

Oracle Primavera® P6™

Administrator's Guide

Version 7.0

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Preface

In this preface:

Using the Administrator's Guide

Media Packs

P6 Documentation

Where to Get Support

Oracle Primavera provides comprehensive, multiproject planning and control software, built on Oracle and Microsoft® SQL Server databases for organization-wide project management scalability. Smaller multiuser or stand-alone installations can use Oracle Database Express Edition (Oracle Database XE). The P6 solution includes the Project Management module, which can stand alone for project and resource management or be used with companion products. P6 Progress Reporter enables Web-based team communication and time keeping; the Methodology Management module stores methodologies as templates for new projects; P6 Web Access provides project analysis across the organization and allows users to access project management data via the Internet.

Using the Administrator's Guide

Security Best Practices Icon



The security best practices icon, shown to the left, helps you quickly identify information considered to be best practices for maintaining security in your Oracle Primavera P6 environment.

Layout of the Administrator's Guide

This book is a step-by-step guide to installing and configuring P6 software components. Read [Part 1](#) to become familiar with the overall process of installing P6 software components, then read the chapters in the rest of the book that discuss the components you plan to install and configure. This manual is organized as follows:

Part 1: Before You Begin Provides an overview of P6 software components, discusses how to plan an implementation for your organization, and offers an overview of the process of installing and configuring P6 software components.

Part 2: Database Installation and Configuration Provides steps for using a wizard to automate the process of creating project management and methodology management databases on either Oracle/Oracle Database Express Edition or Microsoft SQL Server and loading application data into the databases. This part also details how to manually create a database.

Part 3: Server Installation and Configuration Provides steps for manually installing and configuring the server-based components of the P6 solution, including the following:

- P6 Progress Reporter (formerly known as “Group Server”)
- P6 Web Access (formerly known as “Primavera’s Web application” or “myPrimavera”)
- Distributed Job Service

Part 4: P6 Client Installation and Configuration Describes how to install and configure P6 client modules. [Part 4](#) explains how to:

- Install the Project Management and Methodology Management modules
- Install additional components such as the (Distributed) Job Service, SDK (Software Development Kit), and ProjectLink
- Use a wizard to automatically upgrade from previous versions of P6
- Create and run an unattended setup
- Configure module connectivity to the project management database and reset private database and user passwords using the Configure Connection and Administration Configuration tools
- Set up authentication

Part 5: P6 Application Administration Describes how to customize P6 modules, once installed. Specifically, [Part 5](#) covers how to:

- Set up users and configure security
- Modify preferences and categories for the Project Management and Methodology Management modules
- Configure the Project Management module to allow P6 Progress Reporter users to record their time in the project management database
- Configure access to the Timesheet Approval application
- Create financial periods in the financial periods dictionary

Media Packs

Media packs include all files necessary to install Primavera P6 client applications, all manuals and technical documents related to the installation, administration, and use of Primavera P6 components, and the Quick Install Guide.



The Primavera P6 Media Packs are delivered via physical media or from the Oracle E-Delivery Web site. The E-Delivery site provides instructions for how to do a secure download.

The media packs are structured as follows:

Primavera P6 Professional Project Management (v7.0) Media Pack

- Primavera P6 Professional Project Management Quick Install Guide – Includes the Quick Install Guide.
- Primavera P6 Client Applications v7.0 – Includes all files necessary to install the Project Management module, Methodology Management Module, P3 converter, Job Services, LDAP Configuration, and the SDK.
- Primavera P6 Database Setup v7.0 – Includes all files for both manual and automatic application database setup.
- Primavera P6 Tools v7.0 – Includes Compression Server, SharePoint Connector, and the OIM Connector.
- Primavera P6 Documentation – Includes all manuals and technical documents related to the installation, administration, and use of Primavera P6 components.

Primavera P6 Enterprise Project Portfolio Management (v7.0) Media Pack

- Primavera P6 Enterprise Project Portfolio Management Quick Install Guide – Includes the Quick Install Guide.
- Primavera P6 Web Access v7.0 – Includes all files necessary to install Primavera P6 Web Access.
- Primavera P6 Database Setup v7.0 – Includes all files for both manual and automatic application database setup.
- Primavera P6 Client Applications v7.0 – Includes all files necessary to install the Project Management module, Methodology Management Module, P3 converter, Job Services, LDAP Configuration, and the SDK.

- Primavera P6 Integration API and Web Services v7.0 – Includes all files necessary to install the Integration API and Web Services.
- Primavera P6 Reporting Database v6.2.1 – Includes all files necessary to install Primavera P6 Reporting Database.
- Primavera P6 Tools v7.0 – Includes Compression Server, SharePoint Connector, and the OIM Connector.
- Primavera P6 Documentation – Includes all manuals and technical documents related to the installation, administration, and use of Primavera P6 components.
- Primavera P6 Progress Reporter v7.0 – Includes all files necessary to install P6 Progress Reporter.
- Oracle Content Server 10gR3 – Included in the Microsoft Windows and Linux platform versions of the media pack. Contains all files necessary to install Oracle Universal Content Management for use with the Primavera P6 Enterprise Project Portfolio Management Media Pack. For information on installing Oracle Content Server, visit <http://www.oracle.com/technology/documentation/oecm.html>. Please note the following license restrictions for this version of Oracle Content Server:
 - It is only valid for workspaces or folders that are built from P6 and repositories that store P6 Project Portfolio Management documents, artifacts, and work products. Manually creating any workspaces, folders, repositories, etc. outside of P6 applications will trigger a full-use license.
 - Only licensed P6 application users can access the repository.
- Oracle WebLogic Server 10gR3 – Included in the Microsoft Windows, Linux, HP-UX, and Sun Solaris platform versions of the media pack. Contains all files necessary to install Oracle WebLogic Server for use with the Primavera P6 Enterprise Project Portfolio Management Media Pack. For information on installing Oracle WebLogic Server, visit <http://oracle.com/technology/documentation/bea.html>. Please note the following license restrictions for this version of Oracle WebLogic Server:
 - It can only be run in an Oracle WebLogic Server instance, and no other web applications may be deployed in this instance.
 - It does not include the use of features in the Enterprise Edition or Suite version of Oracle WebLogic Server; it is restricted to the use of features included in the Standard version.

- It does not include the use of clustering, coherence, or EJBs. For example, clustering the P6 instance will trigger a full-use license.
- JRockit Real Time 3.1 for Java SE6 – Included in the Microsoft Windows and Linux platform versions of the media pack. Contains all files necessary to install JRockit for use with Oracle WebLogic Server 10gR3 (64-bit). For information on installing Oracle WebLogic Server, visit <http://oracle.com/technology/documentation/bea.html>. Please note the following license restrictions for this version of JRockit:
 - It can only be used for P6 servers.
 - It is a runtime license that does not allow the use of JRockit for other applications or instances.

P6 Documentation

You can access reference manuals and administrator's guides from the P6 Documentation Center, located in the \Documentation\<language> folder of the P6 physical media or download. When viewing a PDF, view the information using Adobe Acrobat Reader (also available in the Documentation folder). The following table describes documentation publications and lists the recommended readers by role. P6 roles are described in [“Installation Process Overview”](#) on page 19 of this manual.

Title	Description
<i>P6 Administrator's Guide</i>	This guide explains how to set up the P6 server, database, and components; it also provides an overview of all the components in the P6 solution. The guide describes the workflow required to administer the Project Management module, including setting up security and configuring global preferences. The Project Management module network administrator/database administrator and project controls coordinator should read this guide.
<i>Project Management Reference Manual</i>	This guide explains how to plan, set up, and manage projects in a multiuser environment. If you are new to the Project Management module, start with this guide to learn how to use the software effectively to plan and manage projects. When you need more detail, refer to the Project Management Help. The project controls coordinator, program manager, project manager, resource/cost manager, and team leader should read this guide.
<i>Methodology Management Reference Manual</i>	This guide explains how to establish methodologies, or project templates, using the Methodology Management module. Methodologies enable your organization to gather its “best practices” and reuse them to create custom project plans in the Project Management module. If you are new to the Methodology Management module, start with this guide to learn how to use the software to create base, plug-in, and activity library methodologies. When you need more detail, refer to the Methodology Management Help. The project controls coordinator, program manager, project manager, resource/cost manager, and team leader should read this guide.
P6 Web Access Help	P6 Web Access Help describes how to create and manage projects, group projects into portfolios, review resource allocation and requirements, and evaluate budget, performance and ROI for project portfolios. The operations executive, project controls coordinator, program manager, project manager, resource/cost manager, and team leader should read this Help.
Progress Reporter Administrator Help	Progress Reporter Administrator Help describes how to enter the project management application configuration information for P6 Progress Reporter and modify P6 Progress Reporter server settings. The P6 network administrator/database administrator should read this Help.

Progress Reporter Web-based Help	Progress Reporter Web-based Help describes how to use P6 Progress Reporter to enter and update time spent on assignments. Team members should read this Help.
ProjectLink Help	Describes how to use ProjectLink to enable Microsoft Project (MSP) users to work in the MSP environment while being connected to P6's enterprise features. MSP users can learn how to open/save projects from/to the Project Management module database from within the MSP application and how to invoke P6's resource management within the MSP environment. Team members that use MSP for daily project maintenance in organizations that use P6 for enterprise-wide project planning and control should read this help.
<i>Integration API Administrator's Guide</i>	This guide explains how to install and configure the Integration API (Application Programming Interface), which allows direct access to the Project Management module via Java. Those creating client code in Java and needing direct access to the project management database should read this guide. This guide is available in the \Web_Services\Integration API folder of the P6 physical media or download.
<i>P6 Web Services Administrator's Guide, P6 Web Services Programmer's Guide, and P6 Web Services Reference Manual</i>	<p>The <i>P6 Web Services Administrator's Guide</i> explains how to install and configure P6 Web Services, which enables organizations to seamlessly integrate P6 functionality into other web-based applications using web services standards.</p> <p>The <i>P6 Web Services Programmer's Guide</i>, available as an HTML help system, describes how to invoke, use, and troubleshoot the available services/methods within supported environments. The <i>P6 Web Services Reference Manual</i>, also available as an HTML help system, describes all services and operations available in P6 Web Services in a comprehensive manner. Those creating client code in Java and needing direct access to the project management database should read all of this documentation. After installing P6 Web Services, this documentation is available in the \docs folder of your P6 Web Services installation folder; it is also available in the \Web_Services\WebServices folder of the P6 physical media or download.</p>
SDK (Software Development Kit) Web-based documentation	This documentation describes how to use the SDK to connect to the project management database. The tables, fields, and stored procedures that you can access through the SDK are described. Examples are also provided to show how you can use the SDK to perform several basic tasks, such as creating a new project or assigning a resource to a project activity. The Project Management network administrator/database administrator and project controls coordinator should read this documentation, which is available in your \Program Files\Common Files\Primavera Common\PMSDK\Doc folder. Double-click the INDEX.HTML file to open the Table of Contents page.

Distributing Information to the Team

The online documentation can be copied to a network drive for access by project participants. Each team member can then print only those portions that specifically relate to his or her role in the organization.



The documentation assumes a standard setup of the product, with full access rights to all features and functions.

Where to Get Support

If you have a question about using Oracle Primavera products that you or your network administrator cannot resolve with information in the documentation or Help, go to:

<http://www.oracle.com/primavera/support.html>

This page provides the latest information for contacting Oracle Global Customer Support and the support renewals process.

Before You Begin

In this part:

Installation Process Overview

Planning Your Implementation

*T*his part discusses how to plan and prepare for installing P6 components. Begin by reading “[Installation Process Overview](#)”, which describes the P6 components, summarizes the skills needed to install these products, and explains each phase in the installation process.

“[Planning Your Implementation](#)” demonstrates how to identify the components your organization requires and helps you ensure that you have the hardware and software needed to support that implementation.

Installation Process Overview

In this chapter:

What is the P6 Solution?

Who Should Help with the Installation?

Installation Process Phases

P6 Industry Types

This chapter describes the components that make up the P6 solution and reviews the installation and configuration process.

What is the P6 Solution?

Oracle Primavera provides a set of integrated components that meet the project management needs of different areas of an organization. It uses standard Windows interfaces, Web-enabled technology, small multiuser or stand-alone (Oracle Database Express Edition) databases, or network-based (Oracle and Microsoft SQL Server) databases.

This installation guide assumes you are installing P6 software components on a client/server network, which requires the installation and configuration of both client software and server-based components. It also provides information on stand-alone installations.



Primavera uses DBExpress as the standard interface between its components and the project management and methodology management databases. DBExpress is automatically installed when you install the Project Management module. Some additional components, such as Job Service, also install DBExpress to connect to the databases.

Client components The P6 solution consists of the following client modules:

- **Project Management** Project Management is a module that enables users to plan and control a large number of projects. Project data is stored in a central project management database. Either Oracle or Microsoft SQL Server can be used as the relational database management system in a large networked configuration. For smaller multiuser or stand-alone implementations, you can use Oracle Database Express Edition (Oracle Database XE) as the database. Project Management also provides centralized resource management, including resource timesheet approval and the ability to communicate with project resources through the Progress Reporter module, a Web-based timesheet management application.
- **Methodology Management** Methodology Management is a module for authoring and storing methodologies, or project plan templates. Methodology Management enables your organization to gather its “best practices” and store them in a central methodology management database.

- **Progress Reporter** The Progress Reporter module is a Web-based interproject communication and timekeeping system. Team members use Progress Reporter to enter up-to-the-minute information about their assignments across projects and record time against their workload.

Server components P6 may require the installation and configuration of the following server-based components:

- **Relational Database Management System (RDBMS)** Project data and project methodologies are each stored in separate central databases. These two databases should be maintained on a database server running Oracle, Oracle Database Express Edition (Oracle Database XE), or Microsoft SQL Server. (You also need to install the client software for the RDBMS on each computer needing network access to the database server. If you are running Oracle Database XE or Microsoft SQL Server, the necessary software is installed for you automatically when you install the Project Management module.)
- **P6 Progress Reporter** If your implementation of P6 includes the Progress Reporter (formerly TimeSheets) client module, you must install P6 Progress Reporter files on a Java application server. This allows clients to download timesheets from that server using their Web browsers. It further acts as an intermediary between the Progress Reporter client and the project management database.
- **P6 Web Access** P6 Web Access (formerly known as “Primavera’s Web application” or “myPrimavera”) is hosted on an application server and provides browser-based access to project, portfolio, and resource data across the enterprise. Every P6 Web Access user can customize dashboards to create an individualized and focused view of the specific projects and categories of project data that are most relevant to their role in managing projects and resources. Project Workspaces and Workgroups extend the model of customizable, focused data views by enabling designated project team members to create a uniform team view of data that relates to one specific project or to a subset of activities within a project. P6 Web Access provides access to a wide range of data views and features that enable users to manage their projects from initial concept review and approval through to completion.

P6 Web Access provides collaborative functionality to connect all team members, at all levels, to all shared work necessary for the successful completion of a project. Features include issues management and e-mail integration. With configured Content and Workflows Repositories, you can extend P6 Web Access functionality to include enhanced document management features and project request processes.

Additional components Your P6 implementation may require the installation of one or more optional components. These additional components expand the functionality of the P6 solution:

- **(Distributed) Job Service** The Job Service is a Windows 2003/2008 service that runs defined jobs on project data at preconfigured intervals. Users create jobs in the Project Management module. The job details are stored in the central project management database. The Job Service periodically reads the database and performs jobs as directed. This service must run on a server that has a constant connection to the database server.

P6 Web Access requires the Job Service to be installed for the schedule, apply actuals, and summarize functions.

The Distributed Job Service is an extension of the Job Service that enables a controller machine to manage multiple servers running job services.

- **ProjectLink** ProjectLink is a plug-in that enables Microsoft Project (MSP) users to work in the MSP environment while being connected to P6's enterprise features. The functionality enables MSP users to open/save projects from/to the Project Management module database from within the MSP application. Moreover, MSP users have the ability to invoke P6's resource management within the MSP environment. ProjectLink benefits organizations that use MSP for daily project maintenance but require some users to have the enterprise capabilities available within P6 applications.
- **SDK (Software Development Kit)** The SDK enables you to integrate the data in the project management database with external databases and applications. It provides access to the schema and to business logic. The SDK supports the Open Database Connectivity (ODBC) standard and ODBC-compliant interfaces, such as OLE DB, for connecting to the P6 database. The SDK may be installed on any computer that needs to integrate with the P6 database.

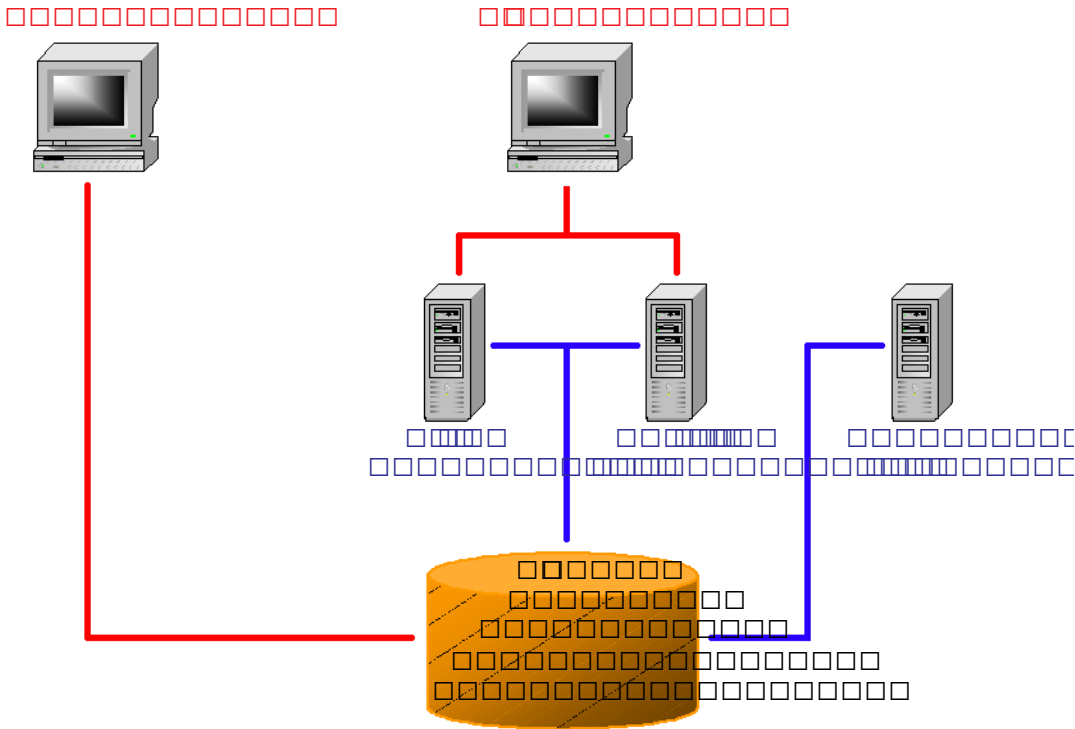


The Integration API (Application Programming Interface) can also be used to connect directly to the project management database. This tool requires the ability to write client code in Java. For further information, see the Integration API Administrator's Guide.



P6 Web Services allows you to seamlessly integrate P6's project management functionality into other applications via open standards, including XML, SOAP, and WSDL. For further information, see the P6 Web Services Administrator's Guide.

The following figure illustrates the relationship between P6 components.



For details on the configuration requirements of each component, see “Planning Your Implementation” on page 29.

You are not required to install the server-based components as shown here. For example, Job Services can run on any computer with a constant connection to the P6 database. For optimal performance, Oracle recommends that the components be installed as shown above.

Who Should Help with the Installation?

The talents of several different types of employees may be required to install and configure P6 components in your organization. The following section describes the basic roles and the responsibilities typically given to those roles during the installation process. Roles may vary or overlap depending on the structure of your organization.



Network administrators Network administrators configure an organization's network environment (local- and wide-area networks) for optimal performance with P6 components. They install and maintain the server and client components in the P6 solution. They manage user access to project data and develop and maintain a comprehensive security policy to ensure that project and methodology data is protected from unauthorized access, theft, or damage.

Network administrators ensure that the hardware and software supporting P6 function reliably by

- Setting up and maintaining the network to ensure reliable connections and the fastest possible data transfer
- Creating and maintaining accurate lists of network resources and users so that each has a unique network identity

Database administrators Database administrators (DBAs) are responsible for setting up, managing, and assigning access rights for the P6 database. They set and oversee rules governing the use of corporate databases, maintain data integrity, and set interoperability standards.

Database administrators ensure reliable access to the P6 database by



- Installing, configuring, and upgrading database server software and related products as required
- Creating and implementing the databases
- Implementing and maintaining database security, including creating and maintaining users, roles, and privileges for the databases
- Monitoring database performance and tuning as needed
- Planning for growth and changes and establishing and maintaining backup and recovery policies and procedures

Project controls coordinator Project control coordinators are responsible for ensuring that the Project Management module is implemented properly and that it operates smoothly. They play a key role during implementation by



- Working with senior management to establish the enterprise project structure, resource hierarchy, and organizational breakdown structure (OBS); set up basic calendars; and define organization-wide codes in the Project Management module
- Working with the network administrator to create user accounts and user groups for the Project Management module
- Assigning security rights to P6 users in the Project Management module
- Working with the Human Resources (HR) department to keep the resource hierarchy in the Project Management module up-to-date and complete, possibly through integration of an HR module from an enterprise resource planning (ERP) system

Program and project managers In some cases, program and project managers may also become involved in the initial configuration of the P6 solution, though they are not normally involved in the installation. They are responsible for managing one or more projects and use the Project Management module for

- Adding projects to the project management database
- Prioritizing resources across projects
- Planning and managing projects

Installation Process Phases

The network administrator, database administrator, and project controls coordinator should work together to ensure that the P6 solution is successfully installed for your organization. These roles may be played by teams of people or by a few people sharing responsibilities.

Oracle recommends installing and configuring the P6 solution in phases. Each phase of the installation process is explained below.

The planning phase is covered in this part of this guide.

Phase 1: Plan your P6 configuration Before you begin the installation, decide how your organization will implement the P6 solution. Identify the security requirements for your installation. Identify the servers and network hardware you will need to support the implementation. Install and configure the third-party database server software (Oracle or Microsoft SQL Server), if necessary. Perform any upgrade procedures as needed to roll projects from previous versions into the new version. If you simply will be installing a stand-alone version, refer to [“Installing or Upgrading the Stand-Alone Version”](#) on page 280.

Automatic and manual configuration of the databases is covered in [Part 2](#) of this guide. Server configuration is covered in [Part 3](#).

Phase 2: Configure your P6 servers Once you have set up your network and prepared your servers, you can begin to configure the servers. Start by setting up the project management and methodology management databases on the database server. You can choose an automated or a manual method to complete this process. If you are using Oracle Database Express Edition (Oracle Database XE), you should follow the automated process.

The client module configuration phase is covered in [Part 4](#) of this guide.

Phase 3: Configure your P6 client modules Once your servers are configured and the databases are installed, you can begin to install the P6 client modules on your client workstations according to your implementation plan. You can then install and configure additional components as needed for your implementation.

P6 Industry Types

P6 requires you to choose an industry during database setup and application installation. The industry type that you choose determines the terminology and default settings that display in P6. The following table lists each industry type and its corresponding terminology and default settings. When prompted during installation procedures, choose the option that best matches your industry. Oracle recommends, but does not require, that you use the same industry for each database or application installation.

Sample Data Industry Type	Code for sample data during manual database setup	Code for P6 Web Access URL	Industry Terminology Examples	Default project comparison tool	Default startup window in Project Management module
Engineering and Construction	ec	cmt	Budgeted Units Budgeted Cost Original Duration	Claim Digger	Activities
Government, Aerospace, and Defense	pd	it	Planned Units Planned Cost Planned Duration	Schedule Comparison	User-defined
High-Technology, Manufacturing	it	it	Planned Units Planned Cost Planned Duration	Schedule Comparison	Projects
Utilities, Oil, and Gas	mt	cmt	Budgeted Units Budgeted Cost Original Duration	Claim Digger	Projects
Other Industry	it	it	Planned Units Planned Cost Planned Duration	Schedule Comparison	User-defined

Planning Your Implementation

In this chapter:

Which Components Do I Need?
Client and Server Requirements
**Project Management Database
Server Sizing Guide**
**Methodology Management
Database Server Sizing Guide**
Practical Product Limits

Read this chapter when you are ready to plan your P6 implementation. For more detailed information and assistance, please consult with Oracle Global Customer Support (if you have questions about installation) or Oracle Primavera GBU Consulting (if you want Oracle Primavera to assist you with your implementation.)

Which Components Do I Need?

When planning your P6 implementation, you will first need to know what client modules and server components you will need to install and configure, and where those modules and components need to be installed. The following is a set of questions that you will want to answer before you begin.

Which relational database management system (RDBMS) will we use on our database server? You can use either Oracle or Microsoft SQL Server on your database server for enterprise installations. For smaller implementations, you can use Oracle Database Express Edition (Oracle Database XE).

Which workstations will require the Project Management module? Which will require Methodology Management? All Project Management and Methodology Management users will need access to the database server. If using Oracle as the RDBMS, you will need to install the Oracle client software on each computer that runs these client modules. If using SQL Server as the RDBMS, P6 automatically installs the required SQL Server files when you install the Project Management module.

Do we want our administrators to install the Project Management and Methodology Management modules using standardized preconfigured settings? If you want all of your client modules to be configured identically, your administrators can run an unattended setup for each module based on a standard configuration. You can create one or more sets of unattended setup files and share them on a network server.

Will our Project Management module users need to automatically run jobs (such as scheduling or summarizing) on project data? If your Project Management users will need to run jobs, you will need to install the Job Service. For non-distributed jobs, install the Job Service on a server that has constant access to the database server. For distributed jobs, install the Distributed Job Service on multiple servers operated by a Controller server. Additionally, the P6 Web Scheduler is available, but disabled by default. The Web Scheduler can be enabled via the Administrator Application of P6 Web Access.

Do we need to integrate our project data with other global systems? If you need to integrate your project data with other global systems, such as Accounting or Human Resources applications, you will need to install the Integration API (Application Programming Interface), P6 Web Services, or the SDK (Software Development Kit) on computers that require access to the data. The Integration API makes data accessible through JDBC and requires knowledge of Java programming. P6 Web Services seamlessly integrates P6's project management functionality into other applications via open standards, including XML, SOAP, and WSDL. The SDK makes project data available to external applications through Open Database Connectivity (ODBC) interfaces, such as OLE DB.

Do some users require the ability to manage their projects in Microsoft Project while utilizing P6 to manage global data?

Your organization may currently use Microsoft Project to manage projects. To enable users to continue to use MSP to manage projects while integrating with P6's organizational-level functionality, you will need to install P6 ProjectLink.

Will our team members use P6 Progress Reporter to submit timesheets to the project/resource managers? If so, will we require that resource and/or project managers review and approve resource timesheets? If team members will use the Progress Reporter module, you will need to install P6 Progress Reporter files on an application server.

If you require that resource and/or project managers review and approve resource timesheets, you must install P6 Web Access. The Timesheet Approval application, which is installed on the P6 Web Access application server when you install P6 Web Access, enables timesheet approval managers to review, approve, and reject timesheets, communicate with Progress Reporter resources, and run timesheet reports. Once installed, you can configure access to Timesheet Approval from P6 Web Access and the Project Management module, or you can make it available to approval managers as a stand-alone application.

If we use P6 Progress Reporter, which version should we use?

P6 Progress Reporter consists of the Progress Reporter client on the front end, the database server that contains your projects on the back end, and the application server hosting P6 Progress Reporter files in the middle, providing a link between Progress Reporter clients and the database.

P6 facilitates project communication among team members across the organization by providing two types of interfaces for P6 Progress Reporter: a Java Web Start version and a Web Browser version. The Web Browser version is optional, depending on your configuration. The differences between the two interfaces are described below.

Java Web Start version Progress Reporter Java Web Start version enables users to access their timesheet data across the Internet as a Java *application*.

Java Web Start provides a secure and platform-independent deployment of P6 Progress Reporter, using the Java Network Launching Protocol (JNLP) technology. Java Web Start also ensures that users always launch the most recent version of P6 Progress Reporter under the correct JRE version, even if there is more than one JRE version present at the same time. Java Web Start automatically downloads the most recent version of P6 Progress Reporter to the user's computer, so users never have to upgrade manually.

Web Browser version Progress Reporter Web Browser version performs the same function as the Web Browser version, but this version runs as a Java *applet*. This version is required when using Single Sign-On authentication.

To run the Web Browser version, users simply visit a specified URL, and the Java applet automatically downloads to their computers; the applet can then be run in their Web browsers. When many users will need to use P6 Progress Reporter, running it as a Java applet can provide great administration time savings—no client-side installation is required, and software updates are automatically distributed. The primary disadvantage may be the initial download time for the applet, which can take up to 20 minutes over a slow modem connection.

Do we want to provide Web-based access to project data for performance of project management tasks? P6 Web Access

provides access to project data via a Web browser. It supports the creation and management of projects within the company, provides resource availability and allocation details, and provides project portfolio reporting features to support strategic decision-making.

The following table lists each client component and the corresponding server-based components that it requires.

	RDBMS	P6 Progress Reporter	P6 Web Access	P6 Job Service	Content and Workflows Repositories
Project Management	✓ ¹			✓ ²	
Methodology Management	✓ ¹				
P6 Progress Reporter User	✓	✓	✓ ⁴		
P6 Web Access User	✓	✓ ³	✓	✓	✓ ⁵

¹ If using Oracle as the RDBMS, these modules require the Oracle client software to be installed on the client computer.

² The Job Service is an optional component for the Project Management module.

³ P6 Progress Reporter is an optional component for P6 Web Access; it is required if you are using the Progress Reporter functionality of P6 Web Access.

⁴ P6 Web Access is an optional component for Progress Reporter and is only required if resource timesheets must be reviewed and approved.

⁵ The Content and Workflows Repositories are optional components of P6 Web Access. They can serve as aids in document management and project request processes.

Do we want to utilize password security features? When the authentication mode is set to “Native,” the Project Management, Methodology Management, and P6 Web Access modules offer a strong password policy feature. When enabled, this feature requires that all new and modified passwords be a minimum of 8 characters and contain at least one number and one letter. P6 Web Access offers additional password security enhancements when using Native mode, such as a login lockout count and login lockout duration. If using Single Sign-On or LDAP authentication, the security set on the host authentication server overrides the password security features in P6.

Client and Server Requirements

After determining your P6 implementation plan, ensure that your hardware and software can support it.



The following tables summarize configurations that have been tested with P6. For the full list of system requirements, versions, and tested configurations, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.

Supported Platforms for P6

Client modules (Project Management, Methodology Management, P6 Web Access, P6 Progress Reporter)

- Microsoft Windows XP Professional (sp3)
- Microsoft Windows Vista Business Edition (sp2)
- Ubuntu Linux 9 (Progress Reporter only)
- Citrix Presentation Server 4.5
- Citrix XenApp 5.0

The Integration API (Application Programming Interface) and SDK (Software Development Kit) can be installed on any Windows 2003 Server (R2 sp2), Windows 2008 Server (SE sp2), XP (sp2) or Vista Business Edition (sp2) computer. System requirements will vary depending on the requirements of the module that uses the API or SDK to integrate with P6 databases.

Minimum Client Configurations

For clients running the Project Management and Methodology Management modules

- Oracle 10.2 Runtime
- Oracle 11.1 Runtime
- Oracle Database 10g Express Edition (Oracle Database XE) (standalone only)
- SQL Server 2005 sp2 full
- SQL Server 2008 full
- SQL Server 2005 Express with Advanced Series sp2 (standalone upgrade from P6 v6.2.1 or earlier only)
- 1 x 2.8 GHz or higher Intel Pentium 4 (or equivalent) processor
- 1 GB of available RAM

- If installing standalone modules, 800 MB of available hard-disk space for the Project Management module, the Methodology Management module, and supporting software, such as .NET and Oracle Database Express Edition. If upgrading from a prior release, an additional 40MB of available hard-disk space per module.
- If only installing the Project Management module, minimum 185 MB of available hard-disk space
- If only installing the Methodology Management module, minimum 45 MB of available hard-disk space
- Microsoft IE (Internet Explorer) 7 or IE 8
- TCP/IP network protocol

For clients accessing P6 Progress Reporter

- 256 MB of available RAM
- Microsoft IE 7, IE 8, or Firefox 3.5
- Sun JRE (appropriate version will be installed automatically with Progress Reporter) Always install the latest patch update with security fixes.
- TCP/IP network protocol
- Optional software:
 - Java Access Bridge 2.01 (for 508 accessibility.)
- The Progress Reporter module has been tested with the following assistive technologies:
 - JAWS® for Windows screen reading software, version 7.0
 - ZoomText Magnifier 9.0

**For clients accessing P6 Web Access**

- 1 x 2.8 GHz or higher Intel Pentium 4 (or equivalent) processor
- 1 GB of available RAM (recommended)
- 25 MB of available hard-disk space
- TCP/IP network protocol
- Microsoft IE 7, IE 8, or Firefox 3.5
- Sun JRE (the required version is automatically installed with P6 Web Access) Always install the latest patch update with security fixes.



Supported Configurations for Servers

For the database server

- Oracle 10.2.0.4 on Windows 2003 Server (R2 sp2), Windows 2008 Server (SE sp2), Oracle Enterprise Linux 4.0, and Oracle Enterprise Linux 5
- Oracle 11.1.0.6 on Windows 2003 Server (R2 sp2), Windows 2008 Server (SE sp2), Oracle Enterprise Linux 4.0, Oracle Enterprise Linux 5, Solaris 10 (Sparc), HP-UX 11i v2, and IBM AIX 5.3
- Oracle Database 10g Express Edition (Oracle Database XE) on Windows XP Professional (sp3) and Vista Business Edition (sp2)
- Microsoft SQL Server 2005 (sp2) on Windows 2003 Server (R2 sp2) and Windows 2008 Server (SE sp2)
- Microsoft SQL Server 2008 on Windows 2003 Server (R2 sp2) and Windows 2008 Server (SE sp2)
- Microsoft SQL Server 2005 Express with Advanced Services (sp2) on Windows XP Professional (sp3) and Vista Business Edition (sp2) (upgrades from P6 v6.2.1 or earlier only)
- 2 x 3.2 GHz or higher Intel Pentium 4 (or equivalent) processors
- 2 GB of available RAM or more (varies with implementation size)
- 15K RPM SCIS I/O subsystem across minimum of 6 physical drives
- See [“Project Management Database Server Sizing Guide”](#) on page 40 and [“Methodology Management Database Server Sizing Guide”](#) on page 41 for memory requirements.

For the Job Service or Distributed Job Service

- Microsoft Windows 2003 Server (R2 sp2)
- Microsoft Windows 2008 Server (SE sp2)
- 1 x 2.8 GHz or higher Intel Pentium 4 (or equivalent) processor
- 2 GB of available RAM (minimum)
4 GB of available RAM (recommended)
- 250 MB minimum of available hard-disk space

Application server requirements hosting P6 Progress Reporter

- Microsoft Windows 2003 Server (R2 sp2)
- Microsoft Windows 2008 Server (SE sp2)
- Oracle Enterprise Linux 4

- Oracle Enterprise Linux 5
- Solaris 10 (Sparc)
- HP-UX 11i v2
- IBM AIX 5.3
- 2 x 3.2 GHz or higher Intel Pentium 4 (or equivalent) processors
- 512 MB of available RAM or more
- 200 MB of available hard-disk space
- TCP/IP network protocol

Java Application server requirements hosting P6 Progress Reporter

- JBoss 5.0.1
- Oracle WebLogic 10g R3
- IBM WebSphere 7.0

Application server requirements hosting P6 Web Access

- Microsoft Windows 2003 Server (R2 sp2)
- Microsoft Windows 2008 Server (SE sp2)
- Oracle Enterprise Linux 4
- Oracle Enterprise Linux 5
- Solaris 10 (Sparc)
- HP-UX 11i v2
- IBM AIX 5.3
- 2 x 3.2 GHz or higher Intel Pentium 4 (or equivalent) processors
- 4 GB of available RAM or more (recommended)
- 1 GB minimum of available hard-disk space
- TCP/IP network protocol

Java Application server requirements hosting P6 Web Access

- JBoss 5.0.1
- Oracle WebLogic 10g R3
- IBM WebSphere 7.0

For the Web server hosting Project Web Site files

- Microsoft Windows 2003 Server (R2 sp2) with Microsoft Internet Information Server (IIS) 6.0
- Microsoft Windows 2008 Server (SE sp2) with Microsoft Internet Information Server (IIS) 7.0
- Microsoft TCP/IP networking protocol

For P6 Web Access Web server

- Microsoft Windows 2003 Server (R2 sp2) and Oracle Enterprise Linux 4 with Oracle HTTP 2.0 Server
- Microsoft Windows 2003 Server (R2 sp2) with Microsoft Internet Information Server (IIS) 6.0
- Microsoft Windows 2008 Server (SE sp2) with Microsoft Internet Information Server (IIS) 7.0
- Microsoft Windows 2003 Server (R2 sp2) and Microsoft Windows 2008 Server (SE sp2) with Apache Web Server 2.2.6

**Supported E-Mail
Systems and Network
Protocols**

P6 Web Access supports only SMTP.

- Internet e-mail (SMTP) or MAPI is supported
- Network protocols depend only on database vendor
- Web site requires TCP/IP

Project Management Database Server Sizing Guide

The following sizes refer to a single instance of the project management database. Memory sizes do not include overhead required by the operating system, which varies according to the server version.

Oracle

File	Small	Medium	Large
Temp TBS	300 MB	500 MB	1,000 MB
Undo TBS	300 MB	500 MB	1,000 MB
Index TBS	250 MB	500 MB	1,000 MB
Data TBS	250 MB	500 MB	1,000 MB
Lob TBS	250 MB	500 MB	1,000 MB
Total	1,350 MB	2,500 MB	5,000 MB
RAM:	384 MB	512 MB	1024+MB

Microsoft SQL Server

File	Small	Medium	Large
Data	300 MB	500 MB	1,000 MB
Data Log	150 MB	250 MB	500 MB
Temp	300 MB	500 MB	1,000 MB
Temp Log	50 MB	100 MB	125 MB
Total	800 MB	1,350 MB	2,625 MB
RAM:	384 MB	512 MB	1024+MB

Methodology Management Database Server Sizing Guide

The following sizes refer to a single instance of the methodology management database. Memory sizes do not include overhead required by the operating system, which varies according to the server version.

Oracle

File	Recommended Size
Temp TBS	100 MB
Undo TBS	100 MB
Index TBS	250 MB
Data TBS	250 MB
Lob TBS	250 MB
Total	950 MB

Microsoft SQL Server

File	Recommended Size
Data	300 MB
Data Log	150 MB
Temp	100 MB
Temp Log	50 MB
Total	600 MB

Practical Product Limits

The following table summarizes various practical limits. Exceeding these limits can result in performance issues.



The following table is based on a 64 Bit machine with 4 GB of available space.

Application	Element	Practical Limit
Progress Reporter module	Number of activities assigned to a user within the user’s specified activity timeframe	100
Progress Reporter module	Number of activities per timesheet	100
Project Management module	Number of activities per project	100,000
Project Management module	Number of relationships per project	100,000

Database Installation and Configuration

In this part

Automatic Database Installation

Manual Database Configuration

Database Administration

While it is best to have an experienced database administrator install and set up P6 applications to run on a network server, your company may not have this type of person available. Oracle Primavera provides a quick and easy Setup program for installing the necessary database components on your database server. Read “[Automatic Database Installation](#)” and simply follow the steps in the Database wizard to create a new project management and/or methodology management database and load the required data.

If you choose not to follow the automated steps, you can also manually set up the database and load the data. See “[Manual Database Configuration](#)” for detailed instructions.

Whether you choose to automatically or manually install your databases, refer to “[Database Administration](#)” for important instructions on modifying database settings that are not part of the installation/setup process.

Automatic Database Installation

In this chapter:

Overview

Running the Database Wizard

**Automatically Installing an Oracle
Database and Loading
Application Data**

**Automatically Installing a SQL
Server Database and Loading
Application Data**

Follow the steps in this chapter to set up and load the Project Management and Methodology Management module databases on a server using the automatic install process.

Overview

Two databases are used to run P6:

- The project management database (PMDb) stores the Project Management data used by P6. It is a required database.
- The methodology management database (MMDB) stores the methodologies that can be used as templates when creating new projects. You must install this database if you will be using the Methodology Management module.

If you need detailed steps on installing Oracle Database or SQL Server, refer to the database documentation included with those products.

P6 supports Oracle, Oracle Database Express Edition, and Microsoft SQL Server databases. The Oracle or SQL Server software must be installed on the database server(s) before you can create the database.

You can run the database wizard to automatically create a database structure and load application data into it; or, you can manually configure the database structures and then run a batch file to load application data. This chapter walks you through the automatic method, while the next chapter, [Manual Database Configuration](#), covers the manual instructions.



If you have previously installed and configured P6 databases and want to upgrade to the current version, refer to [“Automatic Database Upgrade”](#) on page 285 for details.



If you want to install the stand-alone version of P6, which automatically installs Oracle Database Express Edition, refer to [“Installing Client Modules and Additional Components”](#) on page 259.

For additional tips and considerations related to database performance along with additional settings, refer to [“Database Administration”](#) on page 79.

Oracle considerations Before installing the P6 database, consider the following:

- If you intend to run P6 on an Oracle database server, the Oracle client must be installed on each machine that will be accessing the database server.
- When you install the Oracle client, the TNSPING.EXE utility is automatically installed in the \oracle\<ora_home>\bin folder. This utility must be present for P6 applications. Do not delete it.
- Oracle must be run in Dedicated Mode (rather than MTS mode).

- If you need to use the Euro symbol in any Western European language, you must use codepage WE8MSWIN1252 or UTF8. Please note, if you change the NLS_LENGTH_SEMANTICS parameter from BYTE to CHAR the software will not be affected. Oracle recommends using CHAR if using UTF8 because some characters are two or three bytes.
- If users will be connecting to P6 Oracle databases using Oracle 11g Instant Client, see [“Connecting to Oracle Databases Using Oracle 11g Instant Client”](#) on page 110 for information on administrative settings you must specify to enable P6 users to utilize all available P6 functionality.



Oracle database passwords are not supported with multi-byte characters.

SQL Server considerations If you intend to run P6 on a SQL Server database server, the required SQL Server client files are automatically installed when you install the Project Management module on a client machine.

Running the Database Wizard

The Database wizard guides you through the steps for creating a new database structure and loading the application data into it. You need not be an experienced DBA to perform these steps; however, Oracle or Microsoft SQL Server must already be installed on the database server.

For information on how to run the Database wizard from a command line, refer to the Oracle Primavera Support Knowledgebase.

You can run the Database wizard to create a new database from a client computer or from the server itself. The Database wizard creates any necessary file structures and users for you.

If you will be using the Methodology Management module, you will run through the Database wizard twice: first to create the database structure and load data for the project management database, then again for the methodology management database.

Automatically Installing an Oracle Database and Loading Application Data

Complete the following steps to automatically create an Oracle database and load application data:



If you will be using SSL protocol, refer to your Oracle database documentation and the Oracle Primavera Support Knowledgebase for configuration instructions before running the Database wizard (dbsetup).



Oracle recommends that you create a 500 MB temporary tablespace and a 500 MB undo tablespace. Refer to your Oracle database documentation if you are unfamiliar with this process.

- 1 Run **dbsetup.bat** (dbsetup.sh for Linux) from the Database folder of the P6 physical media or download.



For Linux, add the JAVA_HOME Environment variable to the dbsetup.sh file before running it. For example, export JAVA_HOME = /usr/jre 1.6.0_14



Click Next on each wizard dialog box to advance to the next step.

- 2 On the **Primavera P6** dialog box:

- Choose **Install a new database**.
- Choose **Oracle** as the server type.
- Select the appropriate **Industry Type** for your organization.

For information on industry types, refer to “[P6 Industry Types](#)” on page 28.

- 3 On the **Database Selection** dialog box:

- Choose **Project Management and Content Repository in one database** or **Project Management and Content Repository in two different databases**, depending on sizing needs and performance considerations.

Content Repository data is used for collaborative purposes, such as sharing documents. The **Content Repository only** option is available for cases where an attempt was already made to run the database wizard and did not complete.

4 On the **Connection Information** dialog box:

- In the **DBA user name** field, type the Oracle system user name to log on to the database.
- In the **DBA password** field, type the password to log on to the database.
- In the **Database host address** field, enter the server machine name or IP address where Oracle is installed.
- In the **Database host port** field, enter the port number that Oracle is using. The default is 1521.
- In the **Database name (SID)** field, enter the Oracle SID. It can be found in the TNSNAMES.ORA file, which was created when you or your DBA set up the Oracle client.

5 On the **Configure Oracle Tablespaces** dialog box, click **Next** to accept the name for the Data, Index, and LOB tablespaces and estimated tablespace sizes.

You can change the estimated tablespace sizes. Refer to [“Project Management Database Server Sizing Guide”](#) on page 40 for guidelines on sizing.

Mark **Use existing tablespaces** only if the database server to which you are connecting already has existing tablespaces. For a new database server, do not mark this option. If you mark this option, skip to [step 8](#).

6 On the **Specify Oracle Tablespace Locations** dialog box, accept the default locations for the Oracle tablespaces (Data, Index, and LOB), or specify different locations.



*Clicking **Create** on this step will begin the initial setup of the project management database. After this step, you will no longer be able to click **Previous** to change your prior selections. On the next step, however, you will have the option to either click **Next** or **Cancel**.*

7 Click **Next** on the **Creating Oracle Tablespaces** dialog box when tablespace creation has completed.

- 8 On the **Create Oracle Users** dialog box, specify the Oracle administrative user, privileged user, and public user names.



You cannot enter privuser as the administrative username; doing so will cause conflicts.



If you are using Oracle 11g, the case used for user names will be the same case used for passwords. For example, if ADMUSER is typed for the user name, the password will also be ADMUSER, in all uppercase letters.



Oracle database passwords are not supported with multi-byte characters.

You can choose a different default tablespace from the dropdown list in the Default Tablespace field. In the Temporary Tablespace field, use the temporary tablespace that you created prior to starting this procedure.



The temporary tablespace must be of temporary type; otherwise, errors can occur to your database.

- 9 On the **Configuration Options** dialog box,



- Mark **Load sample data** if you want to include sample project data in the database. If you do not mark Load sample data, the basic data is loaded in a secure state.



YOU MUST CHOOSE THE BASE CURRENCY IN THE FOLLOWING STEP IF YOU DO NOT WANT THE DATABASE TO USE US DOLLARS (\$) AS THE BASE CURRENCY. IT IS NOT POSSIBLE TO CHANGE THE BASE CURRENCY ONCE PROJECTS ARE IN PROGRESS.

Setting the Base Currency

For information on adding view currencies, refer to “Defining Administrative Preferences and Categories in Project Management” on page 395.

The base currency is the monetary unit used to store cost data for all projects in the database and is controlled by a global administrative setting in the Project Management module. The default base currency for P6 is US dollars (\$). The view currency is the monetary unit used to display cost data in P6 and is controlled by a user preference.

The exchange rate for the base currency is always 1.0. When a user selects a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Euros, and the exchange rate for Euros is .75, a value of \$10 stored in the database is displayed as 7.5 Euros in cost and price fields. Similarly, if you enter 7.5 Euros in a cost or price field, it is stored in the database as \$10.

When data is displayed in a view currency that is different than the base currency, some cost and price values may vary slightly (e.g., due to rounding). As long as the correct base currency is selected during database installation, a user can view completely accurate cost and price data by changing the view currency to match the base currency.

- If you want to use a currency other than US Dollars as the base currency for the database, select a different base currency in the **Currency** field.

- 10** Click **Install** on the Configurations Options dialog box to start the process of loading the database tables with application data.
- 11** On the **Creating Database...** dialog box, click **Next** after the processes have completed.



If the database creation fails, see PrimaveraDatabaseSetup.log located in the user home directory (for example, C:\Documents and Settings\Administrator). Contact Oracle Global Customer Support if further assistance is needed.

- 12** On the **Finish** dialog box, click **Next** to run the Database wizard again if you will be using the Methodology Management module. Otherwise, click Finish to exit the wizard.



When the installation successfully completes, delete the installation log.

Once both sets of application data are installed (Project Management and Methodology Management), you can begin to install client modules and additional components. Refer to [Part 3](#) and [Part 4](#) for more information on configuring the servers and installing client module(s) and additional components.

Automatically Installing a SQL Server Database and Loading Application Data

Complete the following steps to automatically create a SQL Server database and load application data:

- 1 Run **dbsetup.bat** (dbsetup.sh for Linux) from the Database folder of the P6 physical media or download.



The dbsetup.bat file must be run from a mapped drive.



Click Next on each wizard dialog box to advance to the next step.

- 2 On the **Primavera P6** dialog box:

- Choose **Install a new database**.
- Choose **Microsoft SQL Server** as the server type.
- Select the appropriate **Industry Type** for your organization.

For information on industry types, refer to “[P6 Industry Types](#)” on page 28.

- 3 On the **Database Selection** dialog box:

- Choose **Project Management and Content Repository in one database** or **Project Management and Content Repository in two different databases**, depending on sizing needs and performance considerations.

Content Repository data is used for collaborative purposes, such as sharing documents. The **Content Repository only** option is available for cases where an attempt was already made to run the database wizard and did not complete.

- 4 On the **Connection Information** dialog box:

- In the **Sys admin user name** field, type the Microsoft SQL Server system administrator name to register to the server.
- In the **Sys admin password** field, type the password for this system administrator.
- In the **Database host address** field, enter the server machine name or IP address where Microsoft SQL Server is installed.

- In the **Database host port** field, enter the port number that Microsoft SQL Server is using. The default is 1433.

5 On the **Configuring Microsoft SQL Server Database** dialog box, click **Next** to accept the default values, or change them as appropriate for your installation.

If you change the name of the database, duplicate database names are not permitted—you will be prompted to enter a unique name if a database with the specified name already exists.



Do not use a dash (-) in the database name; it will cause errors.

The data file contains the database tables and procedures. The log file contains a record of changes. By default, the Database wizard stores these files in the folder on your server where Microsoft SQL Server is installed. The database name that you specify is used to name the files. If you change the location, the destination folder must exist on the server.

The database code page will default to what is already selected for Microsoft SQL Server. Select a different code page, if necessary.



Clicking Next after this step will begin the initial creation of the project management database. After this step, you will no longer be able to click Previous to change your prior selections. On the next step, however, you will have the option to either click Install or Cancel.

6 On the **Configuration Options** dialog box:

- Mark **Load sample data** if you want to include sample project data in the database. If you do not select Load sample data, the basic database is loaded in a secure state.



YOU MUST CHOOSE THE BASE CURRENCY IN THE FOLLOWING STEP IF YOU DO NOT WANT THE DATABASE TO USE US DOLLARS (\$) AS THE BASE CURRENCY. IT IS NOT POSSIBLE TO CHANGE THE BASE CURRENCY ONCE PROJECTS ARE IN PROGRESS.

Setting the Base Currency

For information on adding view currencies, refer to “Defining Administrative Preferences and Categories in Project Management” on page 395.

The base currency is the monetary unit used to store cost data for all projects in the database and is controlled by a global administrative setting in the Project Management module. The default base currency for P6 is US dollars (\$). The view currency is the monetary unit used to display cost data in P6 and is controlled by a user preference.

The exchange rate for the base currency is always 1.0. When a user selects a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Euros, and the exchange rate for Euros is .75, a value of \$10 stored in the database is displayed as 7.5 Euros in cost and price fields. Similarly, if you enter 7.5 Euros in a cost or price field, it is stored in the database as \$10.

When data is displayed in a view currency that is different than the base currency, some cost and price values may vary slightly (e.g., due to rounding). As long as the correct base currency is selected during database installation, a user can view completely accurate cost and price data by changing the view currency to match the base currency.

-
- If you want to use a currency other than US Dollars as the base currency for the database, select a different base currency in the **Currency** field.
- 7 Click **Install** on the Configuration Options dialog box to start the process of loading the database tables with application data.
 - 8 On the **Creating Database...** dialog box, click **Next** after the processes have completed.



If the database creation fails, see PrimaveraDatabaseSetup.log located in the user home directory (for example, C:\Documents and Settings\Administrator). Contact Oracle Global Customer Support if further assistance is needed.

-
- 9 On the **Finish** dialog box, click **Next** to run the Database wizard again if you will be using the Methodology Management module. Otherwise, click Finish to exit the wizard.



When the installation successfully completes, delete the installation log.

Once both sets of application data are installed (project management and methodology management), you can begin to install client modules and additional components. Refer to [Part 3](#) and [Part 4](#) for more information on configuring the servers and installing client module(s) and additional components. For information on configuring database settings to optimize performance, refer to [“Database Administration”](#) on page 79.

Manual Database Configuration

In this chapter:

Overview

Creating the Database Structure for Oracle and Loading Application Data

Creating the Database Structures for MS SQL Server and Loading Application Data

Changing the Base Currency (Oracle and Microsoft SQL Server)

Read this chapter to manually set up the central project management database and the methodology management database on a server running Oracle or Microsoft SQL Server. The steps in this chapter should be performed by your database administrator (DBA).

Setup is divided into three steps: creating each database's structure, loading the application data into each database, and setting up the Content Repository.

To use a wizard that automatically creates the database structures and loads the data, refer to “[Automatic Database Installation](#)” on page 45. If you are using Oracle Database Express Edition, you should run the Database wizard.

Overview

Two databases are used to run P6:

- The project management database (PMDB) stores the Project Management data used by P6. It is a required database.
- The methodology management database (MMDB) stores the methodologies that can be used as templates when creating new projects. You must install this database if you will be using the Methodology Management module.

If you need detailed steps on installing Oracle for the server and client, or SQL Server for the server, contact Oracle Global Customer Support.

