly denied anywhere, permission is denied everywhere for a particular user or group.

You can configure all Project Server 2010 permissions from the Project Web App Server Settings page. Permissions can be configured in the following ways:

* **Allow**   Enables users or group members to perform the actions associated with the permission.
* **Deny**   Prevents a user or group from performing the actions associated with the permission. Use caution when denying permissions. Note that if a user is denied a specific permission, the deny setting supersedes any Allow settings that might apply to other groups to which the user belongs. No permissions are set to Deny by default.
* **Not Allow**   If you select neither **Allow** nor **Deny** for a permission, the default state is Not Allow. If a user belongs to more than one group, and a permission is set to Not Allow for one group and is set to **Allow** (but not **Deny**) for another group, then the user is allowed to perform the actions associated with the permission.

It is important to consider when you are configuring a permission to **Deny** that the **Deny** setting supersedes any **Allow** settings that apply to the user for that permission by means of other group memberships. Limiting your use of the **Deny** setting can simplify permissions management for large groups of users.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| The **Deny** setting enables you to deny access to functionality, because this setting overrides the **Allow** setting. Therefore, use caution when selecting the **Deny** check box. Select the **Deny** check box to prevent a user from outside the organization from accessing Project Server security objects or to deny functionality to a user or group). |

For organizations that include a large number of users, assigning and administering permissions on an individual basis can be an overwhelming task. You can use groups to assign permissions to multiple users with a single action. Create the groups and define the set of permissions to associate with the groups as part of your initial Project Server 2010 deployment planning process, before you assign users to groups and groups to categories. After you define groups, the permissions associated with the groups, and group memberships, the day-to-day administration of users, groups, and categories involves adding users to or removing users from security groups. This helps to reduce the volume of day-to-day administrative tasks required, and can simplify troubleshooting permissions issues.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| For a complete list of Project Web App global permissions, see Microsoft Project Server 2010 global permissions, and for category permissions, see Microsoft Project Server 2010 category permissions. |

# Groups

This section describes groups in Project Server. To view a video demonstration of how groups work, click one of the following links:

* [Project Server Security Part 2 - Groups](http://go.microsoft.com/fwlink/?LinkId=168587) (Streaming)
* [Project Server Security Part 2 - Groups](http://go.microsoft.com/fwlink/?LinkId=168599) (Download)

Groups contain sets of users who have similar functionality needs. For example, every project manager in a particular division within your organization may need the same set of Project Server permissions, while executives or resource managers might have different needs.

Define your groups by identifying common needs based on the areas of Project Server 2010 to which users in your organization need access. After you define your groups, you can add users to the groups and grant permissions to the groups; permissions assigned to groups apply to all of the users that the group contains. Using groups to control Project Server 2010 permissions simplifies security administration in Project Server. Group memberships can change frequently, but the access requirements for groups change infrequently.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| Group membership consists of users only. Groups cannot contain other groups. |

Users can belong to multiple groups according to their role in the organization and their access requirements. The following groups are created by default when Project Server 2010 is installed, each of which is assigned a set of predefined categories and permissions:

|  |  |
| --- | --- |
| **Group** | **Description** |
| Administrators | Users have all global permissions as well as all category permissions via the My Organization category. This allows them complete access to everything on Project Server. |
| Executives | Users have permissions to view project and Project Server data. This group is intended for high-level users who need visibility into projects but are not themselves assigned project tasks. |
| Portfolio Managers | Users have assorted project-creation and team-building permissions. This group is intended for high-level managers of groups of projects. |
| Project Managers | Users have most global and category-level project permissions and limited resource permissions. This group is intended for users who maintain project schedules on a daily basis. |
| Proposal Reviewers | Users have most global and category-level project permissions and most view permissions. This group is intended for users who review and adjust proposed projects. |
| Resource Managers | Users have most global and category-level resource permissions. This group is intended for users who manage and assign resources and edit resource data. |
| Team Leads | Users have limited permissions around task creation and status reports. This group is intended for people in a lead capacity who do not have regular assignments on a project. |
| Team Members | Users have general permissions for using PWA, but limited project-level permissions. This group is intended to give everyone basic access to PWA. All new users are added to the Team Members group automatically. |