P6 supports Oracle, Oracle Database Express Edition, and Microsoft SQL Server databases. The MS SQL Server or Oracle server software must be installed on the database server(s) before you can create the database.



Oracle database passwords are not supported with multi-byte characters.



When you install the Oracle client, the TNSPING.EXE utility is automatically installed in the \oracle\<ora_home>\bin folder. This utility must be present for P6 applications. Do not delete it.



If you have manually configured P6 databases for an earlier version, refer to [“Automatic Database Upgrade”](#) on page 285 for instructions on automatically upgrading your databases to the current version. If you want to manually upgrade your databases, refer to the manual database upgrade documents available from the P6 Documentation Center, which you can access from the \Documentation\<language> folder of the P6 physical media or download.



P6 version 6.2.1 and later includes a new encryption algorithm that provides enhanced security for private database login passwords; however, the new encryption algorithm is not automatically enforced when you manually install or upgrade your database. To enforce existing private database login passwords (including the default login and password, privuser) to use the new encryption algorithm, you must reset or change these passwords as described in [“Changing Database Configuration Settings”](#) on page 307.

Creating the Database Structure for Oracle and Loading Application Data

The Oracle database administrator (DBA) creates the project management and methodology management databases, then runs SQL scripts provided by Oracle Primavera, which create each database's structure (tables, indexes, relationships, and so on).



Oracle must be run in Dedicated Mode (rather than MTS mode).



If you need to use the Euro symbol in any Western European language, you must use codepage WE8MSWIN1252 or UTF8. Please note, if you change the NLS_LENGTH_SEMANTICS parameter from BYTE to CHAR the software will not be affected. Oracle recommends using CHAR if using UTF8 because some characters are two or three bytes.

You can also use a wizard that automatically creates the database structures and loads the data for you. Refer to "Automatic Database Installation" on page 45 for more information.

These instructions assume you are an Oracle DBA or are familiar with administering Oracle databases. All steps need to be completed, and in the order specified. If you have any questions about the manual setup process, please contact Oracle Global Customer Support before proceeding.

Oracle recommends that you use SQL Plus to run scripts referenced in the following instructions.

Create the PMDB Oracle database structures

Copying script files to a local drive

Copy the Database folder of the P6 physical media or download to a local drive. Use the copy on the local drive for all instructions in this section.

Creating the Database Tablespace

- 1 Log into Oracle as a SYSTEM or other DBA privileged user.
- 2 Go to \database\scripts\install\PM_07_00_00 and execute the **orpm_init_db.sql** script.



Instead of running the `orpm_init_db.sql` script, you can manually create a database with system, temporary, and undo tablespaces. Oracle recommends that you create a database with a 500 MB temporary tablespace and a 500 MB undo tablespace. Make sure that the Oracle client can connect to the database. Refer to your Oracle database documentation if you are unfamiliar with this process.

Creating Users and Tables

- 1 Log on to the PMDB database as a SYSTEM or other DBA privileged user.
 - 2 Go to `\database\scripts\install\PM_07_00_00` and execute the **`orpm_create_users.sql`** script.
-



Running the `orpm_create_users.sql` script creates the following user names: `admuser`, `privuser`, and `pubuser`. If you have created other administrative, private and public user names and wish to use those when running Oracle Primavera's database scripts, make sure to replace `admuser`, `privuser` or `pubuser` with your custom user names in all applicable scripts before running them.

- 3 Log on to the PMDB database as `admuser`.
 - 4 Go to `\database\scripts\install\PM_07_00_00` and execute the **`orpm_tables.sql`** script.
-

Installing Sample Data

- 1 Open a command prompt and change your directory to the location of the `rundataloader.bat` file, which is on the root of the database folder.
- 2 Execute a statement similar to the following:

```
rundataloader.bat sample:pmdb_<industry>.zip  
admuser/admuser@oracle:<host>:<port>:<instance>
```

For information on industry choices, see “P6 Industry Types” on page 28.

where `<industry>` is either “ec” or “it,” depending on your industry preference, `<host>` is the server machine name or IP address where Oracle is installed, `<port>` is the port number that Oracle is using (the default is 1521), and `<instance>` is the database name or SID (for example, PMDB)



*If you want to load empty data instead of sample data, add **_empty** to the end of the zip file name. Empty data includes only the most basic information needed to run the project management database.*

Creating Remaining Database Objects

- 1 Log on to the PMDB database as admuser.
- 2 Go to \database\scripts\install\PM_07_00_00 and execute the **orpm_database_version.sql**, **orpm_ins_aux.sql**, and **orpm_querylib.sql** scripts.
- 3 Go to \database\scripts\source\PM_07_00_00 and execute the **orpm_src.sql** script.

Creating Content Repository data

The scripts used for the following steps can be run on a new Oracle instance or on an existing Oracle instance that already contains PMDB data. If you wish to create the Content Repository data in a new Oracle instance, see page 66.

- 1 While still logged in as admuser on the PMDB database, go to \database\scripts\install\JR_01_01_00 and execute the **orjr_ins.sql** script.
- 2 Go to \database\scripts\source\JR_01_01_00 and execute the **orjr_src.sql** script.

Refer to “[Changing the Base Currency \(Oracle and Microsoft SQL Server\)](#)” on page 77 if you do not want your base currency to be US dollars (\$).

Refer to “[Database Administration](#)” on page 79 for more information on database settings you can modify and additional scripts you can run to improve database performance.

If users will be connecting to P6 Oracle databases using Oracle 11g Instant Client, see “[Connecting to Oracle Databases Using Oracle 11g Instant Client](#)” on page 110 for information on administrative settings you must specify to enable P6 users to utilize all available P6 functionality.

Dropping PMDB Oracle Database Objects

If you make a mistake or want to recreate the database objects for the project management database, first drop the objects created by the database installation scripts. Dropping database objects deletes them permanently.

For your convenience, scripts are provided to drop the database objects. Run the scripts beginning with “or” in the \Database\scripts\install\PM_07_00_00\drop folder of the P6 physical media or download. Specifically, these are the files to run and the action they take:

ORDP_SPS.SQL	drops stored procedures
ORDP_SYN.SQL	drops synonyms
ORDP_GRN.SQL	revokes privileges
ORDP_FKC.SQL	drops foreign keys constraints
ORDP_PK.SQL	drops primary keys
ORDP_NDX.SQL	drops indexes
ORDP_TAB.SQL	drops tables

You must connect to the server as admuser to drop objects. If data exists, you must drop the objects in the order they are listed above.

Create the MMDB Oracle database structures

If you plan on using the Methodology Management module, all steps below need to be completed, and in the order specified.

Copying script files to a local drive

Copy the Database folder of the P6 physical media or download to a local drive. Use the copy on the local drive for all instructions in this section. If this folder was already created for the PMDB instructions, the existing folder can be used.

Creating the Database Tablespaces

- 1 Log into Oracle as a SYSTEM or other DBA privileged user.
- 2 Go to \database\scripts\install\MM_07_00_00 and execute the **ormm_init_db.sql** script.



*Instead of running the **ormm_init_db.sql** script, you can manually create a database with system, temporary, and undo tablespaces. Oracle recommends that you create a database with a 100 MB temporary tablespace and a 100 MB undo tablespace. Make sure that the Oracle client can connect to the database. Refer to your Oracle database documentation if you are unfamiliar with this process.*

Creating Users and Tables

- 1 Log on to the MMDB database as a SYSTEM or other DBA privileged user.
- 2 If admuser, privuser, and pubuser are not already created ([step 2](#) of Creating Users and Tables in the PMDB instructions), go to \database\scripts\install\MM_07_00_00 and execute the **ormm_create_users.sql** script.



*Running the **ormm_create_users.sql** script creates the following user names: admuser, privuser, and pubuser. If you have created other administrative, private and public user names and wish to use those when running Oracle Primavera's database scripts, make sure to replace admuser, privuser or pubuser with your custom user names in all applicable scripts before running them.*

- 3 Log on to the MMDB database as admuser.
- 4 Go to \database\scripts\install\MM_07_00_00 and execute the **ormm_tables.sql** script.

Installing Sample Data

- 1 Open a command prompt and change your directory to the location of the rundataloader.bat file, which is on the root of the database folder.

- 2 Execute a statement similar to the following:

```
rundataloader.bat sample:mmdb_<industry>.zip  
admuser/admuser@oracle:<host>:<port>:<instance>
```

For information on industry choices, see “[P6 Industry Types](#)” on page 28.

where <industry> is either “ec” or “it,” depending on your industry preference, <host> is the server machine name or IP address where Oracle is installed, <port> is the port number that oracle is using (the default is 1521), and <instance> is the database name or SID (for example, MMDB)



*If you want to load empty data instead of sample data, add **_empty** to the end of the zip file name. Empty data includes only the most basic information needed to run the methodology management database.*

Creating Remaining Database Objects

- 1 Log on to the MMDB database as admuser.
- 2 Go to \database\scripts\install\MM_07_00_00 and execute the **ormm_database_version.sql** and **ormm_ins_aux.sql** scripts.
- 3 Go to \database\scripts\source\MM_07_00_00 and execute the **ormm_src.sql** script.

Refer to “[Changing the Base Currency \(Oracle and Microsoft SQL Server\)](#)” on page 77 if you do not want your base currency to be US dollars (\$).

Refer to “[Database Administration](#)” on page 79 for more information on database settings you can modify and additional scripts you can run to improve database performance.

If users will be connecting to P6 Oracle databases using Oracle 11g Instant Client, see “[Connecting to Oracle Databases Using Oracle 11g Instant Client](#)” on page 110 for information on administrative settings you must specify to enable P6 users to utilize all available P6 functionality.

Dropping MMDB Oracle Database Objects

If you make a mistake or want to recreate the database objects for the methodology management database, first drop the objects created by the database installation scripts. Dropping database objects deletes them permanently.

For your convenience, scripts are provided to drop the database objects. Run the scripts beginning with “or” in the `\Database\scripts\install\MM_07_00_00\` drop folder of the P6 physical media or download. Specifically, these are the files to run and the action they take:

<code>ORDP_SPS.SQL</code>	drops stored procedures
<code>ORDP_SYN.SQL</code>	drops synonyms
<code>ORDP_GRN.SQL</code>	revokes privileges
<code>ORDP_FKC.SQL</code>	drops foreign keys constraints
<code>ORDP_PK.SQL</code>	drops primary keys
<code>ORDP_NDX.SQL</code>	drops indexes
<code>ORDP_TAB.SQL</code>	drops tables

You must connect to the server as `admuser` to drop objects. If data exists, you must drop the objects in the order they are listed above.

If you would like to add Content data to the same Oracle instance where PMDB resides, see “Creating Content Repository data” on page 61.

Create the Content Repository database structure in a new Oracle instance

Depending on sizing needs and performance considerations, you may want to set up the Content Repository in a new Oracle instance instead of adding to an existing Oracle instance containing PMDB data.

Creating the Database Tablespaces

- 1 Log into the new Oracle instance as a SYSTEM or other DBA privileged user.
- 2 Go to \database\scripts\install\JR_01_01_00 and execute the **orjr_init_db.sql** script.

Running the script will create the basic structure of the database.



*Instead of running the **orjr_init_db.sql** script, you can manually create a database with system, temporary, and undo tablespaces. Oracle recommends that you set the sizing to autoextend. Make sure that the Oracle client can connect to the database. Refer to your Oracle database documentation if you are unfamiliar with this process.*

Creating Users

- 1 Log on to the new Oracle database as SYSTEM or other DBA privileged user.
- 2 Go to \database\scripts\install\JR_01_01_00 and execute the **orjr_create_users.sql** script.

Running the script creates a user named CRUSER.

Creating Content Repository data

- 1 Log on to the new Oracle database as CRUSER.
- 2 Go to \database\scripts\install\JR_01_01_00 and execute the **orjr_ins.sql** script.
- 3 Go to \database\scripts\source\JR_01_01_00 and execute the **orjr_src.sql** script.

Creating the Database Structures for MS SQL Server and Loading Application Data

The Microsoft SQL Server DBA creates the project management and methodology management database, then runs SQL scripts provided by Oracle Primavera that create each database's structure (tables, indexes, relationships, and so on).

See **"Client and Server Requirements"** on page 35 for more detailed information.

P6 supports Microsoft SQL Server 2005. These instructions assume you are a DBA or are familiar with how to administer Microsoft SQL Server databases. All steps need to be completed in the order specified. If you have any questions about the manual setup process, please contact Oracle Global Customer Support before proceeding.

Before you create the Microsoft SQL Server database structure, you should first register to the server as a system administrator (SA) and review the following server-level configuration changes in the Microsoft SQL Server Management Studio:

- **Max Worker Threads** Specify the number of threads used to support the users connected to the server. The default setting (255) may be too high for some configurations, depending on the number of simultaneous users. Each worker thread is allocated, even if it is not in use, which means that if there are fewer simultaneous connections than allocated worker threads, you could be wasting memory resources.
- **Memory** Keep the setting as Dynamic. Microsoft SQL Server dynamically acquires and frees memory as needed, up to the maximum available memory on your server.
- **Open Objects** Keep the setting as Dynamic. This setting determines the maximum number of objects that can be opened simultaneously on Microsoft SQL Server. The value is set automatically depending on current system needs. You should not need to change this value.
- **User Connections** Keep the setting as 0, which designates Microsoft SQL Server to adjust the number of simultaneous user connections allowed based on how many are needed, up to the maximum value.
- **Network Packet Size** Set to 16384.

After configuring the server, stop and start Microsoft SQL Server to ensure that the changes take effect.

Create the PMDB Microsoft SQL Server database structures

Copying the script files to a local drive

Copy the Database folder of the P6 physical media or download to a local drive. Use the copy on the local drive for all instructions in this section.

Creating the Database Tablespaces

- 1 Register to the server as SA user.
- 2 Open Microsoft SQL Server Management Studio. Go to \database\scripts\install\PM_07_00_00 and execute the **sspm_init_db.sql** script.



*Instead of running the **sspm_init_db.sql** script, you can manually create a database named PMDB with a data file of 500 MB or more and a log file of 200 MB or more. Create the file groups **pmdb_dat1**, **pmdb_lob1**, and **pmdb_ndx**, and a database file for each group. Make **pmdb_dat1** the default file group. Depending on your configuration, consider locating these file groups on separate physical drives.*



If you decide to manually create PMDB, be sure to set the Compatibility level to SQL Server 2000 (80).

You can change the initial tablespace sizes and increase or decrease these amounts depending on how much data you plan to store in the database. You can also mark the Automatically Grow File checkbox to specify that these values automatically increase based on need. Refer to “[Project Management Database Server Sizing Guide](#)” on page 40 for guidelines on sizing.



Oracle recommends that you use Microsoft SQL Server Management Studio to perform the following steps.

Creating Users and Tables

- 1 Log on to the PMDB database as SA user.
- 2 Go to \database\scripts\install\PM_07_00_00 and execute the **sspm_create_users.sql** script.



Running the `sspm_create_users.sql` script creates the following user names: `admuser`, `privuser`, and `pubuser`. If you have created other administrative, private and public user names and wish to use those when running Oracle Primavera's database scripts, make sure to replace `admuser`, `privuser` or `pubuser` with your custom user names in all applicable scripts before running them.

- 3 Go to `\database\scripts\install\PM_07_00_00` and execute the **`sspm_tables.sql`** script.

Installing Sample Data

- 1 Open a command prompt and change your directory to the location of the `rundataloader.bat` file, which is on the root of the database folder.
- 2 Execute a statement similar to the following:

```
rundataloader.bat sample:pmdb_<industry>.zip
sa/sa@sqlserver:<host>:<port>:<instance>
```

where `<industry>` is either "ec" or "it," depending on your industry preference, `<host>` is the server machine name or IP address where SQL Server is installed, `<port>` is the port number that SQL Server is using (the default is 1433), and `<instance>` is the database name (for example, PMDB)

For information on industry choices, see "P6 Industry Types" on page 28.



*If you want to load empty data instead of sample data, add **`_empty`** to the end of the zip file name. Empty data includes only the most basic information needed to run the project management database.*

Creating Remaining Database Objects

- 1 Log on to the PMDB database as SA user.
- 2 Go to `\database\scripts\install\PM_07_00_00` and execute the **`sspm_database_version.sql`**, **`sspm_ins_aux.sql`**, and **`sspm_querylib.sql`** scripts.
- 3 Go to `\database\scripts\source\PM_07_00_00` and execute the **`sspm_src.sql`** script.

Creating Content Repository Data

The script used for the following step can be run on a new database or on an existing database that already contains PMDB data. If you wish to create the Content Repository data in a new database, see page 76.

While still logged in as SA user on the PMDB database, go to \database\scripts\install\JR_01_01_00 and execute the **ssjr_ins.sql** script.

Refer to “[Changing the Base Currency \(Oracle and Microsoft SQL Server\)](#)” on page 77 if you do not want your base currency to be US dollars (\$).

Refer to “[Database Administration](#)” on page 79 for more information on database settings you can modify and additional scripts you can run to improve database performance.

Dropping PMDB Microsoft SQL Server Database Objects

If you make a mistake or want to recreate the database objects for the project management database, first drop the objects created by the database installation scripts. Dropping database objects deletes them permanently.

For your convenience, scripts are provided to drop the database objects. Run the scripts beginning with “ss” in the \Database\scripts\install\PM_07_00_00\drop folder of the P6 physical media or download. Specifically, these are the files to run and the action they take:

SSDP_SPS.SQL	drops stored procedures
SSDP_SYN.SQL	drops synonyms
SSDP_GRN.SQL	revokes privileges
SSDP_FKC.SQL	drops foreign keys constraints
SSDP_PK.SQL	drops primary keys
SSDP_NDX.SQL	drops indexes
SSDP_TAB.SQL	drops tables

You must connect to the server as the SA user to drop objects. If data exists, you must run the scripts in the order listed above.

Create the MMDB Microsoft SQL Server database structures

If you plan on using the Methodology Management module, all steps below need to be completed, and in the order specified.

Copying script files to a local drive

Copy the Database folder of the P6 physical media or download to a local drive. Use the copy on the local drive for all instructions in this section. If this folder was already created for the PMDB instructions, the existing folder can be used.



Oracle recommends that you use Microsoft SQL Server Management Studio to perform the following steps.

Creating the Database Tablespaces

- 1 Log into SQL as SA user.
- 2 Go to \database\scripts\install\MM_07_00_00 and execute the **ssmm_init_db.sql** script.



*Instead of running the **ssmm_init_db.sql** script, you can manually create a database named MMDB with a data file of 300 MB or more and a log file of 150 MB or more. Create the file groups **mmdb_dat1**, **mmdb_lob1**, and **mmdb_ndx**, and a database file for each group. Make **mmdb_dat1** the default file group. Depending on your configuration, consider locating these file groups on separate physical drives.*



If you decide to manually create MMDB, be sure to set the Compatibility level to SQL Server 2000 (80).

You can change the initial tablespace sizes and increase or decrease these amounts depending on how much data you plan to store in the database. You can also mark the Automatically Grow File checkbox to specify that these values automatically increase based on need. Refer to “[Methodology Management Database Server Sizing Guide](#)” on page 41 for guidelines on sizing.

Creating Users and Tables

- 1 Log on to the MMDB database as SA user.
- 2 If admuser, privuser, and pubuser are not already created ([step 2](#) of Creating Users and Tables in the PMDB instructions), go to \database\scripts\install\MM_07_00_00 and execute the **ssmm_create_users.sql** script.



*Running the **ssmm_create_users.sql** script creates the following user names: admuser, privuser, and pubuser. If you have created other administrative, private and public user names and wish to use those when running Oracle Primavera's database scripts, make sure to replace admuser, privuser or pubuser with your custom user names in all applicable scripts before running them.*

- 3 Go to \database\scripts\install\MM_07_00_00 and execute the **ssmm_tables.sql** script.

Installing Sample Data

- 1 Open a command prompt and change your directory to the location of the rundataloader.bat file, which is on the root of the database folder.
- 2 Execute a statement similar to the following:

```
rundataloader.bat sample:mmdb_<industry>.zip
sa/sa@sqlserver:<host>:<port>:<instance>
```

where <industry> is either "ec" or "it," depending on your industry preference, <host> is the server machine name or IP address where SQL is installed, <port> is the port number that SQL is using (the default is 1433), and <instance> is the database name (for example, MMDB)

For information on industry choices, see "P6 Industry Types" on page 28.



*If you want to load empty data instead of sample data, add **_empty** to the end of the zip file name. Empty data includes only the most basic information needed to run the methodology management database.*

Creating Remaining Database Objects

- 1 Log on to the MMDB database as SA user.
- 2 Go to \database\scripts\install\MM_07_00_00 and execute the **ssmm_database_version.sql** and **ssmm_ins_aux.sql** scripts.
- 3 Go to \database\scripts\source\MM_07_00_00 and execute the **ssmm_src.sql** script.

Refer to “[Changing the Base Currency \(Oracle and Microsoft SQL Server\)](#)” on page 77 if you do not want your base currency to be US dollars (\$).

Refer to “[Database Administration](#)” on page 79 for more information on database settings you can modify and additional scripts you can run to improve database performance.

Dropping MMDB Microsoft SQL Server Database Objects

If you make a mistake or want to recreate the database objects for the methodology management database, first drop the objects created by the database installation scripts. Dropping database objects deletes them permanently.

For your convenience, scripts are provided to drop the database objects. Run the scripts beginning with “ss” in the `\Database\scripts\install\MM_07_00_00\` drop folder of the P6 physical media or download. Specifically, these are the files to run and the action they take:

<code>SSDP_SPS.SQL</code>	drops stored procedures
<code>SSDP_SYN.SQL</code>	drops synonyms
<code>SSDP_GRN.SQL</code>	revokes privileges
<code>SSDP_FKC.SQL</code>	drops foreign keys constraints
<code>SSDP_NDX.SQL</code>	drops indexes
<code>SSDP_PK.SQL</code>	drops primary keys
<code>SSDP_TAB.SQL</code>	drops tables

You must connect to the server as the SA user to drop objects. If data exists, you must run the scripts in the order listed above.

If you would like to add Content data to the same SQL Server database where PMDB resides, see "Creating Content Repository Data" on page 69.

Create the Content Repository database structures in a new SQL Server database

Depending on sizing needs and performance considerations, you may want to set up the Content Repository in a new SQL Server database instead of adding to the existing PMDB database.

Creating the Database Tablespaces

- 1 Log on to the new SQL Server database as SA user.
- 2 Go to \database\scripts\install\JR_01_01_00 and execute the **ssjr_init_db.sql** script.

Running the script will create the basic structure of the database.



*Instead of running the **ssjr_init_db.sql** script, you can manually create a database with data and log files. Oracle recommends that you set the sizing to automatically grow based on need.*

Creating Content Repository data

- 1 Log on to the new SQL Server database as SA user.
- 2 Go to \database\scripts\install\JR_01_01_00 and execute the **ssjr_ins.sql** script.

Changing the Base Currency (Oracle and Microsoft SQL Server)

After manually creating and configuring the project management and methodology management databases, you must change the base currency if you do not want the databases to use US dollars (\$) as the base currency.



IT IS NOT POSSIBLE TO CHANGE THE BASE CURRENCY ONCE PROJECTS ARE IN PROGRESS.

For information on adding view currencies, refer to “Defining Administrative Preferences and Categories in Project Management” on page 395.

Setting the Base Currency

The base currency is the monetary unit used to store cost data for all projects in the database and is controlled by a global administrative setting in the Project Management module. The default base currency for P6 is US dollars (\$). The view currency is the monetary unit used to display cost data in P6 and is controlled by a user preference.

The exchange rate for the base currency is always 1.0. When a user selects a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Euros, and the exchange rate for Euros is .75, a value of \$10 stored in the database is displayed as 7.5 Euros in cost and price fields. Similarly, if you enter 7.5 Euros in a cost or price field, it is stored in the database as \$10.

When data is displayed in a view currency that is different than the base currency, some cost and price values may vary slightly (e.g., due to rounding). As long as the correct base currency is selected during database installation, a user can view completely accurate cost and price data by changing the view currency to match the base currency.

Reviewing Currency choices

The process to change the base currency involves editing and running a script provided by Oracle Primavera. By default, US dollars is the base currency, and USD is the short name used in the script. In order to know what short name to use in the script for the currency that you require, you should first review a list of available short names. To do so, run the following query on the project management or methodology management database:

```
select curr_type, curr_short_name from currtype;
```

Changing the Base Currency

- 1** On the P6 physical media or download, browse to \Database\scripts**common**. Copy one of the following scripts to a local drive:

For Oracle: **or_set_currency.sql**

For SQL Server: **ss_set_currency.sql**

- 2** If the script was copied from physical media, turn off the script file's read-only attribute.

Since files on physical media are read-only, this attribute is turned on when a file is copied from a CD or DVD. In Windows Explorer, right-click the file, choose Properties, and clear the Read-Only checkbox.

- 3** Open the script for editing and locate the line containing **v_new_base_currency: = 'USD'**
- 4** Replace USD with the currency short name of your choice.
- 5** Save your changes and run the modified script.

Database Administration

In this chapter:

Background Processes and Clean Up in P6

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SYMON (System Monitor)

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Improving Oracle Database Performance

Configuring Safe Deletes

Native Database Auditing

Connecting to Oracle Databases Using Oracle 11g Instant Client

Read this chapter to learn how to configure the job scheduler supplied by your RDBMS, how to optimize performance of your Oracle and SQL P6 databases, and how to configure the native database auditing feature to monitor edits, deletions, and additions to the databases.

Background Processes and Clean Up in P6

Overview

Previous Versions Prior to P6, the task of cleaning up the database was initiated by the PM (Project Management) client application. Depending on the clean up task, these tasks were automatically initiated by the PM client when users logged in and out of individual sessions or when the task was manually initiated via an option on the Tools menu.

Current Version Because clean up tasks can be resource intensive and time consuming, in P6 these tasks are initiated by two background jobs that run on the database server:

- SYMON (System Monitor), responsible for running procedures that take less than a few seconds to complete.
- DAMON (Data Monitor), responsible for running procedures that take longer than a few seconds to complete.

Both of these jobs are pre-configured with default settings. Since the default settings are optimal for most environments, you generally do not need to tune them. However, if further optimization is required, you can change the settings to tune the behavior of the background jobs for specific environments.

RDBMS Scheduler Since the background jobs are initiated by the job scheduler supplied by the RDBMS, you need to ensure that the scheduler for your specific RDBMS is properly configured. See [“Configuring the RDBMS Scheduler”](#) on page 81 for the configuration parameters for your RDBMS.

Configuring the RDBMS Scheduler

Oracle

P6 uses DBMS_SCHEDULER to schedule jobs in Oracle. No parameter changes are needed for P6 version 7.0.

SQL Server

The SQL Server 2005 job uses the SQL Agent to schedule jobs. If you are using SQL Server 2005, verify that the SQL Server Agent service is started on the server and has a startup type of automatic.

Settings Table

Settings Table Overview

The settings table contains name-value pairs that configure the behavior of the background processes.

Setting Name The setting name comprises two components: the namespace and the setting name. The namespace component is a dot-notation string representing a formal path to the parameter. The second component identifies the name of the setting. Together these two components make up the full setting name.

Value Values in the SETTINGS table are case-sensitive. The value portion of the pair can be one of the following types:

- String. The string data type is a free text value. The most common string sub-type is interval which represents an interval of time by combining a numeric portion with a unit portion as depicted in the table below.

Table 1: Interval Subtype

Numeric portion	+	Unit portion	Example	Meaning
		d	‘30d’	Thirty day interval
		h	‘2h’	Two hour interval
		m	‘10m’	Ten minute interval
		s	‘30s’	Thirty second interval

- Numeric. The numeric data type consists of any number.
- Boolean. The boolean data type can have one of two values: true or false, where zero represents false and any non-zero number represents true.
- Date.

Setting Example The following is an example of a setting:

- Namespace: database.cleanup.Usession
- Setting Name: ExpiredSessionTimeout
- Value: 2h (two hour interval)

Reading and Writing Setting Values

Settings can be configured through the Settings API Procedures. These procedures are similar to registry or INI file procedure calls.

Reading Settings Values Use the following SETTINGS_READ_* procedures to determine the current value of specific settings:

SETTINGS_READ_STRING(ret_val,namespace,settings_name,default)

SETTINGS_READ_DATE(ret_val,namespace,settings_name,default)

SETTINGS_READ_NUMBER(ret_val,namespace,settings_name,default)

SETTINGS_READ_BOOL(ret_val,namespace,settings_name,default)

By way of example, the following code snippets for the Oracle and SQL server databases demonstrate how these procedures are used to read the setting values:

Oracle Example: To retrieve the value of the KeepInterval setting in Oracle, use the following code:

```
SQL> variable vset varchar2(255)
```

```
SQL> exec settings_read_string(:vset,'database.cleanup.Usession',
'ExpiredSessionTimeout');
```

The system responds:

PL/SQL procedure successfully completed.

```
SQL> print vset
```

SQL Server Example: To retrieve the value of the KeepInterval setting in SQL, use the following code:

```
declare @vset varchar(255)
```

```
exec settings_read_string @vset
OUTPUT,'database.cleanup.Usession','ExpiredSessionTimeout'
```

```
print @vset
```

Writing Setting Values Use the `SETTINGS_WRITE_STRING` procedure to set the value of a specific setting:

```
SETTINGS_WRITE_STRING(new value,namespace,settings_name);
```

The following code snippets for Oracle and SQL server databases demonstrate how this procedure is used to set the value of the `ExpiredSessionTimeout` setting to twelve hours:

Oracle Example: To set the value of the `ExpiredSessionTimeout` setting to twelve hours in an Oracle database, use the following procedure:

- 1 Log into SQL *Plus using `privuser` as your user name,
- 2 Run the following statement:

```
SQL > exec SETTINGS_WRITE_STRING  
( '12h', database.cleanup.Usession', 'ExpiredSessionTimeout');
```

SQL Server Example: To set the value of the `ExpiredSessionTimeout` setting to twelve hours in a SQL server database, use the following procedure:

- 1 Open the Query Analyzer/SSMS and connect as `privuser`.
- 2 Select the PMDB database, then run the following statement (using 12 hours as an example):

```
exec SETTINGS_WRITE_STRING '12h','database.cleanup.Usession',  
'ExpiredSessionTimeout'
```

Tracking Background Job Execution

You can track the execution of background jobs by monitoring the high level status settings or by inspecting the BGPLOG table.

Monitoring the High Level Status Settings Each time a job is run it will update the SETTINGS table for the setting_name = 'HeartBeatTime.' The job may update this value multiple times during the execution. The maximum difference between this time and the current date can be monitored to assure that the job is running promptly. Refer to the High Level Status Settings table below for information about the HeartBeatTime setting.

Table 2: High Level Status Settings

Last date and time background job SYMON was executed.	
Namespace	database.background.Symon
Setting Name	HeartBeatTime
Default Setting	N/A
Last date and time background job DAMON was executed.	
Namespace	database.background.Damon
Setting Name	HeartBeatTime
Default Setting	N/A

Inspecting the BGPLOG Table You can also track the execution of background jobs by inspecting BGPLOG table. The BGPLOG table holds detailed entries from the background processes including informational, elapsed time, and error entries. Refer to the BGPLOG Table Descriptions for information about what this table contains.

Table 3: BGPLOG Table Descriptions

Column	Description	Value
Log_time	Time when log entry was made by background process	Datetime
Source	Program generating log entry	"system_monitor", "data_monitor"
Type	Type of message	INFORMATION, ELAPSED TIME, ERROR
Description	Message from the background process	A variable message followed by a number in parenthesis which represents the number of rows that were processed. As an example, the message "Complete BGPLOG (40)" indicates that forty rows were processed.

SYMON (System Monitor)

SYMON is meant to run simple P6 tasks on a relatively quick schedule. By default the job is scheduled to run every minute and the tasks assigned to this job should not take more than a few seconds to complete on each run. The default interval of one minute should not be changed for this procedure.

Procedures performed by SYMON

The PRMQUEUE and USESSION_CLEANUP_EXPIRED procedures are performed by SYMON.

PRMQUEUE The PRMQUEUE procedure processes the PRMQUEUE entries for Project Security.

OBSPROJ_PROCESS_QUEUE This procedure is used to defer processing of OBSPROJ updates by queuing the updates to the PRMQUEUE table.

Refer to the following table for information about the settings associated with the OBSPROJ_PROCESS_QUEUE procedure.

Table 4: OBSPROJ_PROCESS_QUEUE Settings

Setting Description: Maximum project-level queue records to process on each run.	
Namespace	database.obsproj.queue
Setting Name	MaxProjectUpdates
Default Setting	1000
Type	Numeric
Setting Description: Maximum EPS-level queue records to process on each run.	
Namespace	database.obsproj.queue
Setting Name	MaxEpsUpdate
Default Setting	25
Type	Numeric

Table 4: OBSPROJ_PROCESS_QUEUE Settings

Setting Description: Maximum times to re-process a failed entry before marking it as an error.	
Namespace	database.obsproj.queue
Setting Name	MaxRetries
Default Setting	50
Type	Numeric

USESSION_CLEANUP The USESSION_CLEANUP_EXPIRED procedure logically deletes USESSION records that have not updated their last_active_time based on the Expired Session settings. Marking expired USESSION records as logically deleted maximizes the number of module access logs that are available. Since it is not cleaning up the underlying data (physically deleting rows), the task completes quickly.

The clean up of expired sessions is controlled by a value in the SETTINGS table. By default, although the clean up of expired sessions occurs every two hours, the SETTINGS table does not contain a value for this setting. Use the SETTINGS_WRITE_STRING (<value>, <namespace>, <setting>) stored procedure to change the default clean up value.

For example, setting the value to "2d" deletes expired sessions older than two days.



Oracle recommends that you set the ExpiredLongSessionTimeout sessions to at least one hour longer than your longest job. For example, if your longest job is a summarizer job that usually takes 12 hours, you should set the value in the SETTINGS table to at least 13.

Refer to the table below for information about the
 USESSION_CLEANUP_EXPIRED Settings.

Table 5: USESSION_CLEANUP_EXPIRED Settings

Setting Description: Time-out period for normal sessions.	
Namespace	database.cleanup.Usession
Setting Name	ExpiredSessionTimeout
Default Setting	2h
Type	Interval
Setting Description: Time-out period for long running sessions based on the function performed in the application (i.e. Scheduling, Leveling, Summarizing, etc.).	
Namespace	database.cleanup.Usession
Setting Name	ExpiredLongSessionTimeout
Default Setting	12h
Type	Interval

DAMON (Data Monitor)

The second database job is the DAMON data monitor job. The DAMON job runs the majority of the background processing and is responsible for running background clean up processes required by the application that can potentially take a relatively long time to run.

Oracle

DAMON runs weekly on every Saturday, by default. It uses the Oracle DBMS_SCHEDULER package to schedule the jobs, and the schedule can be controlled by an Interval setting which accepts the same parameters as the DBMS_SCHEDULER interval. For more information, refer to your Oracle database documentation.

SQL Server

DAMON runs weekly on every Saturday, by default. It can be set to run every two weeks or on a specific day. To run DAMON every two weeks, use the following command to set the interval: **-eg 2W**

To set DAMON to run on a specific day, use the following setting under namespace: **'Database.background.Damon' <DayOfWeek>**

Procedures performed by DAMON

The procedures run by DAMON perform the following tasks:

- Cleaning up the BGPLOG table containing the background logs.
- Cleaning up the REFRDEL table.
- Cleaning up the PRMQUEUE table.
- Physically cleaning up remaining USESSION records.
- Cleaning up logically deleted records.
- Cleaning up the PRMAUDIT table.
- Cleaning up the USESSION audit table (USESSAUD).
- Running release-specific data clean up.

Additionally the functionality of the DAMON process can be dynamically extended via the user-defined procedure, **USER_DEFINED_BACKGROUND**.

DAMON Procedure Settings

BGPLOG_CLEANUP This procedure keeps the BGPLOG table at a reasonable size. The default clean up interval is 5 days which will result in a table size of about 54,000 records.

Refer to the following table for information about the settings associated with the BGPLOG_CLEANUP procedure.

Table 6: BGPLOG_CLEANUP Settings

Setting Description: The oldest records to keep in the BGPLOG table.	
Namespace	database.cleanup.BackGroundProcessLog
Setting Name	KeepInterval
Default Setting	5d
Type	Interval

REFRDEL_CLEANUP This procedure physically deletes records from the REFRDEL table based on the value of the KeepInterval setting. The default setting keeps the REFRDEL records from the last five days.

Refer to the following table for information about the settings associated with the REFRDEL_CLEANUP procedure:

Table 7: REFRDEL_CLEANUP Settings

Setting Description: The oldest records to keep in the REFRDEL table.	
Namespace	database.cleanup.Refrdel
Setting Name	KeepInterval
Default Setting	5d
Type	Interval
Setting Description: Identifies the maximum number of minutes up to which records are to be deleted from the REFRDEL table.	
Namespace	database.cleanup.Refrdel
Setting Name	DaysToDelete
Default Setting	1d
Type	Interval
Setting Description: Determines the number of minutes for each step interval.	
Namespace	database.cleanup.Refrdel
Setting Name	IntervalStep
Default Setting	15m
Type	Interval

CLEANUP_PRMQQUEUE This procedure physically deletes records from the PRMQQUEUE table based on the value of the KeepInterval setting. The remaining settings are similar to the REFRDEL_CLEANUP.

Refer to the following table for information about the settings associated with the CLEANUP_PRMQQUEUE procedure:

Table 8: CLEANUP_PRMQQUEUE Settings

Setting Description: The oldest records to keep in the PRMQQUEUE table. Default is five days.	
Namespace	database.cleanup.Prmqueue
Setting Name	KeepInterval
Default Setting	5d
Type	Interval
Setting Description: Determines whether the procedure will delete all of the PRMQQUEUE records possible on each pass.	
Namespace	database.cleanup.Prmqueue
Setting Name	DeleteAll
Default Setting	0 (false)
Type	Boolean
Setting Description: Determines whether all of the records are cleaned up. If the total record count is less than this number then all the records are cleaned up.	
Namespace	database.cleanup.Prmqueue
Setting Name	DeleteAllThreshold
Default Setting	1,000
Type	Numeric

Table 8: CLEANUP_PRMQUEUE Settings

Setting Description: Percentage of records to delete on each pass.	
Namespace	database.cleanup.Prmqueue
Setting Name	DeletePercentage
Default Setting	10(%)
Type	Numeric
Setting Description: Maximum rows to delete on each pass.	
Namespace	database.cleanup.Prmqueue
Setting Name	MaxRowsToDelete
Default Setting	10,000
Type	Numeric

USESSION_CLEAR_LOGICAL_DELETES This procedure physically deletes all logically deleted USESSION records. There are no settings associated with this procedure: All logically deleted USESSION records are cleared.

CLEANUP_LOGICAL_DELETES This procedure removes logically deleted rows based on the value of the KeepInterval setting. Records in the database can be marked as deleted (logically deleted) by setting the DELETE_SESSION_ID column to a non-null value. By default, records that were deleted more than 5 days ago will be physically deleted by this procedure.



The CLEANUP_LOGICAL_DELETES procedure will not physically delete records whose DELETE_SESSION_ID column is set to a negative value.

Refer to the following table for information about the settings associated with the CLEANUP_LOGICAL_DELETES procedure:

Table 9: CLEANUP_LOGICAL_DELETES Settings

Setting Description: The oldest logically deleted records to keep in tables.	
Namespace	database.cleanup.LogicalDelete
Setting Name	KeepInterval
Default Setting	5d
Type	Interval
Setting Description: Determines whether the procedure will delete all of the logically deleted records possible on each pass.	
Namespace	database.cleanup.LogicalDelete
Setting Name	DeleteAll
Default Setting	0 (false)
Type	Boolean

Table 9: CLEANUP_LOGICAL_DELETES Settings

Setting Description: Maximum rows to delete on each pass.	
Namespace	database.cleanup.LogicalDelete
Setting Name	MaxRowsToDelete
Default Setting	10,000
Type	Numeric

PRMAUDIT_CLEANUP If the auditing feature is enabled, this procedure will physically delete records from the table based on the value of the KeepInterval setting.

Refer to the following table for information about the settings associated with the PRMAUDIT_CLEANUP procedure:

Table 10: PRMAUDIT_CLEANUP Settings

Setting Description: Should the procedure attempt to clean up PRMAUDIT records.	
Namespace	database.cleanup.auditing
Setting Name	Enabled
Default Setting	1 (true)
Type	Boolean
Setting Description: The oldest audit records to keep in PRMAUDIT.	
Namespace	database.cleanup.auditing
Setting Name	KeepInterval
Default Setting	30d
Type	Interval

CLEANUP_USESSAUD This procedure physically deletes records from the USESSAUD table based on the KeepInterval. The remaining settings are similar to the REFRDEL_CLEANUP procedure.

Refer to the following table for information about the settings associated with the CLEANUP_USESSAUD procedure:

Table 11: CLEANUP_USESSAUD Settings

Setting Description: The oldest records to keep in the USESSAUD table.	
Namespace	database.cleanup.Usessaud
Setting Name	KeepInterval
Default Setting	5d
Type	Interval
Setting Description: Determines whether the procedure delete all the REFRDEL records possible on each pass.	
Namespace	database.cleanup.Usessaud
Setting Name	DeleteAll
Default Setting	0 (false)
Type	Boolean
Setting Description: Determines whether all of the records are cleaned up. If the total record count is less than this number then all records are cleaned up.	
Namespace	database.cleanup.Usessaud
Setting Name	DeleteAllThreshold
Default Setting	1,000
Type	Numeric

Table 11: CLEANUP_USESSAUD Settings

Setting Description: Percentage of records to delete on each pass.	
Namespace	database.cleanup.Usessaud
Setting Name	DeletePercentage
Default Setting	10 (%)
Type	Numeric
Setting Description: Maximum rows to delete on each pass.	
Namespace	database.cleanup.Usessaud
Setting Name	MaxRowsToDelete
Default Setting	10,000
Type	Numeric

USER_DEFINED_BACKGROUND This procedure is an optional customer procedure that is run by DAMON. There are no settings associated with this procedure.

CLEANUP_OLD_DATA This procedure is empty in P6. It will be used in future releases to perform release related data clean up.

Improving Oracle Database Performance

There are several Oracle database settings you can modify that will improve the performance of your P6 database.

If you automatically install the database using the Database wizard as described in “Automatic Database Installation” on page 45, you are automatically prompted to run the RUN_AS_SYS.SQL and GATHER_STATS.SQL scripts at the end of the installation. If you manually create the database as described in “Manual Database Configuration” on page 57, you should run the script as described below after you create the database.

Grant access to the V_\$TRANSACTION table:

The V_\$TRANSACTION table stores the earliest login time that data was changed. This improves performance when refreshing data because data before that login time is not accessed. Users must have access to view the V_\$TRANSACTION table; otherwise, the earliest login time cannot be viewed and redundant data is accessed, which causes slower performance.

To grant access to this table, connect to Oracle as SYS. Run the RUN_AS_SYS.SQL script located in the \Database\scripts\common folder of the P6 physical media or download, or run the following GRANT statement:

```
grant select on v_$transaction to admuser;
```

Gather statistics for cost-based optimization:

Oracle 10g and later supports only cost-based optimization, which relies on accurate statistics to determine the optimal access path for a query. To gather the appropriate statistics for the optimizer, which will improve database performance, run the GATHER_STATS.SQL script located in the \Database\scripts\common folder of the P6 physical media or download.

Configuring Safe Deletes

For more information about using undo, refer to the Project Management Reference Manual or Help.

The project management database normally handles restoring select deleted data using a safe delete setting. While using the Project Management module, the Undo command (Edit, Undo) allows users to restore certain types of data that have been deleted. Deleted data remains in the project management database until the CLEANUP_LOGICAL_DELETES procedure clears it (after 5 days, by default).

Turn off safe deletes You can turn off safe deletes to save storage space. Turning off safe deletes disables undo functionality and instantly clears deleted data from the project management database. To verify the current state of your safe deletes setting:

In the database, if the table ADMIN_CONFIG has the following row, a CONFIG_VALUE of 'N' means turn off safe deletes.

CONFIG_NAME = 'SAFEDELETE.ACTIVE' and CONFIG_TYPE = 'SETTINGS'



This is only loaded at startup. If you change CONFIG_VALUE while a user is running PM, the setting will not apply until the user restarts the PM session.

Once you have determined the current state of your safe deletes setting, run one of the following statements:

To turn off safe deletes for the first time:

```
INSERT INTO ADMIN_CONFIG (CONFIG_NAME,  
CONFIG_TYPE, CONFIG_VALUE) VALUES  
(SAFEDELETE.ACTIVE, 'SETTINGS', 'N')
```

To turn on safe deletes after it has been turned off run the following update statement:

```
UPDATE ADMIN_CONFIG SET CONFIG_VALUE = 'Y' WHERE  
CONFIG_NAME = 'SAFEDELETE.ACTIVE' AND CONFIG_TYPE =  
'SETTINGS'
```

To turn off safe deletes after it has been turned on run the

following update statement:

```
UPDATE ADMIN_CONFIG SET CONFIG_VALUE = 'N' WHERE  
CONFIG_NAME = 'SAFEDELETE.ACTIVE' AND CONFIG_TYPE =  
'SETTINGS'
```

Native Database Auditing

Native database auditing permits you to log the edits, additions, and deletions made by users of P6 applications. Native database auditing takes advantage of the fact that every change made by a user results in a Data Manipulation Language (DML) INSERT, UPDATE, or DELETE statement being executed against tables in the database schema. Since every application table in the schema has its own auditing trigger, you can log changes made to each table regardless of who made the change or when the change was made. The database schema owner owns the auditing trigger: trigger execution cannot be bypassed.

Configuring the Auditing Level

You can adjust the amount of information that is logged by adjusting the audit level for each table. The granularity of the audit can be refined further by setting the audit level individually for insert, updates and deletes within each table.

Table 12: Auditing Levels

Level	Description
Level 0	No audit.
Level 1	Row-level audit. Audit only the operation without column details
Level 2	Column-level Audit without blobs. Audit changes to the data at the column level but without blob changes
Level 3	Full Audit. Audit changes to the data at the column level. For Oracle, column level changes to blobs are audited. For SQL server, column level changes to blobs are not included.

Simple Configuration

There are two configuration procedures available that provide for the simple control of the auditing feature:

- `auditing_enable(<table_name>, <level>)`
- `auditing_disable(<table_name>)`

These procedures allow for setting the audit level on an individual table or the same audit level for all of the tables. However, the simple configuration procedures do not allow for setting individual auditing levels for insert, update, or delete operations within a table.

Examples for Oracle: Use the following examples as a guide to using the simple audit configuration procedures to control the auditing feature.

The following code snippet enables full auditing on all tables:

```
exec auditing_enable(null,3);
```

The following code snippet enables level one auditing on the task table:

```
exec auditing_enable('TASK',1);
```

The following code snippet disables auditing on PROJWBS:

```
exec auditing_disable('PROJWBS');
```

The following code snippet completely disables auditing across the entire database:

```
exec auditing_disable(null);
```


Detailed Configuration

You can configure auditing trigger behavior by changing values in the settings table that enable or disable the following auditing features:

- The auditing feature itself
- The auditing of specific tables
- The auditing of table insert, update, or delete operations within each table

Turning Auditing Off and On You can enable or disable the auditing feature itself by using the `database.audit.Enable` setting. Use the `settings_write_bool` procedure to enable/disable the overall auditing feature.

Oracle Example: To enable the overall auditing feature in Oracle, use the following code:

```
exec settings_write_bool(1,'database.audit','Enabled');
```

SQL Server Example: To enable the overall auditing feature in SQL Server, use the following code:

```
exec settings_write_bool 1,'database.audit','Enabled'
```

Each individual table's auditing settings are controlled by the Options setting in each table's auditing namespace (for example, database.audit.TASK). The Options setting is a three character string with a numeric value in each character position representing the audit level for insert, update, and delete, respectively.

Table 13: Auditing Level Options Setting by Table Operation

	Operation			Description
	Insert	Update	Delete	
Level	0	0	0	No audit.
	1	1	1	Row-level audit. Audit only the operation without column details
	2	2	2	Column-level audit without blobs. Audit changes to the data at the column level but without blob changes
	3	3	3	Full Audit. Audit changes to the data at the column level. For Oracle, column level changes to blobs are audited. For SQL server, column level changes to blobs are not included.

The following table provides some example uses of the options setting:

Table 14: Setting the Auditing Level Options Setting by Table Operation Examples

Namespace	Setting	Value	Description
database.audit.TASK	Options	330	Fully audit any insert and update operations. Do not audit any delete operations.
database.audit.PROJWBS		001	Row-level audit on deletes only.
database.audit.TASKRSRC		333	Fully audit.

Individual table audit settings can be changed using the `settings_write_string` procedure.

Oracle Example: To set the table settings to fully audit insert and update operations but ignore any delete operations, use the following code for Oracle:

```
exec settings_write_string('330','database.audit.TASK','Options');
```

SQL Server Example: To set the table settings to fully audit insert and update operations but ignore any delete operations, use the following code for SQL Server:

```
exec settings_write_string '330','database.audit.TASK','Options'
```



Changes to auditing settings will not necessarily be reflected immediately in the application. In general the program will need to close the database connection and then reconnect to the database to get the new settings.

Understanding Auditing Data

The Audit Table Audit records are inserted into the PRMAUDIT table. One record is inserted into the audit table for each row changed in the database.

Table 15: PRMAUDIT Table

Column	Type	Description
audit_date	Date	Date and time of change
table_name	String(30)	Table Name
pk1, pk2, pk3, pk4	String(255)	Primary key values for audited record
oper	String(1)	I=Insert, U=Update, D=Delete
prm_user_name	String(32)	P6 user name if the change was made in P6 applications
audit_info	String(4000)	Column changes up to 4000 characters (Level 2 and 3 only)
audit_info_extended	BLOB	Blob changes and overflow from audit_info (Level 2 and 3 only)
logical_delete_flag	String(1)	Flag for deletes that are logical (marked) rather than a physical delete
rdbms_user_name*	String(255)	Database user name (usually privuser)
os_user_name*	String(255)	Operating system user name of connected session
program*	String(255)	Name of program connecting to the database
host_name*	String(255)	Computer name of connected session
app_name*	String(25)	Name of application connected to the database
netaddress*	String(24)	IP or MAC address of connected session
* Values will differ from SQL Server and Oracle		



Select privileges should be granted to the administrative user (admuser) on V_\$SESSION to assure correct values for several auditing table values.

Session Auditing

Activity for the USESSION table is audited with its own trigger and table. When an application user logs out of the system they logically delete, or mark, their session record in the USESSION table. One record is written to the USESSAUD table for each logout. The format of the USESSAUD table mirrors that of the USESSION table. This audit can be enabled using the usessaud_enable procedure and disabled using the usessaud_disable procedure.

Column-level Audit Data

The data changes for each audit are stored in the audit_info and audit_info_extended columns. The audit_info column contains all the row changes as long as they do not exceed 4000 characters. Changes over 4000 characters or any edit to a blob will be written to the audit_info_extended BLOB column.

Data in the two audit_info columns has a specific format. Each column audit within the data begins with either ":O" (old data) or ":N" (new data) to distinguish between the audit of the previous (old) or the changed (new) value (for BLOB columns the data starts with :BLOBO or :BLOBN). Directly after this is the name of the column in lowercase. Following the column name is the length of the audited value in a fixed four character field. Finally the actual data is placed in the audit record. Updates will have both an old and new value for each change. Inserts will have only a new value and deletes only an old value.

The following is an example of the audit record for a change to the TASK to change the task_code from 'A1010' to 'B102':

```
audit_info =>:Otask_code: 5:A1010:Ntask_code: 4:B102
```

Connecting to Oracle Databases Using Oracle 11g Instant Client

If you use Oracle 11g Instant Client to connect to your Oracle P6 databases, you should specify the Oracle connection string in the SETTINGS table. If you do not specify the connection string, users connecting to the database using Oracle 11g Instant Client will not be able to access functions within the Project Management module that rely on the P6 Integration API (for example, Update Baseline).

ADMINISTRATOR_SETTINGS To enable Oracle 11g Instant Client users to utilize Integration API functionality within the Project Management module, you must add an ADMINISTRATOR_SETTINGS row to the SETTINGS table for each Oracle database you use with P6. When entering a value for this setting, use the standard connection string syntax found in the TNSNAMES.ORA file, preceded by 'jdbc:oracle:thin:@'. For example:

```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=<hostname>)(PORT=<portnumber>))))(CONNECT_DATA=(SID=<database>)))
```

The table below summarizes the settings.:

Table 16: ADMINISTRATOR_SETTINGS Settings

Setting Description: Points to the JDBC connection URL for an Oracle P6 database.	
Namespace	Administrator_Settings
Setting Name	JdbcConnectionURL
Default Setting	—
Type	String

Server Installation and Configuration

In this part:

Installing P6 Progress Reporter

Installing P6 Web Access

Configuring the Distributed Job Service

Read this part to install and configure the components of P6 that need to run on a network server.

“[Installing P6 Progress Reporter](#)” discusses how to prepare a server for a Progress Reporter implementation, which requires an application server.

The “[Installing P6 Web Access](#)” chapter provides instructions for setting up P6 Web Access. The “[Configuring the Distributed Job Service](#)” chapter provides details on how to configure the job service to distribute jobs to multiple servers simultaneously.

Installing P6 Progress Reporter

In this chapter:

P6 Progress Reporter Installation Process

Upgrading P6 Progress Reporter Server

Installing the Application Server for P6 Progress Reporter

Installing P6 Progress Reporter

Configuring and Deploying the Application Server for P6 Progress Reporter

Starting the Server for P6 Progress Reporter

Stopping the Server for P6 Progress Reporter

Implementing Application Server Plug-Ins

Using the Progress Reporter Administrator

To implement the Progress Reporter module as part of your P6 installation, you must add a Progress Reporter server (formerly known as “Group Server”) to your network. The Progress Reporter server hosts the Progress Reporter application files and uses an application server to connect to your database server. This chapter describes how to install P6 Progress Reporter and how to review and modify configuration settings using the Progress Reporter Administrator.