Administrators usually assign permissions by adding a user account to one of the built-in groups or by creating a new group and assigning specific permissions to that group.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| For a complete list of Project Web App global permissions, see Microsoft Project Server 2010 global permissions, and for category permissions, see Microsoft Project Server 2010 category permissions. |

# Categories

This section describes categories in Project Server. To view a video demonstration of how categories work, click one of the following links:

* [Project Server Security Part 3 - Categories](http://go.microsoft.com/fwlink/?LinkId=168588) (Streaming)
* [Project Server Security Part 3 - Categories](http://go.microsoft.com/fwlink/?LinkId=168600) (Download)

Categories are collections of projects, resources, and views. Categories define the scope of the information accessible to a given user. A category is similar to a group in that it provides permissions to users. Unlike Global Permissions, Category Permissions are related to specific projects and resources. Additionally, categories include project and resource filters that can be used to determine which projects and resources the specified permissions apply to.

Groups and Categories are associated with each other to provide a complete set of permissions for each user. Each Group can be associated with one or more Categories and each Category can provide a different set of project- and resource-level permissions for the members of that group.

Each Project Web App instance includes the following default categories:

|  |  |
| --- | --- |
| **Category** | **Description** |
| My Direct Reports | Allows users permission to approve timesheets for their direct descendants in RBS. This category is intended for managers who need the ability to approve timesheets. |
| My Organization | Contains all projects and resources and allows various levels of category permissions depending on associated group management. It also provides full access to all views. This category is intended to allow users to have visibility into everything on the Project Web App instance. |
| My Projects | Filtered to allow category permissions to users who own projects or are status managers on a project, are assigned as a resource to a project, or whose descendants in RBS are assigned to a project. This category is intended to allow users to have visibility into all project with which they or their descendants in RBS are associated. |
| My Resources | Allows most resource-level category permissions, filtered on resources who are descendants of the user in RBS. This category is intended to allow users to manage their resources as delineated in the RBS structure. |
| My Tasks | Allows users to see projects to which they are assigned. This category is associated with the Team Members group and is intended for everyone to have visibility into the projects to which they are assigned. |

You can create custom categories to provide new ways to access data for projects, resources, and views. A large number of categories can be complex to administer. We recommend that you use categories sparingly.

# Security templates

Security templates are predefined sets of permissions. Use security templates to simplify the process of granting permissions to groups of users who need access to the same data. Each Project Web App instance includes the following default security templates:

* Administrator
* Executive
* Portfolio manager
* Project manager
* Proposal reviewer
* Resource manager
* Team lead
* Team member

Security templates provide a means for you to quickly apply or reset predefined permission profiles to new or existing users, groups, and categories. By applying security templates, you can easily standardize the permissions that you assign according to users' role in the organization. Several predefined security templates are created by default when Project Server is installed. These align with the predefined groups. You can customize these security templates and create new security templates according to your needs.

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| **Cc197354.note(en-us,office.14).gifNote:** |
| When you change the settings for a security template, the changes are not automatically applied to the users and groups that the template was applied to. |

Creating custom security templates requires planning. You must first identify the common Project Server 2010 usage patterns in your organization that are not reflected in the default Project Server 2010 security templates. This helps you to identify your requirements for custom security templates. Then, determine the permissions that the users who share the common Project Server 2010 usage patterns require. This defines the security template. Next, determine the set of projects, resources, views, and so on, that the users and groups require access to; this defines the security category. Create the custom security template and apply it to the group of users that share common usage patterns.

# Resource Breakdown Structure

This section describes the resource breakdown structure (RBS) in Project Server. To view a video demonstration of how RBS works, click one of the following links:

* [Project Server Security Part 4 - RBS](http://go.microsoft.com/fwlink/?LinkId=168589) (Streaming)
* [Project Server Security Part 4 - RBS](http://go.microsoft.com/fwlink/?LinkId=168601) (Download)

The Resource Breakdown Structure (RBS) is a hierarchical security structure typically based on the management reporting structure of your organization, although it can also be structured in other ways. The RBS can be an important element in your Project Server security model when it is used to define the reporting relationships among users and projects in your organization. When you specify an RBS value for each Project Server user, you can take advantage of the dynamic security options that can be defined for each security category.

The RBS structure is defined by adding values to the RBS custom lookup table that is built in to Project Server 2010. Once you define the structure, you can assign RBS values to individual users by setting the RBS property in the user's account settings page.

Once the RBS is configured, Categories can use RBS codes to dynamically determine which projects and resources particular users can view or access. The following tables list the security options that use RBS that are available in each Category.

### Project options

|  |  |
| --- | --- |
| **Option** | **Description** |
| The user is the Project Owner or the User is the Status Manager on assignments within that project | Users with permissions in the category where this option is selected can see projects on which they are a Project Owner or a Status Manager |
| The user is on that project's Project Team | Users with permissions in the category where this option is selected can see projects on which they are a resource |
| The Project Owner is a descendant of the User via RBS | Users with permissions in the category where this option is selected can see projects owned by their descendants in the RBS |
| A resource on the project's Project Team is a descendant of the User via RBS | Users with permissions in the category where this option is selected can see projects on which their descendants in the RBS are a resource |
| The Project Owner has the same RBS value as the User | Users with permissions in the category where this option is selected can see projects owned by other users with the same RBS value |

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| **Cc197354.note(en-us,office.14).gifNote:** |
| The first two options (**The user is the Project Owner or the User is the Status Manager on assignments within that project** and **The User is on that project's Project Team**) are not related to the RBS, but they do offer a similar method of filtering which projects are visible to a user. |

### Resource options

|  |  |
| --- | --- |
| **Option** | **Description** |
| The User is the resource | Users with permissions in the category where this option is selected can see themselves as a resource |
| They are members of a Project Team on a project owned by the User | Users with permissions in the category where this option is selected can see resources assigned to projects that they own |
| They are descendants of the User via RBS | Users with permissions in the category where this option is selected can see their descendants in the RBS |
| They are direct descendants of the User via RBS | Users with permissions in the category where this option is selected can see their direct descendants in the RBS |
| They have the same RBS value as the user | Users with permissions in the category where this option is selected can see other users with the same RBS value |

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| **Cc197354.note(en-us,office.14).gifNote:** |
| The first two options (**The User is the resource** and **They are members of a Project Team on a project owned by the User**) are not related to the RBS, but they do offer a similar method of filtering which resources are visible to a user. |

Plan for authentication in Project Server 2010

[This article is pre-release documentation and is subject to change in future releases.]

In this article:

* [Claims authentication and token issuance](http://technet.microsoft.com/en-in/library/ee922606%28en-us,office.14%29.aspx#section1)
* [Forms-based authentication](http://technet.microsoft.com/en-in/library/ee922606%28en-us,office.14%29.aspx#section2)

This article describes planning for security in a Microsoft Project Server 2010 Enterprise Project Management (EPM) Solution. This material is useful for Project Management Organizations (PMOs) and system administrators who are responsible for planning the deployment of a Project Server 2010 EPM Solution.

The Project Server 2010 security model is largely inherited from the Microsoft SharePoint Server security model, by which users and groups (security principals) are granted permission to access security objects. The Project Server 2010 security model allows you to control and manage access to projects, resources, and reports stored in the Project Server 2010 content database; Project Web App pages; and features that are available in Project Server 2010 and Project Web App. In addition, the security architecture enables you to manage many users and projects easily by assigning permissions to groups of users and unique categories. This reduces the number of times that you need to update permissions in Project Web App.

Users can connect to Project Server in several ways:

* Project Web App client
* Microsoft Project Professional 2010 client
* Third-party applications
* Microsoft Outlook 2010 though Exchange Server integration

When accessing Project Server 2010 by any one of these methods, a user can be authenticated to Project Server 2010 though either Windows authentication, Claims authentication, or forms-based authentication.