P6 Progress Reporter Installation Process

Progress Reporter is a web-based module that project team members can use to update project data. Progress Reporter connects to the project management database via an application server.

For more information about Java Web Start, visit <http://java.sun.com>.

Users will launch Progress Reporter via the Java Web Start or the Web Browser version. Java Web Start provides a secure and platform-independent deployment of Progress Reporter using Java Network Launching Protocol (JNLP) technology and runs as a Java application. Java Web Start also ensures that users always launch the most recent version of Progress Reporter under the correct client-side JRE version, even if there is more than one JRE version present. The Web Browser version enables users to access their timesheet data across the Internet as a Java applet and is required if using Single Sign-On for authentication.

Installing the P6 Progress Reporter server and fulfilling server administration tasks involve the following steps, which are described in this chapter:

For the full list of tested configurations for the Progress Reporter server, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.

- (upgrades only) Uninstalling Group Server. See page 116.
- Installing one of the supported application servers. See page 117.
For a list of supported application servers, see page 35.
- Installing P6 Progress Reporter. See page 120.
- Configuring and deploying the application server. See page 122.
- Entering project management database connection information using the Progress Reporter Administrator. See page 137.
- Reviewing and modifying (if needed) Progress Reporter server configuration and preference settings via the Progress Reporter Administrator. See page 137. For detailed information, refer to the *Progress Reporter Administrator Help*.



If you have a previous version of Group Server installed, it is recommended that you uninstall it before upgrading to P6 Progress Reporter.

After installing and configuring the Progress Reporter server, make sure to complete the steps below to fulfill the application administration tasks for Progress Reporter:

- Setting preferences for how users will use timesheets and create overhead codes, as described in [“Defining Administrative Preferences and Categories in Project Management”](#) on page 395.



Some preference settings are also available from the Progress Reporter Administrator.

- Using the Project Management module to complete configuration of Progress Reporter for users, as described in [“Implementing P6 Progress Reporter”](#) on page 433.
- Directing users on how to launch the Progress Reporter module, as described in [“Accessing P6 Progress Reporter from Client Browsers”](#) on page 443.



If you will require that timesheets be reviewed and approved, you must install P6 Web Access, as described in [“Installing P6 Web Access”](#) on page 139, to enable user access to the Timesheet Approval application. After you install P6 Web Access and configure Progress Reporter, you can configure access to the Timesheet Approval application as described in [“Configure Access to Timesheet Approval”](#) on page 447.

Upgrading P6 Progress Reporter Server

If you are upgrading P6 from a previous version, Oracle recommends that you first uninstall the existing Group Server before installing P6 Progress Reporter. A new web site is created during the Progress Reporter server setup.

Uninstalling Group Server

- 1 From the Windows Control Panel, select Services.
- 2 Select the Primavera Group Server entry and click Stop.
- 3 Close the Services window.
- 4 In the Control Panel window, double-click Add/Remove Programs.
- 5 Select Primavera Group Server, then click the Add/Remove button. Follow the steps in the Uninstall wizard, then click Finish when the wizard completes the uninstall.



If you are upgrading from P6 version 6.0 or earlier and require that timesheets be reviewed and approved, you must install P6 Web Access, as described in “[Installing P6 Web Access](#)” on page 139, to enable user access to the Timesheet Approval application. After you install P6 Web Access, configure access to the Timesheet Approval application as described in “[Configure Access to Timesheet Approval](#)” on page 447.

Installing the Application Server for P6 Progress Reporter

The Progress Reporter server supports Red Hat JBoss, Oracle WebLogic and IBM WebSphere. For a complete list of supported application servers with version numbers, see “[Client and Server Requirements](#)” on page 35. For a full list of tested configurations for the Progress Reporter server, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.



On Windows, it is recommended that you install the application server to a folder with a short name.

Installing JBoss on Microsoft Windows

Install the JDK

The supported version of JBoss requires Java 2 JDK version 6.0 update 14 (1.6.0_14). The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

Install JBOSS 5.0.1 GA-JDK6

- 1 Download ‘jboss-5.0.1.GA-jdk6.zip’ from the following website:
<http://www.jboss.org>
- 2 Copy ‘jboss-5.0.1.GA-jdk6.zip’ to a local drive.
- 3 Unzip the folder to <JBossInstallLocation>.
(for example, C:\jboss-5.0.1.GA-jdk6).
- 4 Go to <JBossInstallLocation>\server.
- 5 Select the folder ‘default,’ press Ctrl-C to copy it, and then press Ctrl-V. This creates a folder named ‘copy of default’.
- 6 Rename the folder called ‘copy of default’ to ‘pr’.

Installing JBoss on Oracle Enterprise Linux

Install the JDK

The supported version of JBoss requires Java 2 JDK version 6.0 update 14 (1.6.0_14). The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

Install JBOSS 5.0.1 GA-JDK6

- 1 Download 'jboss-5.0.1.GA-jdk6.zip' from the following website:

<http://www.jboss.org>

- 2 Copy 'jboss-5.0.1.GA-jdk6.zip' to a local drive.
- 3 Unzip the folder to <JBossInstallLocation>
(for example, /usr/jboss-5.0.1.GA-jdk6).
- 4 To insure that files can be executed, run the following command:
`chmod -R +x *`
- 5 Go to <JbossInstallLocation>/server.
- 6 Select the folder 'default,' press Ctrl-C to copy it, and then press Ctrl-V. This creates a folder named 'default(copy)'.
- 7 Rename the folder called 'default(copy)' to 'pr'.

Installing WebLogic

Install the JDK

WebLogic 10g R3 automatically installs JRockit 1.6.0_05 and Sun Java 2 JDK version 6.0 update 5 (1.6.0_05) for Windows and Oracle Enterprise Linux, and installs Java 2 JDK version 6 update 4 (1.6.0_04) for HP-UX. These are the required JDK versions for some 32-bit and 64-bit Progress Reporter servers.

To use the Sun JDK with WebLogic, JDK version 6.0 update 14 (1.6.0_14) is required. The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

To use JRockit with 64-bit Windows servers, JRockit Real Time 3.0 for Java version 6 (1.6.0_11) is required. Download this version from the following website:

<http://www.oracle.com/technology/software/products/jrockit/index.html>

Install WebLogic 10g R3

Consult WebLogic's documentation for installation instructions.

Installing WebSphere

Install the JDK

WebSphere 7.0 automatically installs the IBM JDK. Installing the recommended WebSphere fix pack will update the JDK automatically, which is the required JDK for the Progress Reporter server. For information on which fix pack was tested, refer to the Tested Configurations document.

Install WebSphere 7.0

Consult WebSphere's documentation for installation instructions.

Installing P6 Progress Reporter



Due to the global nature of the OUI (Oracle Universal Installer), the OUI online help is not applicable for installing or uninstalling P6 Progress Reporter or for references to P6 documentation. Instead, refer to the installation instructions in this section.



P6 Progress Reporter will not appear in the “Add or Remove Programs” list in Windows. If you need to uninstall P6 Progress Reporter, run the OUI (Oracle Universal Installer).

Specify Home Details screen When you run the Progress Reporter installation, files are copied to a home directory on your computer. The home directory information is displayed on the installer’s *Specify Home Details* screen. Make note of the home directory path so you can locate the following files when called for during the configuration process:

- pr.ear
- pr-help.war

If you configure Oracle Enterprise Manager to work with Progress Reporter you need the following file from the directory:

- pr-emplugin.jar

Use Oracle Enterprise Manager documentation to install and configure Oracle Enterprise Manager.

To install P6 Progress Reporter

- 1 From the Progress_Reporter folder of the physical media or download location, run one of the following depending on your system type:
 - If you are installing on a Microsoft Windows system, navigate to the **win\Disk1\install** directory and then double-click on the **setup.exe** file.
 - If you are installing on a non-Microsoft Windows system, type the following command:

cd <Operating System>\Disk1\install

Depending on your operating system replace <Operating System> in the command above with solaris_64, linux, hp_64, or aix_64-5L.

Then type the following commands

chmod 755 runInstaller
chmod 755 unzip
./runInstaller

- 2 The Oracle Universal Installer appears, click next on each screen to accept the default settings.

Configuring and Deploying the Application Server for P6 Progress Reporter

This section details the necessary configuration and deployment steps for all supported application servers. Although not required for the Progress Reporter server set up, each application server has additional settings that can be used to enhance the environment. For example, when using clustering, enabling the session replication setting will seamlessly transfer users to another server in case of an unexpected server shutdown. Refer to your application server's documentation for details on all available settings.

Configuring JBoss 5.0.1 GA on Microsoft Windows

- 1 Copy the Progress Reporter help WAR file (pr-help.war) from the home directory, as specified on page 120, to the following location:

`<JBossInstallLocation>\server\pr\deploy\`

- 2 Copy the Progress Reporter server application EAR file (pr.ear) from the home directory, as specified on page 120, to the following location:

`<JBossInstallLocation>\server\pr\deploy\`

- 3 For international support, edit the following file:

`<JBossInstallLocation>\server\pr\deploy\
jbossweb.sar\server.xml`

In the Connector setting, add the parameter
URIEncoding="UTF-8".

For example:

```
<!--A HTTPS/1.1 Connector on port 8080-->  
<Connector port="8080" URIEncoding="UTF-8"  
address="{jboss.bind.address}"  
maxThreads="250" strategy="ms" maxHttpHeaderSize="8192"  
emptySessionPath="true"  
enableLookups="false" redirectPort="8443" acceptCount="100"  
connectionTimeout="20000" disableUploadTimeout="true"/>
```



If you are using a non-SSL connector, remove the SSL specification from the setting.

- 4 Browse to `<JBossInstallLocation>\bin`.

To learn more about the configuration home setting, see “Using the Progress Reporter Administrator” on page 137.

- 5 If you plan to change the default configuration home location for the Progress Reporter server, proceed with this step. Otherwise, skip to step 6.



The default configuration home location is:
 <user home directory>/.oracle/primavera/progressreporter

Edit the **run.bat** command file, and insert the following line (as all one line) before the :RESTART line:

```
set JAVA_OPTS=
"-Dprimavera.configuration.home=<configurationhome>"
%JAVA_OPTS%
```

where <configurationhome> is the new location (for example, C:\progressreporter)



There is a space between <configurationhome>” and %JAVA_OPTS%.

- 6 In the run.bat file, do the following to enhance performance:
 - Find the following line:
 set JAVA_OPTS=%JAVA_OPTS% -Xms128m -Xmx512m
 - Replace that line with the following (as all one line):
 set JAVA_OPTS=%JAVA_OPTS% -XX:PermSize=64m
 -XX:MaxPermSize=128m -Xms512m -Xmx512m

- 7 Save the changes to the run.bat file.



- 8 Service Administrators may want to secure the JMX Console. For instructions, visit <http://www.redhat.com>.

Deploying JBoss 5.0.1 GA on Microsoft Windows

- 1 In order for incoming client connections to remotely access the JBoss service, the JBoss services must be configured to bind to a network interface (e.g., the IP address of the network card for the server on which JBoss is installed). Determine to which interface(s) JBoss services should bind in order to enable remote access to the JBoss application server. For security purposes, the default installation of JBoss binds its services to the local host (127.0.0.1) interface, which does not allow remote connections to the JBoss services.
- 2 To start the JBoss application server, create a bat file on a local drive named 'startPRinJBoss.bat'. Enter the following:

```
@echo off
set JBOSS_HOME=<JBossInstallLocation>
call %JBOSS_HOME%\bin\run.bat -c pr
```

As appropriate for your specific deployment, include the -b option at the end of the “call %JBOSS_HOME%...” line to bind the JBoss services to the interface(s) determined in [step 1](#). For example,

```
call %JBOSS_HOME%\bin\run.bat -c pr -b <IP address>
```

Refer to the *JBoss Application Server Installation and Getting Started Guide*, available from <http://www.jboss.org>, for more information on enabling and securing remote access to the appropriate interface(s).

Also, if not previously defined, add the JAVA_HOME Environment variable in the ‘startPRinJBoss.bat’ file. For example,

```
set JAVA_HOME=C:\Program Files\Java\jdk1.6.0_14
```

- 3 Run the newly created bat file.

Configuring JBoss 5.0.1 GA on Oracle Enterprise Linux

- 1 Copy the Progress Reporter help WAR file (pr-help.war) from the home directory, as specified on page 120, to the following location:

<JBossInstallLocation>/server/pr/deploy/

- 2 Copy the Progress Reporter server application EAR file (pr.ear) from the home directory, as specified on page 120, to the following location:

<JBossInstallLocation>/server/pr/deploy/

- 3 For international support, edit the following file:

<JBossInstallLocation>/server/pr/deploy/
jbossweb.sar/**server.xml**

In the Connector setting, add the parameter
URIEncoding="UTF-8".

For example:

```
<!--A HTTPS/1.1 Connector on port 8080-->
<Connector port="8080" URIEncoding="UTF-8"
address="{jboss.bind.address}"
maxThreads="250" strategy="ms" maxHttpHeaderSize="8192"
emptySessionPath="true"
enableLookups="false" redirectPort="8443" acceptCount="100"
connectionTimeout="20000" disableUploadTimeout="true"/>
```



If you are using a non-SSL connector, remove the SSL specification from the setting.

- 4 Browse to <JBossInstallLocation>/bin.
- 5 If you plan to change the default configuration home location for the Progress Reporter server, proceed with this step. Otherwise, skip to [step 7](#).



The default configuration home location is:
<user home directory>/oracle/primavera/progressreporter

To learn more about the configuration home setting, see [“Using the Progress Reporter Administrator”](#) on page 137.

Edit the **run.sh** command file, and insert the following line (as all one line) in the '# Setup JBoss specific properties' section:

```
JAVA_OPTS=
"-Dprimavera.configuration.home=<configurationhome>
$JAVA_OPTS"
```

where <configurationhome> is the new location (for example, /usr/progressreporter)



There is a space between <configurationhome> and \$JAVA_OPTS".



*If not previously defined, add the JAVA_HOME Environment variable in the run.sh file. For example,
export JAVA_HOME = /usr/jdk 1.6.0_14*

- 6 Save the changes to the run.sh file.
- 7 Edit the **run.conf** file, and do the following to improve performance:
 - Find the following line:


```
JAVA_OPTS="-XX:PermSize=64m -XX:MaxPermSize=64m -  
Dsun.rmi.dgc.client.gcInterval=3600000 -  
Dsun.rmi.dgc.server.gcInterval=3600000"
```
 - Replace "-XX:PermSize=64m -XX:MaxPermSize=64m" with the following (as all one line):


```
"-XX:PermSize=64m -XX:MaxPermSize=128m -Xms512m  
-Xmx512m"
```
- 8 Save the changes to the run.conf file.
- 9 Service Administrators might want to secure the JMX Console. For instructions, visit <http://www.redhat.com>.

Deploying JBoss 5.0.1 GA on Oracle Enterprise Linux

- 1 In order for incoming client connections to remotely access the JBoss service, the JBoss services must be configured to bind to a network interface (e.g., the IP address of the network card for the server on which JBoss is installed). Determine to which interface(s) JBoss services should bind in order to enable remote access to the JBoss application server. For security purposes, the default installation of JBoss binds its services to the local host (127.0.0.1) interface, which does not allow remote connections to the JBoss services.
- 2 Open a terminal. Type the following commands, or the expanded version specified below, to start the server:

```
cd /<JBossInstallLocation>/bin  
./run.sh -c pr
```

As appropriate for your specific deployment, include the `-b` option at the end of the second command line to bind the JBoss services to the interface(s) determined in [step 1](#). For example,

```
cd /<JBossInstallLocation>/bin  
./run.sh -c pr -b <IP address>
```

Refer to the *JBoss Application Server Installation and Getting Started Guide*, available from <http://www.jboss.org>, for more information on enabling and securing remote access to the appropriate interface(s).

Configuring and Deploying Oracle WebLogic 10g R3

Configuring Oracle WebLogic requires the following tasks:

- Creating a WebLogic domain for P6 Progress Reporter
- Creating the P6 Progress Reporter home directory
- Configuring WebLogic for P6 Progress Reporter
- Deploying P6 Progress Reporter into the WebLogic domain

Creating a WebLogic domain

- 1 Run the **WebLogic Configuration Wizard**.
- 2 In the **Welcome** window, select **Create a new WebLogic domain** and click **Next**.
- 3 In the **Select Domain Source** window, click **Next** to accept the default selections.
- 4 In the **Configure Administrator Username and Password** window, enter the user name and password information and click **Next**.
- 5 In the **Configure Server Start Mode and JDK** window, select **Production Mode** in the left pane. Select an appropriate JDK in the right pane and click **Next**.
- 6 In the **Customize Environment and Services Settings** window, click **Next**.
- 7 In the **Create WebLogic Domain** window, enter the domain and location information and click **Create**.
- 8 In the **Creating Domain** window, mark **Start Admin Server** and click **Done**.
- 9 When prompted, enter the username and password that you entered in [step 4](#).

Creating the P6 Progress Reporter server home directory

- 1 Create a new directory on a local drive of the Progress Reporter server (for example, C:\prhome).
- 2 Copy the Progress Reporter server application EAR file (pr.ear) from the home directory, as specified on page 120, to the new directory.
- 3 Copy the Progress Reporter help WAR file (pr-help.war) from the home directory, as specified on page 120, to the new directory.

To learn more about the configuration home setting, see “Using the Progress Reporter Administrator” on page 137.

Configuring WebLogic for P6 Progress Reporter

- 1 If you plan to change the default configuration home location for the Progress Reporter server, proceed with this step. Otherwise, skip to [step 5](#).



The default configuration home location is:

<user home directory>/oracle/primavera/progressreporter

Make a backup copy of the **startWebLogic** file in case you need to undo any changes.

- In Windows, the file is named “startweblogic.cmd” and is located in:
 <bea_home>\user_projects\domains\<your_domain>\bin
- In Unix, the file is named “startweblogic.sh” and is located in:
 <bea_home>/user_projects/domains/<your_domain>/bin

- 2 Edit the startWebLogic file.
- 3 Locate the line that begins with “set JAVA_OPTIONS=” and add the Primavera configuration home variable.

In Windows, the line should look similar to the following:

```
set JAVA_OPTIONS=%SAVE_JAVA_OPTIONS%
-Dprimavera.configuration.home=<configurationhome>
```

where <configurationhome> is the new location (for example, C:\progressreporter).

In Unix, the line should look similar to the following:

```
JAVA_OPTIONS="${SAVE_JAVA_OPTIONS}
-Dprimavera.configuration.home='<configurationhome>'"
```

where <configurationhome> is the new location (for example, /usr/progressreporter)

- 4 Save the changes to the startWebLogic file.
- 5 In case you need to undo any changes, make a backup copy of the appropriate **setDomainEnv** file (.cmd or .sh), which is located in the same bin directory specified in [step 1](#).
- 6 Edit the setDomainEnv file.

- 7 Increase the JVM MaxPermSize setting in the setDomainEnv file to avoid Out-of-Memory errors. The MaxPermSize setting should be set to at least 256m.

In Windows, replace 128 in the line below with 256:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=128m
```

So the line will now look as follows:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=256m
```

In HP-UX, replace 128 in the line below with 256:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=128m
```

So the line will now look as follows:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=256m
```

- 8 Modify memory settings in the setDomainEnv file to maximize performance. To do this, edit the MEM_ARGS line so that values can be set for NewSize, MaxNewSize and SurvivorRatio.

For instance, if the total heap size is 1024, NewSize and MaxNewSize should be set to 256, which would then require a value of 8 for SurvivorRatio.

The complete line would look similar to the following:

```
set MEM_ARGS=-XX:NewSize=256m -XX:MaxNewSize=256m  
-XX:SurvivorRatio=8 -Xms1024m -Xmx1024m
```

where:

-XX:NewSize= is the minimum size of new generation heap (sum of eden & two Survivor spaces)

-XX:MaxNewSize= is the maximum size of the new generation heap

-XX:SurvivorRatio= is the size of survivor space (ratio of eden to Survivor space)

The Young generation area equals the sum of eden and 2 Survivor spaces.

- 9 Save the changes to the setDomainEnv file.

Deploying P6 Progress Reporter into the WebLogic domain

1 Launch the WebLogic Administration Console.



You can open the Administration Console via a web browser using this address: `http://<serverIP>:<listenport>/console`. For example: `http://<serverIP>:7001/console`

- 2 In the **Welcome** window, log in using the user name and password that you entered in [step 4](#) of “Creating a WebLogic domain”.
- 3 In the **Change Center** pane of the Administration Console, click **Lock & Edit**.
- 4 In the **Domain Structure** pane, click **Deployments**.
- 5 In the **Summary of Deployments** pane, click **Install**.
- 6 In the **Install Application Assistant** pane, navigate to the Progress Reporter server home directory (for example, C:\prhome). Select the ‘pr.ear’ file and click **Next**.
- 7 In the **Install Application Assistant** pane, select **Install this deployment as an application** and click **Next**.
- 8 In the **Install Application Assistant** pane, click **Next** to accept the default options.
- 9 Review the configuration settings you have chosen and then click **Finish** to complete the installation.
- 10 In the **Settings for pr** window, click **Save**.
- 11 In the **Change Center** pane, click **Activate Changes**.
- 12 In the **Domain Structure** pane, click **Deployments**.
- 13 In the **Summary of Deployments** pane, mark **pr**.
- 14 In the **Summary of Deployments** pane, click the down arrow to the right of the **Start** button and click **Servicing all requests**.
- 15 In the **Start Application Assistant** pane, click **Yes**.
- 16 In the **Summary of Deployments** pane, click the **start Running** link in the **State** column of the row that contains ‘pr.’
- 17 Wait a few minutes, then click **Refresh**.
The ‘pr’ State column should show **Active**.
- 18 Repeat [step 3](#) through [step 15](#) for the ‘pr-help.war’ file.
- 19 The **State** column for both files should show **Active**.

Configuring and Deploying WebSphere 7.0

Creating the P6 Progress Reporter home directory

- 1 Create a new directory on a local drive of the Progress Reporter server (for example, C:\prhome).
- 2 Copy the Progress Reporter server application EAR file (pr.ear) from the home directory, as specified on page 120, to the new directory.
- 3 Copy the Progress Reporter help WAR file (pr-help.war) from the home directory, as specified on page 120, to the new directory.

Configuring and deploying WebSphere for P6 Progress Reporter

- 1 Start the WebSphere Application Server.
- 2 Launch the WebSphere Application Server **Administrative Console**.
- 3 If you plan to change the default configuration home location for the Progress Reporter server, proceed with this step. Otherwise, skip to [step 10](#).

In the left-hand navigation pane, expand **Servers** then **Server Types**. Click **WebSphere application servers**.

- 4 On the **Application servers** screen, click the server name link.
- 5 On the **Configuration** tab, under **Server Infrastructure**, expand **Java and Process Management**.
- 6 Click **Process definition**.
- 7 Under **Additional Properties**, click **Java Virtual Machine**.
- 8 Under **Generic JVM arguments**, type:

-Dprimavera.configuration.home=<configurationhome>

where <configurationhome> is the new location (for example, C:\progressreporter)

- 9 Click OK. Click the Save link that appears within the message reporting changes.
- 10 In the left-hand navigation pane, expand **Applications** and click **New Application**.
- 11 On the **Install a New Application** screen, click **New Enterprise Application**.
- 12 On the **Path to the new application** screen, specify the path to the Progress Reporter server home directory and 'pr.ear' file (for example, C:\prhome\pr.ear) and click Next.

To learn more about the configuration home setting, see ["Using the Progress Reporter Administrator"](#) on page 137.

- 13** On the **How do you want to install the application** screen, accept the defaults and click Next.



If the Application Security Warnings screen displays, click Continue.

- 14** On the **Install New Application** screen, do the following:

- In Step 1, the “Select installation options” section, accept the defaults.
- In Step 2, the “Map modules to servers” section, mark the checkbox for ‘Oracle Primavera Progress Reporter.’
- In Step 3, the “Map virtual hosts for Web modules” section, mark the checkbox for ‘Oracle Primavera Progress Reporter.’
- In Step 4, the “Map context roots for Web modules” section, type **/pr**.
- In Step 5, the “Summary” section, review your settings and click Finish. Note that the application EAR file is now deploying and that this process might take several minutes.

- 15** To save directly to the master configuration, click the **Save** link. This process might also take several minutes.

- 16** Repeat [step 10](#) through [step 15](#) for the ‘pr-help.war’ file.



*For the ‘pr-help.war’ file, you will have a variation in the instructions for [step 14](#). Enter the following Context Root for the “Map context roots for Web modules” step:
/pr-help.*

- 17** On the Administrative Console main screen, in the left-hand navigation, expand **Applications** and click **WebSphere enterprise applications**.
- 18** Locate ‘pr’ and check its application status. If it is not a green arrow, click the Start button above the Select column.
- 19** Locate ‘pr-help_war’ and check its application status. If it is not a green arrow, click the Start button above the Select column.
- 20** If necessary, restart the WebSphere application server.

Starting the Server for P6 Progress Reporter

The following procedures assume you have installed P6 Progress Reporter into a supported application server and completed the additional steps outlined in “[Configuring and Deploying the Application Server for P6 Progress Reporter](#)” on page 122.

Starting the Server on JBoss

- On Windows, double-click the “startPRinJoss.bat” file that was created in [step 2](#) on page 123.
- On Linux, open a terminal and enter the following commands:

```
cd /<JBOSS INSTALL LOCATION>/bin  
./run.sh -c pr
```

Starting the Server on WebLogic

- On Windows, from the Start menu, navigate to the Oracle WebLogic submenu, then choose User Projects, <domain>, Start Server.

If prompted for a user name and password in the WebLogic console window, type in the admin user name and password you specified when creating the domain.

- On HP-UX, change to the <bea_home>/user_projects/<domain> directory and run the startWebLogic.sh script.

If prompted for a user name and password in the WebLogic console window, type in the admin user name and password you specified when creating the domain.



If WebLogic precompile option has been turned on, the WebLogic console displays “Server started in RUNNING mode” when precompiling has completed. For detailed information about turning on precompilation, see your WebLogic Server documentation.

Starting the Server on WebSphere

- On the Administrative Console main screen, in the left-hand navigation, expand Applications and click WebSphere enterprise applications. Mark the checkbox for ‘pr’ (pr is the default module name assigned during configuration) and click Start. Repeat the process for ‘pr-help_war.’

Stopping the Server for P6 Progress Reporter

Stopping the Server on JBoss

From the Windows Command prompt, press Ctrl+c.

Stopping the Server on WebLogic

On Windows, in the WebLogic terminal console, press Ctrl+c.

Stopping the Server on WebSphere

On the Administrative Console main screen, in the left-hand navigation, expand Applications and click WebSphere enterprise applications. Mark the checkbox for 'pr' (pr is the default module name assigned during configuration) and click Stop. Repeat the process for 'pr-help_war.'

Implementing Application Server Plug-Ins

For a full list of tested configurations for the Progress Reporter server, go to the P6 \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.

The JBoss, WebLogic, and WebSphere application servers offer a variety of plug-ins that enable you to configure a Web server front-end other than the one provided with the application server. For procedures on configuring a Web server plug-in, refer to the individual application server's documentation and support organization.

Using the Progress Reporter Administrator

Use the Progress Reporter Administrator to review and modify configuration settings for the Progress Reporter server and module. The settings are stored in the project management database and are used to run the application server for P6 Progress Reporter.

The Progress Reporter Administrator is a web interface and presents categories of configuration settings as tabs along the top of the web page. The Configuration tab will display the first time you log into the Progress Reporter Administrator so that you can specify the connection to the project management database. Other tabs will become available after you successfully connect to the project management database and restart the application server instance. Except for changes to the database connection and connection pool settings, all other setting changes are immediate and do not require a restart of the application server instance.

Key configuration instructions are provided after “Launching the Progress Reporter Administrator” below. Consult the *Progress Reporter Administrator Help* for details on all tabs and their settings.



Only experienced administrators should use the Progress Reporter Administrator to modify configuration settings.

Launching the Progress Reporter Administrator

Use the following URL format to launch the Progress Reporter Administrator:

http://<serverIP>:<listenport>/<ContextRoot>/admin/configuration

The default Context Root is **pr**. Examples for each of the supported application servers are as follows:

JBoss: `http://<serverIP>:8080/pr/admin/configuration`

WebLogic: `http://<serverIP>:7001/pr/admin/configuration`

WebSphere: `http://<serverIP>:9080/pr/admin/configuration`

For information on how to point your application server to the new configuration home location, see [“Configuring and Deploying the Application Server for P6 Progress Reporter”](#) on page 122.

The Configuration Home Location The Configuration tab contains the configuration home location for the Progress Reporter server. Modifying the Configuration Home field only changes where the database connection settings are stored when saved. If Configuration Home is changed, a variable must be set on the application server. Once you reconfigure your application server and restart the application server instance, the Configuration Home field will display the new location the next time you log into the Progress Reporter Administrator.

Specifying the Progress Reporter Help Site Location To provide the most up-to-date online assistance available, Progress Reporter Help site files are provided independently from the Progress Reporter server application EAR file. Follow the steps below to enable users to access online help within the Progress Reporter module.



These instructions assume that you have already followed the instructions to copy, configure, and deploy the Progress Reporter Help WAR file on your application server, as described in [“Configuring and Deploying the Application Server for P6 Progress Reporter”](#) on page 122.

- 1 Launch the Progress Reporter Administrator.
- 2 Go to the **Application** tab.
- 3 In the **Progress Reporter Help site location** field, enter the Progress Reporter Help URL. The basic structure of the URL is as follows:

http://<serverIP>:<listenport>/pr-help/

Additional guidance on the format for the URL is provided in the *Progress Reporter Administrator Help*.

- 4 Save the changes and exit the Progress Reporter Administrator.



You are not required to restart the application server instance after entering the Progress Reporter Help site URL.

Installing P6 Web Access

In this chapter:

- Upgrading P6 Web Access
- Uninstalling Previous Versions
- Installing the Application Server for P6 Web Access
- Installation Process for P6 Web Access
- Installing the Content and Workflows Repositories
- Configuring and Deploying the Application Server for P6 Web Access
- Starting the Server for P6 Web Access
- Precompiling P6 Web Access
- Stopping the Server for P6 Web Access
- Accessing P6 Web Access from Client Browsers
- Configuration Settings on Client Browsers
- Changing Database Configuration Settings
- Configuring Oracle Universal Content Management and Microsoft SharePoint for P6 Web Access
- Using the Administration Application
- Reviewing and Modifying Configurations for P6 Web Access
- Configuration Settings for P6 Web Access
- Implementing Application Server Plug-Ins

This chapter describes how to install P6 Web Access (formerly known as “Primavera’s Web application” or “myPrimavera”) on supported application servers. In addition, this chapter explains how to use the Administration Application of P6 Web Access to review, modify, add, and delete Application Server configurations for P6 Web Access.

Upgrading P6 Web Access

Before upgrading to P6 Web Access version 7.0, you should upgrade the Project Management and/or Methodology Management database to version 7.0 and install the 7.0 version of the Project Management and/or Methodology Management client modules.



For further details, see [“Automatic Database Upgrade”](#) on page 285 and [“Installing Client Modules and Additional Components”](#) on page 259.



If you are a current Interwoven/iManage or Apache JackRabbit user and upgrade to P6 Web Access version 7.0, project workflows, project processes, news, discussions, events, and documents data will not be available. If you need this data, refer to the document titled “JackRabbit Migration” in the \Documentation\<language>\Technical Documentation\JackRabbit Migration folder of the P6 physical media or download. Oracle recommends that you migrate the data before upgrading to version 7.0. After the migration, you will also have to reset all Apache JackRabbit Administration Application settings.

For the full list of tested configurations for P6 Web Access, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.

To upgrade from myPrimavera 5.0, Primavera’s Web Application 6.0, or P6 Web Access 6.1 or later to P6 Web Access 7.0:

- Uninstall the current version of myPrimavera, Primavera’s Web Application, or P6 Web Access. See [“Uninstalling Previous Versions”](#) on page 141.
- Install one of the supported application servers. See [“Installing the Application Server for P6 Web Access”](#) on page 143.

For a list of supported application servers, see [“Client and Server Requirements”](#) on page 35.
- Install P6 Web Access version 7.0. See [“Installation Process for P6 Web Access”](#) on page 146.
- Configure and Deploy the application server. See [“Configuring and Deploying the Application Server for P6 Web Access”](#) on page 153.

Uninstalling Previous Versions

You must uninstall any previous versions of P6 Web Access before upgrading to version 7.0.

To uninstall myPrimavera 5.0 or Primavera's Web Application 6.0 from a Tomcat 5.5 Server

On Windows, from the Start menu, choose Programs, <app name>, Uninstall <app name>.

On Solaris, change to the webapps directory under the Tomcat install directory and run the uninstalltc.sh script.



Tomcat is not a supported application server for P6 Web Access version 6.1 and higher.

To uninstall myPrimavera 5.0, Primavera's Web Application 6.0, or P6 Web Access 6.1 or later from a JBoss Server

For 6.1 and earlier installations, rename or delete the “myprimavera” folder from the JBoss install location (for example, c:\jboss-4.0.4.GA\server).

For 6.2 installations, rename or delete the “primaveraweb” folder from the JBoss install location.

To uninstall myPrimavera 5.0, Primavera's Web Application 6.0, or P6 Web Access 6.1 or later from a WebLogic Server

- 1 On Windows, from the Start menu, choose Programs, <app name>, Uninstall <app name>.
On Solaris, run the uninstall.sh script in the <BEA_HOME>\user_projects\<domain> directory.
- 2 Create a new domain. Use the new domain during the “Configuring and Deploying WebLogic 10g R3” procedures.

To uninstall myPrimavera 5.0, Primavera's Web Application 6.0, or P6 Web Access 6.1 or later from a WebSphere Server

- 1 On Windows, from the Start menu, choose Programs, <app name>, Uninstall <app name>.
On Solaris, change to the installableApps/<app name> directory under the WebSphere install directory and run the uninstallws.sh script.

- 2 Launch the WebSphere Application Console. For 6.1 and earlier installations, remove the current “myPrimavera” deployment. For 6.2 installations, remove the current “primaveraweb” deployment.



If you will use the same <webaccesshome> directory for the new deployment, the existing myprimavera.war file should be deleted from the <webaccesshome> directory to avoid conflict with the new primaveraweb.war file.

Installing the Application Server for P6 Web Access

P6 Web Access supports Red Hat JBoss, Oracle WebLogic and IBM WebSphere. For a complete list of supported application servers with version numbers, see “[Client and Server Requirements](#)” on page 35. For a full list of tested configurations for P6 Web Access, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.



On Windows, it is recommended that you install the application server to a folder with a short name.



Clustering of the Content Repository is only supported when using WebLogic for the P6 Web Access application server.

Installing JBoss on Microsoft Windows



Using JBoss as the P6 Web Access application server is not supported for the Content Repository when using Oracle Universal Content Management.

Install the JDK

The supported version of JBoss requires Java 2 JDK version 6.0 update 14 (1.6.0_14). The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

Install JBOSS 5.0.1 GA-JDK6

- 1 Download ‘jboss-5.0.1.GA-jdk6.zip’ from the following website:
<http://www.jboss.org>
- 2 Copy ‘jboss-5.0.1.GA-jdk6.zip’ to a local drive.
- 3 Unzip the folder to <JBOSS INSTALL LOCATION>
(for example, C:\jboss-5.0.1.GA-jdk6).
- 4 Go to <JBOSS INSTALL LOCATION>\server.
- 5 Select the folder ‘default,’ press Ctrl-C to copy it, and then press Ctrl-V. This creates a folder named ‘copy of default’.
- 6 Rename the folder called ‘copy of default’ to be ‘primaveraweb’.

Installing JBoss on Oracle Enterprise Linux



Using JBoss as the P6 Web Access application server is not supported for the Content Repository when using Oracle Universal Content Management.

Install the JDK

The supported version of JBoss requires Java 2 JDK version 6.0 update 14 (1.6.0_14). The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

Install JBOSS 5.0.1 GA-JDK6

- 1 Download 'jboss-5.0.1.GA-jdk6.zip' from the following website:
<http://www.jboss.org>
- 2 Copy 'jboss-5.0.1.GA-jdk6.zip' to a local drive.
- 3 Unzip the folder to <JBOSS INSTALL LOCATION>
(for example, /usr/jboss-5.0.1.GA-jdk6).
- 4 To insure that files can be executed, run the following command:
`chmod -R +x *`
- 5 Go to the <JBOSS INSTALL LOCATION>/server.
- 6 Select the folder 'default,' press Ctrl-C to copy it, and then press Ctrl-V. This creates a folder named 'default(copy)'.
- 7 Rename the folder called 'default(copy)' to be 'primaveraweb'.

Installing WebLogic

Install the JDK

WebLogic 10g R3 automatically installs JRockit 1.6.0_05 and Sun Java 2 JDK version 6.0 update 5 (1.6.0_05) for Windows and Oracle Enterprise Linux, and installs Java 2 JDK version 6 update 4 (1.6.0_04) for HP-UX. These are the required JDK versions for some 32-bit and 64-bit P6 Web Access servers.

To use the Sun JDK with WebLogic, JDK version 6.0 update 14 (1.6.0_14) is required. The JDK is not provided by Oracle Primavera. To download the JDK, go to <http://java.sun.com/products/archive>.

To use JRockit with 64-bit Windows servers, JRockit Real Time 3.0 for Java version 6 (1.6.0_11) is required. Download this version from the following website:

<http://www.oracle.com/technology/software/products/jrockit/index.htm>

Install WebLogic 10g R3

Consult WebLogic's documentation for installation instructions.

Installing WebSphere

Install the JDK

WebSphere 7.0 automatically installs the IBM JDK. Installing the recommended WebSphere fix pack will update the JDK automatically, which is the required JDK for P6 Web Access. For information on which fix pack was tested, refer to the Tested Configurations document.

Install WebSphere 7.0

Consult WebSphere's documentation for installation instructions.

Installation Process for P6 Web Access

For information on installing the project management database, see [“Database Installation and Configuration”](#) on page 43. For information on upgrading a database for compatibility, see [“Automatic Database Upgrade”](#) on page 285.

Before installing or upgrading to P6 Web Access version 7.0, you should install the 7.0 version of the Project Management and/or Methodology Management database, or upgrade your current version, and install the 7.0 version of the Project Management and/or Methodology Management client modules.

If you have previously installed an earlier version of P6 Web Access, Primavera’s Web Application, or myPrimavera, you must uninstall the previous version before installing P6 Web Access version 7.0. Refer to [“Uninstalling Previous Versions”](#) on page 141 for more information.



For instructions on installing the Project Management module, see [“Installing Client Modules and Additional Components”](#) on page 259.

The installer for P6 Web Access provides a wizard to guide you through the installation process, which includes:

- Identifying the application server used for P6 Web Access
- Installing P6 Web Access and Administration Application files
- Setting up and configuring the database for P6 Web Access



If you are using JBoss as your application server, you must install Sun Java 2 JDK version 6.0 update 14 (1.6.0_14) prior to installing P6 Web Access.



Due to the global nature of the OUI (Oracle Universal Installer), the OUI online help is not applicable for installing or uninstalling P6 Web Access or for references to P6 documentation. Instead, refer to the installation instructions in this section.

To install P6 Web Access

- 1 From the Web_Access folder of the physical media or download location, run one of the following depending on your system type:
 - If you are installing on a Microsoft Windows system, navigate to the **win\Disk1\install** directory and then double-click on the **setup.exe** file.
 - If you are installing on a non-Microsoft Windows system, type the following command:

cd <Operating System>\Disk1\install

Depending on your operating system replace <Operating System> in the command above with **solaris_64**, **linux**, **hp_64**, or **aix_64-5L**.

Then type the following commands

chmod 755 runInstaller
chmod 755 unzip
./runInstaller

2 Click Next



Click Next on each wizard dialog box to advance to the next step.

- 3 On the **Welcome** screen, click **Next**.
- 4 On the **Specify Home Details. . .** dialog box, type or browse to the location for the <webaccesshome> folder of P6 Web Access (for example, c:\p6wahome).

For the full list of tested configurations for P6 Web Access, go to the \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.



The application EAR file (primaveraweb.ear) is copied to the home folder for P6 Web Access. You must then use the application server's deployment tools to deploy the P6 Web Access EAR file. Also, make sure that the supported JDK is set as an environment variable in your path to provide access to the java command.

- 5 On the **Available Product Components** dialog box, mark the **Oracle Configuration Management** checkbox if you want to install Oracle Configuration Management (OCM) support files.

The OCM support files enable remote machines running OCM to capture configuration information for the P6 Web Access application server.

For information on how to configure P6 Web Access to work with OCM, see “Configure OCM (Oracle Configuration Management) for use with P6 Web Access” on page 196.



The OCM version (10.3.1.2.0) installed with P6 Web Access does not support Oracle Primavera P6. OCM version 10.3.2 will support Oracle Primavera P6. If you choose to install OCM version 10.3.1.2.0, Oracle's update utility will upgrade OCM to version 10.3.2 when it is available.

- 6 On the **Information** dialog box, review the text and click **Next**.
- 7 On the **Java Home Directory** dialog box, type or browse to the location where Java is installed.
- 8 On the **Summary** dialog box, click **Install**.

After the P6 Web Access files are installed, the **Configuration Assistants** dialog box opens. Do not close this dialog box. After a short time, the **Setup and Configuration of the Primavera Database** dialog box opens.

- 9 On the **Setup and Configuration of the Primavera Database** dialog box, select the database type (Oracle or SQL).
- 10 On the **Please enter the following information. . .** dialog box, specify the database connection parameters.

Type your database user name (for example, pubuser) and password, the database name, host address, and host port. The database name, host address, and host port are specific to your Oracle or MS SQL Server installation. The Database Host Port field displays the default port for the database type you selected. You can edit this port.



P6 Web Access supports SSL communication between the application server and the database server. For information on configuring SSL, refer to the appropriate database server documentation and the Oracle Primavera Support Knowledgebase.

To use the SSL protocol to securely communicate between the application server and the database server, mark the SSL check box. If you mark the SSL check box, you must specify an SSL-enabled port number in the Database Host Port field.



Using the SSL protocol will impact database performance.

The Public Group ID must be 1 for a standard configuration.

For more information about configurations, see “Using the Administration Application” on page 185.

- 11 If there is an existing Primavera configuration, on the **The installer has detected. . .** dialog box, you can choose whether you want to use it, or create a new configuration.



If you are upgrading from a previous version of P6 Web Access against the same database, choose the option to create a new configuration. This is necessary to accommodate newly added configuration settings.

If there is no existing Primavera configuration, the **The installer has detected. . .** dialog box does not appear and the installation process automatically creates a default configuration named Primavera Configuration. You can edit the settings for this configuration through the Administration Application of P6 Web Access.

For more information, see “Changing Database Configuration Settings” on page 179.



After installation, you can use the Database Configuration Setup wizard to choose a different configuration, if necessary.

- 12 When the message displays to confirm that the database configuration has completed successfully, click **OK**.
- 13 On the **End of Installation** screen, click **Finish**, then click **OK**.



The schedule, apply actuals, and summarize functions of P6 Web Access require you to install the Job Service.

For information about installing the Job Service, see “Installing the Job Service and Distributed Job Service” on page 268.



P6 Web Access will not appear in the “Add or Remove Programs” list in Windows. If you need to uninstall P6 Web Access, run the OUI (Oracle Universal Installer).

Installing the Content and Workflows Repositories

The Content Repository allows users to collaboratively share and manage documents in P6 Web Access. The Workflows Repository helps users to keep track of project requests. In order for P6 users to utilize the enhanced document management and the project request functionality, the Content and Workflows Repositories must be installed.

Install the Content Repository

For information on the Database wizard, see “Automatic Database Installation” on page 45.

The Content Repository installation for Apache JackRabbit is automatically completed when running the Database wizard and installing P6 Web Access. No further installation is needed. For Oracle Universal Content Management and Microsoft SharePoint, if not already installed, refer to the documentation included with those applications for installation instructions.



Clustering of the Content Repository is only supported when using WebLogic for the P6 Web Access application server.



Using JBoss as the P6 Web Access application server is not supported for the Content Repository when using Oracle Universal Content Management.

To complete the Content Repository setup, the following tasks must be completed after installation:

- For Oracle Universal Content Management and Microsoft SharePoint, configure the server for use with P6, based on your organization's needs. See [“Configuring Oracle Universal Content Management and Microsoft SharePoint for P6 Web Access”](#) on page 180.
- Enter the appropriate Database/Instance/Content Repository Administration Application settings. For detailed information about these settings, refer to the Database Settings subsection in [“Configuration Settings for P6 Web Access”](#) on page 198.

Install the Workflows Repository

The Workflows Repository is not installed when running the Database wizard and installing P6 Web Access. Instead, the installation files are available online. Detailed instructions on how to locate the installation files and set up the Workflows Repository can be found within the **addworkflowjars** file, which is located in your P6 Web Access home folder (for example, c:\p6wahome). Make sure to first edit, not double-click, the addworkflowjars file. Once you have completed the instructions within the file, you can run it to automate some of the steps.

After installing the Workflow Repository, you will need to input the Database/Instance/Workflow Repository Administration Application settings. For detailed information about these settings, refer to the Database Settings subsection in [“Configuration Settings for P6 Web Access”](#) on page 198.

Configuring and Deploying the Application Server for P6 Web Access

Configuring JBoss 5.0.1 GA on Microsoft Windows

- 1 If not completed during P6 Web Access installation, use the P6 Web Access Database Configuration wizard to connect to your database.

- 2 Copy the **primaveraweb.ear** file from <webaccesshome> (specified during P6 Web Access installation) to the following location:

<JBOSS INSTALL LOCATION>\server\primaveraweb\deploy\

- 3 For international support, edit the following file:

<JBOSS INSTALL LOCATION>\server\primaveraweb\deploy\jbossweb.sar\server.xml

In the Connector setting, add the parameter **URIEncoding="UTF-8"**.

For example:

```
<!--A HTTPS/1.1 Connector on port 8080-->
<Connector port="8080" URIEncoding="UTF-8"
address="{jboss.bind.address}"
maxThreads="250" strategy="ms" maxHttpHeaderSize="8192"
emptySessionPath="true"
enableLookups="false" redirectPort="8443" acceptCount="100"
connectionTimeout="20000" disableUploadTimeout="true"/>
```



If you are using a non-SSL connector, remove the SSL specification from the setting.

- 4 Browse to <JBOSS INSTALL LOCATION>\bin.
- 5 Edit the **run.bat** command file, and insert the following line (as all one line) before the :RESTART line:

```
set JAVA_OPTS=
"-Dprimavera.bootstrap.home=<webaccesshome>"
%JAVA_OPTS%
```

where <webaccesshome> is P6 Web Access home directory that was set during installation (for example, c:\p6wahome).



There is a space between <webaccesshome>" and %JAVA_OPTS%.

6 In the run.bat file, do the following to enhance performance:

- Find the following line:

```
set JAVA_OPTS=%JAVA_OPTS% -Xms128m -Xmx512m
```

- Replace that line with the following (as all one line):

```
set JAVA_OPTS=%JAVA_OPTS% -XX:PermSize=64m  
-XX:MaxPermSize=128m -Xms512m -Xmx512m
```

7 Save the changes to the run.bat file.

8 To enable P6 Web Access to save Workflow Repository templates, copy the following file from <webaccesshome>\lib to <JBoss INSTALL LOCATION>\server\primaveraweb\lib, according to your database type:

ojdbc6.jar for Oracle

sqljdbc.jar for SQL Server

9 Copy the P6 Web Access help JAR file (P6help.jar) from the Web_Access folder of the P6 physical media or download to <JBoss INSTALL LOCATION>\common\lib



If using multiple servers or clustering, the previous step needs to be repeated on each server.



10 Service Administrators may want to secure the JMX Console. For instructions, visit <http://www.redhat.com>.

Deploying JBoss 5.0.1 GA on Microsoft Windows

- 1 In order for incoming client connections to remotely access the JBoss service, the JBoss services must be configured to bind to a network interface (e.g., the IP address of the network card for the server on which JBoss is installed). Determine to which interface(s) JBoss services should bind in order to enable remote access to the JBoss application server. For security purposes, the default installation of JBoss binds its services to the local host (127.0.0.1) interface, which does not allow remote connections to the JBoss services.
- 2 To start the JBoss application server, create a bat file named 'startP6WebAccessinJBoss.bat' in <webaccesshome> that contains the following:

```
@echo off
set JBOSS_HOME=<JBoss INSTALL LOCATION>
call %JBoss_HOME%\bin\run.bat -c primaveraweb
```

As appropriate for your specific deployment, include the -b option at the end of the “call %JBoss_HOME%...” line to bind the JBoss services to the interface(s) determined in [step 1](#). For example,

```
call %JBoss_HOME%\bin\run.bat -c primaveraweb -b <IP address>
```

Refer to the *JBoss Application Server Installation and Getting Started Guide*, available from <http://www.jboss.org>, for more information on enabling and securing remote access to the appropriate interface(s).

Also, if not previously defined, add the JAVA_HOME Environment variable in the ‘startP6WebAccessinJBoss.bat’ file. For example,

```
set JAVA_HOME=C:\Program Files\Java\jdk1.6.0_14
```

3 Run the newly created bat file.



If using SQL Server, make sure to review additional configuration steps using the P6 Web Access Administration Application in “[Configure Setting for JBoss and WebLogic on Microsoft SQL 2005 Databases](#)” on page 195.

Configuring JBoss 5.0.1 GA on Oracle Enterprise Linux

- 1 If not completed during P6 Web Access installation, use the P6 Web Access Database Configuration wizard to connect to your database.
- 2 Copy the **primaveraweb.ear** file from <webaccesshome> (specified during P6 Web Access installation) to the following location:

<JBOSS INSTALL LOCATION>/server/primaveraweb/deploy/

- 3 For international support, edit the following file:

<JBOSS INSTALL LOCATION>/server/primaveraweb/deploy/
jbossweb.sar/**server.xml**

In the Connector setting, add the parameter
URIEncoding="UTF-8".

For example:

```
<!--A HTTPS/1.1 Connector on port 8080-->
<Connector port="8080" URIEncoding="UTF-8"
address="{jboss.bind.address}"
maxThreads="250" strategy="ms" maxHttpHeaderSize="8192"
emptySessionPath="true"
enableLookups="false" redirectPort="8443" acceptCount="100"
connectionTimeout="20000" disableUploadTimeout="true"/>
```



If you are using a non-SSL connector, remove the SSL specification from the setting.

- 4 Browse to <JBOSS INSTALL LOCATION>/bin.
- 5 Edit the **run.sh** command file. Insert the following line (as all one line) in the '# Setup JBoss specific properties' section:

```
JAVA_OPTS="-Dprimavera.bootstrap.home=<webaccesshome>
$JAVA_OPTS"
```

where <webaccesshome> is the P6 Web Access home directory that was set during installation (for example, /usr/p6wahome)



There is a space between <webaccesshome> and \$JAVA_OPTS.



*If not previously defined, add the JAVA_HOME Environment variable in the run.sh file. For example,
export JAVA_HOME = /usr/jdk 1.6.0_14*

- 6 (For Unix servers) If you don't have a graphical environment installed, you must set the server's JVM to bypass server-side rendering optimizations. If you don't add the argument, you may not be able to see graphics on pages, and the server logs will report `NoClassDefFoundError` errors.

Add this JVM argument (as all one line) immediately after the previous variable with one space between them:

`-Djava.awt.headless=true`

- 7 Save the changes to the `run.sh` file.
- 8 Edit the **run.conf** file, and do the following to set the Java options:
- Find the following line:

```
JAVA_OPTS="-XX:PermSize=64m -XX:MaxPermSize=64m -
Dsun.rmi.dgc.client.gcInterval=3600000 -
Dsun.rmi.dgc.server.gcInterval=3600000"
```

- Replace `"-XX:PermSize=64m -XX:MaxPermSize=64m"` with the following (as all one line):

```
"-XX:PermSize=64m -XX:MaxPermSize=128m -Xms512m
-Xmx512m"
```

- 9 Save the changes to the `run.conf` file.
- 10 To enable P6 Web Access to save Workflow Repository templates, copy the following file from `<webaccessshome>/lib` to `<JBOSS INSTALL LOCATION>/server/primaveraweb/lib`, according to your database type:

ojdbc6.jar for Oracle

sqljdbc.jar for SQL Server

- 11 Copy the P6 Web Access help JAR file (`P6help.jar`) from the `Web_Access` folder of the P6 physical media or download to `<JBOSS INSTALL LOCATION>/common/lib`



If using multiple servers or clustering, the previous step needs to be repeated on each server.



- 12 Service Administrators may want to secure the JMX Console. For instructions, visit <http://www.redhat.com>.

Deploying JBoss 5.0.1 GA on Oracle Enterprise Linux

- 1 In order for incoming client connections to remotely access the JBoss service, the JBoss services must be configured to bind to a network interface (e.g., the IP address of the network card for the server on which JBoss is installed). Determine to which interface(s) JBoss services should bind in order to enable remote access to the JBoss application server. For security purposes, the default installation of JBoss binds its services to the local host (127.0.0.1) interface, which does not allow remote connections to the JBoss services.
- 2 Open a terminal. Type the following commands, or the expanded version specified below, to start the server:

```
cd /<JBoss INSTALL LOCATION>/bin  
./run.sh -c primaveraweb
```

As appropriate for your specific deployment, include the **-b** option at the end of the second command line to bind the JBoss services to the interface(s) determined in [step 1](#). For example,

```
cd /<JBoss INSTALL LOCATION>/bin  
./run.sh -c primaveraweb -b <IP address>
```

Refer to the *JBoss Application Server Installation and Getting Started Guide*, available from <http://www.jboss.org>, for more information on enabling and securing remote access to the appropriate interface(s).