**Claims authentication and token issuance**

Claims authentication is an authentication mechanism provided in Project Server 2010 by SharePoint Server 2010 that uses a security token that contains a set of identity assertions about an authenticated user. These assertions are attributes that are associated with a user's identity and can include a user name, a role, an employee ID, and various other custom attributes that can be used to determine authorization and permission levels for access to Project Server 2010 resources and data. Assertions are made up of a list of types and values. A type can be an employee name, for example, and a value can be a text string. Security tokens are issued and managed by a Security Token Service (STS). An STS encapsulates a collection of assertions, based on attributes specified by a policy, into a security token that can be used to authenticate and authorize a user.

The Security Token Service (STS) is a Web service that responds to authentication requests by issuing security tokens made up of identity claims that are based on user account information in attribute stores. An attribute store can be contained within Active Directory Domain Services, a SQL Server database, or an LDAP store. The content of each security token is determined by the attribute type requirements of the authentication requests that are agreed upon for an STS and the Project Server farm. An agreed-upon collection of claims and claim rules is known as a *policy*. Policies are available in a policy store and are accessed by an STS, based on the requirements of the calling Web application.

**Forms-based authentication**

*Forms-based authentication* is a term that is used to encapsulate any authentication model whereby a user enters a user name and password on a form that is then posted to an authentication server to process and verify the information. Project Server 2010 uses SharePoint Server 2010 for the extensions necessary to take advantage of ASP.NET in forms-based authentication. One important difference in Project Server 2010 from Microsoft Office Project Server 2007 is that forms-based authentication in Project Server 2010 uses the claims authentication infrastructure and requires that a claims mode Web application be set up in the SharePoint Central Administration Web site. There are two authentication store options available when using forms-based authentication with Project Server 2010:

* SQL Server-based forms authentication requires creating an authentication store in SQL Server.
* AD-LDAP-based forms authentication uses the Active Directory directory service as an authentication store and requires no additional configuration.

Configuring forms-based authentication in Project Server 2010

[This article is pre-release documentation and is subject to change in future releases.]

In this chapter:

* [Configure AD-LDAP-based forms authentication in Project Server 2010](http://technet.microsoft.com/en-in/library/ee922607%28en-us,office.14%29.aspx)     
    
  This article describes how to configure Microsoft Project Server 2010 forms-based authentication using Active Directory - Lightweight Directory Access Protocol (AD-LDAP). This procedure uses Claims authentication and an Active Directory server on the domain in which your Microsoft Project Server 2010 deployment is installed.
* [Configure SQL Server-based forms authentication in Project Server 2010](http://technet.microsoft.com/en-in/library/ee922605%28en-us,office.14%29.aspx)     
    
  This article describes how to configure Microsoft Project Server 2010 forms-based authentication using SQL-based forms authentication. This procedure uses Claims authentication and SQL Server on the domain in which your Microsoft Project Server 2010 deployment is installed.

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Configure AD-LDAP-based forms authentication in Project Server 2010

[This article is pre-release documentation and is subject to change in future releases.]

This article describes how to configure Microsoft Project Server 2010 forms-based authentication using Active Directory - Lightweight Directory Access Protocol (AD-LDAP). This procedure uses Claims authentication and an Active Directory server on the domain in which your Microsoft Project Server 2010 deployment is installed.

In order to perform these procedures, you must be member of the Project Server and SharePoint Server administrator groups on the local computer.

# Configure AD-LDAP-based forms authentication in Project Server 2010

### To configure SharePoint Server for forms-based authentication

1. Create a new Web application in Claims mode.

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| **Ee922607.note(en-us,office.14).gifNote:** |
| A Web application that already exists in Windows Classic mode cannot be used. |

1. Go to the SharePoint Central Administration Web site.
2. Click **Application Management**.
3. On the ribbon, click **New**. A pop-up window appears.
4. In the pop-up window, select the **Claims Based Authentication** option.
5. In the pop-up window, in the **IIS Web Site** section, select a unique name and port number.
6. In the pop-up window, in the **Security Configuration** section, set **Allow Anonymous** = **No** and set **User SSL** to **Yes** or **No**, depending on whether the site you are extending will be SSL-enabled.
7. In the pop-up window, in the **Identity Providers** section, select the **Enable Windows Authentication** option and specify **NTLM** if Integrated Windows authentication will be used. Also select **Enable ASP.NET Membership and Role Provider** and specify a provider name and role manager.
8. In the pop-up window, keep the default setting for **Public URL**.

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| --- |
| **Ee922607.note(en-us,office.14).gifNote:** |
| This setting can be changed later if necessary. |

1. In the pop-up window, in the **Application Pool** section, choose to create a new pool with a pool name and the account that will be used.
2. In the pop-up window, in the **Database Name** section, set the value for the SQL Server and database names for the content database.
3. Click **OK** to close the window. A new IIS Web site will be created.
4. Once you have received confirmation that the IIS Web application is created, you must create a new site collection at the root: Click **Application Management** in Central Administration, click **Create Site Collections**, and in the Web Application drop-down list, select the newly created claims-mode Web application.
5. In the **URL** section, enter the root **"/"**.
6. Select the **Blank Site** template and specify a Windows user account in the **Site Admin** box.
7. Click **OK**.

### To configure the provider for forms-based authentication

* Edit the connection strings to the AD-LDAP membership store. This data is provided in the .config files that are used by the application at every request.

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| --- |
| **Ee922607.note(en-us,office.14).gifNote:** |
| The three Web configuration files to modify to connect to the AD-LDAP membership store are the .congif files for: Central Admin, Security Token Service, and the content Web application. |

Configure SQL Server-based forms authentication in Project Server 2010

[This article is pre-release documentation and is subject to change in future releases.]

This article describes how to configure Microsoft Project Server 2010 forms-based authentication using SQL-based forms authentication. This procedure uses Claims authentication and SQL Server on the domain in which your Microsoft Project Server 2010 deployment is installed.

In order to perform these procedures, you must be member of the Project Server, Microsoft SQL Server, and Microsoft SharePoint Server administrator groups on the local computer.

# Configure SQL Server-based forms authentication in Project Server 2010

### To create the SQL authentication store

1. Log on to any Windows Server on the farm running ASP.NET as a user with the **DBCreate** and **SecurityAdmin** permissions for the computer running SQL Server that will be used.
2. At a command prompt, run **%WINDIR%\Microsoft.NET\Framework\v2.0.50727\aspnet\_regsql.exe -S** <InsertSQLServerName> **-d** <InsertDBName> **-E -A mr** to create the authentication store database on the computer running SQL Server.
3. Add all farm accounts to the DBO role for this newly created database.

### To configure SharePoint Server for SQL authentication

1. Create a new Web application in Claims mode.

|  |
| --- |
| **Ee922605.note(en-us,office.14).gifNote:** |
| A Web application that is already in Windows Classic mode cannot be used. |

1. Go to the SharePoint Central Administration Web site.
2. Click **Application Management**.
3. On the ribbon, click **New**. A pop-up window appears.
4. In the pop-up window, select the **Claims Based Authentication** option.
5. In the pop-up window, in the **IIS Web Site** section, select a unique name and port number.
6. In the pop-up window, in the **Security Configuration** section, set **Allow Anonymous** = **No** and set **User SSL** to **Yes** or **No**, depending on whether the site you are extending will be SSL-enabled.
7. In the pop-up window, in the **Identity Providers** section, check **Enable Windows Authentication** and select **NTLM** if Integrated Windows authentication will be used. Also select **Enable ASP.NET Membership and Role Provider** and specify a provider name and role manager.
8. In the pop-up window, keep the default setting for **Public URL**.

|  |
| --- |
| **Ee922605.note(en-us,office.14).gifNote:** |
| This setting can be changed later if necessary. |