If using SQL Server, make sure to review additional configuration steps using the P6 Web Access Administration Application in "Configure Setting for JBoss and WebLogic on Microsoft SQL 2005 Databases" on page 195.

Configuring and Deploying WebLogic 10g R3

Configuring Oracle WebLogic requires the following tasks:

- Creating a WebLogic domain for the P6 Web Access application
- Configuring WebLogic for P6 Web Access
- Deploying P6 Web Access into the WebLogic domain

Creating a WebLogic Domain

- 1 Run the **WebLogic Configuration Wizard**.
- 2 In the **Welcome** window, select **Create a new WebLogic domain** and click **Next**.
- 3 In the **Select Domain Source** window, click **Next** to accept the default selections.
- 4 In the **Configure Administrator Username and Password** window, enter the user name and password information and click **Next**.
- 5 In the **Configure Server Start Mode and JDK** window, select **Production Mode** in the left pane. Select an appropriate JDK in the right pane and click **Next**.
- 6 In the **Customize Environment and Services Settings** window, click **Next**.
- 7 In the **Create WebLogic Domain** window, enter the domain and location information and click **Create**.
- 8 In the **Creating Domain** window, mark **Start Admin Server** and click **Done**.
- 9 When prompted, enter the username and password that you entered in [step 4](#).

Configuring WebLogic for P6 Web Access

- 1 Make a backup copy of the **startWebLogic** file in case you need to undo any changes.
 - In Windows, the file is named “startweblogic.cmd” and is located in:
<bea_home>\user_projects\domains\<your_domain>\bin\
 - In Unix, the file is named “startweblogic.sh” and is located in:
<bea_home>/user_projects/domains/<your_domain>/bin/
- 2 Edit the startWebLogic file.

- 3 Locate the line that begins with “set JAVA_OPTIONS=” and add the Primavera bootstrap variable.

In Windows, the line should look similar to the following:

```
set JAVA_OPTIONS=%SAVE_JAVA_OPTIONS%  
-Dprimavera.bootstrap.home=<webaccesshome>
```

where <webaccesshome> is the P6 Web Access home directory that was set during installation (for example, c:\p6wahome).

In Unix, the line should look similar to the following:

```
JAVA_OPTIONS="${SAVE_JAVA_OPTIONS}  
-Dprimavera.bootstrap.home=<webaccesshome>
```

where <webaccesshome> is the P6 Web Access home directory that was set during installation (for example, /usr/p6wahome).

- 4 For improved performance when starting the P6 Web Access domain in WebLogic, add the following JVM argument (as all one line) after the Primavera bootstrap variable:

```
-Djavax.xml.stream.XMLInputFactory=  
weblogic.xml.stax.XMLStreamInputFactory
```



Be sure to include a space before the -Djava specification. Properties after the bootstrap can be in any order.

- 5 (For Unix servers) If you don't have a graphical environment installed, you must set the server's JVM to bypass server-side rendering optimizations. If you don't add the argument, you may not be able to see graphics on pages, and the server logs will report NoClassDefFoundError errors.

Add this JVM argument (as all one line) immediately after the previous variable with one space between them:

```
-Djava.awt.headless=true
```

For example, in Unix:

```
JAVA_OPTIONS="${JAVA_OPTIONS} -  
Dprimavera.bootstrap.home=<webaccesshome> -  
Djavax.xml.stream.XMLInputFactory=weblogic.xml.stax.XMLStr  
eamInputFactory" -Djava.awt.headless=true
```

- 6 Set the Java Virtual Machine by entering a variable for JAVA_VM, immediately below the JAVA_OPTIONS line (added in [step 3](#)).

The line should look similar to the following:

```
JAVA_VM=-server
```


- 7 Include “<webaccesshome>license” at the beginning of the WebLogic classpath.

- In Windows, the line should look similar to the following:

```
set CLASSPATH=<webaccesshome>\license\;  
%SAVE_CLASSPATH%
```

- In Unix, the line should look similar to the following:

```
CLASSPATH="<webaccesshome>/license:${CLASSPATH}"
```

- 8 Save the changes to the startWebLogic file.

- 9 In case you need to undo any changes, make a backup copy of the appropriate **setDomainEnv** file (.cmd or .sh), which is located in the same bin directory specified in [step 1](#).

- 10 Edit the setDomainEnv file.

- 11 Increase the JVM MaxPermSize setting in the setDomainEnv file to avoid Out-of-Memory errors. The MaxPermSize setting should be set to at least 256m.

In Windows, replace 128 in the line below with 256:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=128m
```

So the line will now look as follows:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=256m
```

In HP-UX, replace 128 in the line below with 256:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=128m
```

So the line will now look as follows:

```
set MEM_MAX_PERM_SIZE=-XX:MaxPermSize=256m
```

- 12 Modify memory settings in the setDomainEnv file to maximize performance. To do this, edit the MEM_ARGS line so that values can be set for NewSize, MaxNewSize and SurvivorRatio.

For instance, if the total heap size is 1024, NewSize and Max NewSize should be set to 256, which would then require a value of 8 for SurvivorRatio.

The complete line would look similar to the following:

```
set MEM_ARGS=-XX:NewSize=256m -XX:MaxNewSize=256m  
-XX:SurvivorRatio=8 -Xms1024m -Xmx1024m
```

where:

-XX:NewSize= is the minimum size of new generation heap (sum of eden & two Survivor spaces)

-XX:MaxNewSize= is the maximum size of the new generation heap

-XX:SurvivorRatio= is the size of survivor space (ratio of eden to Survivor space)

The Young generation area equals the sum of eden and 2 Survivor spaces.

- 13 Save the changes to the setDomainEnv file.
- 14 Copy the P6 Web Access help JAR file (P6help.jar) from the Web_Access folder of the P6 physical media or download to the following location, based on your operating system:
 - In Windows,
 <bea_home>\user_projects\domains\<your_domain>\lib
 - In Unix,
 <bea_home>/user_projects/domains/<your_domain>/lib



If using multiple servers or clustering, the previous step needs to be repeated on each server.

Deploying P6 Web Access into the WebLogic domain

- 1 Launch the WebLogic **Administration Console**.



*You can open the Administration Console via a web browser using this address: `http://<serverIP>:<listenport>/console`
For example: `http://<serverIP>:7001/console`*

- 2 In the **Welcome** window, log in using the user name and password that you entered in [step 4](#) above.
- 3 In the **Change Center** pane of the Administration Console, click **Lock & Edit**.
- 4 In the **Domain Structure** pane, click **Deployments**.

- 5 In the **Summary of Deployments** pane, click **Install**.
- 6 In the **Install Application Assistant** pane, navigate to the P6 Web Access home folder. Select the `primaveraweb.ear` file and click **Next**.
- 7 In the **Install Application Assistant** pane, select **Install this deployment as an application** and click **Next**.
- 8 In the **Install Application Assistant** pane, click **Next** to accept the default options.
- 9 Review the configuration settings you have chosen and then click **Finish** to complete the installation.
- 10 In the **Settings for primaveraweb** window, click **Save**.
- 11 In the **Change Center** pane, click **Activate Changes**.
- 12 In the **Domain Structure** pane, click **Deployments**.
- 13 In the **Summary of Deployments** pane, mark **primaveraweb**.
- 14 In the **Summary of Deployments** pane, click the down arrow to the right of the **Start** button and click **Servicing all requests**.
- 15 In the **Start Application Assistant** pane, click **Yes**.
- 16 In the **Summary of Deployments** pane, click the **start Running** link in the **State** column of the row that contains `primaveraweb`.
- 17 Wait a few minutes, then click **Refresh**.
The 'primaveraweb' State column should show **Active**.



If using SQL Server, make sure to review additional configuration steps using the P6 Web Access Administration Application in ["Configure Setting for JBoss and WebLogic on Microsoft SQL 2005 Databases"](#) on page 195.

Configuring and Deploying WebSphere 7.0

Changing Java Home for P6 Administrative BAT files

After installing P6 Web Access, you must change JAVA_HOME in the following files: dbconfigpv.cmd and adminpv.cmd. They are found in the home directory of P6 Web Access.

- 1 Open the **dbconfigpv.cmd** and **adminpv.cmd** files with a text editor. Change the following line in each file,

from:
set JAVA_HOME=C:\DOCUME~1\ADMINI~1\LOCALS~1\Temp....

to:
set JAVA_HOME=<websphere home>\AppServer\java
- 2 Execute the dbconfigpv.cmd and create a new database connection as described in [“Installation Process for P6 Web Access”](#) on page 146.

Configuring P6 Web Access Home



These steps should be performed immediately after installing P6 Web Access.

- 1 Start the WebSphere Application Server.
- 2 Launch the WebSphere Application Server **Administrative Console**.
- 3 In the left-hand navigation pane, expand **Servers** then **Server Types**. Click **WebSphere application servers**.
- 4 On the **Application servers** screen, click the server name link.
- 5 On the **Configuration** tab, under **Server Infrastructure**, expand **Java and Process Management**.
- 6 Click **Process Definition**.
- 7 Under **Additional Properties**, click **Java Virtual Machine**.
- 8 Under **Generic JVM arguments**, type (as all one line):

-Dprimavera.bootstrap.home=<webaccessshome>
-Djavax.xml.transform.TransformerFactory=
org.apache.xalan.processor.TransformerFactoryImpl

where <webaccessshome> is the P6 Web Access home directory that was set during installation (for example, c:\p6wahome)

- 9 Click OK. Click the **Save** link that appears within the message reporting changes.

Configuring P6 Web Access to be a New WebSphere Application

- 1 From the Administrative Console's left-hand navigation pane, expand **Applications** and click **New Application**.
- 2 On the **Install a New Application** screen, click **New Enterprise Application**.
- 3 On the **Path to the new application** screen, specify the path to the P6 Web Access home directory and 'primaveraweb.ear' file. (for example, C:\p6wahome\primaveraweb.ear) and click Next.
- 4 For the **Context Root**, type **primaveraweb**, then click Next.
- 5 On the **How do you want to install the application** screen, accept the defaults and click Next.



If the Application Security Warnings screen displays, click Continue.

- 6 On the **Install New Application** screen, do the following:
 - In Step 1, the "Select installation options" section, accept the defaults.
 - In Step 2, the "Map modules to servers" section, mark the 'primaveraweb' checkbox.
 - In Step 3, the "Map virtual hosts for web modules" section, mark the 'primaveraweb' checkbox.
 - In Step 4, the "Map context roots for Web modules" section, type **/primaveraweb**.
 - In Step 5, the "Summary" section, review your settings and click Finish. Note that the application EAR file is now deploying and that this process might take several minutes.
- 7 To save directly to the master configuration, click the **Save** link. This process might also take several minutes.

Configuring the P6 Web Access Project Gantt Chart Portlet

- 1 Copy "jsf-api.jar" and "jsf-ri.jar" from the following location to a local drive and folder (for example, C:\jsf\):

```
<websphere home>\AppServer\profiles\<profile name>\
Installed Apps\<cell name>\primaveraweb.ear\primaveraweb.war\
WEB-INF\lib
```

- 2 From the Administrative Console's left-hand navigation pane, expand **Environment** and click the **Shared libraries** link.
- 3 In the **Scope** section, select **Cell=<cell name>**.
- 4 In the table at the bottom of the screen, click the **New** button.
- 5 On the **General Properties** screen, do the following:
 - In the **Name** field, enter "jsf".
 - In the **Classpath** field, enter the paths where you saved the JAR files copied in [step 1](#). For example,
C:\jsf\jsf-api.jar
C:\jsf\jsf-ri.jar
 - Mark the "Use an isolated class loader for this shared library" setting.
 - Click OK.
- 6 In the left-hand navigation, expand **Applications** and click **WebSphere enterprise applications**.
- 7 Locate 'primaveraweb,' mark its checkbox, and click the 'primaveraweb' link.
- 8 In the **References** section, click the **Shared library references** link.
- 9 Mark the checkbox for the second 'primaveraweb' entry, which has a URI description of "primaveraweb.war,WEB-INF/web.xml."
- 10 Click the **Reference shared libraries** button at the top of the table.
- 11 Highlight the "jsf" library in the **Available** window and move it to the **Selected** window.
- 12 Click OK twice.
- 13 To save directly to the master configuration, click the **Save** link.

Completing Final Configuration Tasks and Deploying

- 1 On the Administrative Console Main screen, in the left-hand navigation, expand **Applications** and click **WebSphere enterprise applications**.
- 2 Locate 'primaveraweb' and check its application status. If it is not a green arrow, click the Start button above the Select column.
- 3 Create a properties file named 'commons-logging.properties' in **<websphere home>\WebSphere\AppServer\profiles\<profile name>\properties** that contains the following:

org.apache.commons.logging.LogFactory=org.apache.commons.logging.impl.LogFactoryImpl

- 4 Copy the P6 Web Access help JAR file (P6help.jar) from the Web_Access folder of the P6 physical media or download to the following location:
<websphere home>\WebSphere\AppServer\lib
- 5 Restart the WebSphere application server.

Starting the Server for P6 Web Access

The following procedures assume you have installed P6 Web Access into a supported application server and completed the additional steps outlined in “[Configuring and Deploying the Application Server for P6 Web Access](#)” on page 153.

Starting the Server on JBoss

- On Windows, double-click the “startP6WebAccessinJoss.bat” file that was created in [step 2](#) on page 154.
- On Linux, open a terminal and enter the following commands:

```
cd /<JBOSS INSTALL LOCATION>/bin  
./run.sh -c primaveraweb
```

Starting the Server on WebLogic

- On Windows, from the Start menu, navigate to the Oracle WebLogic submenu, then choose User Projects, <domain>, Start Server.

If prompted for a user name and password in the WebLogic console window, type in the admin user name and password you specified when creating the domain.

- On HP-UX, change to the <bea_home>/user_projects/<domain> directory and run the startWebLogic.sh script.

If prompted for a user name and password in the WebLogic console window, type in the admin user name and password you specified when creating the domain.



If P6 Web Access is installed as an application, and the WebLogic precompile option has been turned on, the WebLogic console displays “Server started in RUNNING mode” when precompiling has completed. For detailed information about turning on precompilation, see your WebLogic Server documentation.

Starting the Server on WebSphere

- From the WebSphere Administrative Console, start the ‘primaveraweb’ module (primaveraweb is the default module name assigned during configuration).

Precompiling P6 Web Access

Although not required for P6 Web Access, precompilation helps to reduce the amount of time it takes for users to load P6 Web Access pages for the first time.

The following instructions apply to all application servers supported by Oracle Primavera and need to be performed while the application server is running.

- 1 Copy the `precompile_utility` directory from the `Web_Access` folder of the physical media or download to the server where P6 Web Access is installed.
- 2 Open a command prompt and go to the newly created "precompile" directory.
- 3 Run a command similar to the following:

```
precompile -u <base URL> -f <input file>
```

where:

<base URL> is the P6 Web Access base URL

<input file> is the P6 Web Access EAR file



The file path of the P6 Web Access EAR file cannot contain spaces.

For example, assuming a standard P6 Web Access installation on WebLogic,

the command should look similar to the following in Windows:

```
precompile -u http://localhost:7001/primaveraweb -f  
c:\<webaccesshome>\primaveraweb.ear
```

the command should look similar to the following in HP-UX-11i:

```
java -jar JSPPrecompile.jar -u http://localhost:7001/primaveraweb  
-f <webaccesshome>/primaveraweb.ear
```

Stopping the Server for P6 Web Access

Stopping the Server on JBoss

From the Windows Command prompt, press Ctrl+c.

Stopping the Server on WebLogic

From the WebLogic terminal console, press Ctrl+c.

Stopping the Server on WebSphere

From the WebSphere Administrative Console, stop the 'primaveraweb' module (primaveraweb is the default module name assigned during configuration).

Accessing P6 Web Access from Client Browsers

Users can access P6 Web Access from client browsers using the following URL structure, depending on the application server platform.



To select authentication mode for P6 Web Access, use the Authentication Configuration wizard (LDAPCfgWiz.exe, located in the \database\ldap-config folder of the P6 physical media or download). Also, specify the configuration settings for P6 Web Access that are required for authentication. For details on the Configuration wizard, see “[Configuring Authentication Modes](#)” on page 313. For information about authentication configuration settings, see “[Configure Authentication](#)” on page 193.

For information on industry choices, see “[P6 Industry Types](#)” on page 28.

On a JBoss application server

`http://serverIP:listenport/ContextRoot/login_<industry>`

where <industry> is the either “cmt” or “it,” depending on your industry preference

Example: `http://<serverIP>:8080/primaveraweb/login_cmt`
The default listenport is 8080. The default context root is primaveraweb.

On a WebLogic application server

`http://serverIP:listenport/ContextRoot/login_<industry>`

where <industry> is the either “cmt” or “it,” depending on your industry preference

Example: `http://<serverIP>:7001/primaveraweb/login_cmt`
The default listenport is 7001. The default context root is primaveraweb.

On a WebSphere application server

`http://serverIP:listenport/ContextRoot/login_<industry>`

where <industry> is the either “cmt” or “it,” depending on your industry preference

Example: `http://<serverIP>:9080/primaveraweb/login_cmt`
The default listenport is 9080. The default context root is primaveraweb.



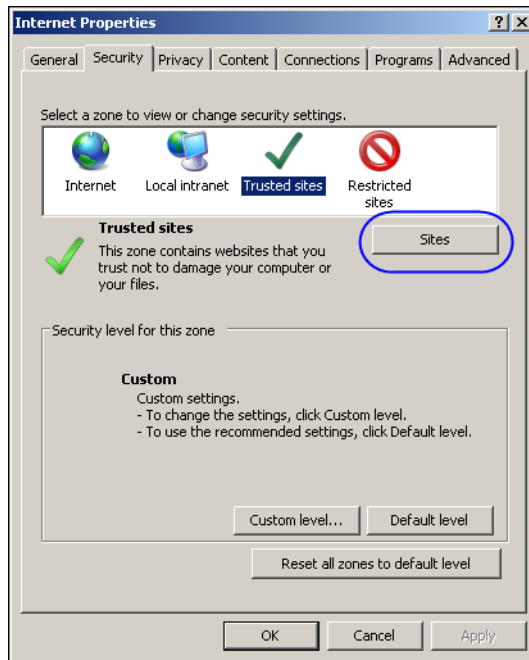
The context root is configurable on all supported application servers. For information about context root configuration, refer to your application server documentation. Also, URLs might be case-sensitive, depending on your application server configuration.

Configuration Settings on Client Browsers

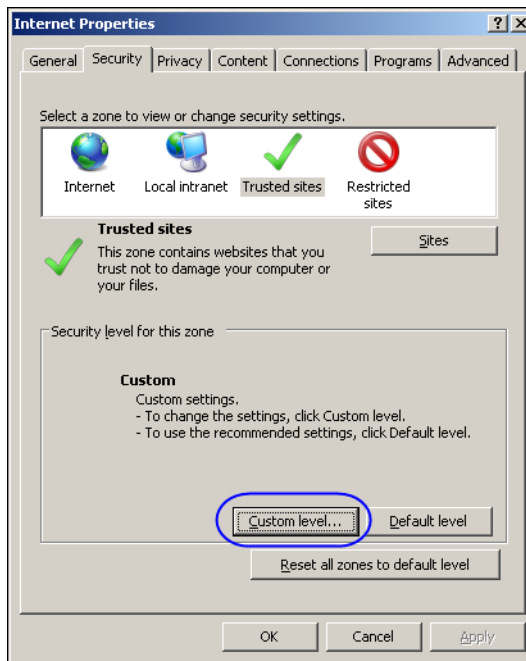
Setting Change to Import from Microsoft Outlook

Users will not be able to import data into P6 Web Access from Microsoft Outlook if Internet Explorer is not configured to allow a specific Active X control. If users need to import from Microsoft Outlook, perform the following on each client machine:

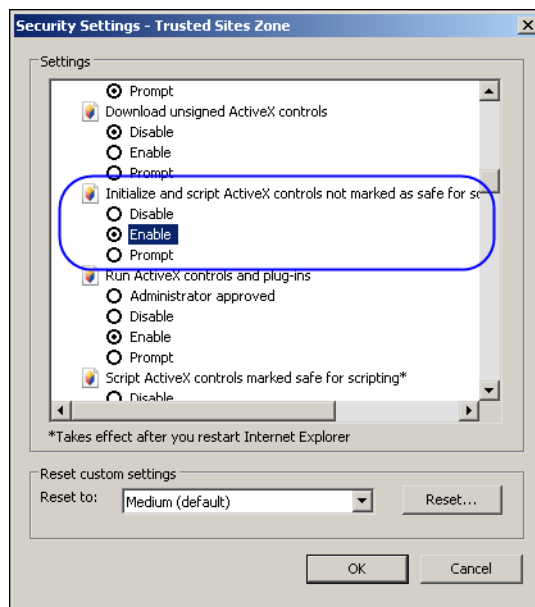
- 1 From the Windows Control Panel, select Internet Options.
- 2 Go to the Security tab and click on Trusted Sites.
- 3 Click on the Sites button and add your P6 Web Access URL to the zone.



- 4 Close the Sites window.
- 5 Click on the Custom level button.



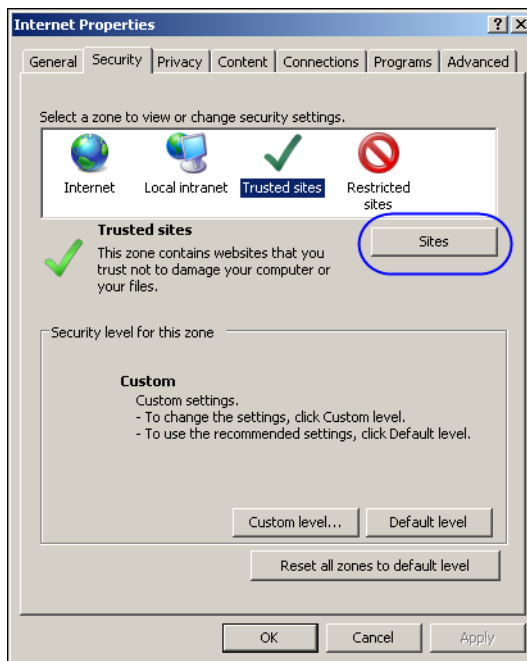
- 6 Enable the setting, **Initialize and script Active X controls not marked as safe for scripting**.



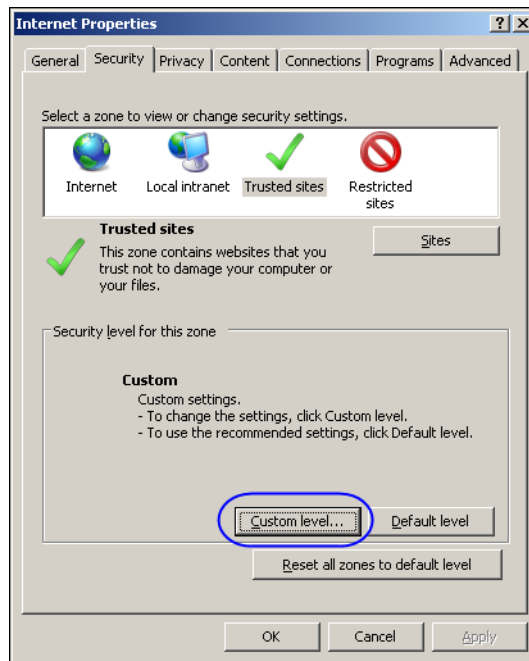
Setting Change to Resolve Export to Excel Issue

When clicking on a link to export to Excel, users might experience a lack of response (no Open/Save dialog box launches) from P6 Web Access if Internet Explorer is not configured properly. If this occurs, do the following on each client machine experiencing the issue:

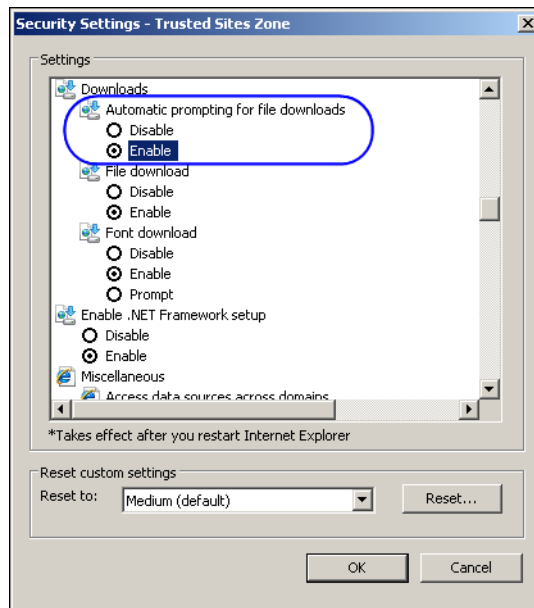
- 1 From the Windows Control Panel, select Internet Options.
- 2 Go to the Security tab and click on Trusted Sites.
- 3 Click on the Sites button and add your P6 Web Access URL to the zone.



- 4 Close the Sites window.
- 5 Click on the Custom level button.



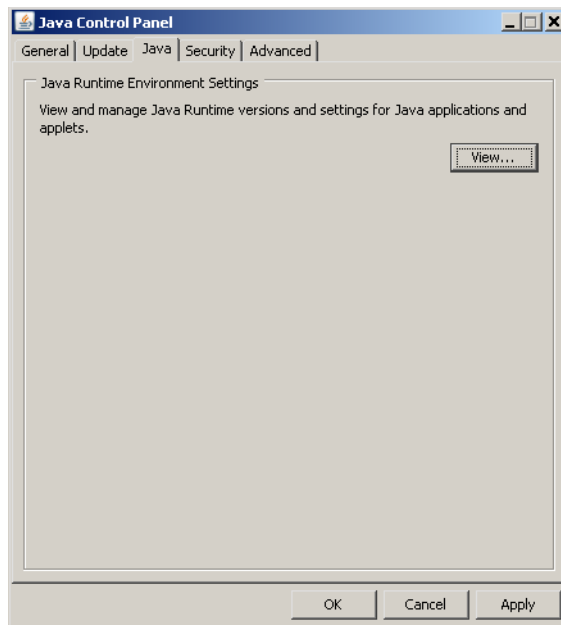
6 Enable the setting, Automatic prompting for file downloads.



Setting Change to Resolve Null Pointer Exceptions

Users might receive null pointer exceptions if a large number of activity code values (40,000 or more) are loaded when using P6 Web Access. If so, do the following on every client machine where the P6 Web Access module is being used:

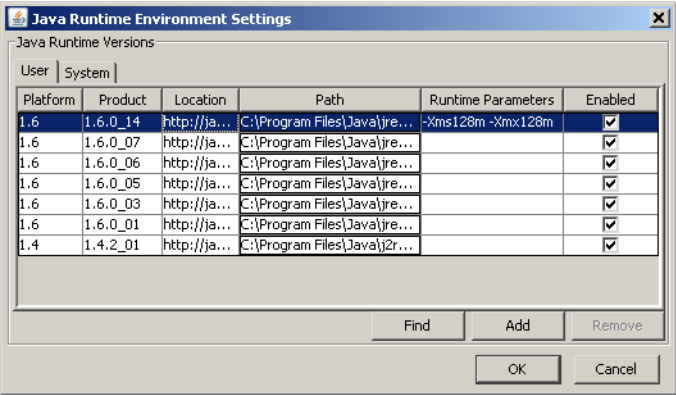
- 1 From the Windows Control Panel, select Java.
- 2 On the Java Control Panel, select the Java tab.
- 3 Under Java Runtime Environment Settings, click View.



- 4 On the Java Runtime Environment Settings screen, in the JRE 1.6.0_14 row, add "-Xms<value>m and -Xmx<value>m" entries in the Runtime Parameters field.

The appropriate values will vary with your configuration; however, we recommend the following values as a starting point:

`-Xms128m -Xmx128m`



5 Click OK, and exit the Java Control Panel.

Changing Database Configuration Settings

The Database Configuration wizard enables you to change the database connection settings you specified when you installed P6 Web Access.

The database you select during installation stores one or more P6 configurations, each one specifying a set of configurable parameters that determine how P6 Web Access operates. During installation, you select an existing P6 configuration or create a new one. Later, you can use the Database Configuration wizard to select a different P6 configuration or create a new one.



After selecting a different P6 configuration or creating a new configuration, you must stop and restart the application server for P6 Web Access in order for the changes to take effect.

Starting the Database Configuration wizard on JBoss

From the Start menu, choose Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Database Configuration Setup.

Starting the Database Configuration wizard on WebLogic

- On Windows, run dbconfigpv.cmd (located in the <webaccesshome> directory you specified when setting up P6 Web Access), or choose Start, Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Database Configuration Setup.
- On HP-UX, change to the <webaccesshome> directory you specified when setting up P6 Web Access, and run dbconfigpv.sh.

Starting the Database Configuration wizard on WebSphere

- On Windows, run dbconfigpv.cmd (located in the <webaccesshome> directory you specified when setting up P6 Web Access), or choose Start, Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Database Configuration Setup.
- On Linux, change to the <webaccesshome> directory under the WebSphere install directory and run dbconfigpv.sh.

Configuring Oracle Universal Content Management and Microsoft SharePoint for P6 Web Access

After installing P6 Web Access and before entering Content Repository Administration Application settings, the Oracle Universal Content Management and Microsoft SharePoint servers need to be configured for use with P6.

Refer to the documentation included with the content repository application for detailed instructions on how to complete the steps below.

Content Repository Authentication Modes P6 offers two content repository authentication modes. Authentication can be configured for either single user authentication or multiple user authentication. In single user authentication mode, all P6 users access the repository using a single administrator user login that is set during repository configuration. In multiple user authentication mode each p6 user is authenticated based on their individual login.

Single user authentication mode is useful when you want users to have full access to the content repository through P6 without having to maintain an equivalent list of users for both P6 and the repository. This allows a repository administrator to maintain one set of credentials for the repository without having to share those credentials with all users. Single user authentication is also useful for quickly setting up test repositories that can be accessed by testers with minimal fuss.



Multiple user authentication mode is the default mode. Multiple user authentication mode provides increased security by restricting content repository access on an individual user basis. Because it uses native auditing fields it also allows a clear audit of who has created and modified files.

For more information about each of these settings, refer to the Database Settings subsection in the section, “[Configuration Settings for P6 Web Access](#)”.



When using multiple user authentication mode Oracle Universal Content Management Guest Access should be disabled. If Guest Access is enabled and the guest user is not part of the P6 security group P6 repository functionality will not be available to that user.

Configuring Oracle Universal Content Management

Except where noted, the guidelines below are recommendations. Depending on your organization's needs, you may choose to use existing configurations or your own naming conventions.

- 1 *(required)* Establish a Trusted Connection to the P6 database by adding the P6 machine name or IP address as a trusted server in the Universal Content Management server's configuration file.
- 2 *(required)* Create a P6 documents home folder on the Universal Content Management server by adding a unique path to Contribution Folders.

Example: \\Contribution Folders\Production\Oracle Primavera\

- 3 Create a P6 Security Group in Universal Content Management and grant the appropriate rights to P6 users. Security considerations include the following:
 - P6 user names must match the Universal Content Management user names, unless using "Single User" for the Authentication Mode.



"Single User" Authentication Mode will log all P6 users into Universal Content Management via the administrator user created in [step 4](#) below and/or as specified in the \Database\Instance\Content Repository subsection under "[Database Settings]" on page 200.

- All P6-related Universal Content Management user names must have appropriate assignments to Universal Content Management Roles and Users. For a quick setup, you can simply create one P6-specific Role to map to, with full privileges (Read, Write, Delete, Admin).
 - All P6-related Universal Content Management user names must have access to the P6 Security Group.
- 4 Create an administrator user in Universal Content Management for the P6 Security Group. A user account with administrative privileges is required for P6 document access, for making changes to P6 document organization, and when using "Single User" for Authentication Mode.



When using “Single User” for Authentication Mode, users will have the ability to browse for documents outside of the P6 documents home folder, as long as the administrator user is granted access to all appropriate Security Groups, including the P6 Security Group.



- 5 If the use of Security Accounts is enabled, create a P6 Security Account. For example, depending on your organization’s needs, you may need to set up a Security Account for performance and storage reasons. Security considerations, similar to those made for [step 3](#) above, include the following:
 - P6 user names must match the Universal Content Management user names, unless using “Single User” for the Authentication Mode.
 - All P6-related Universal Content Management user names must have appropriate assignments to Universal Content Management Roles and Users. For a quick setup, you can simply create one P6-specific Role to map to, with full privileges (Read, Write, Delete, Admin).
 - All P6-related Universal Content Management user names must have access to the P6 Security Account.
- 6 Create a Document Type for P6 documents in Universal Content Management.
- 7 (*required*) Create the following metadata text fields for P6 in Universal Content Management:
 - PrmUserId
 - PrmProjectId
 - PrmWorkgroupId
 - PrmSecurityPolicy
 - PrmTemplate (uncheck “Enabled” and “Searchable” attributes)
 - PrmCheckedOutUserId
 - PrmCheckedOutDate
 - PrmLocalFilePath (Type = Long Text)
 - PrmAuthorId

The use of “Prm” as a prefix is optional and can be any prefix of your choosing. If a prefix is not used, ensure that none of the P6 metadata fields are in conflict with existing metadata fields.

- 8 (required) Enter the appropriate settings in the P6 Administration Application. The settings are detailed in the \Database\Instance\Content Repository subsection under “[Database Settings]” on page 200.

Configuring Microsoft SharePoint

Except where noted, the guidelines below are required. Depending on your organization’s needs, you may choose to use your own naming conventions.



Note: Oracle recommends that you install the P6 SharePoint Connector on the same Internet Information Server (IIS) Server where SharePoint is installed. However, if you want to install it on a different server, you must install the P6 SharePoint Connector on an IIS server where it can continually connect to the SharePoint server and Web Access Server in the same Local Area Network.

- 1 Create a new site named “WS_FPRPC” (recommended name) on the Microsoft Internet Information Server (IIS) using the IIS Admin.
- 2 Install Microsoft .Net Framework 3.5 SP1 if not already installed. You can download it from this Web site: <http://msdn.microsoft.com/en-us/netframework/cc378097>.
- 3 From the \Tools\SharePoint_Connector folder of the P6 physical media or download, launch **setup.exe** to install the P6 web service on the site created in [step 1](#).
- 4 During the web service installation, make sure to retain the default virtual directory. For example, on the **Select Installation Address** dialog box, enter the following:
 Site = WSFPRPC
 Virtual Directory = WS_FPRPC
 Application Pool = DefaultAppPool
- 5 Once the installation is complete, test the installation by launching the following URL:

`http://<host>:<port>/<virtual_dir>/WS_FPRPC.asmx`

where <host> is the server machine name or IP address where SharePoint is installed, <port> is the port number that SharePoint is using (the default is 8080), and <virtual dir> is the default virtual directory from [step 4](#)

- 6 From the \Tools\SharePoint_Connector folder of the P6 physical media or download, upload the **P6WebAccessLibraryTemplate.stp** template to the SharePoint Server (go to **Site Actions, Site Settings, List Templates**) to create a SharePoint document library for P6.
- 7 Enter the appropriate settings in the P6 Administration Application. The settings are detailed in the \Database\Instance\Content Repository subsection under “[[Database Settings](#)]” on page 200.

Using the Administration Application

As the system administrator, you can use the Administration Application of P6 Web Access to review, modify, add, and delete P6 configurations. P6 configurations are stored in the database for P6 Web Access, which you specified during installation. These configurations contain all of the settings used to run the Application Server for P6 Web Access.



Only experienced administrators should use the Administration Application to modify configuration settings.

You can run the Administration Application of P6 Web Access locally or remotely through a browser. After launching the Administration Application, you will be prompted for a database level user name and password.

Starting the Administration Application on JBoss

Run `adminpv.cmd` (located in the `<webaccesshome>` directory you specified when setting up P6 Web Access, or choose Start, Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Administration Application.

The installation for P6 Web Access sets the default URLs for remote access to the Administration Application. You can use the application server's configuration utility to change the listen port number and context root.

Starting the Administration Application on WebLogic

- On Windows, run `adminpv.cmd` (located in the `<webaccesshome>` directory you specified when setting up P6 Web Access, or choose Start, Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Administration Application.
- On HP-UX, to launch the Administration Application locally, change to the `<webaccesshome>` directory you specified when setting up P6 Web Access, then run the `adminpv.sh` script.
- To launch the Administration Application remotely, launch a browser and navigate to `https://server IP:listenport/ContextRoot/admin.jsp`, where `serverIP:listenport` is the IP address and listen port for the server of P6 Web Access. The default context root is `primaveraweb`.

Starting the Administration Application on WebSphere

- On Windows, run `adminpv.cmd` (located in the `<webaccesshome>` directory you specified when setting up P6 Web Access, or choose Start, Programs, Oracle - Primavera P6, Primavera P6 Web Access Utilities, Administration Application.
- On Linux, to launch the Administration Application locally, change to the `<primaveraweb>` directory under the WebSphere install directory and run the `adminpv.sh` script.
- To launch the Administration Application remotely, launch a browser and navigate to `https://server IP:listenport/ContextRoot/admin.jsp`, where `serverIP:listenport` is the IP address and listen port for the server of P6 Web Access. The default context root is `primaveraweb`.

Reviewing and Modifying Configurations for P6 Web Access

The Administration Application of P6 Web Access presents configuration settings in a tabbed dialog box. Tree view and Table view display the current configurations and settings. Log displays a history of configuration changes, additions, or deletions.

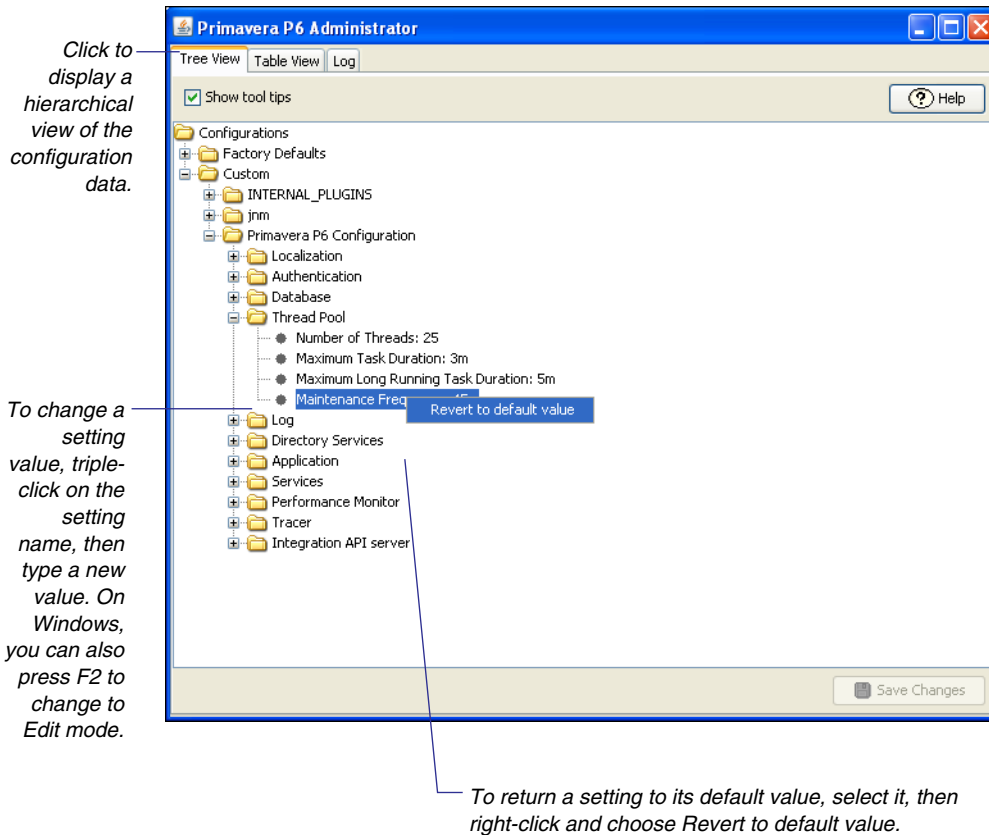


*You cannot edit the Factory Default configuration settings.
You can only modify custom configurations.*

To display brief setting descriptions in Tree or Table view, mark the Show tool tips checkbox. Then, position the mouse over a setting to read the popup description.



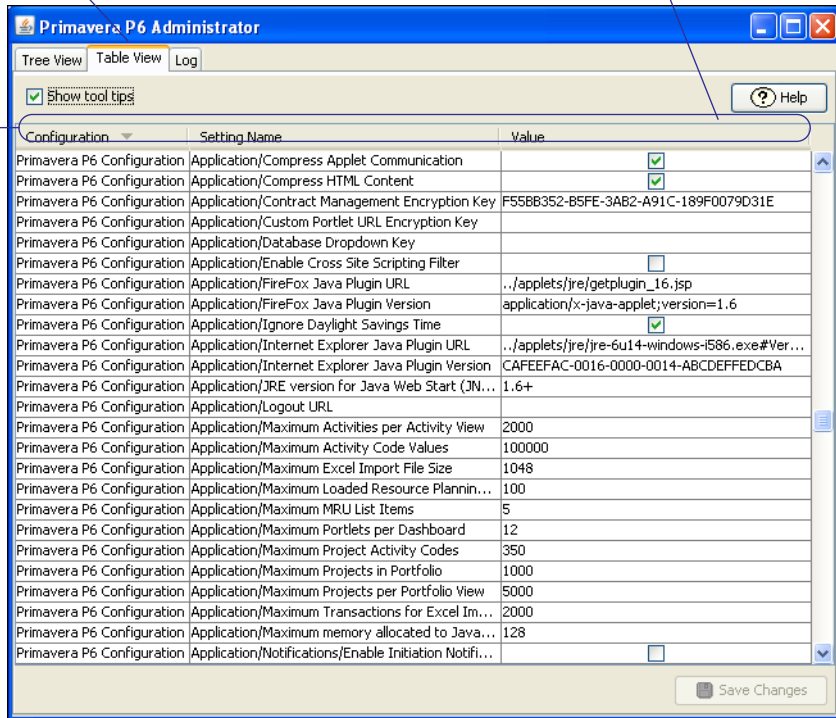
Configurations highlighted in red are out of date. Oracle recommends that you update these configurations. To do so, right-click over the outdated configuration and select "Update to latest version."



Click to display configuration settings in a table format.

To change a setting value, select the setting, click in the Value column, then type a new value.

To sort the table, click a column heading. Sorting can help you distinguish similar settings contained in multiple configurations.



Add configurations for P6 Web Access To create a new configuration, you can duplicate an existing configuration.

- To duplicate a configuration, select the configuration name in Tree View, then right-click and choose Duplicate. Enter a name for the configuration, then click OK. Edit the settings as needed.
- To create a new configuration based on factory default settings, right-click on Factory Defaults in Tree View and choose Duplicate.

Add database instances to a configuration To add a new database instance to a configuration, you can duplicate an existing instance.

- To duplicate a database instance, select the icon representing the instance, then right-click and choose Duplicate. Enter a unique name for the new instance and edit other settings as needed.

Delete configurations and database instances for P6 Web

Access To delete a configuration or database instance, select it, then right-click and choose Delete.

You cannot delete the Factory Defaults configuration. You can delete any custom configuration, but not all of them. There must always be at least one custom configuration.

You can delete any database instance associated with a configuration, but not all of them. Each configuration must have at least one database instance.



You are not prohibited from deleting the database that was specified during the database configuration. If you do so, you will need to run the Database Configuration wizard again (see “[Changing Database Configuration Settings](#)” on page 179).

Special Instructions for Administration Application Settings

Configure P6 Web Access to run the Project Architect job service

To run the Project Architect job service in P6 Web Access, you must modify the appropriate P6 Web Access configuration to connect the project management database associated with the job service to the methodology management DB Alias specified on the job service machine.

Complete the following steps to configure P6 Web Access to run the Project Architect job service:



If a methodology management DB Alias does not exist on the machine on which you installed the job service, you must use the Database Configuration wizard to create or select one. If a methodology management DB Alias already exists on the job service machine, skip step 1 in the following procedure.

For information on installing and configuring the job service, refer to “Installing the Job Service and Distributed Job Service” on page 268.



These instructions assume you have already installed the Job Service.

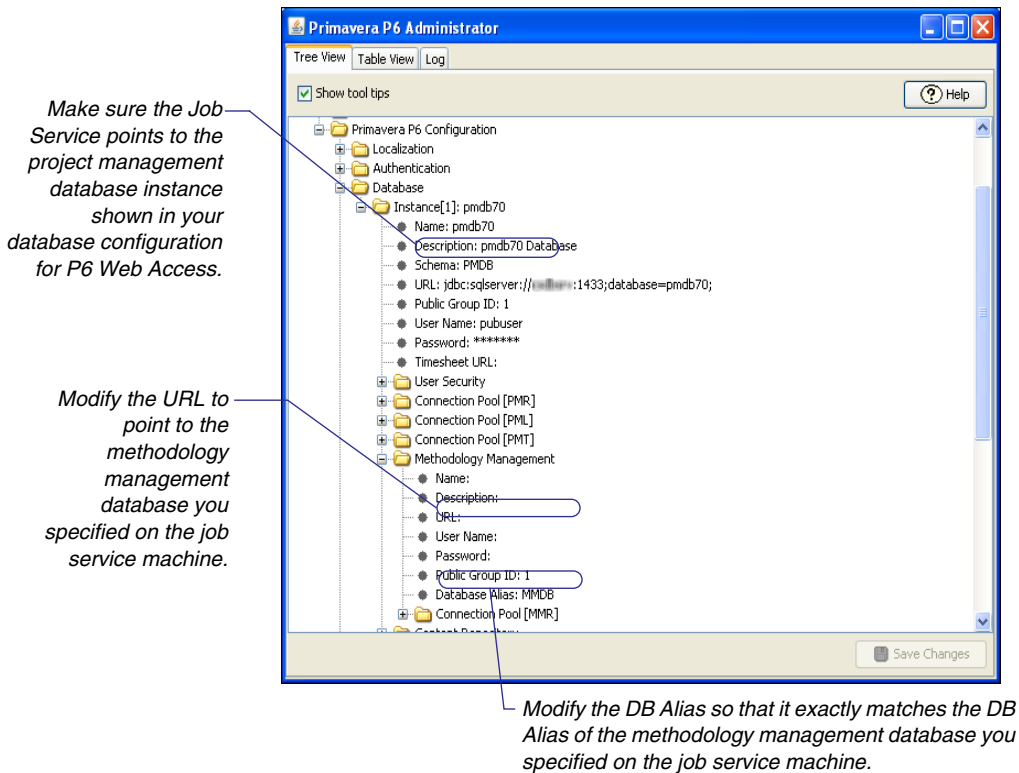
- 1 If necessary, on the job service machine, run the Database Configuration wizard to create or select a methodology management DB Alias that connects the job service machine to the methodology management database you want to associate with P6 Web Access.

For instructions on configuring database connections, refer to [“Changing Database Connection Settings”](#) on page 308.

- 2 Launch the Administration Application.

For instructions on launching the Administration Application, refer to [“Using the Administration Application”](#) on page 185.

- 3 In the Tree View, underneath the appropriate P6 Configuration, navigate to the following location: Database/Instance/Methodology Management.
- 4 In the Methodology Management folder, modify the URL so that it points to the same methodology management database you specified in [step 1](#).
- 5 Modify the DBAlias value to match the DB Alias of the methodology management database you specified in [step 1](#).



Manage access to multiple database instances P6 Web Access enables you to access data from different project management databases. When you configure P6 Web Access to support multiple database instances, the Login page displays a Database drop-down list that enables users to choose the database instance they want to connect to.

Through the Administration Application, you can configure the server for P6 Web Access to manage user access to specific databases by requiring a database parameter in the URL. The database parameter, which is the name of a database instance, is appended to the P6 Web Access server URL and points to that specific database instance. When users access the URL you specify, the Database drop-down list does not display in the Login page and they have login access only to the database instance defined by the database parameter. If users attempt to access the login page URL without specifying the required database parameter, a message displays to indicate that the URL is invalid and directs them to the administrator of P6 Web Access.

For example, the following URL would log a user into the database instance named Sample.

`http://serverIP:listenport/login_<industry>?db=Sample`

For information on industry choices, see “P6 Industry Types” on page 28.

where <industry> is the either “cmt” or “it,” depending on your industry preference

As the administrator, you can specify a keyword that bypasses the database parameter requirement, so that you can access all databases through the Login page database drop-down list.

Require a database parameter with the URL for P6 Web Access

To require that a database parameter be used with the URL for P6 Web Access, complete the following steps:

- 1 Under the configuration you want to modify, specify a value for the setting, Application/Database Dropdown Key. Specifying a value adds the database parameter requirement to the server URL.
- 2 Use the value you specify as the keyword to bypass the database requirement when logging in to the server for P6 Web Access.

For example,

`https://serverIP:listenport/login_<industry>?db=bypass`

where <industry> is the either “cmt” or “it,” depending on your industry preference

For information on industry choices, see “P6 Industry Types” on page 28.

Configure Authentication P6 Web Access uses up to six configuration settings to support authentication.

- Authentication/Mode
- Authentication/Web Single Sign-On/User Name Header Key
- Authentication/Web Single Sign-On/Context Path Override
- Authentication/Web Single Sign-On/Server and Port Override
- Authentication/LDAP/SSL Certificate Store
- Authentication/LDAP/SSL Store Password



The Authentication/Mode settings must match the mode selected for P6 Progress Reporter.



Because one server instance of P6 Web Access might control more than one database, in addition to specifying an authentication mode through the LDAP Configuration wizard, use the Authentication/Mode configuration setting to specify the overall mode you want to use for the server of P6 Web Access. If using Single Sign-On, you will also need to modify three additional configuration settings required for the Single Sign-On server. For LDAP authentication with secure communication (SSL) between P6 Web Access and the LDAP server, two additional configuration settings are required.

For more information about each of these settings, refer to the Authentication Settings subsection in the next section, “[Configuration Settings for P6 Web Access](#)”.



A configuration for P6 Web Access might include database instances that are not set to the same authentication mode as the server of P6 Web Access. If a user connects and requests a database that is set to a different authentication mode than the server of P6 Web Access, an error message displays. The user must select a database that matches the authentication mode set for the server of P6 Web Access.



Configure custom portlets In the Dashboards and Project Workspace of P6 Web Access, you can create custom portlets that pass the password of the currently logged on user to the target application. By default, the password is not encrypted. Use the Application/Custom Portlet URL Encryption Key configuration setting to encrypt the password. This encryption uses the Sun/Blowfish algorithm.

For more information about this setting, refer to the Application Settings subsection in the next section, “[Configuration Settings for P6 Web Access](#)”.



You must update your configuration for this setting to appear. To do so, highlight the configuration, right-click, and select “Update to latest version”.

Configure Setting for JBoss and WebLogic on Microsoft SQL 2005 Databases

The following instructions apply when using Microsoft SQL Server 2005 databases. If the Microsoft SQL Server database is localized or installed on a localized operating system, it is necessary to use the SET DATEFORMAT setting in the P6 Web Access Administration Application. Otherwise, the user will encounter SQL errors when navigating in Resource Planning and Capacity Analysis. Odd behavior might also occur in the Activities view. To avoid these issues:

- 1 In the P6 Web Access Administration Application, locate the Database folder for the Microsoft SQL Server database used by P6 Web Access.
- 2 In that folder, expand the appropriate Instance folder and then the Session Settings folder (choices will be from 1 to 5).
- 3 Use the following syntax to add a Session Setting:
set DATEFORMAT ymd
- 4 Save the change.
- 5 Restart the application server, and the change will immediately take effect.

Configure and override password policy When the authentication mode is set to “Native,” P6 Web Access allows Administrators to control password-related security, such as how many times a user can attempt to login before being denied access, and once locked out, the duration that the user has to wait before attempting to login again. The available settings are detailed in the /Database/Instance/User Security subsection under “[[Database Settings](#)]” on page 200.

Administrators can manually override the lock out, if needed. Complete the following steps to reset a P6 Web Access user:

- 1 Log into P6 Web Access as an Admin Superuser.
- 2 On the browser’s address line, remove all text after “action,” replace it with “/useradmin,” and reload the page.

For example, the default components of the URL after login are:

`http://serverIP:listenport/ContextRoot/action/home`

Change to:

`http://serverIP:listenport/ContextRoot/action/useradmin`

- 3 The User Administration page will load, and you will see a list of all active and locked out users. Click on the “Reset User” link for the locked out user. If multiple users are locked out, click on the “Reset All Users” link at the top of the page.

Set up Event Notification Depending on administrative settings, events can be triggered when the P6 Web Access, P6 Web Services, or P6 Integration API is used to update or create objects in the P6 database. When a change triggers an event, the P6 Event Notification system sends the event message to a user configured message queue. If you are planning to use Event Notification with P6 products, follow the steps below to set up Event Notification to work with your Java Messaging Service (JMS), the application server, and P6.



Before you begin, add the JMS vendor jar files to the application server's classpath. Refer to the Oracle Primavera Support Knowledgebase for additional information and examples.

- 1 Launch the Administration Application.
- 2 Set the “Database/Instance/Eventing/Enabled” setting to true.
- 3 Set additional Database/Instance/Eventing/ settings as appropriate for your implementation. The available settings are detailed in the Database/Instance/Eventing subsection under “[Database Settings]” on page 200.

Configure OCM (Oracle Configuration Management) for use with P6 Web Access OCM can be used to view Administration Application and Administrative Preferences settings for multiple P6 Web Access implementations from one central location. Before these settings can be viewed through OCM, follow the steps below to configure P6 Web Access.

- 1 Download and install OCM version 10.3.2 from <http://metalink.oracle.com>.

If you chose to install OCM during the P6 Web Access installation process, you will be prompted to upgrade from version 10.3.1.2.0. By default, the OCM files install to <webaccesshome>\ccr. If you retained the default location, skip to [step 7](#).

If installed OCM separately from the P6 Web Access installation or chose to install the OCM files to a different location, proceed to [step 2](#).

- 2 From the command prompt, change your directory to the following location: <OCM home>\ccr\sysman\admin\discover
- 3 Find and edit the “P6_discover.pl” file.
- 4 Find the line that starts with “#\$P6_Home=.”
- 5 Uncomment this line by removing the # character, and enter the location where you installed OCM. For example,
\$P6_Home=D:\OCM\ccr
- 6 Save the “P6_discover.pl” file.
- 7 Launch the Administration Application. Modify the appropriate settings so that P6 Web Access configuration information can be captured automatically for use with OCM. Information on these settings are detailed in the Configuration Management subsection under “[[Services Settings](#)]” on page 222.



*To manually capture P6 Web Access configuration information, launch the Administration Application remotely through a browser. In the Tree view, right-click the /Services/Configuration Management node, and choose “Capture Configuration.” Go to a command prompt, and change your directory to the following location:
<OCM home>\ccr\bin\
Execute the following command: **emCCR collect***

- 8 Set a collection time on the OCM server for P6 Web Access information captured automatically, as specified in [step 7](#). The OCM collection time should be AFTER the P6 capture time. To set the collection time, open a command prompt and change your directory to the following location: <OCM home>\ccr\bin\

Execute the following command (as all one line):

**emCCR set collection_interval="FREQ=<interval>;
BYHOUR=<military hour>;BYMINUTE=<minute>"**

For example,
emCCR set collection_interval="FREQ=DAILY;
BYHOUR=18;BYMINUTE=20"



*To check that the collection time is set properly, go to a command prompt, and change your directory to the following location: <OCM home>\ccr\bin\
Execute the following command: **emCCR.bat status***

- 9 Restart the P6 Web Access application server.

Configuration Settings for P6 Web Access

You can review and modify configuration settings in the Administration Application Tree View or Table View. Configuration settings are stored in the database for P6 Web Access, which you specified during installation.


You can specify durations (time-related values) in several ways:

- As a simple number, which is treated as milliseconds.

For example, 240000 would be equivalent to 4 minutes (240000/60000).
- In the form <n>d<n>h<n>m<n>s, where “d” is days, “h” is hours, “m” is minutes, and “s” is seconds. All parts are optional.

For example, you can enter:

1d2h30m20s
4m
1h30s



Only experienced administrators should use the Administration Application of P6 Web Access to modify configuration settings.

[Localization Settings]

Setting Name and Description	Default	Valid Ranges/Values
Localization/System Language Language for server string constants	en	—
Localization/System Country Country for server string constants	US	—


[Authentication Settings]

Setting Name and Description	Default	Valid Ranges/Values
Authentication/Mode The method used for client authentication.	NATIVE	Native, LDAP, WebSSO
Authentication/Web Single Sign-On/User Name Header Key The name of the http header you specified in the policy server. The value you specify must match the property of the response you have created under the policy domain/realm, within which the Web server for P6 Web Access resides. For example, for SiteMinder, the value of this response should be smuser=uid, where smuser is configurable and uid matches the LDAP server attribute that maps to the P6 database USER_Name field.	smuser	—
Authentication/Web Single Sign-On/Context Path Override The path used to pass web requests from the Single Sign-On Web server to the server of P6 Web Access.	/Primavera	—
Authentication/Web Single Sign-On/Server and Port Override The fully qualified domain name and port for the Web server that the Single Sign-On server is controlling.	http:// servername.domain.com:82	—
Authentication/LDAP/SSL Certificate Store The full path to the keystore that holds the SSL certificate for the LDAP server.	—	—
Authentication/LDAP/SSL Store Password The password for the keystore that holds the SSL certificate.	—	—

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Name The name of this database instance.	—	up to 32 characters
Database/Instance/Description A description of this database instance.	—	up to 128 characters
Database/Instance/Schema The schema that will be defined for the database.	PMDB	—
Database/Instance/URL The database URL used to establish a connection to the P6 database.	—	—
Oracle example: jdbc:oracle:thin:@xx.xxx.xxx.xx:yyyy:zzzz		
SQL example: jdbc:sqlserver://xxx:yyyy;database=zzzz;		
x = IP address or hostname y = database listen port z = database name		
Database/Instance/Public Group ID The public group ID used to establish a connection to the database.	1	—
Database/Instance/User Name The name used to establish a connection to the database.	pubuser	—
Database/Instance/Password The password used to establish a connection to the database.	pubuser	—
Database/Instance/Timesheet URL URL for invoking the P6 Progress Reporter module. To verify that the URL entered for this setting is valid, right-click over the setting, then select ‘Test Connection.’	—	—
Example format: http://<server name>:<listen port>/pr/		
Database/Instance/User Security/Log Login Attempts Specifies whether or not login attempts to P6 Web Access are tracked in the Web Access logs.	All	All, None, Failed Attempts, Successful Attempts

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/User Security/Login Lockout Count The number of times a user can attempt to login before the account is locked. A setting of “0” allows an unlimited number of attempts. The count resets after each successful login.	5	0-100000
		
Database/Instance/User Security/Login Lockout Duration The length of time that a user is blocked from logging into P6 Web Access, starting from the point at which the Logging Lockout Count was exceeded. This setting will be overridden if a user’s session is manually reset by an Admin Superuser. For more information, see “Configure and override password policy” on page 195.	1h	0-24d
Database/Instance/User Security/Allow Multiple User Sessions Specifies whether a single user can be simultaneously logged into Web Access. A setting of “Yes” will allow a single user to login multiple times on any machine. A setting of “No” restricts a user to logging in only once on any machine. A setting of “Single Machine” allows a user to log in multiple times on the same machine, as long as the application server is configured properly to determine the IP address of the machine making the request. For example, if the application server is behind a proxy server, this setting will default to “Yes” instead of “Single Machine.”	Yes	Yes, No, Single Machine
Database/Instance/Connection Pool [aaa]/Resize Rate The timeout period after which the system will adjust the number of database connections to be equal to the maximum number of database connections simultaneously used during the last period. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	4m	4m - 12h

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Connection Pool [aaa]/ Maintenance Frequency The run frequency of the maintenance that ensures leases have not exceeded the maximum duration. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	1m	10s - 1h
Database/Instance/Connection Pool [aaa]/ Lease Request Wait Timeout The amount of time a request for a database connection will wait. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	30s	5s - 2h
Database/Instance/Connection Pool [aaa]/ Maximum Connections The maximum number of connections the server will have to the database. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	50	5 - 15000

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Connection Pool [aaa]/Fetch Size A hint to the database driver for how many rows to fetch at a time. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	120	—
Database/Instance/Connection Pool [aaa]/Trace SQL Trace all SQL sent to the database. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	false	true/false
Database/Instance/Connection Pool [aaa]/Renewable Free Limit The minimum number of connections that should be available for leases to be renewed. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	3	3 - 5

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Connection Pool [aaa]/Renewable Leases If false, each connection can be leased only for the MaxLeaseDuration period. If true, connection leases are renewed if database statements are completed within the MaxLeaseDuration time period. When true, the code can hold onto the connection as long as it needs, provided SQL statements are completed within the MaxLeaseDuration period. When true, the connection is revoked if no SQL statements are issued within the MaxLeaseDuration period or if one statement takes longer to execute than that period. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	PMR - false PML - false PMT - true	true/false
Database/Instance/Connection Pool [aaa]/Maximum Lease Duration The maximum amount of time a database connection can be leased before it is revoked. [PMR] Used for the standard connection pool, which is the most frequently used connection pool in the Business Rule Engine. [PML] Used for the long running connection pool, which is used in the Business Rule Engine when scheduling long running jobs. [PMT] Used for the transactional connection pool, which is used in the Business Rule Engine when a client transaction is requested.	PMR - 2m PML - 10m PMT - 10m	PMR - 5s - 4h PML - 5s - 6h PMT - 5s - 6h
Database/Instance/Methodology Management/Name Name of this database instance.	—	—
Database/Instance/Methodology Management/Description Description of this database instance.	—	—

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Methodology Management/URL Database URL used to establish a connection to the P6 database. Oracle example: jdbc:oracle:thin:@xx.xxx.xxx.xx:yyyy:zzzz SQL example: jdbc:sqlserver://xxxx:yyyy;database=zzzz; x = IP address or hostname y = database listen port z = database name	—	—
Database/Instance/Methodology Management/User Name The name used to establish a connection to the database.	—	—
Database/Instance/Methodology Management/Password The password used to establish a connection to the database.	—	—
Database/Instance/Methodology Management/Public Group ID The Group ID used to establish a connection to the database.	1	—
Database/Instance/Methodology Management/Database Alias The DB Alias name used by the Project Architect job service to create a project plan from a methodology.	MMDB	—
Database/Instance/Methodology Management/Connection Pool [MMR]/Resize Rate The timeout period after which the system will adjust the number of database connections to be equal to the maximum number of database connections simultaneously used during the last period.	4m	4m - 12h
Database/Instance/Methodology Management/Connection Pool [MMR]/Maintenance Frequency The run frequency of the maintenance that ensures leases have not exceeded the maximum duration.	1m	10s - 1h
Database/Instance/Methodology Management/Connection Pool [MMR]/Lease Request Wait Timeout The amount of time a request for a database connection will wait.	30s	5s - 2h

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Methodology Management/Connection Pool [MMR]/Maximum Connections The maximum number of connections the server will have to the database.	50	5 - 15000
Database/Instance/Methodology Management/Connection Pool [MMR]/Fetch Size A hint to the database driver for how many rows to fetch at a time.	120	—
Database/Instance/Methodology Management/Connection Pool [MMR]/Trace SQL Trace all SQL sent to the database.	false	true/false
Database/Instance/Methodology Management/Connection Pool [MMR]/Renewable Free Limit The minimum number of connections that should be available for leases to be renewed.	3	3 - 5
Database/Instance/Methodology Management/Connection Pool [MMR]/Renewable Leases If false, each connection can be leased only for the MaxLeaseDuration period. If true, connection leases are renewed if database statements are completed within the MaxLeaseDuration time period. When true, the code can hold onto the connection as long as it needs, provided SQL statements are completed within the MaxLeaseDuration period. When true, the connection is revoked if no SQL statements are issued within the MaxLeaseDuration period or if one statement takes longer to execute than that period.	false	true/false
Database/Instance/Methodology Management/Connection Pool [MMR]/Maximum Lease Duration The maximum amount of time a database connection can be leased before it is revoked.	2m	5s - 4h
Database/Instance/Content Repository/Type The application that will be used to host content repository data in P6.	None	JackRabbit, Oracle, SharePoint, None

After choosing the content repository type, enter the appropriate settings below for the type selected.

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Content Repository/Apache JackRabbit/URL The URL used to establish a connection to the JackRabbit database. Oracle example: embedded://jdbc:oracle:thin:@xx.xxx.xxx.xx:yyyy:zzzz SQL example: embedded://jdbc:sqlserver://xxxx:yyyy;database=zzzz; x = IP address or hostname y = database listen port z = database name	—	—
Database/Instance/Content Repository/Apache JackRabbit/Database User Name The name used to establish a connection to the JackRabbit database. By default, this is admuser for Oracle and sa for SQL Server.	—	—
Database/Instance/Content Repository/Apache JackRabbit/Database Password The password used to establish a connection to the JackRabbit database. By default, this is admuser for Oracle and sa for SQL Server.	—	—
Database/Instance/Content Repository/Apache JackRabbit/Repository Home Location where content repository files are stored on the JackRabbit server. Specify a location, or type a name and a folder will be created for you in the Bootstrap home directory.	—	—
Database/Instance/Content Repository/Apache JackRabbit/Admin User Name Application name for the content repository.	—	—
Database/Instance/Content Repository/Apache JackRabbit/Admin Password Application superuser password for the content repository.	—	—

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Content Repository/Apache JackRabbit/Enable Connection Pooling A setting of “true” provides a pool of shared database connections to the content repository. Utilizes the c3po connection pool.	true	true/false
Database/Instance/Content Repository/Apache JackRabbit/Maximum Connections The maximum number of connections that the content repository connection pool will have to the database.	25	2-5000
Database/Instance/Content Repository/Apache JackRabbit/Autovue/VueServlet URL The URL of the server hosting the AutoVue VueServlet. Note: Refer to the Tested Configurations document for the version of AutoVue that is supported for use with P6 Web Access.	—	—
Database/Instance/Content Repository/Apache JackRabbit/Autovue/Enable Set to true to enable the use of AutoVue.	false	true/false
Database/Instance/Content Repository/Oracle Universal Content Management/Host The machine name or IP address of the Universal Content Management server.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Port The port number of the Universal Content Management server. By default, this is 4444.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Oracle Home Path to the P6 content repository files on the Universal Content Management server, as specified in step 2 on page 181. Example: \\Contribution Folders\Production\OraclePrimavera\	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Oracle Security Group The name of the Security Group for P6 documents, as specified in step 3 on page 181.	—	—

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Content Repository/Oracle Universal Content Management/Oracle Security Account The name of the Security Account for P6 documents, as specified in step 5 on page 182.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Oracle Document Type The Universal Content Management document type for P6 documents, as specified in step 6 on page 182.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Metadata Prefix The prefix added to P6 metadata fields, as specified in step 7 on page 182.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Admin User A Universal Content Management user name with administrative privileges, as specified in step 4 on page 181, this setting is required.	—	—
Database/Instance/Content Repository/Oracle Universal Content Management/Authentication Mode The authentication mode used for access to the Universal Content Management server. Content repository functions will not be available to P6 users if these conditions are not met. If “Multiple User” is chosen, all P6 content repository-related user names must match the equivalent Universal Content Management user name. For example, a P6 user named “Joe” must have an equivalent user named “Joe” in Universal Content Management. If “Single User” is chosen, the administrator user specified in the setting above must have access to all appropriate Security Groups in order to browse to documents outside of the P6 home folder.	Multiple User	Multiple User, Single User
Database/Instance/Content Repository/Oracle Universal Content Management/Autovue/VueLink URL The URL of the server hosting AutoVue VueLink. Note: Refer to the Tested Configurations document for the version of AutoVue that is supported for use with P6 Web Access.	—	—

Example format:

`http://<vuelinkpath>/csiApplet.jsp`

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Content Repository/Oracle Universal Content Management/Autovue/Enable Set to true to enable the use of AutoVue.	false	true/false
Database/Instance/Content Repository/SharePoint/Login Name A SharePoint user name with administrative privileges, this setting is required.	—	—
Database/Instance/Content Repository/SharePoint/Password The password for the SharePoint login name.	—	—
Database/Instance/Content Repository/SharePoint/Authentication Mode The mode used to connect to the SharePoint content repository database. Content repository functions will not be available to P6 users if these conditions are not met. If “Multiple User” is chosen, all P6 content repository-related user names must match the equivalent SharePoint user name. For example, a P6 user named “Joe” must have an equivalent user named “Joe” in SharePoint. If “Single User” is chosen, the administrator user specified in the setting above must have access to all appropriate SharePoint libraries in order to browse to documents outside of the P6 home folder.	Multiple User	Multiple User, Single User
Database/Instance/Content Repository/SharePoint/Host Name The machine name or IP address of the SharePoint server.	—	—
Database/Instance/Content Repository/SharePoint/Domain The domain in which the SharePoint server resides.	—	—
Database/Instance/Content Repository/SharePoint/Document Library URL The URL of the P6 document library on SharePoint created in step 6 on page 184. The URL includes the machine name (or IP address) of the content repository server and the path to the content repository library.	—	—

Example format:
http://<host>/<library path>

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Content Repository/SharePoint/Web Service URL The URL of the Web Service used to connect P6 to SharePoint, as specified in step 5 on page 183. The URL includes the machine name (or IP address) of the content repository server, port number of the server, and web service name. Example format: http://<host>:<port>/<virtual_dir>	—	—
Database/Instance/Content Repository/SharePoint/External Document Library URL The URL of an external document library. This is only required if you need to connect to a non-P6 document library. Example format: http://<host>:<port>/<virtual_dir>	—	—
Database/Instance/Content Repository/SharePoint/Autovue/VueLink URL The URL of the of the server hosting AutoVue VueLink. Note: Refer to the Tested Configurations document for the version of AutoVue that is supported for use with P6 Web Access. Example format: http://<vuelinkpath>/vue.aspx	—	—
Database/Instance/Content Repository/SharePoint/Autovue/Enable Set to true to enable the use of AutoVue.	false	true/false

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Workflow Repository/URL Database URL used to establish a connection to the Workflow Repository database. Oracle example: <code>jdbc:oracle:thin:@xx.xxx.xxx.xx:yyyy:zzzz</code> SQL example: <code>jdbc:sqlserver://xxxx:yyyy;database=zzzz;</code> x = IP address or hostname y = database listen port z = database name	—	—
Database/Instance/Workflow Repository/User Name The name used to establish a connection to the database. By default, this is admuser for Oracle and sa for SQL.	—	—
Database/Instance/Workflow Repository/Password The password used to establish a connection to the database. By default, this is admuser for Oracle and sa for SQL.	—	—
Database/Instance/Workflow Repository/Enable Connection Pooling Provides a pool of shared database connections to the workflow system. Utilizes the c3po connection pool.	true	true/false
Database/Instance/Workflow Repository/Maximum Connections The maximum number of connections that the workflow repository connection pool will have to the database.	25	1-5000
Database/Instance/Workflow Repository/Timeout The number of seconds a connection can remain pooled, but unused, before being discarded. If a value of zero is entered, idle connections will never expire.	1m	5s-1h
Database/Instance/Workflow Repository/Connection Test Period The time, in seconds, in which all idle connections will be tested. If a value of zero is entered, no connections will be tested.	5m	5s-1d

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Session Settings/Setting 1-5 “Alter session” commands used to establish cursor sharing, rule-based mode, SQL trace, and more. Invalid settings in these fields are ignored.	—	alter session set _ = _
Database/Instance/Cost Based Optimization Settings/Enable Enable Cost Based Optimization if true.	false	true/false
Database/Instance/Cost Based Optimization Settings/Dump Matching SQL Set to true to dump the SQL where a match is found in the QUERYLIB table for a given SQL statement. Set to false to dump the SQL where a match is not found in the QUERYLIB table for a given SQL statement. You must set your logging level to INFO to see these entries.	false	true/false
Database/Instance/Eventing/Enabled Set to true to enable the sending of events for P6 Web Access, P6 Web Services, and P6 Integration API.	false	true/false
Database/Instance/Eventing/Interval The length of time that the Event Notification System uses to determine how often it sends events to the message queue. Specifying a smaller time increases the frequency with which the Event Notification System reports event occurrences to the message queue.	5m	1s-10m
Database/Instance/Eventing/Job Events Wait Interval The duration of time that the Event Notification System waits for jobs to finish processing with a completed, failed, or cancelled status. Jobs that take longer to process than the specified time will not trigger an event if a completed, failed, or cancelled status eventually becomes available.	5m	10m-30m
Database/Instance/Eventing/Job Events Monitor Interval The length of time that the Event Notification System uses to determine how often it monitors the Job Service for jobs that have a completed, failed, or cancelled status. Specifying a smaller time increases the frequency with which the Event Notification System looks at the status of jobs.	5m	15s-10m
Database/Instance/Eventing/Max Queue Size The amount of memory allocated to the queue for events. Once exceeded, events will be published immediately.	1000	10-5000

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/Eventing/Show Costs Set to true to enable the display of cost fields in event notifications.	false	true/false
Database/Instance/Eventing/Connection Factory The JNDI name of the JMS Connection Factory.	—	—
Database/Instance/Eventing/Destination Name The JNDI name of the queue or topic to which to publish events.	—	—
Database/Instance/Eventing/Configuration Options for which Business Object changes and Special Operation processes trigger event notifications. Right-click to select the node, then choose Configure to select the desired options. For detailed information about these options, refer to the <i>P6 Web Services Reference Manual</i> . Note: The “Timesheet” business object only has update notification functionality.	—	—
Database/Instance/AIA/Enabled Set to true to enable integration with AIA components.	false	true/false
Database/Instance/AIA/URL The URL of the Oracle database instance running AQ functionality. Oracle example: jdbc:oracle:thin:@xx.xxx.xxx.xx:yyyy:zzzz SQL example: jdbc:sqlserver://xxxx:yyyy;database=zzzz; x = IP address or hostname y = database listen port z = database name	—	—
Database/Instance/AIA/Username The database user name of the AQ queue owner.	—	—
Database/Instance/AIA/Password The password for the database user name of the AQ queue owner.	—	—

[Database Settings]

Setting Name and Description	Default	Valid Ranges/Values
Database/Instance/AIA/Queue Name The name of the AQ queue receiving AIA messages.	AIA_ProjP6EP PMJMSQueue	—
Database/Instance/AIA/System Id The system identification code that AIA will use to identify P6.	P6-001	—
Database/Instance/AIA/Target System Id The external system identification code that AIA will use to identify a supported Oracle ERP application. Examples: JDE-001 for JDEdwards EBS-001 for E-Business Suite	—	—

[Thread Pool Settings]

Setting Name and Description	Default	Valid Ranges/Values
Thread Pool/Number of Threads The number of server threads.	25	2-300
Thread Pool/Maximum Task Duration The maximum duration a thread can be used for one task.	3m	10s - 24d
Thread Pool/Maximum Long Running Task Duration The maximum duration a thread can be used for a long running task.	5m	10s - 24d
Thread Pool/Maintenance Frequency The frequency at which threads are checked for excess time durations.	45s	15s - 24d

[Log Settings]

Setting Name and Description	Default	Valid Ranges/Values
Log/Console Logger/Severity Level Log severity level for the Console Logger. The ranges are inclusive. For example, choose “debug” to log all messages; choose “warning” to log both warning and error level messages.	error	debug, info, warning, error
Log/Console Logger/Enabled Enable the Console Logger	false	true/false
Log/File Logger/Archive Size The minimum size (in Kb) a log file must be before it is archived.	1024	1024 - 2073600000
Log/File Logger/Severity Level Log severity level for the HTML Logger. The ranges are inclusive. For example, choose “debug” to log all messages; choose “warning” to log both warning and error level messages.	error	debug, info, warning, error
Log/File Logger/Number of Archive Files Maximum number of log files to be used. The default files are named WebAccessLog0.html through WebAccessLog5.html.	6	2 - 2073600000
Log/File Logger/HTML Log as HTML.	true	true/false

[Log Settings]

Setting Name and Description	Default	Valid Ranges/Values
Log/File Logger/Enabled Enable the HTML Logger. Log files are created in a folder named WebAccessLogs, located as follows: JBoss on Windows: <webaccesshome>\WebAccessLogs JBoss on Oracle Enterprise Linux: /mount_point/<webaccesshome>/AppServer/ WebAccessLogs WebLogic on Windows: <webaccesshome>\WebAccessLogs WebSphere on Windows: <webaccesshome>\WebAccessLogs WebSphere on Oracle Enterprise Linux: /mount_point/WebSphere/AppServer/WebAccessLogs	true	true/false
Log/Email Logger/SMTP Host SMTP server that will send the email message.	—	—
Log/Email Logger/From Email Address Set to the email address from which you would like log messages sent.	—	—
Log/Email Logger/To Email Address Set to the email address to which you would like log messages sent.	—	—
Log/Email Logger/Email subject The default Email subject.	P6 Web Access error	—
Log/Email Logger/Enabled Enable the Email logger.	false	true/false
Log/Asynchronous Log messages asynchronously for better performance.	true	true/false

[Directory Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Directory Services/Provider URL The URL of the JNDI provider used for eventing.	—	—
Directory Services/Initial Context Factory The class name of the initial context factory for the JNDI connection for eventing. Example: weblogic.jndi.WLInitialContextFactory	—	—
Directory Services/Security Principal Principal used to connect to the JNDI provider for eventing.	—	—
Directory Services/Security Credential Credentials used to connect to the JNDI provider for eventing.	—	—
Directory Services/Security Level Security level used to authenticate to the directory service for eventing.	SIMPLE	NONE, SIMPLE, STRONG
Directory Services/Lookup The lookup used when testing the directory connection for eventing.	—	—

[Application Settings]

Setting Name and Description	Default	Valid Ranges/Values
Application/Prototype User Prototype user login used to create and store default Dashboards and Global Preference settings for new P6 Web Access users.	—	—
Application/Ignore Daylight Savings Time Set to false to account for daylight savings time.	true	true/false
Application/Internet Explorer Java Plugin URL URL for Internet Explorer users to download Java Plug-in (JRE).	Defaults to the plug-in version 1.6.0_14 that is installed during setup.	—
Application/FireFox Java Plugin URL URL for Firefox users to download Java Plug-in (JRE).	Defaults to the plug-in version 1.6.0_14 that is installed during setup.	—

[Application Settings]

Setting Name and Description	Default	Valid Ranges/Values
Application/Internet Explorer Java Plugin Version JRE version used by applets in Internet Explorer	—	—
Application/FireFox Java Plugin Version JRE version used by applets in Firefox	—	—
Application/JRE Version for Java Web Start (JNLP) The Java version that Java Web Start should use when launching Timesheet Approval either as a standalone application or from the Project Management client.	1.6+	
Application/Maximum Transactions for Excel Import The maximum number of transactions (activities or resources) that can be imported at once from a .xls or .csv file	2000	100 - 2000
Application/Maximum Excel Import File Size The maximum size of the .xls or .csv file uploaded during an import attempt (KB)	1048	64 - 4096
Application/Allow Auto-Summarize Option Set to true to allow automatic summarization to be available in resource staffing user preferences.	true	true/false
Application/Database Dropdown Key Keyword to use for enabling database selection control in the login page. Pass this as a URL parameter db=keyword. Set this to an empty string if you do not want to require the keyword.	—	—
Application/Logout URL Directs P6 Web Access to a specific URL when the user exits with the Logout/Close icon in the banner of P6 Web Access. Any valid URL can be used. If no URL is specified, P6 Web Access directs the user to the launch page of P6 Web Access.	—	—
Application/Compress Applet Communication Set to true to compress communication between applets and the server.	true	true/false
Application/Compress HTML Content Set to true to compress HTML-related content generated by P6 Web Access, including .html, .js, and css files, and Ajax content.	true	true/false
Application/Maximum Projects in Portfolio The maximum number of projects returned when creating a portfolio with a filter.	1000	1 - 100000

[Application Settings]

Setting Name and Description	Default	Valid Ranges/Values
Application/Maximum Loaded Resource Planning Projects The maximum number of projects that can be open in the Resource Planning spreadsheet.	100	1 - 1000
Application/Maximum Portlets per Dashboard The maximum number of portlets that can be displayed in a dashboard on the Dashboards Home page.	12	1 - 50
Application/Maximum Projects per Portfolio View The maximum number of projects that can be displayed in a portfolio view on the Portfolio Analysis tab and in Portfolio View portlets on dashboards.	5000	1 - 20000
Application/Maximum Activities per Activity View The maximum number of activities that can be displayed in the Activities tab of the Projects section. If greater than 5000, the Maximum memory allocated to Java Applets setting (below) must be 128 or greater.	2000	1 - 15000
If using a JRE prior to version 1.6.0_10, the maximum number of activities displayed will be 5000. Also, Oracle recommends that the maximum value be set to 5000 (or lower) if users need to display Earned Value or Baseline-related information. Otherwise, database timeouts may occur.		
Application/Maximum memory allocated to Java Applets The maximum amount of memory, in megabytes, that can be used by Java Applets. If the Maximum Activities per Activity View setting (above) is greater than 5000, the memory allocation must be set to 128 or greater.	64	64-1024
This setting is only valid when using JRE version 1.6.0_10 (or later).		
Application/Maximum MRU List Items The maximum number of items that can be displayed in a Most Recently Used (MRU) list.	5	1 - 10
Application/Maximum Project Activity Codes The maximum number of projects that can be selected and displayed in the Projects tab of the Activity Codes section.	350	1-350
Application/Maximum Activity Code Values The maximum number of activity code values that can be created or selected per Activity Code.	100000	1-1m

[Application Settings]

Setting Name and Description	Default	Valid Ranges/Values
Application/Custom Portlet URL Encryption Key Encryption key for custom portlet user password. Assigning a key causes the password that is passed as part of the URL for a custom portlet to be encrypted. If you do not assign a value, the password is not encrypted. The value can be any alphanumeric character or string of characters. This encryption uses the Sun/Blowfish algorithm.	—	—
Application/Transaction Monitor Execution Interval The frequency at which the transaction monitor job runs, which ensures transactions have not been orphaned.	10m	1s - 24d20h31m23s647
Application/Enable Cross Site Scripting Filter Enable or disable the cross site scripting filter. Set to true to allow P6 to check for unsafe http requests from the browser and unsafe responses from P6 Web Access, including requested documents. In general, requests and responses that contain Javascript, which was not generated explicitly by P6 Web Access, are considered unsafe. An error message will be displayed for all unsafe page requests. For Internet Explorer 7, an attempt to download an unsafe document will result in an error message. For Internet Explorer 8 and Firefox, users will be prompted to download the document file instead of viewing the document directly in the P6 Web Access browser. It is not necessary to restart the server after changing the value of this setting.	false	true/false
Application/Notifications/Enable Issue Notifications Enable or disable automated notifications when Issues are added or modified.	false	true/false
Application/Notifications/Enable Invitation Notifications Enable or disable automated notifications when Invitations are added.	false	true/false
Application/Notifications/Enable Initiation Notifications Enable or disable automated notifications when Invitations are pending.	false	true/false

[Application Settings]

Setting Name and Description	Default	Valid Ranges/Values
Application/Notifications/Override Notification Email from User Set to true to always use the system's From email address. Set to false to use the email address of the user who causes notifications to be sent, if their email address is configured.	false	true/false
Application/Notifications/Notification from Email User The email address from which Notifications will be sent when either NotificationsFromEmailOverride is true or the user's email address is not configured	—	—
Application/Contract Management Encryption Key Encryption key for communication between P6 and Contract Management version 13. The default key is based on the string, "Oracle Primavera." Type a string of your choosing, and it will be converted to a UUID (Universally Unique Identifier). The UUID will be used for encrypting the password needed to connect to Contract Management. This encryption uses the Sun/Blowfish algorithm.	F55BB352-B5FE-3AB2-A91C-189F0079D31E	—

[Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Services/Module Access Service/Update Rate The rate at which a Business Rule Engine synchronizes with the database for license counts.	30s	100 - 1m
Services/Module Access Service/Expiration Check Rate The rate at which licenses are checked to see if they should expire.	2m	500 - 15m
Services/Timestamp Service/Refresh Rate The rate at which the database is queried to determine if a table change notification is necessary.	1m	15s - 1h
Services/Registry Service/Refresh Rate The rate at which the database is updated with the status of the Business Rule Engine.	1m30s	15s - 1h
Services/Registry Service/Stale Period The duration of inactivity that indicates an inoperable Business Rule Engine.	4m	1m - 10m

[Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Services/Registry Service/Port The TCP/IP port on which requests to revive dead Business Rule Engines will be received.	9192	1024 - 65535
Services/Next Key Service/Refresh Rate The rate at which nextkey cache is refreshed.	1m	15s - 1h
Services/Next Key Service/Maximum Cached Keys Maximum nextkeys to cache per table	10	1 - 100
Services/Performance/Use Enterprise Summary Use enterprise level summary data for resources and roles. This setting specifies whether you want to use EPS level records or Project level records to draw Resource Manager histograms. If true, performance is better because only one record (EPS record) is used for the histogram. If false, a much larger number of records (Project records) is used to draw the histogram chart, so performance is slower. However, it is important to note that histogram data is more accurate when the setting is false, using Project records.	false	true/false
Services/Performance/Maximum Summary Node Count The threshold for displaying summarized data in views such as Resource Usage and Resource Analysis. If the number of child elements contained in a node exceeds this number, no data is displayed.	1000	1-50000
Services/Web Scheduler/Enabled If true, scheduling for jobs from P6 Web Access is performed using the Web Scheduler. If false, scheduling is performed using the Job Service Scheduler.	true	true/false
Services/Web Scheduler/Scheduling Interval Amount of time the Web Scheduler will wait before scheduling the next available job.	5m	1s - 24d20h31m23s647
Services/Web Scheduler/Concurrent Schedulers The number of processes (active schedulers) used for scheduling on this server. A value of 0 (zero) indicates that scheduling will not be performed on this server.	2	0-20
Services/Web Scheduler/Active Scheduler Mode If true, jobs are processed continuously until all jobs are scheduled. If false, each job is processed according to the Scheduling Interval.	true	true/false

[Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Services/Web Scheduler/ASAP Cleanup Rate The rate at which completed scheduler jobs are removed from the database.	1d	1h - 24d20h31m23s647
Services/Store Period Performance/Enabled Service for storing period performance. If true, ThisPeriod values are stored in the specified financial period.	true	true/false
Services/Store Period Performance/Execution Interval Amount of time the service will wait before checking for any period performance jobs.	5m	1s - 24d20h31m23s647
Services/Store Period Performance/Concurrent Tasks The number of processes used for the PeriodPerformance service on this server. A value of 0 (zero) indicates that the service is not available on this server.	2	0 - 20
Services/Sync Actual This Period/Enabled Service for synchronizing actuals and ActualThisPeriod values. If true, recalculates actual units and costs for ThisPeriod.	true	true/false
Services/Sync Actual This Period/Execution Interval Amount of time the service will wait before checking for any SyncActualThisPeriod jobs.	5m	1s - 24d20h31m23s647