1. In the pop-up window, in the **Application Pool** section, choose to create a new pool with a pool name and the account that will be used.
2. In the pop-up window, after **Database Name** set the value for the SQL server and database names for the content database.
3. Click **OK** to close the window. A new IIS Web site will be created.
4. Once you have received confirmation that the IIS Web application is created, you must create a new site collection at the root: Click **Application Management** in Central Administration, click **Create Site Collections**, and in the Web Application drop-down list, select the newly created claims-mode Web application.
5. In the **URL** section, enter the root **"/"**.
6. Select the **Blank Site** template and specify a Windows user account in the **Site Admin** box.
7. Click **OK**.

### To configure the SQL authentication provider

1. Edit the connection strings to the SQL Server database membership store. This data is provided in the .config files that are used by the application at every request.

|  |
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| **Ee922605.note(en-us,office.14).gifNote:** |
| The three Web configuration files to modify to connect to the AD-LDAP membership store are the .config files for the following: Central Admin, Security Token Service, and the content Web Application. |

Project Server and SharePoint Server security

**Updated: 2010-01-25**

[This article is pre-release documentation and is subject to change in future releases.]

Microsoft Project Server 2010 is completely dependent on Microsoft SharePoint Server 2010 to support its user interface and farm topology. Security at the authentication level is tightly integrated between Project Server 2010 and SharePoint Server 2010, whereas user and group authorization is handled separately by Project Server 2010. When a project is published, if the server was configured to enable it, a project workspace site is created. You can configure Project Server 2010 to automatically synchronize Microsoft Project Web App (PWA) users with Project sites when they are created, when projects are published, and when user permissions change in PWA.

When you do this, users who have been added to the project or who have been granted **Manage SharePoint Foundation** permission in Project Server 2010 are added to at least one of four SharePoint Server 2010 groups:

* **Web Administrator (Microsoft Project Server)**   Users who have **Manage SharePoint Foundation** permission in Project Web App and are contributors to the project workspace site, meaning that they can create and edit documents, issues, and risks.
* **Project Managers (Microsoft Project Server)**   Users who have published this project or who have **Save Project** permission in Project Web App and are contributors to the project workspace site, meaning that they can create and edit documents, issues, and risks.
* **Team members (Microsoft Project Server)**   Users who have assignments in this project in Project Server 2010 and are contributors to the project workspace site, meaning that they can create and edit documents, issues, and risks.
* **Readers (Microsoft Project Server)**   Users who have been added to this project in Project Server 2010, but not assigned to tasks.

Project Server 2010 groups and SharePoint Server 2010 are synchronized when a project is published (assuming that the auto synchronize option is enabled) or the administrator selects a project workspace site on the Project Workspaces page and then clicks **Synchronize**.

Additional Project Server permissions that govern SharePoint Server 2010 access are as follows:

* **Log on**   Denies or allows user access to the Project Web App site and to project workspace sites.
* **View Project Workspaces**   Category permission that denies or allows user access to projects in the category.
* **Create object links**   Category permission that denies or allows user ability to create links between SharePoint Server 2010 objects and tasks.

There might be a circumstance where you want to grant people who are not members of the project access to the project workspace site. Anyone assigned to the Web Administrator group can create new users for a project workspace site. In addition to the four groups that were mentioned earlier, there are four default SharePoint Server 2010 groups. They are as follows:

* **Full Control**   Has all personal, site, and list permissions.
* **Design**   Can edit lists, document libraries, and pages in the Web site.
* **Contribute**   Can view pages and edit list items and documents.
* **Read**   Can view pages, list items, and documents.

Project workspace security groups are equal to the SharePoint Server 2010 security groups.

* **Web Administrator** equals **Full Control**
* **Project Managers** equals **Design**
* **Team members** equals **Contribute**
* **Readers** equals **Read**

Few important links

* 1. Business Intelligence in Project Server 2010

<http://technet.microsoft.com/en-us/projectserver/ff513702.aspx>