Services/Sync Actual This Period/Concurrent Tasks The number of processes used for the SyncActualThisPeriod service on this server. A value of 0 (zero) indicates that the service is not available on this server.	2	0 - 20

[Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Services/Project Hierarchy Cache/Cache Policy The cache policy to use. The cache policy determines how much data is in the cache and which data is removed to reclaim memory.	PRR	FIFO, LRU, JVMM, PRR, PRFIFO, PRLRU, PRCC
The allowable values are: FIFO (First In First Out-projects are cleared from the cache in the same order they were added to memory) LRU (Least Recently Used projects are cleared from the cache before more recently used ones) JVMM (Java Virtual Machine Managed-uses soft references to cached elements; memory used by soft references is reclaimed by the JVM as required) PRR (Projects are selected at random to be cleared from cache) PRFIFO (Periodic Refresh First In First Out-same as FIFO, except policy is enforced based on MaintenanceFrequency) PRLRU (Periodic Refresh Least Recently Used-same as LRU, except policy is enforced based on MaintenanceFrequency) PRCC (Periodic Refresh Clear Cache-ignores CacheLimit to flush the entire cache, based on MaintenanceFrequency)		
Services/Project Hierarchy Cache/Cache Limit The maximum number of projects stored in memory.	5000	1000 - 30000
Services/Project Hierarchy Cache/Maintenance Frequency The frequency for applying the specified cache policy. Application of the cache policy might result in memory used by the cache to be reclaimed.	5h	1m - 24d
Services/Collaboration Synchronization Service/Synchronization Interval The interval at which the collaboration synchronization service will run. The synchronization service deletes documents and workflows for projects that have been deleted.	1h	1m - 24d20h31m23s647
Services/Asynchronous Jobs/Purge Interval The frequency at which long running job records will be removed from the database.	1h	0 - 24d20h31m23s647
Services/Asynchronous Jobs/Grace Time The minimum age of long running job records removed during purge.	1d	0 - 24d20h31m23s647

[Services Settings]

Setting Name and Description	Default	Valid Ranges/Values
Services/Mail Service/Email Notification Server Hostname or IP address of the email notification server for Timesheet Approval.	—	—
Services/Mail Service/SMTP Port The tcp/ip port of the outgoing SMTP server.	25	1 - 65535
Services/Mail Service/Send Interval The frequency at which queued mail messages are sent.	1m	0 - 24d20h31m23s647
Services/Mail Service/Maximum Queue Length The maximum size of the mail message queue	250	0 - 2147483647
Services/Mail Service/Authorized User Name The name of the account to use to send mail from this mail server.	—	—
Services/Mail Service/Authorized User Password The password of the account used to send mail from this mail server.	—	—
Services/Import/Export Options/Temporary File Location The location to store the temporary file during the XML import/export process.	—	—
Services/Import/Export Options/Maximum file size The maximum file size for XML import/export.	—	64KB - 1MB
Services/Import/Export Options/ASAP Cleanup Rate The rate at which completed and failed scheduler jobs are removed from the database.	1d	1h - 24d
Services/Configuration Management/Configuration Capture Enabled Allows P6 Web Access to collect configuration settings at the configured collection time.	false	true/false
Services/Configuration Management/Automatic Capture Time The time of day that the settings will be captured on a daily basis. Note that the collection time in OCM (Oracle Configuration Management) should be set to occur at least a few minutes AFTER this capture time.	12AM	drop-down selection

[Performance Monitor Settings]

Setting Name and Description	Default	Valid Ranges/Values
Performance Monitor/Enabled Performance monitor packets are sent when true.	false	true/false
Performance Monitor/Monitor Host The destination IP or machine name for the performance monitor packets	localhost	—
Performance Monitor/Monitor Port The destination port for the performance monitor packets	6990	1024 - 65535
Performance Monitor/Update Interval The rate at which the performance monitor packets are sent.	1s	250 - 1m

[Tracer Settings]

Setting Name and Description	Default	Valid Ranges/Values
Tracer/Enabled If true, debugging messages are sent to Tracer application.	false	true/false
Tracer/Server Name Hostname or IP address of destination for sending tracer information.	localhost	—
Tracer/Port Port to use for Tracer socket connection	9210	1024-65535
Tracer/Use Background Send Thread If true, use background thread for sending TCP messages to tracer.	true	true/false

[Integration API Server Settings]

Setting Name and Description	Default	Valid Ranges/Values
Integration API server/RMI/Registry Port The port for the RMI Registry. This value is usually set to at least 1024.	9099	1024 - 65535
Integration API server/RMI/Enable The setting that enables the RMI server.	true	true/false
Integration API server/RMI/Enable Compression The setting that enables compression service mode.	true	true/false
Integration API server/RMI/Enable SSL The setting that enables SSL service mode.	true	true/false
Integration API server/RMI/Enable Standard Service The setting that enables Standard service mode.	true	true/false
Integration API server/RMI/Enable HTTP Service The setting that enables HTTP tunneling mode.	false	true/false
Integration API server/RMI/Enable HTTPS Service The setting that enables secure HTTP (SSL) tunneling mode.	false	true/false
Integration API server/RMI/Compression Service Port The port to use for Compression service mode. A setting of 0 indicates that any available port will be used. If the server will be accessed across a firewall, you must set this to a specific port.	0	0 - 65535
Integration API Server/RMI/SSL Service Port The port to use for SSL service mode. A setting of 0 indicates that any available port will be used. If the server will be accessed across a firewall, you must set this to a specific port.	0	0 - 65535
Integration API Server/RMI/Standard Service Port The port to use for Standard service mode. A setting of 0 indicates that any available port will be used. If the server will be accessed across a firewall, you must set this to a specific port.	0	0 - 65535

[Integration API Server Settings]

Setting Name and Description	Default	Valid Ranges/Values
Integration API Server/RMI/HTTP Service Port The port to use for HTTP tunneling mode. A setting of 0 indicates that any available port will be used.	0	0 - 65535
Integration API Server/RMI/HTTPS Service Port The port to use for secure HTTP tunneling mode. A setting of 0 indicates that any available port will be used.	0	0 - 65535
Integration API Server/Session Timeout The amount of time after which an idle client connection will be terminated.	120	1 - 24d

Implementing Application Server Plug-Ins

For a full list of tested configurations for P6 Web Access, go to the P6 \Documentation\<language>\Tested Configurations folder of the P6 physical media or download.

The JBoss, WebLogic, and WebSphere application servers offer a variety of plug-ins that enable you to configure a Web server front-end other than the one provided with the application server. For procedures on configuring a Web server plug-in, refer to the individual application server's documentation.

Configuring the Distributed Job Service

In this chapter:

Distributed Job Service Overview

Installing the Distributed Job Service

Disabling the Windows Firewall

Configure Access to the Distributed Job Service

Configure DCOM for the Distributed Job Service

Configure the Controller and DJS servers

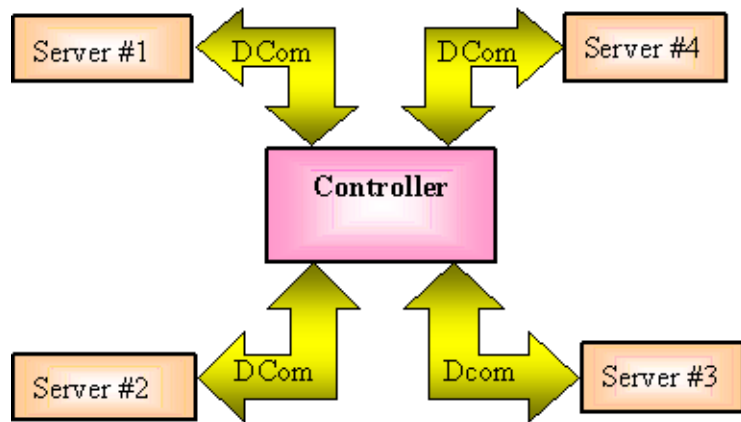
Job Service Registry Settings

Use the Distributed Job Service (DJS) to run jobs independently on multiple Job Service servers at the same time. You can configure a controller server that manages the distributed Job Service by distributing jobs to multiple machines.

Distributed Job Service Overview

The Distributed Job Service (DJS) is an extension of the Job Service that enables a controller machine to manage multiple machines (servers) running job services. Non-distributed job services run jobs on a single machine; installing the non-distributed job service on multiple machines results in each service running independently on each machine.

With distributed job services, each designated server runs jobs as requested by the controller via DCOM communication, as shown in the following figure. This distributes the job service load across multiple machines. If desired, the controller can also run jobs.



In addition to the preparations described in this section, you must configure the database for P6 Web Access to run the Project Architect job service. Refer to [“Configure P6 Web Access to run the Project Architect job service”](#) on page 191.

Prepare the Controller and DJS servers for installation and configuration

Be sure to complete the following tasks before you install and configure DJS on the Controller and servers:

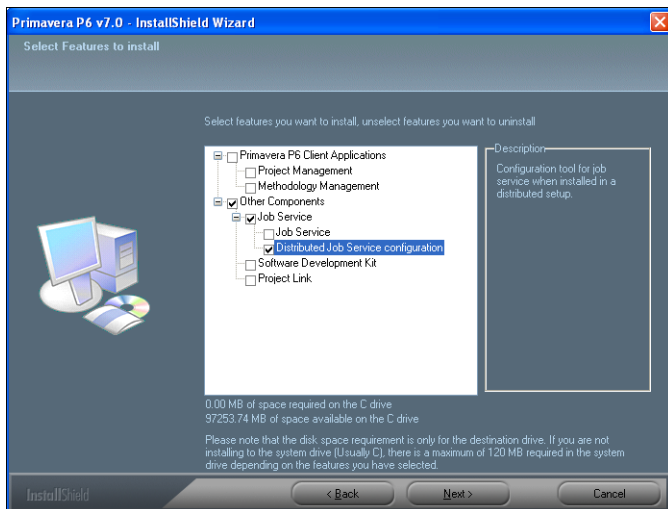
- On the Controller and all DJS servers, define the “Temp” and “TMP” variables in Environment variables (both User variables and System variables).
- Synchronize the system clocks of the Controller and all DJS servers to have identical time stamps in the log files.

Installing the Distributed Job Service

Before installing the Distributed Job Service, identify the Controller and servers (maximum 10). Install the Job Service on each machine as described in “[Installing the Job Service and Distributed Job Service](#)” on page 268. On the Controller, be sure to select the Distributed Job Service Configuration option as shown in the following figure. When you finish the installation, return to this section to configure user access.



Oracle recommends that the controller and all related servers be in the same network domain. Also, each machine should have Windows Server 2003, Windows Server 2008, or Windows XP as the operating system, with Firewall turned off.



Disabling the Windows Firewall

The Windows Firewall, which is enabled by default on Windows 2003 Server and XP, prevents DCOM connections from functioning. You must disable the firewall on the controller and each DJS server.

To disable the Windows Firewall, perform the following steps:

- 1 From the Windows Control Panel, click Windows Firewall.
- 2 In the General tab of the Windows Firewall dialog, select Off, then click OK.

Configure Access to the Distributed Job Service

Before configuring DCOM and the DJS, you must create users that have privileges to launch the Job Service, access the registry and path information on the Controller, and access applications across the network.

On the server that controls the domain in which the Controller and DJS servers reside, perform the following steps:

- 1 Create a user group (for example, PrmAdmins).
- 2 For the Controller and each DJS server, add a user name to the user group you just created. For example,
Name of Controller : ControllerUser
Name of Server1 (DCOM Server) : Server1User
Name of Server2 (DCOM Server) : Server2User
Name of Server3 (DCOM Server) : Server3User
- 3 On the Controller and each DJS server, add the group you created to the Local Administrator Group.
- 4 In the Security tab of the DCOM Configuration dialog, add the group you created to each Custom permission.

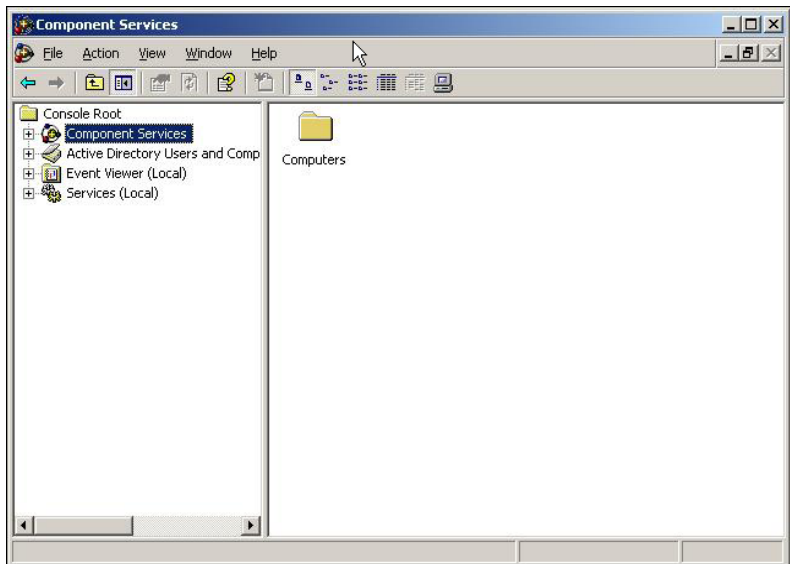


The example above illustrates a multi-user scenario. You can also configure single-user access. For example, you could create a single domain user (e.g., ControllerUser) and add that user to the Local Administrator group on the Controller and each DJS server. Then, when configuring DCOM, you could use the ControllerUser instead of the PrmAdmins user group shown above.

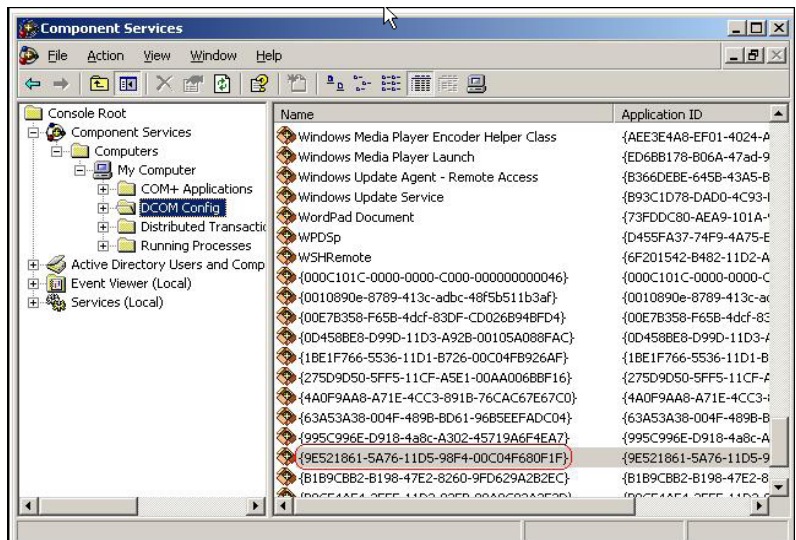
Configure DCOM for the Distributed Job Service

To configure DCOM for the Distributed Job Service on servers running Windows Server 2003, Windows Server 2008, or Windows XP Professional, perform the following steps for the Controller and each DJS server.

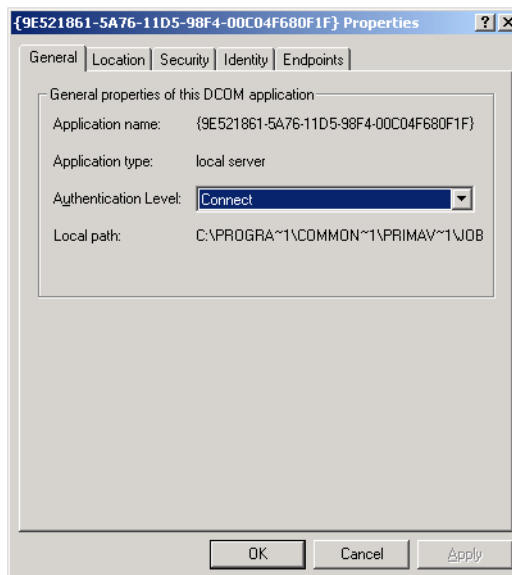
- 1 From the command line (or Start, Run utility), run **dcomcnfg**. The Component Services dialog is displayed.



- 2 In the Component Services dialog, expand the tree in the left panel by clicking Component Services, Computers, My Computer, DCOM Config.



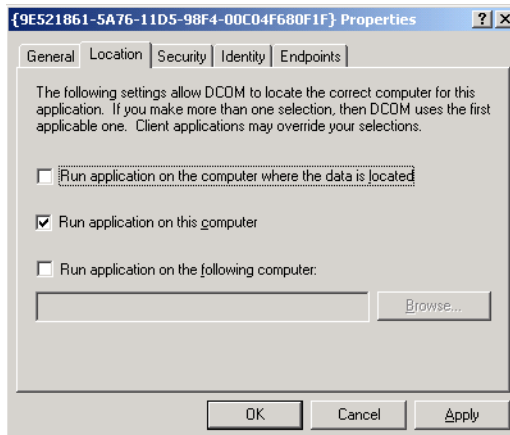
- 3 Right click on the **{9E521861-5A76-11D5-98F4-00C04F680F1F}** entry in the right panel and select Properties.
- 4 In the Properties dialog, General tab, set the Authentication Level to Connect.



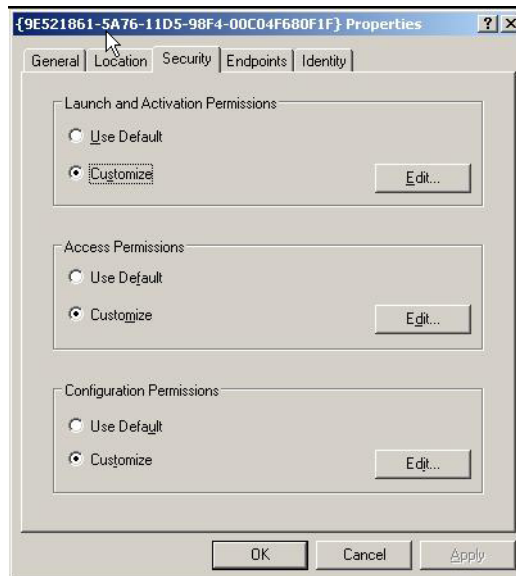


Make sure the Controller and all DJS servers are set to the same Authentication Level. If desired, you can set Connect as the Default Authentication Level in the Default Properties tab of the Distributed COM Configuration Properties dialog.

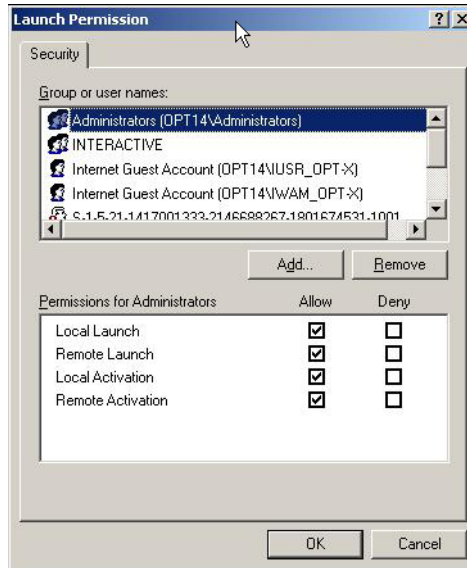
- 5 In the Properties dialog, Location tab, select the Run application on this computer option.



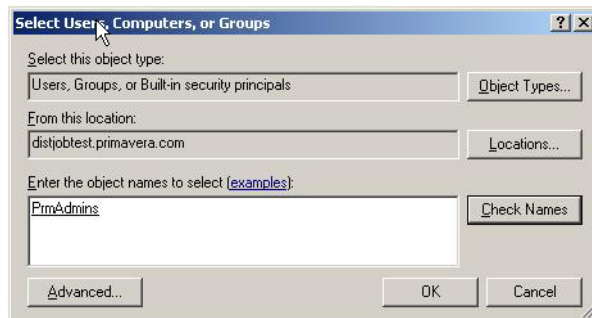
- 6 In the Properties dialog, Security tab, ensure that the Customize options are selected for all permission types, as shown in the following figure.



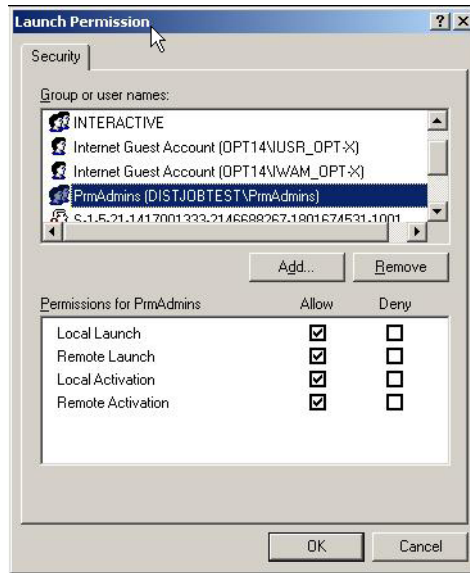
- 7 In the Properties dialog, Security tab, click the Edit button associated with Launch and Activation Permissions.
- 8 In the Launch Permission dialog, Security tab, click Add.



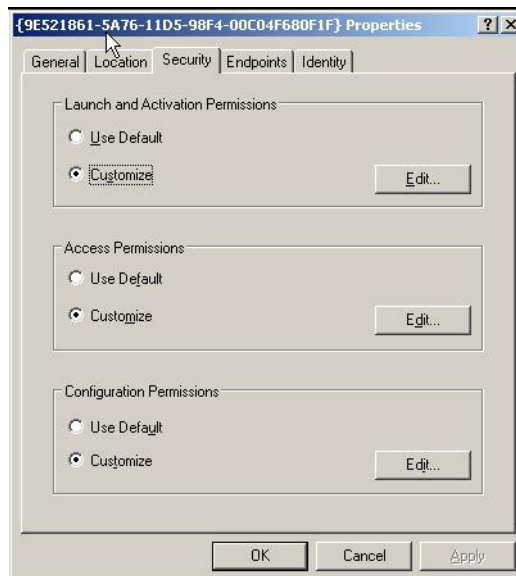
- 9 In the Select Users, Computers, or Groups dialog, enter the user group name you created previously (for example, PrmAdmins). Click OK.



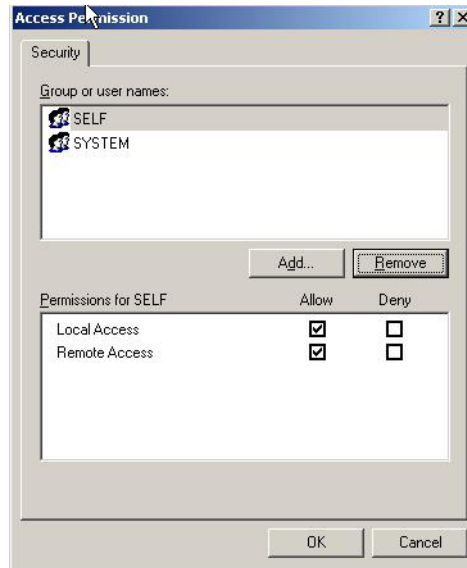
- 10 In the Launch Permission dialog, Security tab, select the user group you added (for example, PrmAdmins), and select Allow for all permissions, as shown in the following figure. Click OK.



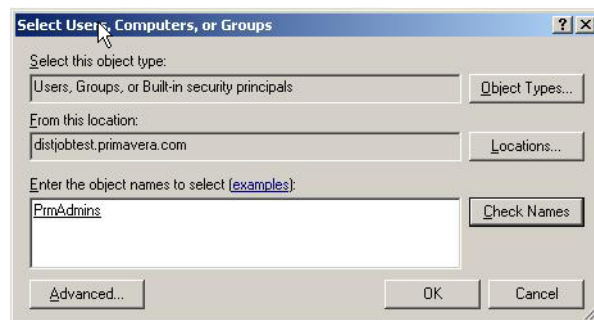
- 11 In the Properties dialog, Security tab, click the Edit button associated with Access Permissions.



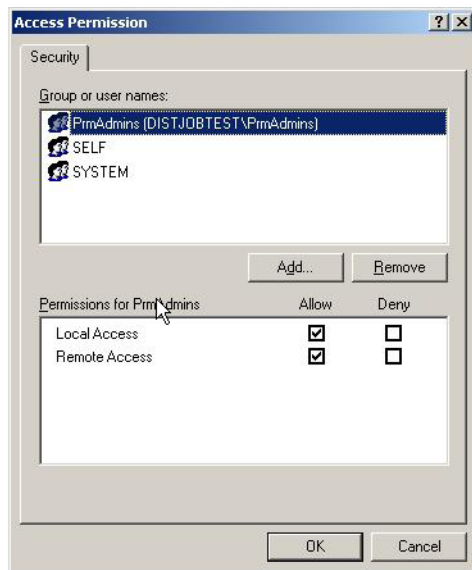
- 12 In the Access Permission dialog, Security tab, click Add.



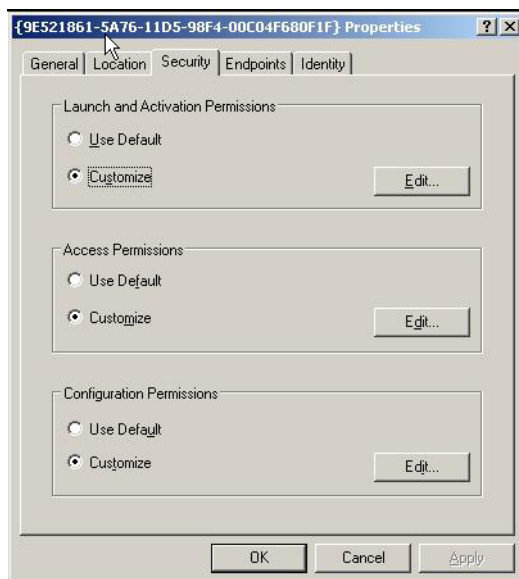
- 13 In the Select Users, Computers, or Groups dialog, enter the user group name you created previously (for example, PrmAdmins). Click OK.



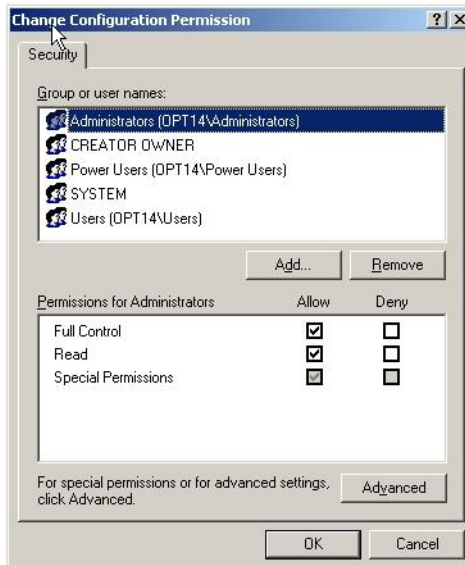
- 14 In the Access Permission dialog, Security tab, select the user group you added (for example, PrmAdmins), and select Allow for all permissions, as shown in the following figure. Then click OK.



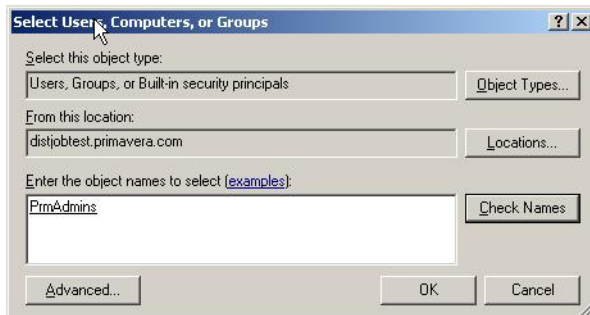
- 15 In the Properties dialog, Security tab, click the Edit button associated with Configuration Permissions.



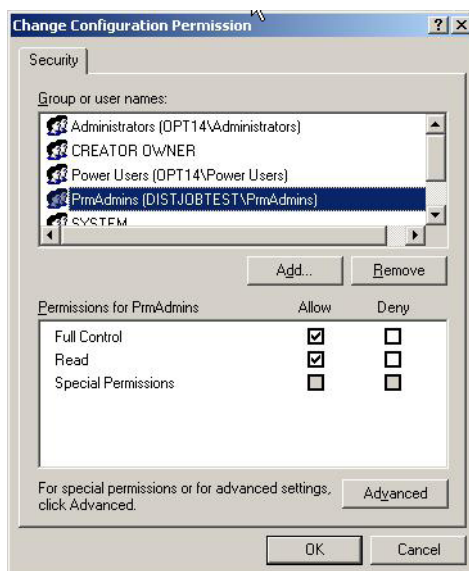
- 16 In the Change Configuration Permission dialog, Security tab, click Add.



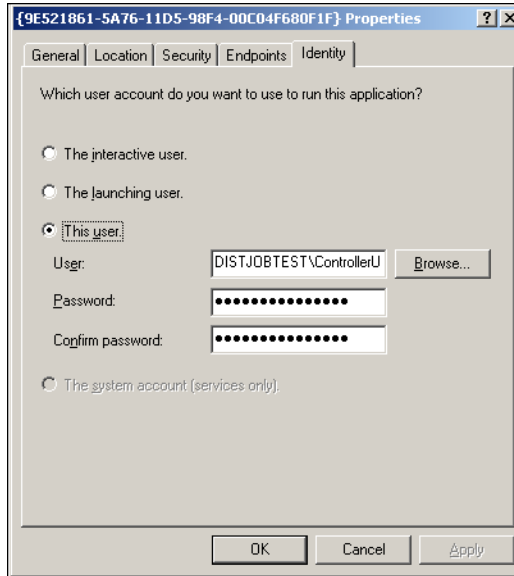
- 17 In the Select Users, Computers, or Groups dialog, enter the user group name you created previously (for example, PrmAdmins). Click OK.



- 18 In the Change Configuration Permission dialog, Security tab, select the user group you added (for example, PrmAdmins), and ensure that permissions are set as shown in the following figure. Then click OK.



- 19 In the Properties dialog, Identity tab, select the This User option. Enter the Password for a user who has administrative privileges on the machine you are using.

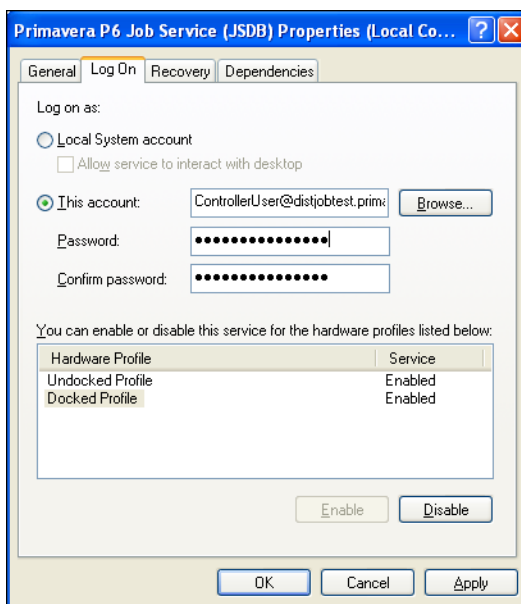


- 20 Click OK to close the dialog.
- 21 On the Controller, launch the Services Control Panel.
- 22 In the Services dialog, double-click the P6 Job Service (JSDB) to open the Properties dialog.

- 23 In the Properties dialog, select This Account and enter the password of an administrative user on the Controller.



Steps 21 - 23 enable the DJS to use the name and password of the administrator you specified during DCOM configuration as the launching user for all servers.



- 24 Click OK to close the dialog.

Configure the Controller and DJS servers

Configure the Controller and DJS servers using the Distributed Job Services Configuration tool. Follow the instructions to access the configuration tool and configure the Controller and DJS servers.

- 1 On the Controller, run the DistributedJobsAdmin.exe from the following file location: C:\Program Files\Common Files\Primavera Common\JobService\JSConfig.

The Distributed Job Service Configuration dialog opens (shown in the next figure)

Select the Job Service executable (PrmJobSvXXXX.exe) for this machine using the Browse button. Add additional Job Services with the same executable name from other Servers. You can change the status of each Server. Click Save Settings when finished. You may use the Test or Test All button to test the connection for one or all Job Services.

Controller	Status	Job service location on controller
\\AGENT-4	Enabled	

Servers	Status	Job service location on Servers

Maximum number of Web Access or API jobs
(Cannot be greater than sum of enabled machines)

- 2 In the Distributed Job Service Configuration dialog, click Browse. Navigate to the C:\Program Files\Common Files\Primavera Common\JobService folder and select PrmJobSvXXXX.exe, where XXXX equals the DB Alias of the database connection (in this example, XXXX equals JSDB as shown in the next figure).

- 3 In the Distributed Job Service Configuration dialog, click Add. For each server listed, select the equivalent PrmJobSvXXXX.exe.

The Distributed Job Service Configuration dialog should appear similar to the next figure.

Select Disabled to disable the DJS on that machine. In this example, the Controller will execute jobs on the servers but not on itself.

Select the Job Service executable (PrmJobSvXXXX.exe) for this machine using the Browse button. Add additional Job Services with the same executable name from other Servers. You can change the status of each Server. Click Save Settings when finished. You may use the Test or Test All button to test the connection for one or all Job Services.

Controller	Status	Job service location on controller
\\AGENT-4	Disabled	C:\Program Files\Common Files\Primavera Common\JobService\prmJobSvXXXX.exe

Servers	Status	Job service location on Servers
\\agent-6	Enabled	\\agent-6\c\$\Program Files\Common Files\Primavera Common\JobService\prmJobSvXXXX.exe
\\agent-5	Enabled	\\agent-5\c\$\Program Files\Common Files\Primavera Common\JobService\prmJobSvXXXX.exe
\\agent-2	Enabled	\\agent-2\c\$\Program Files\Common Files\Primavera Common\JobService\prmJobSvXXXX.exe

Maximum number of Web Access or API jobs
(Cannot be greater than sum of enabled machines)

3

Close

Browse


Add

Remove


Save Settings

Test

TestAll

 If you have already used the configuration tool, all servers you previously configured appear in the list of servers (bottom grid of previous figure).

- 4 Set the Status (Enabled/Disabled) for the Controller and each DJS server.

 You can disable the DJS on any machine (e.g., if you want to execute jobs only on the servers and not on the Controller). However, a disabled machine may still run jobs if no enabled machine is available (e.g., due to network problems).

- 5 Click Test to verify that the DCOM configuration and PrmJob installation is working correctly on each machine.

- 6 In the Maximum Number of Web Access or API jobs field, enter a value between 0 (zero) and the number of enabled DJS machines.



The Maximum Number of Web Access or API jobs value determines the number of P6 Web Access jobs that can be run at one time. Also, this value does not affect recurring jobs set up using the Job Services dialog in the Project Management module.

- 7 Click Save Settings, Close.

- 8 Reboot the Controller and all DJS servers.



When the Controller restarts, its job scheduling actions are listed in the Event Viewer. Log files for all jobs are located in the appropriate folder of the Controller (not on the servers).



After you reboot the Controller and DJS servers, if you modify the DCOM settings you specified in [“Configure DCOM for the Distributed Job Service”](#) on page 236, you must reboot the machine(s) on which you made the modifications.

Job Service Registry Settings

You can edit the registry settings that apply to the (Distributed) Job Service and the summarizer service (in both the Job Service and the Project Management module).

Edit (Distributed) Job Service registry settings Type 'regedit' in the Start, Run utility to open the Registry Editor. In the Registry Editor, navigate to the following directory:

My Computer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\PrmJobSvXXXX\Parameters
(where XXXX equals the DB Alias of the database connection).

The following table summarizes the Job Services registry settings.

[Job Service settings]

Setting Name and Description	Default	Valid Ranges/Values
EstablishDBConnectionRetryCount Number of times to try to connect to database on startup.	3	1-10
MaxNumRecurringJobs The maximum number of recurring (Project Management) jobs that can run simultaneously.	4	1-(no maximum)
MaxNumNonRecurringJobs The maximum number of non-recurring (P6 Web Access) jobs that can run simultaneously.	1	1-5
NonRecurringJobCleanupRate Frequency (in seconds) in which completed P6 Web Access jobs are removed from the database (1 minute to 7 days).	3600	60-604800

[Job Service settings]

Setting Name and Description	Default	Valid Ranges/Values
NonRecurringJobRefreshRate Frequency (in seconds) in which P6 Web Access jobs are loaded from the database.	5	1-3600
RecurringJobRefreshRate Frequency (in seconds) in which Project Management jobs are loaded from the database.	600	60-1440
DeleteRemoteLog [test purposes only] If set to false, log file "Prm*.tmp" will not be deleted.	1 (true)	0 (false) 1 (true)

For more information about summarizer jobs, refer to "About summarizer jobs and P6 Web Access" on page 272.

Edit registry settings for summarizer jobs Type 'regedit' in the Start, Run utility to open the Registry Editor. In the Registry Editor, navigate to the following directory:

My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Primavera.

You can add any of the following settings as D Words and modify the defaults to the recommended value.



The following settings apply to the Job Service and the Project Management module. You would typically modify them to improve performance.

[Summarizer settings]

Setting Name and Description	Default	Valid Ranges/ Values
NumProjectsSummarizedAtATime Number of projects that can be summarized at the same time by the Job Service or the Project Management module. To achieve the best possible performance, Oracle recommends that the value of this setting = 20.	1	1-xx
PreQuerySummarizablePct The percentage threshold that determines how the summarizer will analyze a project's need for summarization. If the value of the equation shown below is less than the threshold, each project is considered for summarization individually. If the value of the following equation is greater than the threshold, all projects to be considered for summarization are analyzed simultaneously. The equation that determines this behavior is: # of projects to be summarized / # of projects user can access*100.	50	0-100
MaxDurationToSummarize The maximum remaining duration or the maximum original duration, in hours, that an activity or activity assignment can have in order to be summarized. If an activity or activity assignment has a remaining duration greater than this threshold, it is ignored during summarization. To ensure that all activities are summarized, Oracle recommends that the value of this setting = 100000.	-1	-



The following settings are also available. However, you would not typically need to modify their values, unless you are performing tests.

[Summarizer settings]

Setting Name and Description	Default	Valid Ranges/ Values
EnterpriseSummaries If true, EPS nodes are summarized. Applies only to the Project Management module. Note: The Job Service always summarizes EPS nodes.	0 (false)	0 (false) 1 (true)
ResourceSummaries If true, resources are summarized. Applies to the Job Service and the Project Management module.	1 (true)	0 (false) 1 (true)
ForceEnterpriseSummaries If true, forces an enterprise-level summarization even when no projects are summarized. Applies only to the Job Service.	0 (false)	0 (false) 1 (true)
EnterpriseCommit Controls how frequently to commit EPS summary records to the database, based on the number of rows of data that have been processed. Useful for improving performance when summarizing large jobs. No value commits the EPS summary records when processing is complete. If you assign a value, this value is applied to both the Job Service and the Project Management module.	1000 for the Job Service No value for the Project Management module	1-(no maximum)
PrmJobLogMemoryUsage If true, logs memory usage of PrmJob in megabytes. Applies only to the Job Service.	0 (false)	0 (false) 1 (true)

[Summarizer settings]

Setting Name and Description	Default	Valid Ranges/ Values
RetrySleep The time, in milliseconds, to wait between retry attempts when there is a connection failure. Applies only to the Job Service.	60000	-
MaxRetries The maximum number of retry attempts to make when there is a connection failure. Applies only to the Job Service.	10	-
DumpSettings Set to true to log all settings to a Job.txt file for the summarization job. Applies only to the Job Service.	0 (false)	0 (false) 1 (true)

[Summarizer settings]

Setting Name and Description	Default	Valid Ranges/ Values
PreLoadTASKSUMFINForEPS Preloads TASKSUMFIN records for all projects before summarizing the entire EPS. Set to false to use a “load on demand” approach that will conserve memory but will be much slower due to an increased number of SQL queries for TASKSUMFIN records. Applies to summarizing Financial Periods in the Job Service and the Project Management module. Does not affect the performance of summarization by Weeks or Months.	1 (true)	0 (false) 1 (true)
PreLoadTASKSUMFINForProject Preloads TASKSUMFIN records for each project before summarizing that project. Set to false to use a “load on demand” approach that will conserve memory but will be much slower due to an increased number of SQL queries for TASKSUMFIN records. Applies to summarizing Financial Periods in the Job Service and the Project Management module. Does not affect the performance of summarization by Weeks or Months.	1 (true)	0 (false) 1 (true)
PreLoadTRSRCSUMFN Preloads TRSRCSUMFN records for each project before summarizing any project. Also, during summarization of the entire EPS, it preloads all TRSRCSUMFN records for one resource or role at a time. Set to false to use a “load on demand” approach that will conserve memory but will be much slower due to an increased number of SQL queries for TRSRCSUMFN records. Applies to summarizing Financial Periods in the Job Service and the Project Management module. Does not affect the performance of summarization by Weeks or Months.	1 (true)	0 (false) 1 (true)

P6 Client Installation and Configuration

In this part:

Installing Client Modules and Additional Components

Automatic Database Upgrade

Creating and Running an Unattended Setup

Changing Database Configuration Settings

Configuring Authentication Modes

Read this part to install and configure the P6 client modules, additional components, and the stand-alone version. The first chapter, “[Installing Client Modules and Additional Components](#)”, describes how to set up each module and component on a client workstation. If you are upgrading from a previous version of P6, read “[Automatic Database Upgrade](#)”. If you want to set up an automated installation rather than install the software manually, read “[Creating and Running an Unattended Setup](#)”.

Once the modules are installed, read “[Changing Database Configuration Settings](#)” to learn how to use the Configure Connection and Administration Configuration tools to modify database connection information and change private database passwords and user passwords. Read “[Configuring Authentication Modes](#)” to select a method for validating user access to modules.

Installing Client Modules and Additional Components

In this chapter:

Installing Database Client Software

Uninstalling Previous Versions

Running the Setup Wizard

Installing Client Modules

Installing the Job Service and Distributed Job Service

Installing the Software Development Kit

Installing ProjectLink

Installing or Upgrading the Stand-Alone Version

Configuring P6 to Transfer Data Between P3 and the Project Management Module

Read this chapter to install the P6 client modules (Project Management and Methodology Management), additional components (Job Service, Software Development Kit, and ProjectLink), and the stand-alone version of P6. Run the Setup wizard on the client/desktop computers that will be used by project personnel.

Install the P6 client modules only after you install and configure the servers. The Setup wizard needs to connect to the database server when installing client modules.

Installing Database Client Software

Before you install P6 client modules, first install the client software for the database you will be using. The database client software enables the client computer to connect over the network to the database on the server computer.

Microsoft SQL Server When you install the Project Management module on a client computer, the Microsoft SQL Server client files necessary to connect to P6 modules are also automatically installed for you.

Or, you can also use your Microsoft SQL Server installation CD to install the client network utility. If you are unfamiliar with this process, please contact your database administrator.



If you change the listen port for SQL Server 2005 from the default (1433), you are required to install Microsoft SQL Server 2005 Backward Compatibility Components (SQL Server2005_BC.msi) on each client machine after installing P6 on each client.

From the following location, you can install an updated version of the Microsoft SQL Server 2005 Backward Compatibility Components:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=d09c1d60-a13c-4479-9b91-9e8b9d835cdc&DisplayLang=en>

Oracle/Oracle Database Express Edition Use your Oracle installation CD to set up an application user and configure your Oracle Net Services client files to match your network. If you are unfamiliar with this process, please contact your database administrator.

If you will be using Oracle Database Express Edition (Oracle Database XE), all necessary files are automatically installed for you when you install the stand-alone version of P6.



Ensure that all clients are configured to use TCP/IP as the default network protocol.



Make sure to reference the TNSPING.EXE location in your path environment variable.



The TNSNAMES.ORA file should be in the oracle home folder on the client (local) machine not in a shared location.

Uninstalling Previous Versions

If you are upgrading from previous versions, all client modules other than Job Services are automatically upgraded during the install process.

If you plan to transfer data from/to P3, refer to the Oracle Primavera Support Knowledgebase for instructions on how to unregister required files prior to P6 client installation. After installation, see [“Configuring P6 to Transfer Data Between P3 and the Project Management Module”](#) on page 284.

If you are upgrading to Job Services version 7.0, you must first uninstall the previous version of Job Services according to the instructions below.

Although you are not prompted to do so, it's a good practice to restart your computer between uninstalling an application and installing another application.

Uninstalling previous versions of Job Services

- 1 Click Start, Settings, Control Panel, Add or Remove Programs.
- 2 Select the Primavera entry and click Change/Remove.
- 3 On the Welcome screen of the Installation wizard, select Modify.
- 4 On the Select Features to install screen, unselect Job Services and click Next.
- 5 On the Ready to Install the Program screen, click Install.

Running the Setup Wizard

If you do not want to install the software manually, you can run an unattended setup. Refer to “Creating and Running an Unattended Setup” on page 299.

Install the client modules (Project Management and Methodology Management), additional components (Job Service, Software Development Kit, and ProjectLink), and the stand-alone version by running the Setup wizard. The first several steps of the installation process are exactly the same for all of these P6 applications. These preliminary steps are documented in this section. When you complete the steps in this section, proceed to the section that contains the instructions for installing the module or component you want to install.

You can install one or more modules. The Setup wizard displays the amount of disk space required to install the modules and components you select.

Administrator rights are required to install P6 client modules on a computer running Windows XP Professional and Windows Vista.



If version 5.0 or later of the P6 client modules are currently installed, the Setup wizard automatically upgrades the client modules to version 7.0. Additionally, for the stand-alone version, the Setup wizard automatically upgrades your P6 database from version 6.0 or later to version 7.0. If you are running version 5.0 of the stand-alone version, refer to the instructions in the \Documentation\<language>\Technical Documentation\Stand-alone Installation and Upgrades folder of the P6 physical media or download.



The network protocol TCP/IP must be installed on the client computer.



The P3 application is required for users to be able to import and export P3 data. Make sure that P3 is installed PRIOR to running the P6 setup wizard. After P6 is installed, refer to “Configuring P6 to Transfer Data Between P3 and the Project Management Module” on page 284 for additional configuration procedures. If P3 is installed after P6, refer to the Oracle Primavera Support Knowledgebase for instructions on how to manually register required files after the installations are complete.



For the stand-alone version, setup.exe must be run from a mapped drive.

Preliminary steps for installing the client modules, additional components, and the stand-alone version

- 1 Double-click **setup.exe** in the Client_Applications folder of the P6 physical media or download.



Click Next on each wizard dialog box to advance to the next step. Click Cancel at any time to exit the wizard.

- 2 On the **Welcome** screen, click **Next**.
- 3 On the **Industry Selection** dialog box, choose the appropriate industry.

The industry you select determines application defaults, calculation settings, and the sample data that is installed with the client modules. For more information on industry types, refer to “[P6 Industry Types](#)” on page 28.



If you are upgrading from a previous version, the industry type is automatically selected based on your existing installation. You can select a different industry if necessary.

- 4 On the **Setup Type** dialog box, choose:
 - **Primavera Client Applications** if you want to install only the client modules (Project Management and Methodology Management). Choose this install type if you plan to run the client modules on shared network databases. When you choose this install type, project management and methodology management databases are not installed on your machine.
 - **Primavera Stand-alone** if you want to install the stand-alone version of the Project Management and Methodology Management modules. Choose this install type if you want to install project management and methodology management databases on your machine.
 - **Custom** if you want to specify the client modules and additional components (including the Job Service, Software Development Kit, and ProjectLink).



For detailed instructions on installing an additional component individually, refer to its section in this chapter.

- 5 On the **Choose Destination Location** dialog box, enter or select the destination folder for the client modules.

By default, the installation location is:

<local drive>\Program Files\Oracle\Primavera P6\

- 6** On the **Choose Destination Location** (Common) dialog box, enter or select the destination folder for Primavera common files.

By default, common files are installed in the Primavera Common folder created during installation. You can choose a different folder.

- 7** Proceed to the section that contains installation instructions for the module or component you want to install:

For client modules, continue with “[Installing Client Modules](#)” on page 266.

For the Job Service, continue with “[Installing the Job Service and Distributed Job Service](#)” on page 268.

For the Software Development Kit, continue with “[Installing the Software Development Kit](#)” on page 275.

For ProjectLink, continue with “[Installing ProjectLink](#)” on page 278.

For the stand-alone version, continue with “[Installing or Upgrading the Stand-Alone Version](#)” on page 280.



You do not have to install these components separately; you can install all components at the same time. The installation instructions are separated into sections to provide administrators information that is relevant only to specific components.

Installing Client Modules

Complete the following steps to install the Project Management and/or Methodology Management modules.



The following instructions assume you are installing the client modules only and that you have completed the steps detailed in “Preliminary steps for installing the client modules, additional components, and the stand-alone version” on page 264.

Install one or more modules

- 1 On the **Select Features to install** dialog box, mark or clear each checkbox as necessary.
- 2 On the **Select Program Folder** dialog box, enter or select the program folder in which the P6 client icons will be stored on the Start menu.

If you make no changes, these icons are stored under Programs, Oracle - Primavera P6.

- 3 Click **Install** to begin the installation.

When the installation is complete, you are prompted to configure the database connection(s).

- 4 On the **Select Driver Type** dialog box, select the driver type for the P6 database.

If you are installing the Project Management module, you must configure the client's connection to the project management database. If you are installing the Methodology Management module, you must configure a connection to the methodology management database. If both are being installed, you are prompted to configure the project management database connection first.

- 5 On the **Configure SQL Server Connection** dialog box or the **Configure Oracle Connection** dialog box, enter the database connection settings.

If you are configuring Microsoft SQL Server, type the database host name and database name. The database name was specified when the database was created; for example, PMMDB. The host name is the name of the computer or IP address where Microsoft SQL Server is installed.

If you are configuring Oracle, type the Oracle database name.

- 6 On the **Enter Public Login Information** dialog box, enter your public login information that was defined by your administrator; for example, a Username of pubuser, and a group ID of 1.
- 7 On the **Validate Database Connection** dialog box, click **Next** to test the database connection.

- 8 Click **Finish** to complete the database connection setup.

If the connection was not successful, click **Back** to revise your settings.

If you chose to install both the Project Management and Methodology Management modules, the Database Configuration wizard starts again so you can configure the connection to the methodology management database.

- 9 Click **Finish** to complete the installation.

Installing the Job Service and Distributed Job Service

The Job Service enables you to automate certain functions in the Project Management module. You can apply actuals, run a batch report, export projects, schedule projects, and summarize projects. These operations run in the background at specified intervals. The Job Service runs as a Windows 2003/2008 service and can support an unlimited number of jobs, each with its own schedule of execution. Jobs are defined in the Project Management module and stored in the organization's project management database.

If you are working with more than one project management database, you can run jobs for all of the databases from one Windows 2003/2008 Server machine by installing multiple instances of the Job Service, as described in this section.

For more information on the distributed job service, refer to "Configuring the Distributed Job Service" on page 231.

In addition to installing the job service, you must configure the database for P6 Web Access to run the Project Architect job service. Refer to "Configure P6 Web Access to run the Project Architect job service" on page 191.

If you want to be able to run multiple jobs simultaneously on separate servers, you can install the Distributed Job Service on a controller server that manages the Job Service and distributes jobs to the Job Service servers.

Install the Job Service

Complete the following steps to install the Job Service and/or Distributed Job Service.



The following instructions assume you are installing the Job Service only and that you have completed the steps detailed in "Preliminary steps for installing the client modules, additional components, and the stand-alone version" on page 264.

- 1 On the **Select Features to install** dialog box, expand **Other Components**, expand **Job Service**, and choose the type of job service to install.

Choose **Job Service** when:

- you want to install the non-distributed Job Service (single server only)
- you want to use the Distributed Job Service but the machine on which you are installing is NOT the controller server.

Choose **Distributed Job Service configuration** only when you want to use the Distributed Job Service and the machine on which you are installing is the controller server.



If you want to run Job Service jobs in a language other than English, you must install the Project Management module on the Job Service machine. You can install it along with the Job Service, or you can install it at another time. After the applications are installed, refer to [“Specify a different language for the Job Service”](#) on page 273 for detailed instructions.



Setup will verify that the user has administrator rights on the computer. If the user does not have administrator rights, the Setup wizard will end.

- 2 On the **Job Service Alias** dialog box, type the database alias in the **DB Alias** field; for example, JSDB. Do not use dashes as part of the DB alias; otherwise, an error will occur.

Click the More button if you want to add more than one service.

You can create multiple instances of the Job Service, which enables you to run multiple job services for all project management databases from one Windows 2003/2008 Server machine. Create one job service instance for each database.



When installing multiple instances of the Job Service, you should first stop all existing job services.

For more information on running jobs on multiple databases using the Job Service, see [“Running Job Services on Multiple Databases”](#) on page 271.

The Job Service uses the DB alias to connect to the database server.

- 3 Enter or select the program folder.
- 4 Click **Install** to begin the installation.
- 5 On the **Select Driver Type** dialog box, in the **Job Services driver type** field, choose the database server type: Oracle or Microsoft SQL Server.
- 6 If you are connecting to Oracle, on the **Configure ORACLE Connection** dialog box, type in the Oracle connect string (database name), which can be found in the TNSNAMES.ORA file.

If you are connecting to Microsoft SQL Server, on the **Configure SQL Server Connection** dialog box, type the database name and specify the server computer name.

7 On the **Enter Public Login** dialog box, enter your public login information that was defined by your administrator; for example, a Username of pubuser, and a group ID of 1.

8 On the **Validate Database Connection** dialog box, click **Next** to validate the database connection.

The DB alias that you specified is created.

9 On the **Connection Successful** dialog box, click **Finish**.

You are prompted to test the Job Service alias.



If you are installing on a SERVER machine in a Distributed Job Services environment, DO NOT click the Test button as described in the following step.

10 Click **Yes** to test the database connection.

If the test fails, you can still continue the installation.

11 Click **Finish**.

Once the Job Service is installed on your computer and it is able to successfully connect to the database, the service will periodically run any user-defined jobs that are scheduled in the Project Management module. If you are using Windows 2008 Server, refer to required configuration instructions below.

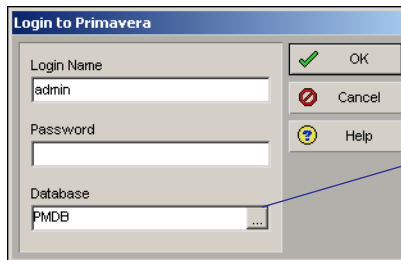
Configuring Windows 2008 Server for Job Services After installing Job Services, the following configuration steps are required for Windows 2008 Servers.

- 1 From the command line (or Start, Run utility), run **dcomcnfg**. The Component Services dialog is displayed.
- 2 In the **Component Services** dialog, expand the tree in the left panel by clicking Component Services, Computers, My Computer, DCOM Config.
- 3 Right click on the {9E521861-5A76-11D5-98F4-00C0F680F1F} entry in the right panel and select Properties.
- 4 In the **Properties** dialog box, on the **Identity** tab, select the **This User** option. Enter the Password for a user who has administrative privileges on the machine you are using.
- 5 Click **OK** to close the dialog.

- 6 From the Windows **Control Panel**, select **Administrative Tools, Services**.
- 7 Double-click the **Primavera P6 Job Service**.
- 8 On the **Primavera P6 Job Service Properties** dialog, select the **Log On** tab.
- 9 Select the **This Account** option and enter the account and password of an administrative user.
- 10 Click **Apply, OK**.

Running Job Services on Multiple Databases

Once you have installed a separate job service instance for each project management database, you can apply actuals, run a batch report, export projects, schedule, or summarize all of the databases from one Windows 2003/2008 Server machine. Log into the Project Management module and select one of the project management databases that you want to summarize.



Choose the alias for one of the databases you want to summarize.

In the Project Management module, choose Tools, Job Services. Add the job service you want to run for that database. To set up another job service for a second project management database, exit the Project Management module. Log in again and choose a different project management database by selecting its database alias. In the Job Services dialog box, add the job for the currently open database.

About summarizer jobs and P6 Web Access Resource Management functions in P6 Web Access that use summary data rely on the creation of current enterprise resource records. Each record is the sum of all assignments for a resource. To ensure that enterprise records are current, use the methods below when summarizing projects.

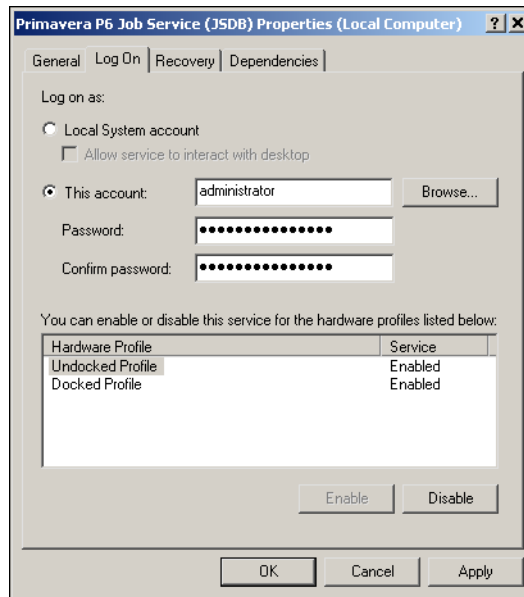
- Summarize the project from within P6 Web Access. Summarizer jobs always update the enterprise records for resources in the selected project.
- In the client/server module, login as Admin Superuser and create a summarizer job to generate enterprise resource records for all resources in the specified projects.
- In the client/server module, if using the menu options to summarize, a registry key must exist for enterprise resource records to be created. To make the key, add EnterpriseSummaries as a D Word under HKEY_LOCAL_MACHINE/SOFTWARE/Primavera and modify the setting value to (1).

For more information on registry settings for summarizer jobs, refer to “Edit registry settings for summarizer jobs” on page 251.

Configure the Job Service to send jobs directly to a printer

To send jobs directly to a printer, you must run the Job Service using an administrator account rather than the general system account. On the machine running the Job Service, complete the following steps to login to the Job Service using your administrator user name and password.

- 1 From the Windows **Control Panel**, select **Administrative Tools, Services**.
- 2 Double-click the **Primavera P6 Job Service**.
- 3 On the **Primavera P6 Job Service Properties** dialog, select the **Log On** tab.
- 4 Select the **This Account** option and enter the account and password of an administrative user.



5 Click **Apply**, **OK**.

Specify a different language for the Job Service You can specify the output language for Job Service jobs. Complete the following steps to specify a language other than English.

- 1 Complete the steps in the previous section, “[Configure the Job Service to send jobs directly to a printer](#),” and login to the Job Service using your Windows administrator account.
- 2 If you did not install the Project Management module when you installed the Job Service (as described in step 1 on page 268), install the Project Management module on the Job Service machine.

For detailed instructions on installing the Project Management module, refer to “[Installing Client Modules](#)” on page 266.

- 3 Ensure you are logged into Windows using the same administrator account you used in step 1 on page 268.
- 4 After the Project Management module is installed and the database configured, start the module by choosing Programs, Oracle - Primavera P6, Project Management from the Start menu.
- 5 Login to the Project Management module using your P6 administrator username.

6 If the Welcome dialog box appears, choose **Open Global Data Only**.

7 Choose **Tools, Set Language**, then select the desired language.



The Job Service will run jobs in the selected language assuming that the Job Service continues to run using the administrator account you used to login in Step 1. If, at any time, a different login is specified, you must repeat these steps using the alternate login. You cannot run Job Service jobs in a different language using the local system account.

Installing the Software Development Kit

The Software Development Kit (SDK) makes P6 data available for use by external applications. In addition to data, the SDK provides application business rules and calculated values, and enforces application security. The SDK supports the Open Database Connectivity (ODBC) standard for connecting to the project management database. ODBC-compliant interfaces, such as OLE DB, are also supported.



The Integration API (Application Programming Interface) can also be used to connect directly to the project management database. This tool requires the ability to write client code in Java. For further information, see the Integration API Administrator's Guide.



P6 Web Services allows you to seamlessly integrate P6's project management functionality into other applications via open standards, including XML, SOAP, and WSDL. For further information, see the P6 Web Services Administrator's Guide.

Install the Software Development Kit

Complete the following steps to install the Software Development Kit.



The following instructions assume you are installing the Software Development Kit only and that you have completed the steps detailed in [“Preliminary steps for installing the client modules, additional components, and the stand-alone version”](#) on page 264.

- 1 On the **Select Features to install** dialog box, expand **Other Components** and choose **Software Development Kit**.
- 2 Click **Install**.
- 3 Click **OK** after reading the explanation of the remaining process.

You will be creating a DB alias named PMSDK for use with the SDK. You will then create an ODBC user data source name (DSN) called Primavera P6 SDK. The ODBC DSN will use the DB alias to connect to the project management database.

- 4 On the **Select Driver Type** dialog box, select the driver type of your database server. You can select Oracle or Microsoft SQL Server/SQL Express.
- 5 Type the connection information as required for your database type.

If you are configuring Oracle, on the **Configure ORACLE Connection** dialog box, type the Oracle connect string.

If you are configuring Microsoft SQL Server or SQL Server Express, on the **Configure SQL Server Connection** dialog box, type the database name and server computer name.
- 6 On the **Enter Public Information** dialog box, enter your public login information that was defined by your administrator; for example, a Username of pubuser, and a group ID of 1.
- 7 On the **Validate Database Connection** dialog box, click **Next** to validate the database connection.
- 8 On the **Connection Successful** dialog box, if the connection was successful, a DB alias named PMSDK was created. Click **Finish**.

If the connection was not successful, click **Back** to re-enter the database information.
- 9 On the **Primavera Software Development Kit Setup** dialog box, verify that the ODBC connection values are correct for your database, and click **OK**.

An ODBC DSN named **Primavera P6 SDK** is created.

Define the mapping between the ODBC Data Source name (ODBC name) and the associated Database name.

ODBC Name: Primavera P6 SDK

Description:

Driver: Primavera Software Development Kit

Properties

If the alias specified below is not configured, press the button below to configure the alias.

Create database alias...

Property	Value
Database alias	PMSDK
Engine	Project Management
Filename for log messages	C:\temp\PMSDK.LOG
Options for logging messages	terse
Public group id for database alias	1
Public password for database alias	pubuser
Public username for database alias	pubuser

Remarks:

☐ SQL Describe Param Support

Once the SDK is installed on your computer, you can connect to the project management database using the ODBC DSN. The SDK documentation is located in your \Program Files\Common Files\Primavera Common\PMSDK\Doc folder.



To access the SDK, you need to be added as a user with Admin Superuser access rights or be assigned the global privilege View All Global/Project Data via SDK.



On Windows Vista machines, the SDK and all applications using the SDK need to run in Administrator mode.



The SDK documentation can be read using a Web browser. Open the INDEX.HTM file to view the table of contents for the documentation.

Installing ProjectLink

ProjectLink is a plug-in that enables Microsoft Project (MSP) users to work in the MSP environment while being connected to P6's enterprise features. The functionality enables MSP users to open/save projects from/to the Project Management module database from within the MSP application. With ProjectLink, MSP users have the ability to invoke P6's resource management within the MSP environment. ProjectLink enables users to use MSP for daily project maintenance while also having access to the enterprise capabilities available within P6 applications.

Install ProjectLink

Complete the following steps to install ProjectLink.



The following instructions assume you are installing ProjectLink only and that you have completed the steps detailed in “Preliminary steps for installing the client modules, additional components, and the stand-alone version” on page 264.

- 1 On the **Select Features to install** dialog box, expand **Other Components** and choose **Project Link**.
- 2 Enter or select the program folder.
- 3 Click **Install**.
- 4 Click **Finish** when the download is complete.

After you have successfully completed the installation, Primavera P6 ProjectLink will appear as a toolbar in Microsoft Project. You can also choose Tools, Primavera P6 ProjectLink in Microsoft Project to access any ProjectLink dialog box. ProjectLink Help is automatically installed in the same folder in which you installed the program. You can also access ProjectLink Help from the Windows Start menu or by clicking the help icon in any ProjectLink dialog box.

Ensuring Access to ProjectLink

Access to ProjectLink is user-specific, not machine-specific. Only the user that installs ProjectLink on a machine can use ProjectLink on that machine. For example, a typical computer will have multiple defined users (e.g., Administrator, All Users, <User Name>). If ProjectLink is installed by the 'Administrator' user, only the 'Administrator' user can view/access ProjectLink in Microsoft Project; when any other user logs in on that machine, ProjectLink is not visible.

To ensure that users can access ProjectLink on their computer, you should allow users to physically install ProjectLink through the Install wizard as previously described in this section. If it is not possible for each user to physically install ProjectLink (e.g., the administrator performs the install for all users), you can enable access to ProjectLink for a non-administrator user by performing the following steps after ProjectLink is installed:

- 1 On the computer where ProjectLink was installed, log into the computer using the same login that was used to install ProjectLink (e.g., 'Administrator').
- 2 Using the Start, Run utility, type **regedit** and click OK.
- 3 In the Registry Editor, navigate to the following directory:
`HKEY_CURRENT_USER\Software\Microsoft\Office\MSProject\Addins`
- 4 Select the PMAddin.PrimaveraAddin folder.
- 5 Choose Registry, Export Registry File.
- 6 Export the registry file to a location on the computer that the user can access (e.g., c:\<user>\My Documents).
- 7 Log into the computer with the user's login.
- 8 Repeat steps 2 and 3.
- 9 Choose Registry, Import Registry File.
- 10 Import the registry file you exported in step 6.

The user should now be able to access ProjectLink on the local machine.

Installing or Upgrading the Stand-Alone Version

Before you begin, make sure your computer is running Windows XP Professional (sp3) or Windows Vista (sp2). Also, even though you are running P6 as a stand-alone product, a network interface card or modem must be installed and TCP/IP networking software must be running on the computer.



Oracle recommends that you make a backup copy of your database before you upgrade.



Be sure you check in any projects that are checked out before you upgrade the database.



When installing P6 on Windows XP or Vista, you must have administrator rights to your computer. See your network administrator for more information or refer to the Oracle Primavera Support Knowledgebase.



If setup detects that you are installing on a 64-bit operating system a message will pop up stating that you must install the Oracle 11g client (32-bit) and the setup will continue. This message appears even if 11g is already installed on the machine. Refer to [Additional Information for 64-bit Installations](#) at the end of this procedure.



If you are upgrading from P6 version 5.0, the Setup wizard will upgrade the P6 client modules but will not upgrade your MSDE P6 database. For instructions on how to upgrade your P6 version 5.0 stand-alone product to P6 version 7.0, refer to the \Documentation\<language>\Technical Documentation\Stand-alone Installation and Upgrades folder of the P6 physical media or download. If you are upgrading from P6 version 6.0 or later, the Setup wizard will automatically upgrade your P6 database.



For the stand-alone version, setup.exe must be run from a mapped drive.

Message Caused by PRMBackgroundAgent P6 version 7.0 standalone upgrade If the Primavera Background Agent Service, PRMBackgroundAgent, is running during a stand-alone upgrade of P6 to version 7.0, the following message may be displayed:

"The following Applications should be closed before continuing installation."

The list of applications to close is not displayed after the message. Clicking the Ignore button continues the installation without interruptions.

To prevent this message from being displayed during a stand-alone upgrade, stop the PRMBackgroundAgent agent:

- 1 Select Start > Control Panel.
- 2 Open Administrative Tools.
- 3 Open Services.
- 4 In the Services (Local) list, select Primavera Background Agent.
- 5 Click Stop the service.

Users and database aliases for stand-alone installations If you are installing the stand-alone version for the first time, setup installs Oracle Database Express Edition (Oracle Database XE). There will be 3 default users for both for both Project Management and Methodology Management:

- For Project Management the default users are ADMPRM\$PM, PRIVPRM\$PM, PUBPRM\$PM.
- For Methodology Management the default users are ADMPRM\$MM, PRIVPRM\$MM, PUBPRM\$MM.
- The names of the default database aliases are ORAPMDB and ORAMMDB.

If you are upgrading an existing installation from P6 version 6.0 or later, you will continue to use Microsoft SQL Server Express and the existing default database users and aliases.

Install/upgrade the stand-alone version

Complete the following steps to install/upgrade the P6 stand-alone version.



The following instructions assume you are installing or upgrading the stand-alone version only and that you have completed the steps detailed in “Preliminary steps for installing the client modules, additional components, and the stand-alone version” on page 264.

- 1 If installing the stand-alone version for the first time on this computer, on the **Select Features to install** dialog box, mark the checkbox next to **Sample Projects** if you want to install sample projects.
- 2 Select the program folder name in which the P6 icons will be stored on the Start menu.

If you make no changes, these icons are stored under Programs, Oracle - Primavera P6.
- 3 After the client modules installation, you may be prompted to either enter or create a password for the database, depending on your installation scenario:
 - If you are upgrading the stand-alone version from P6 version 6.0 or later and have kept the default password for logging into Microsoft SQL Server Express (“Prima123Vera”), you will not be prompted to enter a password.
 - If you are upgrading the stand-alone version from P6 version 6.0 or later and have a different password other than the default for Microsoft SQL Server, you will be prompted to enter the custom password. After entering it, your custom password will remain intact.
 - If you are installing the stand-alone version for the first time on this computer and already have Oracle Database Express Edition (Oracle Database XE) installed, you will be prompted to enter the password for Oracle Database XE’s administrative (system) user.
 - If you are installing the stand-alone version for the first time on this computer and do not have Oracle Database Express Edition (Oracle Database XE) already installed, you will be prompted to create a password for Oracle Database XE’s administrative (system) user. After entering the password, click **Run** to install Oracle Database XE.



Make sure to remember the password that you create for Oracle Database XE, as it is not recoverable by Oracle Global Customer Support. The password used for Oracle Database XE's administrative (system) user will also be the password for the Project Management and Methodology Management default users. Oracle database passwords are not supported with multi-byte characters.

4 Click **Install** to complete the installation/upgrade.

During the installation, the setup program installs/upgrades the project management and methodology management databases. For new installations, the setup also installs and configures Oracle Database XE.

- 5** On the **InstallShield Wizard Complete** dialog box, choose whether to restart your computer now or later, then click **Finish**. After the installation is complete, you must restart your computer before you can use the software. If this is a 64-bit installation see Additional Information for 64-bit installations below.
- 6** Launch a module by clicking Start, Programs, Oracle - Primavera P6, then select the module of your choice.

Additional Information for 64-bit Installations As stated earlier, 64-bit P6 installations require Oracle 11g to be installed on the system either before or after the P6 installation.

Depending on your installation scenario, you will need to make the following adjustments:

- If Oracle 11g is installed after P6, copy the 'tnsnames.ora' file from the Oracle XE directory to the Oracle 11g directory.
- If Oracle 11g is installed before P6, Oracle XE will become the default Oracle application. Edit the Oracle 11g 'tnsnames.ora' file to include the content from the Oracle XE 'tnsnames.ora' file. You must change the Oracle path specified in Environment Variables to point to the Oracle 11g client rather than Oracle XE.

Configuring P6 to Transfer Data Between P3 and the Project Management Module

In order to use the P3 import/export functionality in P6, you must have P3 installed on the same machine where P6 resides. Additionally, you must complete the steps below to register a required DLL file.

- 1 Open a command prompt.
- 2 Change your directory to the location of the “ra32.dll” file.
By default, the path is C:\Program Files\Common Files\Primavera Common\Ra.
- 3 Execute the following command: `regsvr32 ra32.dll`



If you do not want to install P3 on the same machine where P6 is installed or are using a 64-bit operating system, you can instead have your P3 users use a separate P3/XER import/export utility available from the P6 common files (by default, the location is \Program Files\Common Files\Primavera Common\Convert. Refer to the Oracle Primavera Support Knowledgebase for more information.

Automatic Database Upgrade

In this chapter:

[Upgrade Process Overview](#)

[Upgrading an Oracle Database to P6](#)

[Upgrading a Microsoft SQL Server Database to P6](#)

Read this chapter to upgrade your database to P6 version 7.0 when version 5.0 or later is already installed. You need to upgrade your database if you want to preserve your project data for use with the new version of P6. A wizard automatically upgrades your database for you.

Oracle recommends that you upgrade your database automatically as described in this chapter; however, if you want to manually upgrade your database, instructions are included in the \Documentation\<language>\Technical Documentation\Manual Upgrades folder of the P6 physical media or download.

If you are upgrading a standalone installation, see [“Installing or Upgrading the Stand-Alone Version”](#) on page 280.

Upgrade Process Overview

You can upgrade your existing P6 database (version 5.0 and later) to P6 version 7.0. You must upgrade both your project management and methodology management databases so they will work with the new version.

To upgrade a stand-alone installation, see “Installing or Upgrading the Stand-Alone Version” on page 280.

You can upgrade your database automatically using the Database wizard. The wizard runs the necessary scripts to upgrade the database structure and an upgrade program to add data required by the new version.



If you are a current Interwoven/iManage or Apache JackRabbit user and upgrade to P6 Web Access version 6.2 or later, project workflows, project processes, news, discussions, events, and documents data will not be available. If you need this data, refer to the document titled “JackRabbit Migration” in the \Documentation\<language>\ Technical Documentation\JackRabbit Migration folder of the P6 physical media or download. Oracle recommends that you migrate the data before upgrading to version 6.2 or later. After the migration, you will also have to reset all Apache JackRabbit Administration Application settings.

To upgrade from version 5.0 and later The following list summarizes the steps required to upgrade to P6 version 7.0:


- Back up your project management and methodology management databases before beginning the upgrade process to ensure you will not lose any data due to unexpected problems.
- Run the validate file located in your current Database folder of the physical media or download. Ensure you run your current validate file, not the 7.0 validate file.
- Run the Database wizard to automatically upgrade your existing project management and methodology management databases.
 - If you are currently running P6 with Oracle, see “[Upgrading an Oracle Database to P6](#)” on page 288.
 - If you are currently running P6 with Microsoft SQL Server, see “[Upgrading a Microsoft SQL Server Database to P6](#)” on page 293.
- Test the new databases to ensure the upgrade succeeded.

- Install the new Progress Reporter server and any additional components as described in this guide.

Privileges The following privileges included in the P6 Project Management module are either new or modified. Assign them to your users as needed if you are currently using a previous version.

New Global Privileges	New Project Privileges
Import Project Management Data for XER, MPP, MPX, and P3	Allow Integration with ERP system
Import XLS	

Private database login passwords Private database login passwords use a new, stronger encryption algorithm beginning in P6 version 6.2.1. Private database login passwords created in version 6.2 and earlier will continue to use the old encryption algorithm until you modify or reset existing passwords in version 6.2.1 or later. Refer to [“Performing Administrative Tasks”](#) on page 310 for instructions on modifying or resetting existing private database login passwords.

	<i>User logins and passwords are not affected by the new encryption algorithm.</i>
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Upgrading an Oracle Database to P6

If you want to use the databases from Primavera 5.0 and later with P6 version 7.0, you need to upgrade them by performing the following sets of steps. Although recommended, it is not required that these steps be performed by an experienced database administrator.

The wizard runs the necessary scripts to upgrade the database structure and an upgrade program to add data required by the new version. You must upgrade your project management and methodology management databases.

Oracle Requirements The following should be noted if you are upgrading an Oracle database:

- The upgrade will fail if you are using any Oracle version prior to 10.2.
- Datafiles in the LOB tablespace (e.g., PMDB_LOB1) should be made to autoextend. The estimated sizing is not exact, and the database conversion may fail if the datafiles are a fixed size.
- If your existing database uses code page WE8ISO8859P1 and you want to use the Euro symbol, you will need to convert your database to WE8MSWIN1252 using the following statement:

```
ALTER DATABASE CHARACTER SET WE8MSWIN1252;
```

- If you will be using SSL protocol, refer to your Oracle database documentation and the Oracle Primavera Support Knowledgebase for configuration instructions before running the Database wizard (dbsetup).

Run the Validate Tool If You're on a 6.2 or Later Oracle Database

Use the validate tool to ensure there are no missing objects in your database that could cause the database to fail to upgrade. You must perform the steps below before you download the 7.0 media pack. If you run the 7.0 validate tool against your current database, it will not work.

- 1 Double-click **validate.bat** (validate.sh for Linux) in your current Database folder of the physical media or download to start the validate tool.



Ensure you use the validate file from your current Database folder, not the 7.0 database folder.

- 2 Provide the following:
 - In the **Username** field, enter your administrative user name (for example, admuser).
 - In the **Database host address** field, enter your database server name or TCP/IP address.
 - In the **Database host port** field, enter the port number that Oracle is using. The default is 1521.
 - In the **Database name** field, enter the Oracle Service Name. It can be found in the TNSNAMES.ORA file, which was created when you or your DBA set up the Oracle client.
- 3 View the HTML page that the tool creates to ensure your database is not missing objects.
- 4 Go to the 'Client Application' media pack, then locate the \install\database\scripts\ folder to find the scripts you need to fix.

Run the Validate Tool If You're on an Oracle Database Prior to P6.2

If you're on a database prior to P6.2:

- 1 Insert **CD1**.
- 2 Open Windows Explorer and navigate to the following subfolder on CD1: **.install\database**.
- 3 Run the **ValSch.exe** file.
- 4 In the **Database Validation Utility - 1.0** dialog box:
 - In the **RDBMS** field, select **Oracle**.
 - In the **Username** field, enter your administrative user name (for example, admuser).
 - In the **Password** field, enter the administrative user password.
 - In the **TNS String** field, enter your TNS string name.
 - In the **Private DB User (PM Only)** field, enter the privileged username (for example, privuser).
- 5 Click **Connect**.
- 6 In the **Database Validation Utility - 1.0** dialog box:
 - In the **Choose Schema** field, select your release version. Also, choose **PM** or **MM**.
 - In the **Mode** field, select **Full Database Validation**.

- 7 Click **Run**.
- 8 If the report says objects are missing, have your database administrator fix the issues.
- 9 Go to \install\database\scripts\ to find the scripts you need to fix.

If your Database Administrator requires assistance with correcting these missing objects, please select the 'Save To File' option and provide this file when opening a Service Request with Oracle Support.

Upgrade an Oracle project management or methodology management database

- 1 Perform a cold backup and a full database export.

If you are unsure how to back up your Oracle database, do not proceed with the upgrade. Contact your database administrator, your database vendor, or Oracle Global Customer Support for assistance in backing up your database before performing the database upgrade. Also, ensure that you are familiar with the process of restoring the backup copy of the database in case you need to do so.

- 2 Double-click **dbsetup.bat** (dbsetup.sh for Linux) in the Database folder of the P6 physical media or download to start the Database wizard.



The dbsetup.bat file must be run from a mapped drive.



For Linux, add the JAVA_HOME Environment variable to the dbsetup.sh file before running it. For example, export JAVA_HOME = /usr/jre 1.6.0_14

- 3 On the **Primavera P6** dialog box:
 - Choose **Upgrade an existing database**.
 - Choose **Oracle** as the server type.
 - Select the appropriate **Industry Type** for your organization.

For information on industry types, refer to “P6 Industry Types” on page 28.

- 4 On the **Connection Information** dialog box:

- In the **Administrative User Name** field, log on to the database as an administrative user, such as admuser. The username must have DBA privileges and must be the owner of the application tables. The database must also have the Oracle compatible parameter set to 10.2 or greater.
- In the **Administrative Password** field, type the password associated with the User Name you entered.
- In the **Database Host Address** field, enter the server machine name or IP address where Oracle is installed.
- In the **Database Host Port** field, enter the port number that Oracle is using. The default is 1521.
- In the **Database Name (SID)** field, enter the Oracle SID. It can be found in the TNSNAMES.ORA file, which was created when you or your DBA set up the Oracle client.

- 5 On the **Upgrade Options** dialog box, select your privileged and public user names for the database; for example, privuser and pubuser.

Mark “Grant existing Project Management users Web Project access” if you wish to give all users, with Project Management module access, rights to Web Access Projects.

For more information on module access, see “Adding Users in the Project Management Module” on page 360.



Prior to P6 version 7.0, users with Project Management module access also had rights to the Projects section in P6 Web Access. For security reasons, beginning with P6 version 7.0, Project Management module access only grants rights to log into the Project Management module.

- 6 On the **Ready to Begin Upgrading Data** dialog box, verify that the current version of your existing database is listed correctly. Choose **Yes, upgrade my database**, then click **Upgrade**.

The upgrade process could take several minutes, depending on its size.

- 7 On the **Upgrading Database...** dialog box, click **Next** after the process has completed.



If the database upgrade fails, see PrimaveraDatabaseSetup.log located in the user home directory (for example, C:\Documents and Settings\Administrator). Contact Oracle Global Customer Support if further assistance is needed.

- 8 On the **Finish** dialog box, click **Next** to run the Database wizard again if you are using the Methodology Management module. Otherwise, click **Finish** to exit the wizard.

Your database is now ready to use with P6 version 7.0.

Upgrading a Microsoft SQL Server Database to P6

If you want to use the databases from Primavera 5.0 and later with P6 version 7.0, you need to upgrade the database(s) by performing the following sets of steps. It is not required that these steps be performed by an experienced database administrator.

The wizard runs the necessary scripts to upgrade the database structure and an upgrade program to add data required by the new version.

You must upgrade both the project management and the methodology management databases.

Run the Validate Tool If You're on a 6.2 or Later Microsoft SQL Server Database

Use the validate tool to ensure there are no missing objects in your database that could cause the database to fail to upgrade. You must perform the steps below before you download the 7.0 media pack. If you run the 7.0 validate tool against your current database, it will not work.

- 1 Double-click **validate.bat** (validate.sh for Linux) in your current Database folder of the physical media or download to start the validate tool.



Ensure you use the validate file from your current Database folder, not the 7.0 database folder.

- 2 Provide the following:
 - In the **Database host address** field, enter the server machine name or IP address where Microsoft SQL Server is installed.
 - In the **Database host port** field, enter the port number that Microsoft SQL Server is using. The default is 1433.
 - In the **Database name** field, enter the name of the existing database that you want to validate.
- 3 View the HTML page that the tool creates to ensure your database is not missing objects.
- 4 Go to the 'Client Application' media pack, then locate the \install\database\scripts\ folder to find the scripts you need to fix.

Run the Validate Tool If You're on a Microsoft SQL Server Database Prior to P6.2

If you're on a database prior to P6.2:

- 1 Insert **CD1**.
- 2 Open Windows Explorer and navigate to the following subfolder on CD1: **.\install\database**.
- 3 Run the **ValSch.exe** file.
- 4 In the **Database Validation Utility - 1.0** dialog box:
 - In the **RDBMS** field, select **SQL Server**.
 - In the **Username** field, type your administrative user name (for example, sa).
 - In the **Password** field, enter the administrative user password.
 - In the **Server** field, enter **localhost\primavera**.
 - In the **Database** field, enter **pmdb\$primavera**.



If you are using a default standalone install, localhost\primavera is your server name, and pmdb\$primavera is your database. If you are not using the default, refer to your build notes from the person responsible for the installation.

- In the **Private DB User (PM Only)** field, enter the privileged username (for example, privuser).
- 5 Click **Connect**.
 - 6 In the **Database Validation Utility - 1.0** dialog box:
 - In the **Choose Schema** field, select your release version. Also, choose **PM** or **MM**.
 - In the **Mode** field, select **Full Database Validation**.
 - 7 Click **Run**.
 - 8 If the report says objects are missing, have your database administrator fix the issues.
 - 9 Go to **\install\database\scripts** to find the scripts you need to fix.

If your Database Administrator requires assistance with correcting these missing objects, please select the 'Save To File' option and provide this file when opening a Service Request with Oracle Support.

Upgrade a Microsoft SQL Server database

- 1 Perform a full backup of the current databases.

If you are unsure how to back up your SQL Server database, do not proceed with the upgrade. Contact your database administrator, your database vendor, or Oracle Global Customer Support for assistance in backing up your database before performing the database upgrade. Also, ensure that you are familiar with the process of restoring the backup copy of the database in case you need to do so.

- 2 Double-click **dbsetup.bat** in the Database folder of the P6 physical media or download to start the Database wizard.



The dbsetup.bat file must be run from a mapped drive.



Click Next on each wizard dialog box to advance to the next step.

- 3 On the **Primavera P6** dialog box:

- Choose **Upgrade an existing database**.
- Choose **Microsoft SQL Server** as the server type.
- Select the appropriate **Industry Type** for your organization.

For information on industry types, refer to “[P6 Industry Types](#)” on page 28.

- 4 On the **Connection Information** dialog box:

- In the **Administrative User Name** field, type the Microsoft SQL Server system administrator name to register to the server. If you chose the defaults during the Microsoft SQL Server installation, leave SA as the system administrator name.
- In the **Administrative Password** field, type the password for this system administrator. If you chose the defaults during the Microsoft SQL Server installation, leave the password field blank.
- In the **Database Host Address** field, enter the server machine name or IP address where Microsoft SQL Server is installed.
- In the **Database Host Port** field, enter the port number that Microsoft SQL Server is using. The default is 1433.
- In the **Database Name** field, enter the name of the existing database that you want to upgrade.

For more information on module access, see [“Adding Users in the Project Management Module”](#) on page 360.

- 5 On the **Upgrade Options** dialog box, mark “Grant existing Project Management users Web Project access” if you wish to give all users, with Project Management module access, rights to Web Access Projects.



Prior to P6 version 7.0, users with Project Management module access also had rights to the Projects section in P6 Web Access. For security reasons, beginning with P6 version 7.0, Project Management module access only grants rights to log into the Project Management module.

- 6 On the **Ready to Begin Upgrading Data** dialog box, verify that the current version of your existing database is listed correctly. Choose **Yes, upgrade my database**, then click **Upgrade**.

The upgrade process could take several minutes, depending on its size.

- 7 On the **Upgrading Database...** dialog box, click **Next** after the process has completed.



If the database upgrade fails, see PrimaveraDatabaseSetup.log located in the user home directory (for example, C:\Documents and Settings\Administrator). Contact Oracle Global Customer Support if further assistance is needed.

- 8 On the **Finish** dialog box, click **Next** to run the Database wizard again if you are using the Methodology Management module. Otherwise, click **Finish** to exit the wizard.

Configure the Microsoft SQL Server database

- 1 Follow the instructions below to verify that the isolation level setting on the upgraded database has been set to “read committed snapshot.”
 - Open Microsoft SQL Server Management Studio.
 - Open a new query window for the updated database and execute the following command:
dbcc useroptions
 - Look for **isolation level** in the Set Option column and verify that the value is set to **read committed snapshot**.
 - If the value is set to **read committed snapshot**, skip to [step 4](#). If the value is set to **read committed**, proceed to [step 2](#).

- 2 Execute the following command to fix the isolation level setting:

alter database <database name> set read_committed_snapshot on



Only the connection executing the alter database command is allowed in the database. There must be no other open connection in the database until the execution of the command is complete.

Your database is now ready to use with P6 version 7.0.

Creating and Running an Unattended Setup

In this chapter:

Creating Unattended Setup Files

Running an Unattended Setup

This section provides instructions for creating an unattended setup of P6 applications and running an unattended setup on client computers. An unattended setup enables administrators to install P6 applications on client computers without having to run through the setup process each time. It also ensures that each user receives the same P6 configuration.



You cannot use unattended setup for a stand-alone configuration.

Creating Unattended Setup Files

An unattended setup allows an administrator to install P6 modules on a client computer without having to answer the configuration prompts of the Setup wizard. All configuration details for the installation are specified when the unattended setup files are first created. You can choose which client modules to install, configure the connection to the project management database, and specify the destination folders where the program files are copied. Unattended installations ensure that all client modules are configured identically at setup.

To create an unattended setup, you enter command lines to automatically create a response file and launch the P6 Setup wizard. The response file records the configuration settings you specify during the setup process. When completed, you can copy the response file to a network location which a user with administrator privileges can access from any networked computer.

The unattended setup can be run by an administrator on client computers by entering the appropriate command lines. The unattended setup will silently install P6 according to the configuration you specify in the response file.

For information on running an attended setup, see “Running an Unattended Setup” on page 304.



You can also rerun the Setup wizard to recreate a set of unattended setup files or to create multiple sets of files for different configurations.

Create unattended setup files

- 1 Select a computer that does not have P6 currently installed.
- 2 Copy the contents of the Client_Applications folder of the P6 physical media or download to a folder on the local machine.

Oracle recommends creating a new folder, such as P6_Install. Do not include spaces in the folder name.
- 3 Open a command line by choosing Start, Run. Type 'cmd' and click OK.
- 4 Enter a command line that will access the directory to which you copied the P6 installation files. For example,

```
cd c:\P6_install
```



In the next step, you will enter a command that creates a response file, then automatically launches the P6 setup in record mode. The response file will record your selections while you proceed through the P6 setup. Users with administrator privileges will then be able to install P6 from the response file you create. There are no restrictions on the name of the response file; however, Oracle recommends that you name it 'setup.iss'.

- 5 Enter the following command line to create a response file and to launch the P6 setup in record mode, where pathname = the directory you accessed in Step 4 (e.g., P6_install):

```
setup /r /f1"c:\pathname\setup.iss"
```



*Do not include a space between the **f1** and the quote **"**.*

The P6 setup launches automatically. On the **Welcome** dialog box, read the recommendations and click **Next**.



*Click **Next** on each wizard dialog box to advance to the next step.*

- 6 Select the appropriate **Industry Type** for your organization.

For information on industry types, refer to "P6 Industry Types" on page 28.

- 7 On the **Setup Type** dialog box, choose **Custom**.
- 8 On the **Choose Destination Location** dialog box, accept the default installation folder or click Browse to specify a different folder.
- 9 On the **Choose Destination Location (common files)** dialog box, accept the default location for Primavera common files or click Browse to specify a different folder.
- 10 On the **Select Features to install** dialog box, mark the checkbox next to each application you want installed when a user with administrator privileges runs this unattended setup on a client machine.

If you select only the Software Development Kit, components from the Project Management and Methodology Management modules are also installed.



You should not include the Job Service or Distributed Job Service when configuring an unattended setup unless you are creating an unattended setup that will only be run on server machines that you intend to use as Job Service or Distributed Job Service servers.

- 11 If you chose to include the Job Service or Distributed Job Service in the previous step, enter or select the database alias of the job service database.
- 12 On the **Select Program Folder** dialog box, accept the default location for P6 program icons or select/type a different folder name.
- 13 On the **Ready to Install the Program** dialog box, click **Install** to begin the installation.
- 14 When the installation is complete, you are prompted to configure the database connection(s). The connections you must configure, and the order in which you are prompted, depend on the applications you chose to install in step 10.



If you chose to include the Job Service or Distributed Job Service in the unattended setup, you are first prompted to configure the job service database. Click Yes. After configuring the job service database, you are prompted to test the database connection. Click Yes to test the connection, or No to continue configuring database connections.

When prompted, click Yes to configure the project management or methodology management database connection.

- 15 On the **Select Driver Type** dialog box, choose the database type from the list in the **Project Management driver type** field.
- 16 If users will be connecting using SQL Server, on the **Configure SQL Server Connection** dialog box, enter the server host name and the database name. The host name is the name of the computer or IP address where Microsoft SQL Server is installed. The database name was specified when the database was created; for example, PMDB.

If users will be connecting using Oracle, on the **Configure ORACLE Connection** dialog box, enter the Oracle connection string; for example, PMDB.



Before you enter the database information, confirm that all users with administrator privileges who will be running the unattended setup have access to the specified database.

- 17 On the **Enter Public Login Information** dialog box, enter your public login information that was defined by your administrator; for example, a Username of pubuser, and a group ID of 1.
- 18 On the **Validate Database Connection** dialog box, click **Next** to test the database connection.

If the connection is not valid, you can go back and change your settings.

- 19 On the **Connection Successful** dialog box, click **Finish**.
- 20 If you chose to include the Methodology Management module in the unattended installation, repeat steps 14 - 19 to configure the methodology management database.
- 21 Copy and paste the contents of the folder you created in Step 2 to a network location accessible to all computers that need to run the unattended setup. This folder should contain the contents of the P6 Client_Applications folder as well as the 'setup.iss' response file.

Refer to the next section for instructions on running an unattended setup on a client machine.

Running an Unattended Setup

An unattended setup is a special installation program that uses the configuration file you or another administrator created in the previous section (“[Creating Unattended Setup Files](#)” on page 300) to supply information such as the module to be installed, the database connection settings, and the destination folders for the installation. This configuration file is typically named 'setup.iss;' however, the administrator who created the configuration file may have provided a different name.

Running an unattended setup saves you time and effort, and it ensures that every P6 client module is configured identically at setup. If the 'setup.iss' (or equivalent) file has been stored on a network server, you can run the unattended setup from any client computer with a network connection to that server.



The 'setup.iss' (or equivalent) file and the contents of the P6 Client_Applications folder must be stored in the same folder on the network server.

As an administrator, you have several options for installing P6 on client machines using the unattended setup. For example, you can physically run the unattended setup on each machine, write scripts that will run the unattended setup on the client machines you specify, or provide these instructions to users with administrator privileges, who can run the unattended setup on his/her computer.



The following instructions assume that an administrator or the owner of the client computer is physically running the unattended setup from the client computer. Also, as an example, the folder containing the required files is named "P6_install," the setup file is named 'setup.iss,' and the log file is named 'setup.log.' The administrator who configured the unattended setup may have provided different names.

Run an unattended setup

- 1 On the client computer, open a command line by choosing Start, Run. Type 'cmd' and click OK.
- 2 Enter a command line that will access the directory on the network server that contains the contents of the P6 Client_Applications folder, the 'setup.iss' file, and the 'setup.log' file. For example,

cd e:\P6_install

If you are unsure of the location of the unattended setup file, refer to your system administrator.

- 3 Enter a command line to run the unattended setup, where pathname = the directory you accessed in step 2 (e.g., P6_install). For example:

setup.exe /s /f1"e:\pathname\setup.iss" /f2"c:\pathname\setup.log"



*Do not include a space between the **f1** and **f2** and the parentheses ("").*

The P6 installation launches automatically. You will not see a dialog box; however, a P6 taskbar icon indicates that the installation is in progress. The installation is complete when the taskbar icon closes.

- 4 Confirm that the files were successfully installed by navigating to the appropriate folder on the local drive.

By default, P6 applications are installed in c:\Program Files\Oracle\ Primavera P6. The administrator who configured the unattended setup may have supplied a different default installation folder.

If the P6 applications were not installed, or if you cannot run a P6 application, contact your system administrator. All errors are logged in the 'setup.log' file (or equivalent).

Changing Database Configuration Settings

In this chapter:

Changing Database Connection Settings

Performing Administrative Tasks

The Database Configuration wizard enables you to alter database connection settings for P6 client modules. This chapter describes how to change database connection settings, change user passwords, and administer private database login names and passwords.

Changing Database Connection Settings

Use the Database Configuration wizard to change connection settings for a client module if your database server configuration changes. For example, if the database is moved to a new server, run the Database Configuration wizard to configure the connection to the new server.



To be able to change database connection settings, the Database Configuration wizard must access the module's initialization (INI) file. This file is located in the module's folder; for example, the INI file for the Project Management module is PM.INI. If the wizard cannot locate the module's INI file, you will be prompted to browse for it.

Change database configuration settings

- 1 From the client computer's desktop, click Start, then choose Programs, Oracle - Primavera P6, Help and Utilities, Database Configuration.
- 2 On the **Welcome** dialog box, click **Next**.



Click Next on each wizard dialog box to advance to the next step.

- 3 On the **What would you like to do?** dialog box, choose **Configure my database connections**.
- 4 On the **Select Database Alias** dialog box, choose the appropriate database; for example, PMDB.
- 5 On the **Select or Create Alias** dialog box, select the alias and driver type of the database.

If you are changing the alias or database driver, type the new alias (for example, PMDB) or select the new driver type.
- 6 Type the new connection settings for the database.

If the client computer is connecting to an Oracle or Oracle XE database, on the **Configure ORACLE Connection** dialog box, type the connection string, which can be found in the TNSNAMES.ORA file.

If the client computer is connecting to Microsoft SQL Server or SQL Server Express (upgrades from P6 version 6.2.1 and earlier), on the **Configure SQL Server Connection** dialog box, type the server host name and the database name. The database name was specified when the database was created; for example, PMDB. The host name is the name of the computer or IP address where Microsoft SQL Server is installed.

- 7 On the **Enter Public Login Information** dialog box, enter your public login information that was defined by your administrator; for example, a Username of pubuser, and a group ID of 1.

The public login is used by module users to connect to the database.

- 8 On the **Validate Database Connection** dialog box, click **Next** to test the database connection.

If the test connection fails, you can ignore the error or click **Back** to correct the settings now.

- 9 On the **Connection Successful** dialog box, click **Finish**.

If you create a new DB alias for a module, the module's INI file is updated to reflect the change. If multiple modules are installed on one client computer, changing the DB alias for one module does not affect the other modules.

If you change the database connection settings for a DB alias and multiple modules share that alias to access the database, your changes affect all the modules that share the alias.

Performing Administrative Tasks

Use the Database Configuration wizard to change user passwords and administer private database logins.

You can use the Database Configuration wizard to change the passwords of module user logins. Note that these logins are not database logins but are the P6 logins that are administered using the Project Management module.

Private database logins are used primarily by administrators to gain direct access to a database. For example, the privileged user login that you use to access the database is a private database login. You can modify existing logins or create new ones using the Database Configuration wizard.



Beginning in P6 version 6.2.1, Oracle Primavera provides a stronger encryption algorithm for private database login passwords. All private database login passwords created or modified in P6 version 6.2.1 and later will use the new encryption algorithm. All private database login passwords created in 6.2 and earlier versions will continue to use the previous encryption algorithm until you reset or modify the existing passwords. To use the new encryption algorithm, refer to “[To administer private database logins:](#)” on page 311 for instructions on resetting or modifying existing passwords.

Run the Database Configuration wizard Whether you are changing user passwords or administering private database logins, most of the steps required to perform these administrative tasks are the same. Complete the following steps to perform all of these tasks:

- 1 From the client computer’s desktop, click Start, then choose Programs, Oracle - Primavera P6, Help and Utilities, Database Configuration.
- 2 On the **Welcome** dialog box, click **Next**.



Click Next on each wizard dialog box to advance to the next step.

- 3 On the **What would you like to do?** dialog box, choose **Administration Tasks**.

- 4 On the **Select Administration Task** dialog box, choose the appropriate administrative task: Change application users password, or Administer private database logins.
- 5 On the **Select Database Alias** dialog box, select the appropriate database.
- 6 On the **Database Configuration** dialog box, type the name and password of a privileged database user.

This login should have administrative rights on the database.

- 7 Complete the following instructions that correspond to the administrative task you are performing:

To change user passwords:

Select the module login and set its new password. Minimum password requirements are determined by the status of the password policy, which can be enabled or disabled in the Project Management and Methodology Management modules (Admin Preferences, General tab).

For more information about the password policy, refer to “Defining Default Settings” on page 396.

If the password policy is enabled, this text details the minimum password requirements. If the password policy is not enabled, this text does not appear.

Click OK, then click Finish to close the wizard.

To administer private database logins:

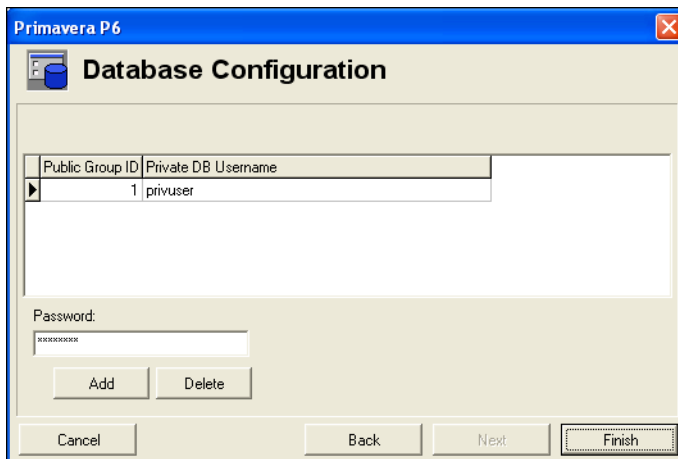
Review the explanation of private database logins and click Next.

To modify the settings for a login, click the appropriate cell and type the new value. To add a new login, click Add. To delete a login, select the login and click Delete.

All new or modified private database login passwords are encrypted using the new encryption algorithm implemented in P6 version 6.2.1. If you upgraded to P6 version 7.0 from P6 version 6.2 or earlier, all existing private database login passwords will continue to use the previous encryption algorithm until you modify or reset the existing passwords. Resetting existing private database login passwords maintains the passwords but updates them to use the new encryption algorithm.

To retain an existing private database login password but reset it to use the new encryption algorithm:

- 1 Select an existing login.
- 2 In the Password field, highlight the password, then press the Delete key on your keyboard.
- 3 In the Password field, type the same password you deleted.



Click Finish to close the wizard.

Configuring Authentication Modes

In this chapter:

Authentication in P6

Process Overview

Choosing an Authentication Scheme

Configuring the Project Management module

Login Procedures and Authentication

This chapter describes the P6 authentication modes, outlines the steps required to implement an authentication scheme, and explains how to use the configuration wizard to specify the mode you want to use for client/server and Web modules. It also details configuration steps for the Project Management module.

Authentication in P6

Typically, within an organization, user access to software applications is managed through authentication and authorization mechanisms. Simply put, authentication is the process of validating user identity and authorization is the mechanism used to control access to specific resources or data.

P6 supports three authentication modes: Native (the original P6 authentication scheme), Single Sign-On, and LDAP.

- **Native**

Native authentication is the default mode for all P6 modules. In this mode, when a user attempts to log in to a P6 module, authentication is handled directly through the module with the P6 database acting as the authority.

- **Single Sign-On**

Single Sign-On authentication, which provides access control for Web applications, is available for P6 Progress Reporter and P6 Web Access. In this mode, when a user attempts to log in to a P6 module (protected resource), a Web agent intercepts the request and prompts the user for login credentials. The user's credentials are passed to a policy server and authenticated against a user data store. With Single Sign-On, a user logs on only once and is authenticated for all Web applications for the duration of the browser session (provided that all Web applications authenticate against the same policy server).

- **LDAP (Lightweight Directory Access Protocol)**

LDAP is directory-based authentication and is available for client/server and Web applications. In this mode, when a user attempts to log in to a P6 module, the user's identity is confirmed in an LDAP-compliant directory server database. Additionally, Oracle Primavera supports the use of LDAP referrals with Oracle Internet Directory and Microsoft Windows Active Directory. Referrals chasing allows authentication to extend to another domain.



For Oracle Internet Directories, referrals chasing only works when the directories are configured to allow anonymous searches.



The authentication setting for P6 Progress Reporter is set by the Progress Reporter Administrator, not by the LDAP Configuration Wizard. However, the LDAP Configuration Wizard can be used to import/provision users needed for P6 Progress Reporter when using LDAP authentication.



If the Project Management module is configured for Single Sign-On or LDAP authentication, all Project Management module applications (e.g., Update Baseline, Schedule Comparison or Claim Digger) or other Oracle Primavera applications (e.g., Oracle Primavera Risk Analysis) that use the P6 Integration API must be separately configured for Single Sign-On or LDAP authentication using the API AdminApp java utility. For more information on the API, refer to the Oracle Primavera P6 Integration API Administrator's Guide in the \Web_Services\Integration API folder of the P6 physical media or download. P6 Web Services can also be configured to use LDAP authentication. For more information on P6 Web Services, refer to the P6 Web Services Administrator's Guide.

Regardless of the authentication scheme you choose, P6 controls user authorization through the project management or methodology management database. For details about user authorization, see [“Administering Users and Security”](#) on page 333.

Process Overview

By default, all P6 modules are installed using Native authentication. After you install P6 client/server modules and additional components, you can choose a different authentication scheme.

To specify an authentication scheme:

The Borland Database Engine and the database client software must be installed on the machine used to run the Authentication Configuration wizard.

- Run the Authentication Configuration wizard to choose an authentication mode for the project management database (P MDB) and, if applicable, methodology management database (M MDB). Configure the Project Management module, if necessary.
- Configure settings in the Progress Reporter Administrator. For information on the Progress Reporter Administrator, see [“Installing P6 Progress Reporter”](#) on page 113 or the *Progress Reporter Administrator Help*.
- Configure administrative settings for P6 Web Access. For information, see [“Installing P6 Web Access”](#) on page 139.



If you are upgrading from a previous version of P6 software, refer to the procedures in [“Automatic Database Upgrade”](#) on page 285 before running the Authentication Configuration wizard.

Authentication mode is database-driven, so the Authentication Configuration wizard enables you to first specify a database connection setting, then choose authentication modes for the modules that access that database.

Although the wizard prompts you to separately choose an authentication mode for client/server modules and Web modules, you must use a consistent authentication scheme within the P6 suite when choosing Native authentication; that is, both client/server and Web modules must use Native mode. LDAP authentication can be used for both client/server and Web modules, or LDAP client/server authentication can be combined with Single Sign-On, which is available only for Web modules.

For LDAP authentication, the configuration utility also enables you to specify LDAP servers, map LDAP attributes to P6 database fields, and provision users.

Choosing an Authentication Scheme

After installing P6, use the Authentication Configuration wizard to set up an authentication scheme, which includes one or more of the following steps:

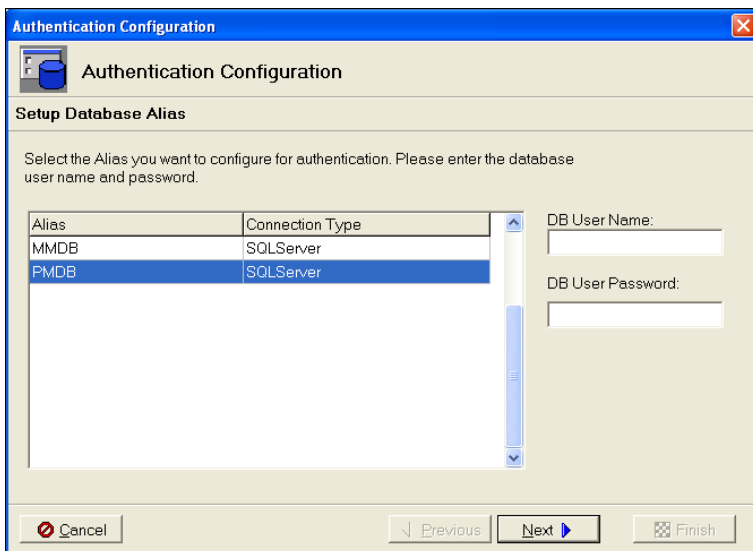
- Selecting an authentication mode
- Configuring LDAP servers
- Provisioning LDAP user information to a P6 database

Depending on the authentication modes you select for client/server and Web modules, the wizard guides you through the applicable steps. When initially configuring P6 modules to use LDAP mode for either client/server or Web modules, you can provision users. Once you have configured an LDAP authentication mode, you can also run the Authentication Configuration wizard at a later time to reprovision user information as necessary.

The Authentication Configuration wizard is provided in the \Database\ldap_config folder of the P6 physical media or download. You can run the wizard directly from physical media or from a network location.

Selecting an authentication mode and configuring LDAP servers

- 1 From the \Database\ldap_config folder of the P6 physical media or download, double-click LDAPCfgWiz.exe.
- 2 Select the database alias you want to provision LDAP information for, then type the database user name and password.



Authentication Configuration

Setup Database Aliases

Select the Alias you want to configure for authentication. Please enter the database user name and password.

Alias	Connection Type
MMDB	SQLServer
PMDB	SQLServer

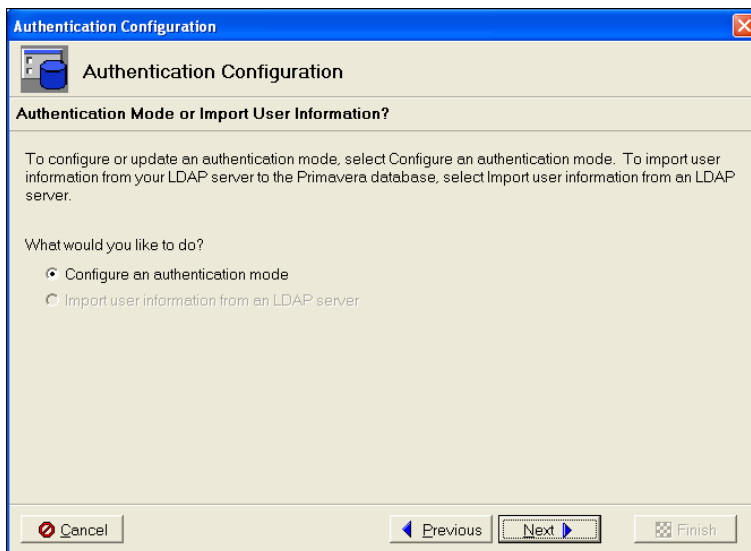
DB User Name:

DB User Password:



Even if the password that you enter above is incorrect, you will still be logged into the database if you have valid domain credentials that grant you private database access.

3 Choose to configure an authentication mode.



Authentication Configuration

Authentication Mode or Import User Information?

To configure or update an authentication mode, select Configure an authentication mode. To import user information from your LDAP server to the Primavera database, select Import user information from an LDAP server.

What would you like to do?

☒ Configure an authentication mode

☐ Import user information from an LDAP server



The Import option is active only if the database has previously been configured for either LDAP or Single Sign-On mode.

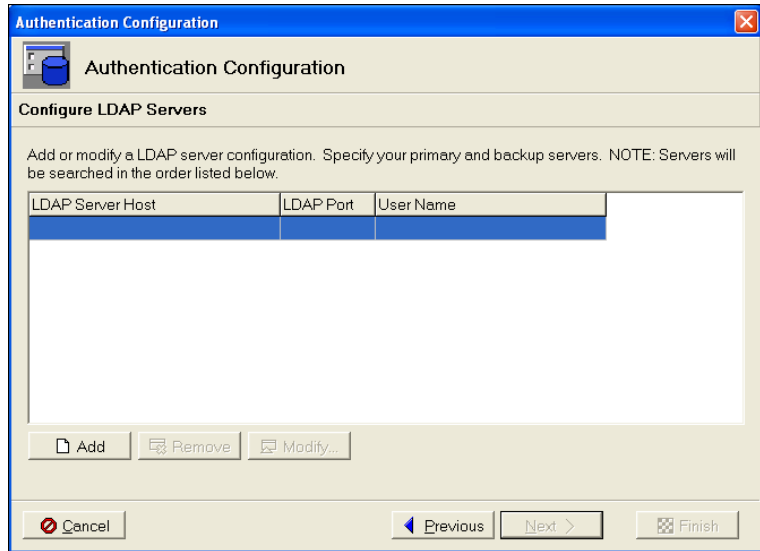
- 4 Choose an authentication mode for the client-server and Web modules.

If you choose Native, the Finish button becomes active so you can exit the wizard.

For all other authentication mode selections, continue through the wizard to configure additional information as described in the following steps.

- 5 To add a new LDAP server, click Add.

If previously configured LDAP servers are listed, you can modify the information or remove server entries.



- 6 On the General tab, specify the LDAP directory server host name or IP address, listening port, and Base Directory Node.

For Base Directory Node, specify the location in the directory information tree (DIT) that is the location from which to start the search for module users during login. Base Directory Node is also the location where the provisioning function begins the search for directory server users.

SSL protocol is recommended for secure communication to the LDAP server. To use SSL protocol for communication with the LDAP server, mark the Enable SSL checkbox.

Referrals chasing allows authentication to extend to another domain. To use referrals, mark the Chase Referrals checkbox.



For P6 Web Access, if choosing SSL, you will need to configure two settings that identify the location and password for the keystore that holds the SSL certificate. For details about configuration settings for P6 Web Access, see ["Installing P6 Web Access"](#) on page 139.



Referral chasing is supported with Oracle Internet Directory and Microsoft Windows Active Directory. For Oracle Internet Directory, referrals chasing only works when the directories are configured to allow anonymous searches.

LDAP Configuration for LDAP://:389

General | Login (Optional)

Please enter the host name or IP Address and port number for the LDAP Directory Server.

Host Name or IP Address: LDAP Port (Default 389):

Please enter the LDAP directory node where the searches should begin.
NOTE: Primavera users should reside directly under this branch or its subordinate branches.

Base Directory Node:

☐ Enable SSL
☐ Chase Referrals

OK Cancel Test

If the LDAP server does not allow anonymous searches, click the Login tab. Type the user name and password of an LDAP server user who has search access for the Base Directory Node you specified on the General tab.

LDAP Configuration for LDAP://:389

General | Login (Optional)

If your LDAP directory does not support anonymous searches, enter the username and password of the LDAP server user who has search access to the directory branch configured under the General tab.

NOTE: The username must be the fully qualified username.
Example: uid=admin,ou=people,dc=mycompany,dc=com

User Name:

Password:

OK Cancel Test

When you are finished configuring the LDAP server, click OK or, to validate connection with the LDAP server, click Test, then click OK after a successful connection message.

USER_NAME is a required field that must be mapped and can not be deleted. Up to four fields can be mapped between the LDAP store and the project management/methodology management database.

- 7 Select an LDAP server. Then, in the LDAP attribute column, specify the term/field in the LDAP store that corresponds to the P6 project management/methodology management database USER_NAME field.

Optionally, specify the LDAP term/field for e-mail address, actual name, and office phone number. To add fields, click Add. To remove a field, select it and click Remove.



If you are unsure of the correct LDAP terms, check with your LDAP directory server administrator.

Authentication Configuration

Authentication Configuration

Create Mappings

Highlight the appropriate LDAP server:

LDAP Server

Select a database field from the drop-down list and enter the corresponding LDAP attribute. NOTE: Field mappings for primary and backup servers should be synchronized to avoid data loss.

Database Field Name	LDAP Attribute
EMAIL_ADDR	mail
ACTUAL_NAME	name
OFFICE_PHONE	telephoneNumber

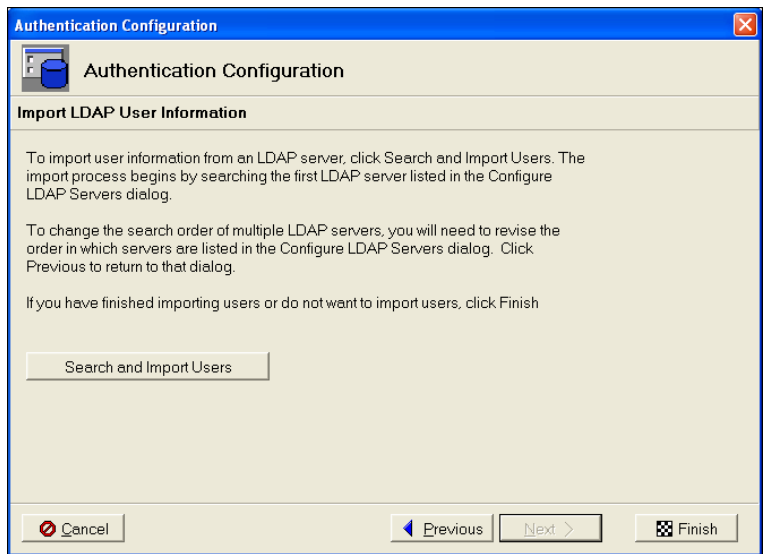
Add Remove

Cancel Previous Next Finish

- 8 To provision LDAP user information to the P6 database, click Next. You can search the LDAP directory server or import an LDIF file to provision users.

To exit the wizard, click Finish.

- 9 Click Search and Import Users.



When you provision users, changed records are updated in the P6 database and new users are added. However, users that have been deleted from the LDAP directory or LDIF file are not automatically removed from the P6 database. You will need to manually delete these users.

10 To import from an LDIF file, click Load LDIF, then navigate to the file you want to import and click OK.

To import from an LDAP server, you can run an existing search or define a new search.

If one or more previously defined searches exist, the name of the most recently run search is displayed next to the Search Name drop-down list. To initiate the current search, click Run Search. Results display in the Available Users section. To specify a new search, click Define Criteria.

Displays the name of the current search.

Starts the search based on the filter selected in the Search Name drop-down list.

Click to save information for the selected users to the P6 database.

Click to remove the current search results or currently selected users.

After running a search, select the Available users you want to add to the P6 database, then click the right arrow button. To remove a user from the Selected users list, click the left arrow button. Click the double arrows to add or remove all listed users.

For the selected users, click to compare records between the P6 db and LDAP store. Status is indicated by background color. White indicates a match, blue indicates that the db record differs from the record in the LDAP store, and red indicates that the user record does not exist in the database.

The screenshot shows the 'Import LDAP Users' dialog box. It has a title bar with standard window controls. Below the title bar is a section titled 'LDAP User Search Criteria'. This section contains a 'Search Name' dropdown menu, a 'Current LDAP Server' text field, and two buttons: 'Define Criteria' and 'Run Search'. To the right of this section are buttons for 'Close', 'Import Users', 'View Errors', and 'Load LDIF'. Below the search criteria section are two tables: 'Available:' and 'Selected:'. Each table has columns for 'User Name', 'Actual Name', 'E-Mail Address', and 'Office F'. Between the tables are four arrow buttons: a single right arrow (>), a double right arrow (>>), a double left arrow (<<), and a single left arrow (<). Above the 'Available:' table is a 'Clear' button. Above the 'Selected:' table is a 'View Updates' button and another 'Clear' button. The status of users in the 'Selected:' table is indicated by the background color of the rows: white for a match, blue for a difference, and red for a non-existent record.

When you click Define Criteria, the Select/Define Searches dialog box displays so you can add, modify, and delete searches.

- To add a search, click Add. Type a unique name for the search. In the Search criteria field, specify the LDAP search filter you want to use. When finished specifying criteria, click Save, then click Close.



Search filter syntax should adhere to the rules outlined in RFC 2254.

- To modify a search name or criteria, edit the existing information, click Save, then click Close.
- To delete a search, select it. Click Remove, then Close.

Search Name	Search Criteria
all	uid=*

After provisioning users, you will need to set up P6 user accounts for the imported users by assigning security profiles and module access through the Project Management or Methodology Management modules.

- 11 When finished importing user information, in the Import LDAP Users dialog box, click Close. To exit the Authentication Configuration wizard, click Finish.

Provisioning LDAP user information to the P6 database



When you provision users, changed records are updated in the P6 database and new users are added. However, users that have been deleted from the LDAP directory or LDIF file are not automatically removed from the P6 database. You will need to manually delete these users.

- 1 From the \Database\ldap_config folder of the P6 physical media or download, double-click on the file LDAPCfWiz.exe.
- 2 Select the database alias you want to provision LDAP information for, then type the database user name and password.

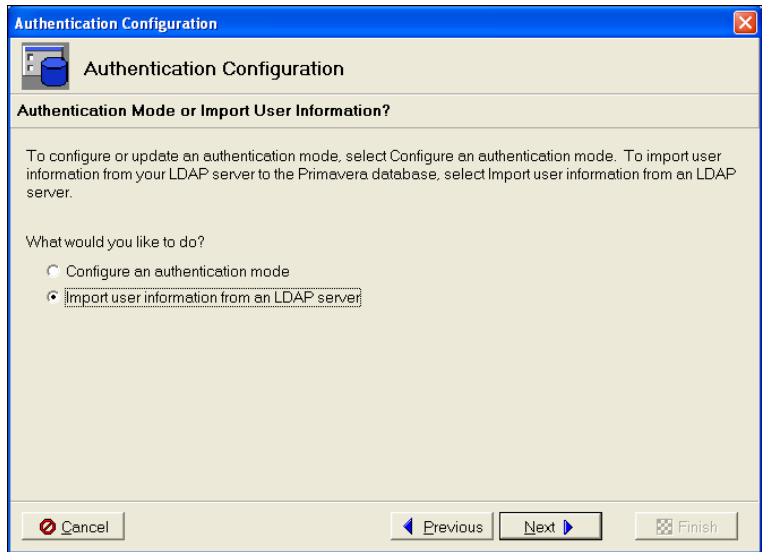
Alias	Connection Type
MMDB	SQLServer
PMDb	SQLServer

DB User Name:

DB User Password:

Buttons: Cancel, Previous, Next, Finish

- 3 Choose to import user information.



The Import option is active only if the database has previously been configured for either LDAP or Single Sign-On mode.

- 4 Follow steps 9 - 11 (beginning on [page 322](#)) in “[Choosing an Authentication Scheme](#)” which describes how to set up an authentication scheme, including the provisioning of users.

Configuring the Project Management module

The Project Management module contains Update Baseline and Schedule Comparison or Claim Digger tools. In order for these features to work in LDAP mode, an Administration setting must be changed. Perform the following steps:

For detailed information on authentication configuration settings for P6 Web Access, see “Configure Authentication” on page 193.

- 1 On the server where the Project Management module is installed, go to \Program Files\Common Files\Primavera Common\Java and run **admin.cmd** to launch the Administration Application.
- 2 Ensure that the Custom/INTERNAL_PLUGINS/Authentication/Mode configuration setting has a value of **LDAP**.

Login Procedures and Authentication

Login procedures for P6 modules vary according to the authentication mode selected.

In Native mode

- P6 modules present a login dialog that prompts for a user name and password. In Native mode, the use of passwords may be optional, depending on the password policy chosen in Administrative Preferences.

In LDAP mode

- All P6 modules (Project Management, Methodology Management, P6 Progress Reporter, P6 Web Access, and Software Development Kit) require a login password.

Additionally, because passwords are stored and authenticated against an LDAP directory, the capability for users to change passwords within a P6 module is disabled.

In Single Sign-On mode

- For Progress Reporter, the Primavera P6 login dialog box never appears. Instead, login credentials are requested and validated by the Single Sign-On server. Once a user is authenticated, the Progress Reporter launch page appears.
- For P6 Web Access, login credentials are requested and validated by the Single Sign-On server. Once a user is authenticated, the launch page for P6 Web Access appears so the user can select a database and language.

The capability for users to change passwords within P6 Progress Reporter and P6 Web Access is disabled because passwords are stored and authenticated against a directory server user store.

P6 Application Administration

In this part:

Administering Users and Security

**Defining Administrative Preferences and
Categories in Project Management**

**Defining Administrative Preferences and
Categories in Methodology Management**

Implementing P6 Progress Reporter

This part describes how to set up security and preferences after all needed P6 components are installed.

Read “[Administering Users and Security](#)” to learn how to use the Project Management module to set up user accounts to secure project data.

“[Defining Administrative Preferences and Categories in Project Management](#)” explains how to apply a series of parameters and values that apply to all projects in the Project Management module. This chapter also describes how to define currencies and financial periods.

Read the “[Defining Administrative Preferences and Categories in Methodology Management](#)” chapter to learn how to apply a series of parameters and values that apply to all methodologies in the Methodology Management module.

If you installed P6 Progress Reporter, refer to “[Implementing P6 Progress Reporter](#)” to set up users and timesheets, and to configure access to Timesheet Approval.

Administering Users and Security

In this chapter:

Understanding Security in P6

Process Overview

Defining Global Profiles

Defining Project Profiles

Adding Users in the Project Management Module

Assigning OBS Elements and Project Profiles

Assigning OBS Elements to the EPS

Defining User Access to Resources

Defining User Access to P6 Web Access Functionality

Setting Security in the Methodology Management Module

P6 enables multiple users to work simultaneously in the same projects across an organization. To ensure that data is protected from unauthorized changes, you can create global and project security profiles that control access. You can then set up users and assign organizational breakdown structure (OBS) elements to users, project profiles, and enterprise project structure (EPS) nodes. You can additionally configure resource security and define access to P6 Web Access functionality.

Read this chapter to understand the process for setting up users and implementing security in P6.

Understanding Security in P6

Each person who will be using any component of the P6 suite must be registered as a “user” with the appropriate module access. Additional security privileges determine each user’s access to data. Use the Project Management module to administer security for the Project Management and Progress Reporter modules, and P6 Web Access. The Methodology Management module administers its own security.

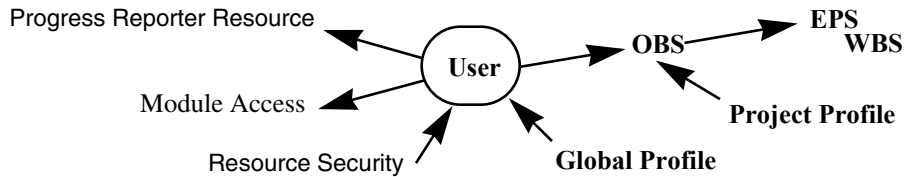
To ensure security at various levels of data, the Project Management module provides two sets of security profiles:

- **Global profiles** Define a user’s access to application-wide information and settings, such as the enterprise project structure (EPS), resources, roles, and cost accounts. Each user must be assigned a global profile.
- **Project profiles** Define a user’s access to project-specific information. The Project Management module does not require that each user be assigned a project profile; however, users cannot access projects unless they are assigned a project profile or the global profile, Admin Superuser.

You can create a set of profiles that limit access to global information and then assign the appropriate global profile to each user. Similarly, to limit privileges for each project, you assign the appropriate project profile to each user via an organizational breakdown structure (OBS) element. When you create the EPS for your company, you must identify an OBS element, or person responsible, for each node and project within the EPS. This OBS element assignment determines the user’s rights to the EPS level (and all levels below it). You can further control access to specific project data by assigning a responsible OBS element to each work breakdown structure (WBS) element within a project. You can also control user access to resource data by implementing resource security.

The Methodology Management module uses its own set of users and security profiles to control access to methodology data. See “Setting Security in the Methodology Management Module” on page 387

The following diagram illustrates the relationships between a user, the OBS, EPS, and WBS. If a user will be accessing the Progress Reporter module to update time, he/she will also need to be associated with a resource in the Project Management module.



Useful P6 Terms

Review the following P6 terms to help you better understand how to administer users and security:

User Any person who needs access to P6 components, including the Project Management, Methodology Management, Progress Reporter modules, and P6 Web Access.

Resource The people, materials, and/or equipment that perform the work on activities. In the Project Management module, you can build a resource hierarchy that includes the required resources across all projects in the organization. Resources are assigned to activities in the Project Management module and can be set up to use the Progress Reporter module to report actual workhours.

OBS A global hierarchy that represents the managers responsible for the projects in your organization. The OBS usually reflects the management structure of your organization, from top-level personnel down through the various levels constituting your business. The OBS can be role-based or name-based.

EPS A hierarchy that represents the breakdown of projects in the organization. Nodes at the highest, or root, level might represent divisions within your company, project phases, site locations, or other major groupings that meet the needs of your organization, while projects always represent the lowest level of the hierarchy. Every project in the organization must be included in an EPS node.

WBS A hierarchical arrangement of the products and services produced during and by a project. In the Project Management module, the project is the highest level of the WBS, while an individual activity required to create a product or service is the lowest level. Each project in the EPS has its own WBS.

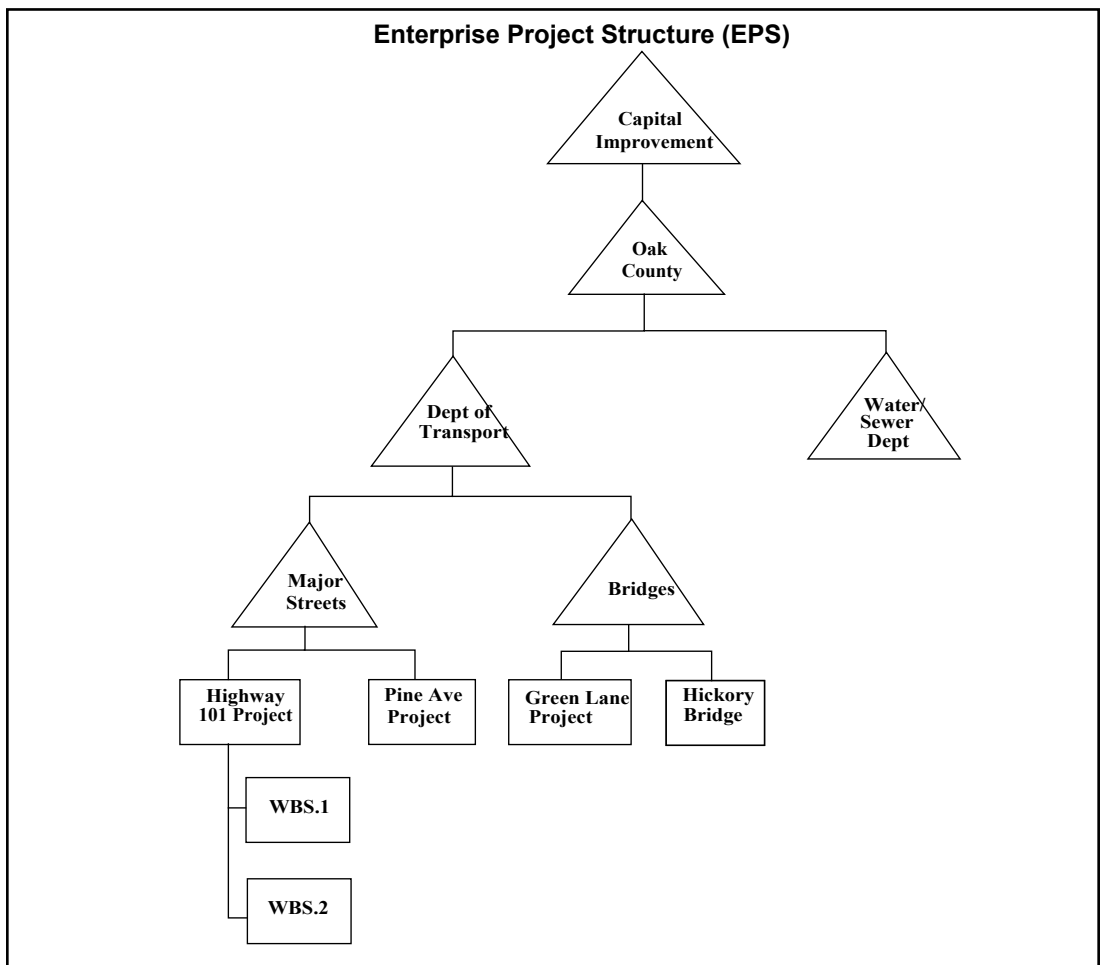
An OBS is not the same as a resource pool. While resources are assigned to activities, OBS elements are associated with EPS nodes and projects. The OBS element corresponding to an EPS node is the manager responsible for all work included in that branch of the hierarchy. In this way, an OBS supports larger projects that involve several project managers with different areas of responsibility.

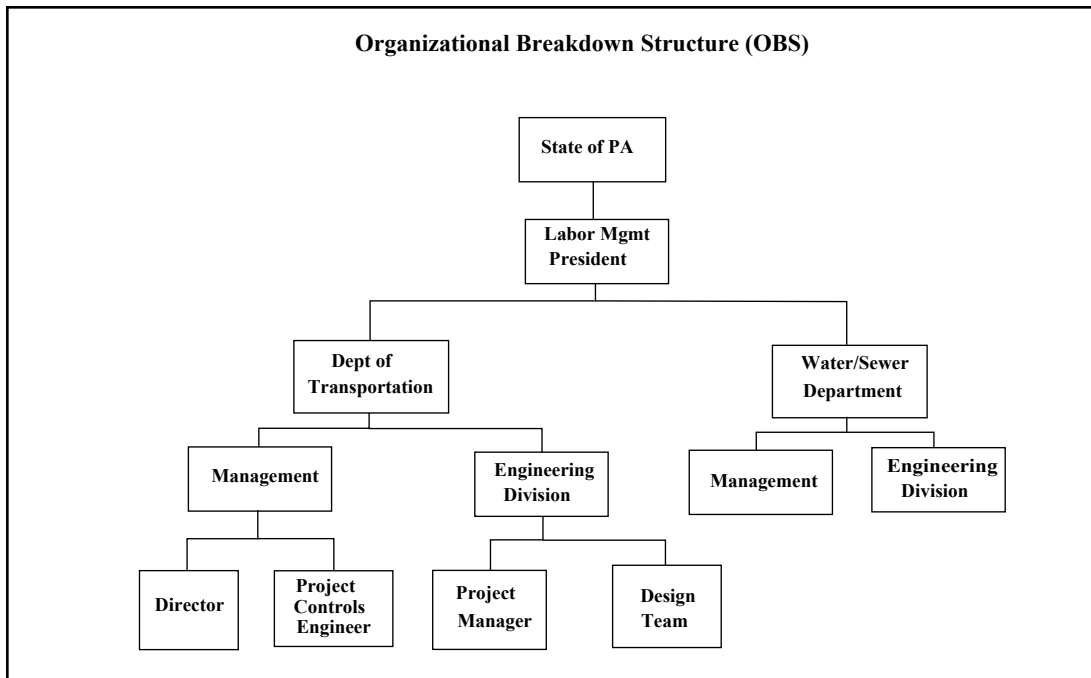
A user does not have to be included in the OBS if he/she may need to access the Project Management module but is not part of the responsible management structure. Similarly, a user may or may not be a part of the resource hierarchy. For example, if the user is a resource assigned to activities and needs to update a timesheet in the Progress Reporter

module, he/she must be included in the resource hierarchy; however, a user who is an executive requiring access to the Web Portfolio Management application is not a part of the resource pool.

For more information on resources, OBS, EPS, and WBS, see the *Project Management Reference Manual*.

Review the following portions of a sample EPS for Capital Improvement projects in Oak County and its corresponding portion of the OBS.



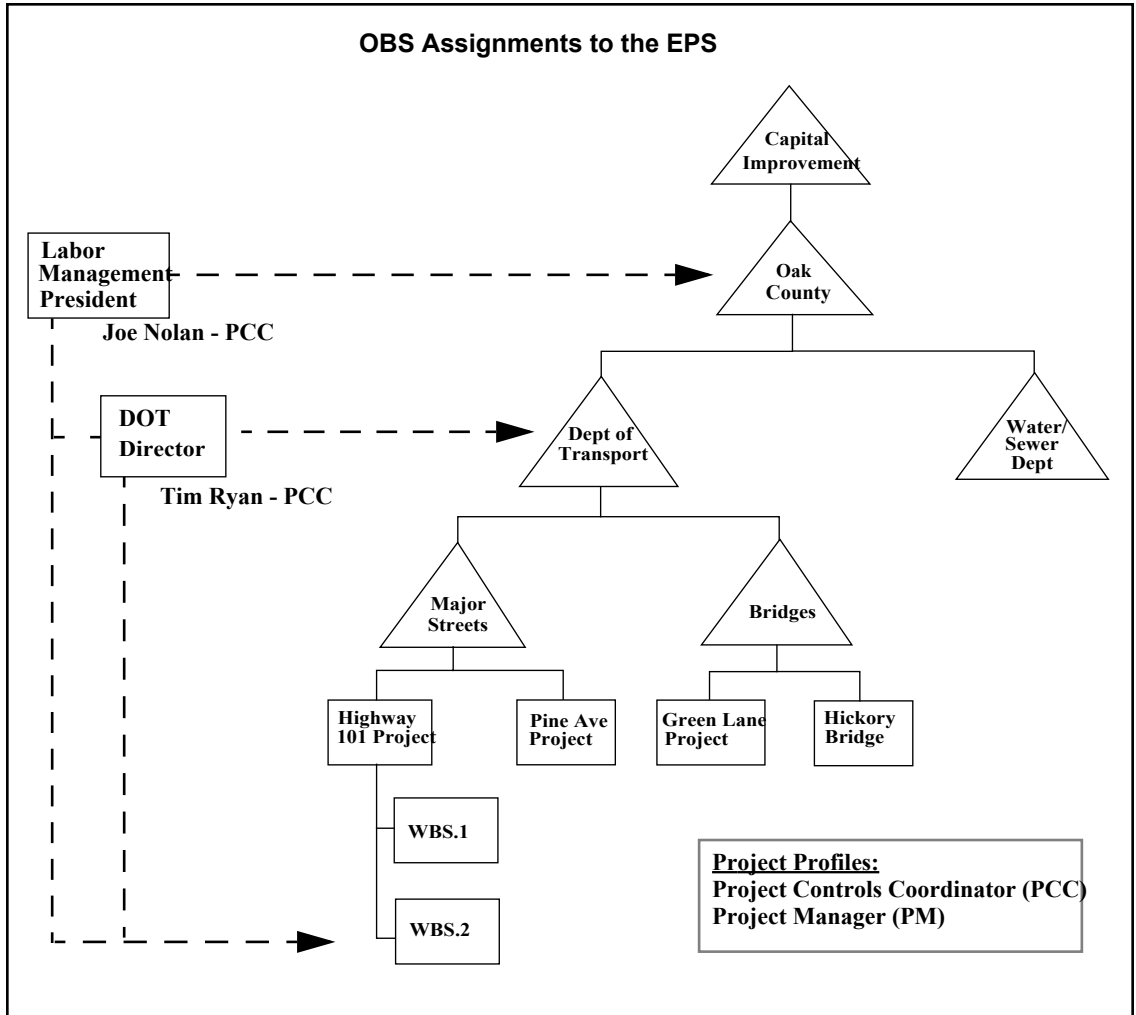


With these structures defined, you can map users to their corresponding roles in the OBS, which in turn can be assigned to each level in the EPS. The EPS level to which you assign the OBS determines the nodes/projects the associated user can access. For example, if you assign an OBS element to the root node of the EPS, the users associated with that OBS element can access the projects in the entire EPS. If you assign an OBS element to one branch of the EPS, the associated users can access only projects within that branch.

The project profile associated with each OBS element determines which data items in the projects the user can access. Only one OBS element can be assigned to each EPS level.

For example, suppose that two project profiles are defined: one that allows edit access to all data, including administration rights (Project Controls Coordinator profile), and one that allows viewing and editing of most, but not all, project data (the Project Management module profile). Joe Nolan, the President of Labor Management, is assigned to the Project Controls Coordinator profile. The OBS element, Labor Mgmt President, is assigned as the responsible manager at the Oak County node of the EPS, indicating that Joe Nolan has access to all nodes and projects within Oak County.

If Tim Ryan is the Director of the Department of Transportation (DOT), he can be assigned Project Controls Coordinator rights to all projects under DOT.



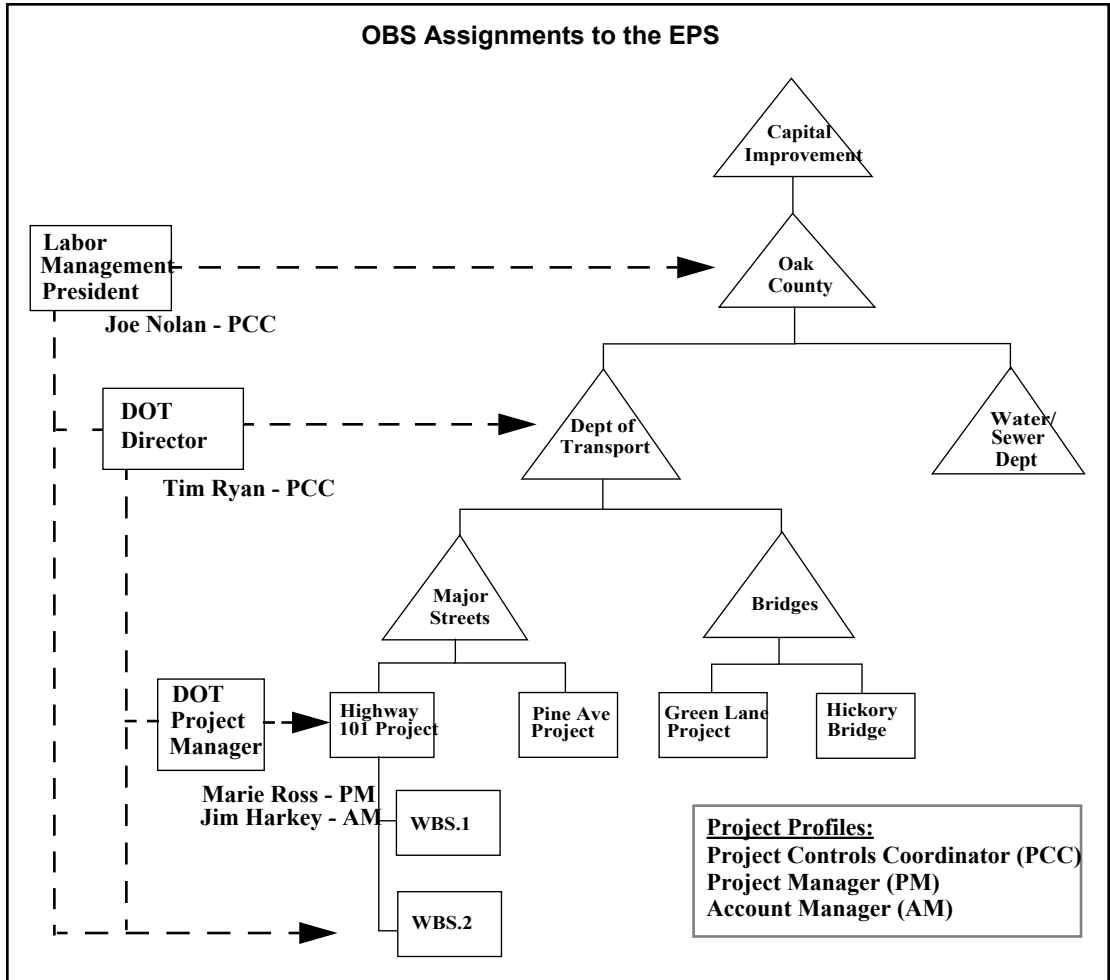
You can further control the access to projects by assigning OBS elements at the project and/or WBS level. In the previous example, if Marie Ross is the Project Manager in the Engineering Division responsible for the Highway 101 project, you can assign her to that OBS element with a Project Manager profile. She would then have editing access to just that project.

As another example, if the Design Team needs access to only the design portion of the Highway 101 Project. You can assign the Design Team to just the WBS branch in the Highway 101 project that involves the project design.

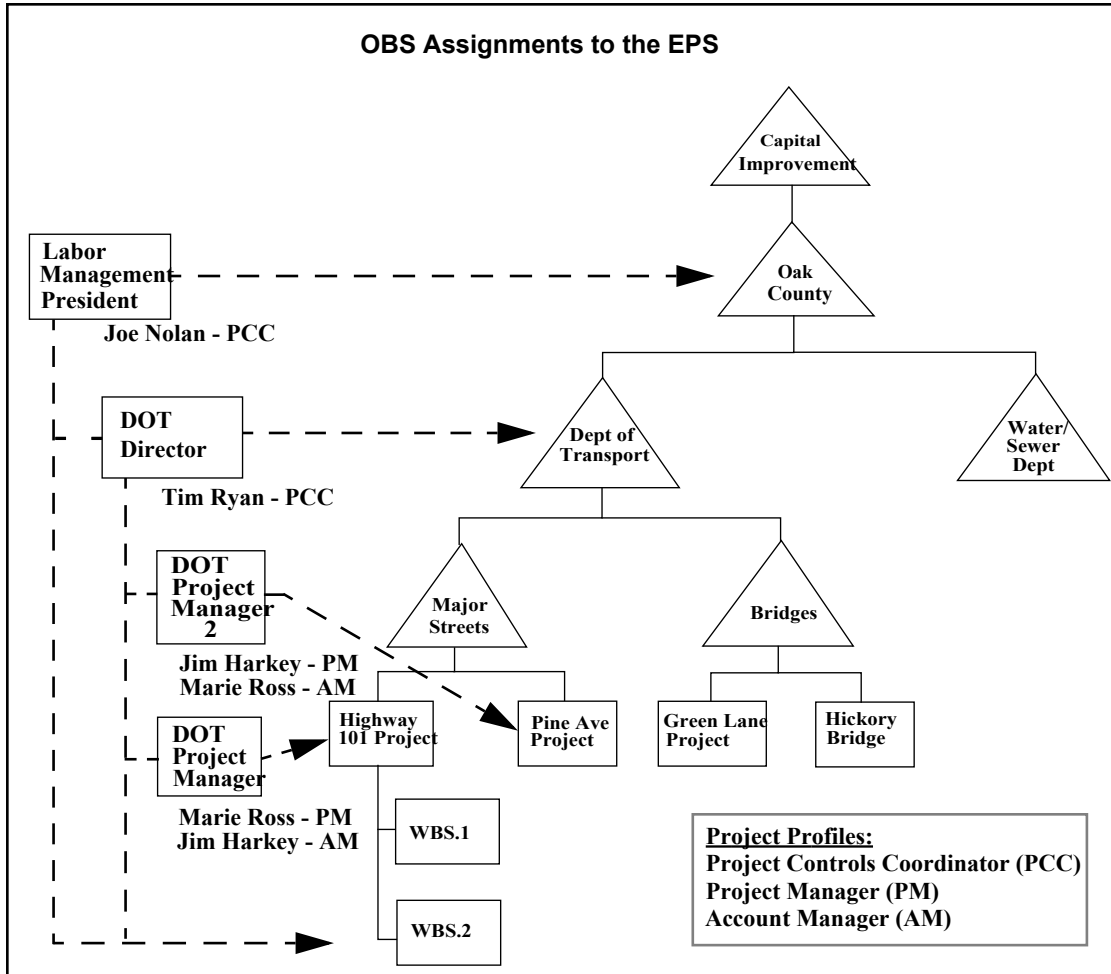
You can assign multiple users to the same OBS element and/or you can assign each user to multiple OBS elements. This flexibility enables you to provide access to the same EPS branch or project to more than one responsible manager (OBS element), and it allows you to control access by the same user across different EPS nodes and projects.

For example, suppose Marie Ross, who is a Project Manager in the Engineering Division responsible for the Highway 101 project, also needs access to the Pine Avenue project; however, you want to limit her access to reviewing and editing financial data only. Also suppose that Jim Harkey, another Project Manager in the Engineering Division, is responsible for the Pine Avenue project. He needs Project Manager access to the Pine Avenue project, but he also needs to review financial information in Marie's Highway 101 project.

You first would create another project profile that specifies viewing/editing rights to just project costs and financial data (Account Manager profile) and then make the following assignments:



To designate that Jim Harkey has Project Manager rights to the Pine Avenue project and Marie Ross has Account Manager rights to the Pine Avenue project, you would need to add another element to the OBS.



With these assignments, Jim Harkey and Marie Ross now have Project Manager rights to their primary projects and Account Manager rights to their secondary projects.

The following section provides guidelines for setting up users and administering security in P6.

Process Overview

Organization-wide project management involves a structured approach to managing several ongoing projects and teams across multiple locations at the same time. To ensure good results, up-front planning and coordination by various members of the organization are essential. Before you can use P6 to manage your projects successfully, you must first administer users and set up structures in the Project Management module, including the organizational breakdown structure (OBS), enterprise project structure (EPS), and resource hierarchy. Once users and structures are in place, you can implement security to restrict and/or provide access to project data.

The Methodology Management module uses its own security model to control access to the methodology management database. See “Setting Security in the Methodology Management Module” on page 387.

The following steps provide guidelines and a general process for administering users and security in P6. Because the structures are global across the company, some steps may require information from many participants. You can vary the order depending on your company’s implementation plan. Also, some of these processes, such as defining resource security and user interface views, are optional depending on the needs of your organization.

- 1 Create global and project security profiles in the Project Management module.

Define a standard set of profiles that determine access rights to global and project-specific data. Most likely, administrators perform this step. See “[Defining Global Profiles](#)” on page 345 and “[Defining Project Profiles](#)” on page 353.

- 2 Add users in the Project Management module.

You must add each user who needs access to any P6 component. At a minimum, each user is assigned a login name, module access, and a global profile. See “[Adding Users in the Project Management Module](#)” on page 360 for more information.

The Project Management Reference Manual (PMRefMan.pdf) is available online and can be accessed from your \Documentation\<language>\Product Manuals folder of the P6 physical media or download. View the information using Adobe Acrobat Reader (also available in the Documentation folder).

- 3 Set up the OBS for your company and assign each element of the OBS to the appropriate users and project profiles.

Identify your company's management structure and include the roles or names of those who will be responsible for the projects and work to be completed. See "Setting Up the Organizational Breakdown Structure" in the *Project Management Reference Manual* for more information. Also, see ["Assigning OBS Elements and Project Profiles"](#) on page 374.

- 4 Set up the EPS for your company and assign the responsible manager (OBS) to each node.

Identify your company's project structure, which is global across the organization. See "Setting Up the Enterprise Project Structure" in the *Project Management Reference Manual* for more information.

- 5 Define the resources necessary to complete the projects across the organization, and link resources to users if they will be using the Progress Reporter module.

See "Defining Resources and Roles" in the *Project Management Reference Manual* for more information. Also, see ["Adding Users in the Project Management Module"](#) on page 360 later in this chapter.

- 6 Define user access to resource data.

See ["Defining User Access to Resources"](#) on page 380.

- 7 Define user interface views that restrict and provide access to P6 Web Access functionality according to the requirements of your company's functional roles.

See ["Defining User Access to P6 Web Access Functionality"](#) on page 384.

- 8 Add projects to the EPS and define the WBS for each project.

Project managers perform this step. They can further control security within their own projects by assigning specific OBS elements to WBS levels. Refer to the *Project Management Reference Manual* for more information.

The remainder of this chapter provides additional information on this process.

Administrators can also set preferences for data in the Project Management module. See ["Defining Administrative Preferences and Categories in Project Management"](#) on page 395.

Defining Global Profiles

A global profile determines a user's access to application-wide information and settings, such as resources, global codes, and the OBS. The Project Management module requires that you assign a global profile to each user.



You can define an unlimited number of global profiles in the Project Management module. In addition, the Project Management module provides two predefined global profiles: Admin Superuser and No Global Privileges. The Admin Superuser profile allows complete access to all global information and all projects. This profile is assigned to the user Admin when you install P6 modules. For security reasons, you should limit the Admin Superuser assignment to only those individuals who require access to all data.



At least one user must be assigned to the Admin Superuser profile. If only one user is assigned to this profile, the Project Management module does not allow that user to be deleted.

The No Global Privileges profile restricts access to global data. Assign this profile to anyone who is strictly a Progress Reporter module user and does not require access to the Project Management module. If a user with rights to the Project Management module is assigned this profile, the user can log in to the Project Management module but has no access to project data and read-only access to global data. If a user is assigned this profile and is also assigned to an OBS element, the user will have access to project data as defined for the OBS element, but access to other global data is restricted.

When defining each global profile, the Admin Superuser may designate that users have the ability to add/delete, edit, assign, or view secure codes. Secure codes enable privileged users to hide Project, Activity, and Resource codes from users that do not have security privileges to view them. Also, users with privileges to Edit Security Profiles can restrict other users to edit, assign, and view privileges. For example, management could track project approval processes through secure codes that others cannot edit or, in some cases, view.

Secure codes are structured hierarchically. In other words, if a user is granted add/delete privileges, that user automatically has edit, assign, and view privileges. If a user is granted edit privileges, that user is automatically granted assign and view privileges. If a user is granted assign privileges, that user is automatically assigned view privileges.



The Project Management module does not limit the group of codes that a user can edit or assign. Once you designate a security privilege, the same security privilege applies to all codes (secure or not). If you designate add/delete, edit, assign, or view privileges to a user, that user has the ability to add/delete, edit, assign, or view all existing codes.

Create global profiles In the Project Management module, choose Admin, Security Profiles. Choose Global Profiles, then click Add. Type the new profile's name. To make the new profile the default global profile, mark the Default checkbox. In the Privilege area, mark the appropriate Has Privilege checkboxes to grant privileges to the profile.

Select a global profile...

...then review the privileges associated with that profile.

Click to view the privileges in alphabetical order.

For information on assigning global profiles, see “Adding Users in the Project Management Module” on page 360.

The following table defines each global privilege:



The following table groups global privileges by functionality. The privileges are listed in the same order as displayed in the Security Profiles dialog box. To view the privileges in alphabetical order in the Security Profiles dialog box, click the Privileges bar as shown in the previous image.



Privileges that are new or modified in P6 are marked with an asterisk (*).

Privilege Name	Privilege Definition
Edit Global Change Definitions	Create, edit, and delete Global Change specifications available to all users.
Edit Admin Preferences and Categories	Change administrative preferences and categories as defined in the Admin Preferences and Admin Categories dialog boxes. Edit currency data in the Currencies dialog box.
Delete Resources	Remove resources from the project management database. This privilege automatically grants the Add Resources and Edit Resources privileges.
Add Resources	Create resources. This privilege automatically grants the Edit Resources privilege.
Edit Resources	Edit resource data. Display resource price/unit (if the View Resource Costs global privilege is also granted), and resource skill level (a resource's role proficiency), in reports.
View Resource Role Proficiency	View, group/sort, filter, and report on resource and role proficiency. A user must have this privilege to view and search by resource and role proficiency in P6 Web Access.
Approve Resource Timesheets	Review, approve, and reject submitted timesheets as a Resource Manager in the Timesheet Approval application.
Edit Cost Accounts	Create, edit, and delete cost accounts.
Import Project Management Data for XER, MPP, MPX, and P3*	Import projects, resources, and roles from XER, MPP, MPX, and P3 formats. A user must also have the Create Project within EPS project privilege to import and create new projects. A user must also be a project superuser to update a project from XER or P3 formats.
Import XML	Import projects from the Project Management module XML and Microsoft Project XML format. A user must also have the Create Project within EPS project privilege to import and create new projects.
Import XLS*	Import projects, resources, and roles from XLS files. A user must also be a project superuser to update a project from XLS format.
Edit Global Reports	Create, edit, and delete global reports; edit report groups and global report batches; and save global reports created or modified by the Report Wizard.

Privilege Name	Privilege Definition
Edit Global Tracking Layouts	Create, edit, and delete global tracking layouts in the Project Management module.
Edit Roles	Create, edit, and delete global roles.
Edit Global Activity Codes	Edit the name of global activity codes in both P6 Web Access and the Project Management module. This privilege automatically enables you to add, edit, and delete global activity code values as well.
Add Global Activity Codes	Add new global activity codes and code values in both P6 Web Access and the Project Management module. This privilege automatically enables you to edit existing global activity codes and code values as well.
Delete Global Activity Codes	Delete global activity codes and code values in both P6 Web Access and the Project Management module. This privilege automatically enables you to add and edit global activity codes and code values as well.
Edit Issue Forms	Add, edit, and delete issue forms and issue form categories in P6 Web Access.
Edit Global Calendars	Create, edit, and delete global calendars and shifts.
Edit Resource Calendars	Create, edit, and delete resource calendars and shifts.
Edit Security Profiles	Create, edit, and delete global and project security profiles.
Edit Users	Add, edit, and remove Project Management module users.
Edit Timesheet Dates	Create and delete timesheet batches.
Add/Edit Global Activity and Assignment Layouts and Filters	Create, edit, and delete global activity and resource assignment layouts, views, and filters.
Edit OBS	Create, edit, and delete global OBS hierarchy.
Edit Project Codes	Edit the name of project codes. This privilege automatically enables you to add, edit, and delete project code values as well.
Add Project Codes	Add new project codes and code values. This privilege automatically enables you to edit existing project codes and code values as well.

Privilege Name	Privilege Definition
Delete Project Codes	Delete project codes and code values. This privilege automatically enables you to add and edit project codes and code values as well.
Edit Resource Codes	Edit the name of resource codes. This privilege automatically enables you to add, edit, and delete resource code values as well.
Add Resource Codes	Add new resource codes and code values. This privilege automatically enables you to edit existing resource codes and code values as well.
Delete Resource Codes	Delete global resource codes and code values. This privilege automatically enables you to add and edit resource codes and code values as well.
Edit Global Portfolios	Create, edit, and delete global portfolios in the Project Management module and in P6 Web Access.
Administer Global External Applications	Administer the list of global external applications.
Edit Funding Sources	Create, edit, and delete funding sources in the Funding Sources Dictionary.
Run Project Architect	Run the Project Architect wizard. The wizard enables Project Management module users to create a new project based on methodologies imported from the Methodology Management module and to add methodologies to an existing project.
View Resource and Role Costs	View all values for labor and nonlabor resource costs and price/unit values for roles. If this privilege is not granted to a user, all areas in the Project Management module that display monetary values for roles and labor, material, and nonlabor resources display dashes and cannot be edited. For resources, such areas include resource price/time, values in resource profiles in the Activities window and monetary values in Tracking layouts. For roles, the area is the price/unit value in the Roles dialog box.
Administer Job Services	Set up the Apply Actuals, Batch Reports, Export, Schedule, and Summarize services to run at specific time intervals using the Job Service.

Privilege Name	Privilege Definition
Edit Personal Resource Calendar	Enables users to edit their own resource calendars if they do not have the Edit Global and Resource Calendars global privilege. This privilege or the Edit Global and Resource Calendars privilege is required for access to the Import Appointments feature of P6 Web Access.
Create Project Requests	Initiate predefined workflow processes for reviewing new project requests. A separate privilege, Edit Project Requests, is required to create the templates that define the available workflow processes.
Edit Project Requests Templates	Create, edit, and modify templates that define workflow processes for reviewing new project requests.
Add and Delete Secure Codes	Create, edit, assign, view, and delete all global and EPS-level secure activity codes and values, as well as all global secure issue codes and values.
Edit Secure Codes	Edit, assign, and view global and EPS-level secure activity codes and values, as well as all global secure issue codes and values.
Assign Secure Codes	Assign and view global and EPS-level secure activity codes and values, as well as all global secure issue codes and values.
View Secure Codes	View global and EPS-level secure activity codes and values, as well as all global secure issue codes and values.
Edit User Interface Views	Create, edit, and delete user interface views in P6 Web Access. This privilege also grants you the right to assign user interface views to users in both P6 Web Access and the Project Management module.
View All Global/Project Data via SDK	Access the SDK in read only mode, without superuser privileges.
Edit Global Resource and Role Teams	Create, edit, and delete global Resource Teams and Role Teams. A Resource/Role Team is a collection of resources/roles. Resource/Role Teams are available in P6 Web Access.
Edit Resource Curves	Create, edit, and delete resource distribution curves.

Privilege Name	Privilege Definition
Edit User Defined Fields	Create, edit, and delete user defined fields. Without this privilege, you can only view user defined fields. In P6 Web Access, enables access to the Project User Defined Fields section on the Administration Home page, where you can create, edit, and delete project user defined fields.
Add/Edit Global Project/WBS Layouts and Portfolio Views	Create, edit, and delete global project and WBS layouts. In P6 Web Access, create, edit, and delete portfolio views. This privilege is required to save view changes made to the Portfolio Analysis page in the Portfolios section of P6 Web Access.
Edit Microsoft Project Templates	Create, edit, and delete Microsoft Project Templates used to import/export data from/to Microsoft Project.
Edit Activity Step Templates	Create, edit, and delete Activity Step Templates used to add a set of common steps to multiple activities.
Add Global Issue Codes	Create new issue codes and issue code values in P6 Web Access.
Edit Global Issue Codes	Edit issue codes and issue code values in P6 Web Access.
Delete Global Issue Codes	Delete issue codes and issue code values in P6 Web Access. This privilege automatically enables you to add and edit global issue codes and issue code values as well.
Edit Financial Period Dates	Create, edit, and delete financial periods in the Financial Period dictionary. A user must also be assigned the Edit Period Performance project privilege to edit period data.

Privilege Name	Privilege Definition
Edit Global Scenarios	Create, edit, and delete global scenarios in P6 Web Access.
Edit Global Dashboards	Create, edit, and delete global dashboards in P6 Web Access.
Edit Projects from Scorecards	Add, edit, and delete projects from scorecards in the Portfolio View portlet and the Portfolio Analysis page in P6 Web Access. This privilege is required to save data changes made to the Portfolio Analysis page. To edit project data in a scorecard, a user must also be assigned the 'Edit Project Details Except Financials' project privilege. To edit project cost data in a scorecard, a user must also be assigned the 'Edit Project WBS Financials' project privilege. To add a project from a scorecard, a user must also be assigned the 'Create Project Within EPS' project privilege. To delete a project from a scorecard, a user must also be assigned the 'Delete Project Within EPS' project privilege.

Defining Project Profiles

A project profile is a role-based profile that limits privileges to specific project data, such as baselines, the WBS, and thresholds. The Project Management module does not require that each user be assigned a project profile; however, users cannot access projects unless they are assigned a project profile or the global profile, Admin Superuser.

You can define an unlimited number of project profiles in the Project Management module. In addition, the Project Management module provides a predefined project profile called Project Superuser. The Project Superuser profile allows complete access to elements within a project.

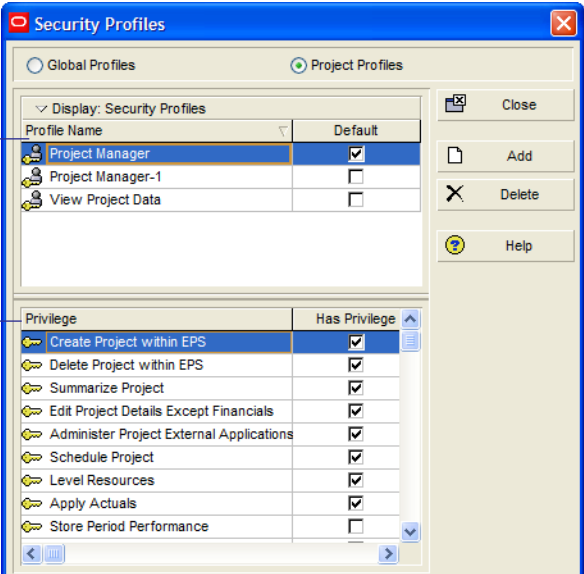
For more information on assigning users to OBS elements, see “Assigning OBS Elements and Project Profiles” on page 374.

Project profiles are applied to users via OBS assignments. The Project Management module requires that all EPS and WBS elements, and projects, are assigned a responsible OBS. The combination of the project profile/user assignment to an OBS assignment, and the OBS assignment to the EPS/WBS, determines which projects and data the user can access. The default profile is automatically assigned when an OBS is assigned to a user.

Create project profiles Choose Admin, Security Profiles. Choose Project Profiles, then click Add. Type the new profile’s name. To make the new profile the default project profile, mark the Default checkbox. In the Privilege area, mark the appropriate Has Privilege checkboxes to grant privileges to the profile.

You can create an unlimited number of project profiles based on the varying roles in your company.

Click to list the privileges in alphabetical order



To allow read-write privileges for all aspects of a project, you can assign a user to a project's root OBS element and then apply the Project Superuser profile to the OBS assignment.

The following table defines each project privilege:

The following table groups each privilege by functionality. The privileges are listed in the same order as in the Security Profiles dialog box. To view the privileges in alphabetical order in the Security Profiles dialog box, click the Privileges bar as shown in the previous image.

Privileges that are new or modified in P6 are marked with an asterisk (*).

Privilege Name	Privilege Definition
Create Project within EPS	Create, copy, and paste projects within the EPS.
Delete Project within EPS	Delete, cut, and paste projects within the EPS.
Summarize Project	Summarize data for all projects in the EPS.
Edit Project Details Except Financials	Edit fields in General, Dates, Defaults, Resources, and Settings tabs in Project Details. A user must be assigned this privilege to select the project baseline.

Privilege Name	Privilege Definition
Administer Project External Applications	Administer links to external applications.
Schedule Project	Schedule a project.
Level Resources	Level resources for a project.
Apply Actuals	Apply actuals to activities in a project.
Store Period Performance	Store actual this period values for actual units and costs in a project's financial periods. A user must be assigned the Add/Edit Project Activities Except Relationships project privilege before you can assign this privilege.
Edit Period Performance	Edit period performance values for labor and nonlabor units as well as labor, nonlabor, material, and expense costs. A user must be assigned the View Project Cost/Financials project privilege before you can assign this privilege.
Maintain Project Baselines	Add, save, and delete a project's baselines. A user must be assigned this privilege and the Edit Project Details except Financials project privilege to add a project baseline in P6 Web Access.
Run Baseline Update	Update a project's baselines with new project data using the Update Baseline utility.
Assign Project Baseline	Select the project baseline for a project. A user must also be assigned the Edit Project Details Except Financials project privilege to select the project baseline.
Edit Project Work Products and Documents	Create, edit, and delete a project's work products and documents. In P6 Web Access, relate items to documents, change a document's access level, add and delete folders, and start project document reviews. In addition to this privilege, the Content Repository must be configured to change a document's access level, add and delete folders, and start project document reviews.
Add/Edit Project Template Documents	In P6 Web Access, create, edit, delete, check out, and start reviews for project template documents. A user needs to have the privilege to 'Edit Project Work Products and Documents' also. In addition to this privilege, the Content Repository must be configured to check out and start reviews for project template documents.

Privilege Name	Privilege Definition
View Project Costs/ Financials	View all monetary values for a project. If a user cannot view project costs, all features that display monetary values are replaced by three dashes (---) in the Project Management module and cannot be edited by the user. The ability to view resource price/time is controlled by the View Resource and Role Costs global privilege.
Edit Project Activity Codes	Edit the name of project activity codes. This privilege automatically enables you to add, edit, and delete project activity code values in both P6 Web Access and the Project Management module.
Add Project Activity Codes	Create a project's activity codes in both P6 Web Access and the Project Management module.
Delete Project Activity Codes	Remove a project's activity codes from the project database in both P6 Web Access and the Project Management module.
Edit EPS Activity Codes	Edit the name of EPS-level activity codes. This privilege automatically enables you to add, edit, and delete EPS-level activity code values in both P6 Web Access and the Project Management module.
Add EPS Activity Codes	Create EPS-level activity codes in both P6 Web Access and the Project Management module. This privilege automatically enables you to edit existing EPS-level activity codes as well.
Delete EPS Activity Codes	Remove EPS-level activity codes in both P6 Web Access and the Project Management module. This privilege automatically enables you to add and edit existing EPS-level activity codes as well.
Monitor Project Thresholds	Run the threshold monitor for a project.
Publish Project Website	Publish a project's Web site.
Edit Project Reports	Edit a project's reports and edit a project's report batches.
Edit Project Calendars	Create, edit, and delete a project's calendars.
Run Global Change	Run Global Change to update activity detail information.
Check In/Check Out Project	Check projects in and out of the Project Management module.

Privilege Name	Privilege Definition
Assign Issue Forms	In P6 Web Access, assign issue forms to a project.
View Timesheets in Reports	Run reports against timesheets for all resources in a project from the My Reports portlet in P6 Web Access. This privilege does not grant access to the Timesheet Approval application.
Import/View Contract Management Data	Import and view data from Contract Management.
Edit Project WBS Except Financials	Edit WBS hierarchy (add/remove/move WBS nodes), notebook entries, earned value settings, milestones (steps), work products and documents, and dates.
Edit Project WBS Financials	Edit WBS budget logs, funding sources, spending plan, and financial data at the project level. Edit cost data at the activity level, including resource assignments.
Edit EPS Except Financials	Edit EPS hierarchy (add/remove/move EPS nodes), edit EPS notebook, and edit all EPS-related data except financial information.
Edit EPS Financials	Edit EPS budget logs, funding sources, and spending plan.
Project Top-Down Estimation	Run Top-Down Estimation for a project.
Approve Timesheets as Project Manager	Review, approve, or reject timesheets for a project.
Edit Project Expenses	Create, edit, and delete a project's expenses.
Edit Project Thresholds, Issues and Risks	Create, edit, and delete a project's thresholds, issues, and risks.
Edit Project Activity Relationships	Create, edit, and delete a project's activity relationships.
Add/Edit Project Activities Except Relationships	Create and edit a project's activity information, except activity relationships. To edit activity IDs, a user must also be granted the Edit Activity ID project privilege.
Perform Activity Resource Requests	View and staff resource requests for a project in P6 Web Access.
Delete Project Activities	Delete a project's activities.

Privilege Name	Privilege Definition
Delete Project Data with Timesheet Actuals	Delete a project's activities that have timesheet actuals applied to them. A user needs to have the privilege to 'Delete Project Activities' also.
Create Workgroups	Add a new workgroup in P6 Web Access.
Delete Workgroups	Delete a workgroup in P6 Web Access.
Modify Project Workspace and Workgroup Preferences	In P6 Web Access, customize the project workspace and workgroup preferences.
Edit Resource Assignments for Resource Planning	Assign, delete, and modify resource assignments on a project or WBS level in the Web Resource Management module. Users can also define search criteria, and conduct a search for resource assignments. For users that do not have this privilege, the resource assignment information on the Plan Resource page is read-only for that particular project or WBS. Since project-level security privileges go down to the WBS level, it is possible to be able to assign a resource to one WBS in a project and not another.
Edit Contract Management Project Link	Create, edit, and delete a link to an Oracle Primavera Contract Management project.
Edit Activity ID	Modify the ID of an activity. To edit activity IDs, a user must also be granted the Add/Edit Project Activities Except Relationships project privilege.
Edit Role Assignments for Resource Planning	Assign, delete, and modify role assignments on a project or WBS level in the Web Resource Management module. Users can also define search criteria for role assignments. For users that do not have this privilege, role assignment information on the Plan Resources page is read-only for that particular project or WBS. Since project-level security privileges go down to the WBS level, it is possible to be able to assign a role to one WBS in a project and not another.
Edit Committed Flag for Resource Planning	Identify committed resource and role assignments on a project or WBS level on the Plan Resources page in the Web Resource Management module. This privilege also requires the Edit Resource Assignments for Resource Planning privilege.

Privilege Name	Privilege Definition
Edit Future Periods	Enter or edit future period values in the Budgeted or Planned Units and Remaining (Early) Units fields in both P6 Web Access and the Project Management module. To assign this privilege to a user, you must first assign the 'Add/Edit Project Activities Except Relationships' project privilege to the user; otherwise, you cannot select this privilege.
Add/Edit Project Level Layouts	Create, edit, and delete project level layouts in Activities, Assignments, or WBS views.
Allow Integration with ERP system*	Send project data to an integrated Oracle ERP system using the Send to ERP toolbar icon on the Activities page in the Projects section of P6 Web Access. This is a project level privilege and is not specific to each level of the WBS.

Adding Users in the Project Management Module

If your company's OBS is established, and you know which OBS elements to associate with each user, you can make the assignments in the Project Access tab in the Users dialog box. See [“Assigning OBS Elements and Project Profiles”](#) on page 374.



If your company uses P6 Web Access, you might want to create a default prototype user before adding new users. The prototype user enables you to define default dashboards and global preference settings that apply to all users of P6 Web Access. See [“Adding a prototype user and defining default settings for P6 Web Access”](#) on page 372 for more information.

Depending on your security profile, the Users dialog box enables you to add and remove users and control user access to P6 components. You must add a user in the Project Management module for each person who needs access to any P6 component, except for the Methodology Management module, which uses its own security data.

At a minimum, each user requires a login name, global profile, and module access (component and access level). You can also provide additional information about the user, such as an e-mail address and office phone number.



If your organization centralizes user information in an LDAP directory, you can add P6 users by provisioning from the LDAP store. For more information, see [“Configuring Authentication Modes”](#) on page 313. After you provision users, you will need to assign each user module access.



The Default Admin Superuser For security reasons, Oracle strongly recommends that you replace the default Admin Superuser (admin) in the Project Management module immediately after a manual database installation or an upgrade from P6 version 5.0 and later. Since P6 requires that at least one Admin Superuser exists at all times, execute the procedures below in the order specified.

- 1 Follow the steps in [“Add new users”](#) on page 360 to create a new user.
- 2 Follow the steps in [“Assign a global profile”](#) on page 363 to assign “Admin Superuser” as the global profile for the new user.
- 3 Follow the steps in [“Assign module access”](#) on page 364.
- 4 Delete the original Admin Superuser, “Admin” by default.

Add new users Choose Admin, Users. Click Add.

- If Password Policy is not enabled in Administrative Preferences, click the General tab, type the user's login name and personal name, then click Password. Type the user's password, then retype the password to verify it. Click OK. If the user will be accessing the Progress Reporter module, you can associate the user with a resource in the Project Management module at this time, or you can create the link when you add resources. Click the Contact tab and type the user's e-mail address and telephone number.



■ If Password Policy is enabled in Administrative Preferences, the Add User dialog box will appear. You will be required to fill in the Login name, Personal name, Enter new password, and Confirm new password fields. Click OK. If the user will be accessing the Progress Reporter module, you can associate the user with a resource in the Project Management module at this time, or you can create the link when you add resources. Click the Contact tab and type the user's e-mail address and telephone number.



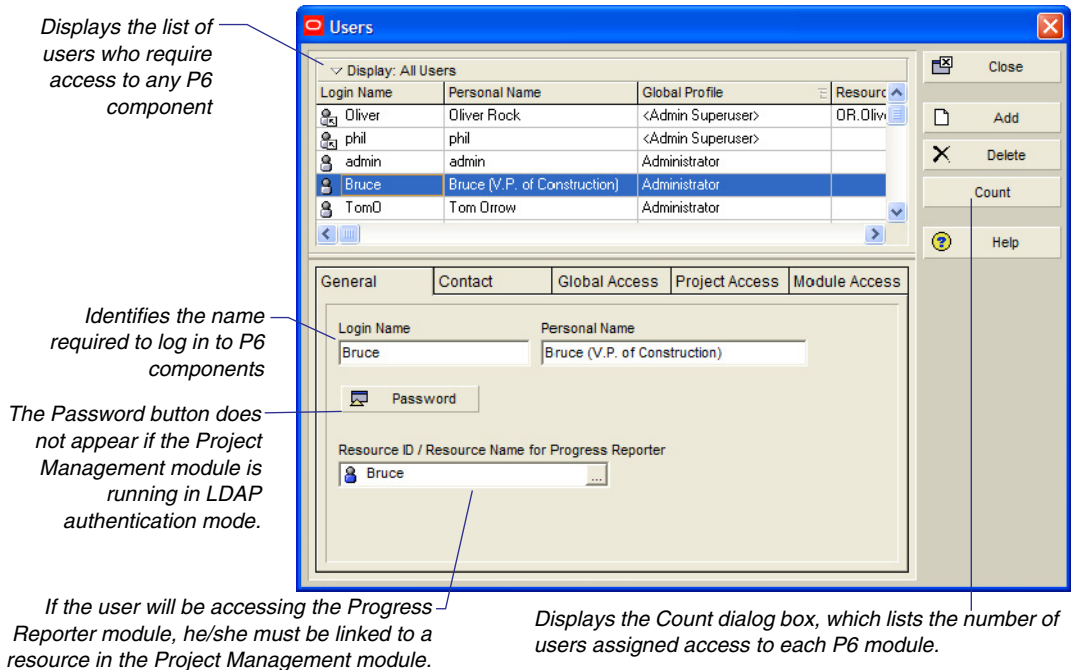
■ For security reasons, Oracle strongly recommends that you replace the default Admin Superuser (admin) in the Project Management module immediately after a manual database installation or an upgrade from P6 version 5.0 and later. See [“The Default Admin Superuser”](#) on page 360 for more information.



For more information on Administrative Preferences, see [“Defining Default Settings”](#) on page 396.



If the Project Management module is running in LDAP authentication mode, when you click Add, a dialog appears for you to enter a user name and verify it against the LDAP store. When you click Test, if the user exists in the LDAP store, the actual name, e-mail address, and telephone number fields are populated—if you previously mapped those fields through the Authentication Configuration tool. To add the user, click Add. When you click Test, if the user is not found in the LDAP store, a message appears to notify you that the user cannot be added.



Associate resources and users Choose Admin, Users. Click the General tab, then click the Browse button in the ResourceID/Resource Name field to select a resource for the selected user. If the resource is already associated with another user, you are prompted to replace the association. The Project Management module allows a resource to be associated with only one user to maintain a single login name for project resources and users of both the Project Management and Progress Reporter modules. You can also set this association from the Progress Reporter tab of Resource Details.

For more information, see **"Defining Global Profiles"** on page 345.

Assign a global profile A global profile determines a user's access to application-wide features, such as resources and roles. The Project Management module requires that each user be assigned a global profile. Choose Admin, Users. Select the user to whom you want to change the global profile. Click the Global Access tab, then select the user's global profile. The default global profile is automatically assigned when a user is added.

You can also double-click in the Global Profile column and choose the appropriate profile for the selected user.

The Admin Superuser profile allows read-write access to all global and project data.

For information on defining resource access settings for users, refer to **"Defining User Access to Resources"** on page 380. For information on assigning user interface views to users, refer to **"Defining User Access to P6 Web Access Functionality"** on page 384.

Login Name	Personal Name	Global Profile	Resource
admin	admin	<Admin Superuser>	
steve	steve	<Admin Superuser>	
phil	phil	<Admin Superuser>	
Bruce	Bruce (V.P. of Construction)	Administrator	
TomO	Tom Orow	Administrator	




- For security reasons, limit the number of users assigned Admin Superuser Global Privileges.
- For security reasons, Oracle strongly recommends that you replace the default Admin Superuser (admin) in the Project Management module immediately after a manual database installation or an upgrade from P6 version 5.0 and later. See **"The Default Admin Superuser"** on page 360 for more information.



Assign the global profile <No Global Privileges> to users who may only access the Progress Reporter module. These users must also be granted rights to log into P6 Progress Reporter via "Team Member" or "Progress Reporter" module access.

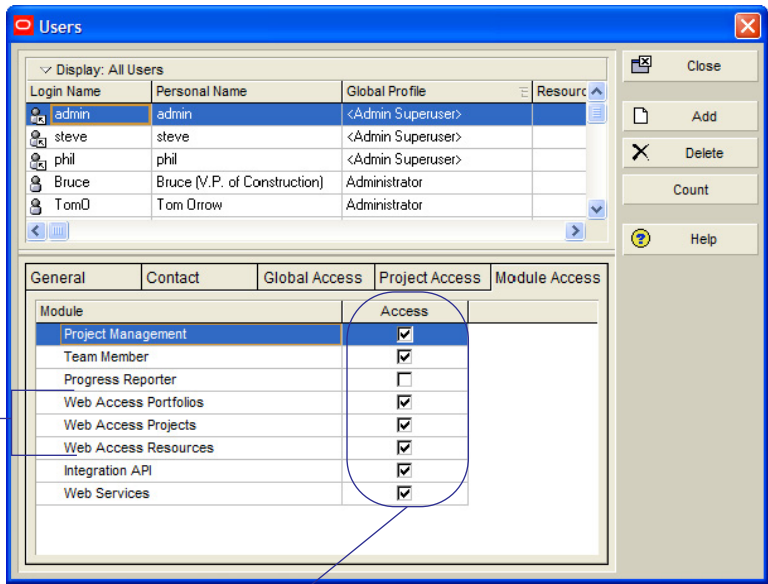
Assign module access Each user accessing P6 must be assigned the appropriate module access.

 *If you are upgrading from a previous P6 release, existing Admin Superusers retain their module access rights. Any new Admin Superusers must be assigned appropriate module access.*

Choose Admin, Users. Select the user for whom you want to set P6 module access. Click the Module Access tab. For each component you want the user to have access to, mark the checkbox in the Access column. Clear the checkbox if a user is not a valid user of the corresponding P6 component.

These module access options control module access to each functional area of P6 Web Access (Portfolios, Projects, and Resources).

Mark or clear to indicate the selected user's module access to the corresponding P6 component.



Module	Access
Project Management	<input checked="" type="checkbox"/>
Team Member	<input checked="" type="checkbox"/>
Progress Reporter	<input type="checkbox"/>
Web Access Portfolios	<input checked="" type="checkbox"/>
Web Access Projects	<input checked="" type="checkbox"/>
Web Access Resources	<input checked="" type="checkbox"/>
Integration API	<input checked="" type="checkbox"/>
Web Services	<input checked="" type="checkbox"/>

Marking a component's checkbox gives the user access to the following:



All module access rights except Progress Reporter, Integration API, and Web Services provide access to the Dashboards Home page in P6 Web Access; however, the portlets available on the Dashboards Home page, and the Dashboards Action Menu items available, are dependent on each user's security privileges.

- **Project Management** — Provides access to the Project Management module.
- **Team Member** — Provides access to P6 Progress Reporter and to limited functionality in P6 Web Access, including Dashboards and the Projects section (Workspace and Activities pages). Access to P6 Web Access functionality is additionally determined by a user's OBS access and relationship to the project, that is, whether the user is assigned as a resource to activities, designated as an activity owner, or invited to join the project. For more detailed information on Team Member module access, see [“What does the Team Member module access enable a user to access?”](#) on page 367.
- **Progress Reporter** — Provides access to P6 Progress Reporter and enables users to log into P6 Web Access to import appointments only (if properly configured). For users who require module access to the Progress Reporter module, you must grant them either Team Member or Progress Reporter module access.
- **Web Access Portfolios** — Provides access to the following functionality in P6 Web Access: the Portfolios section, Project Performance portlets, the Portfolio View portlet in the Dashboards section, and document management functionality (if the Content Repository is configured).
- **Web Access Projects** — Provides access to the following functionality in P6 Web Access: the Projects section, Project Performance portlets in the Dashboards section, and document management functionality (if the Content Repository is configured).
- **Web Access Resources** — Provides access to the following functionality in P6 Web Access: the Resources section, Resources portlets in the Dashboards section, and document management functionality (if the Content Repository is configured).
- **Integration API** — Provides access to the API only. The API allows direct access to the Project Management module via Java.

- **Web Services** — Provides access to P6 Web Services, which uses open standards, including XML, SOAP, and WSDL, to seamlessly integrate P6 project management functionality into other applications. Using P6 Web Services, organizations can share P6 project management data between applications independent of operating system or programming language.



All module access rights except Progress Reporter, Integration API, and Web Services, provide access to Primavera P6 ProjectLink. Access to project data in Primavera P6 ProjectLink is dependent on security privilege settings and OBS access to projects, regardless of module access.



Some P6 products, such as the SDK and the Job Service, do not require module access.



Users can view project data in P6 Web Access without Team Member module access as long as they have Web Access Portfolios, Web Access Projects, or Web Access Resources access rights. When this is the case, users can view data for a project when they have OBS access to the project, they are assigned as a resource to an activity in the project, they are an invited user to the project, or they are the project owner.

What does the Team Member module access enable a user to access?

Team Member module access provides access to P6 Progress Reporter and to some P6 Web Access functionality. The following sections describe the P6 Web Access functionality a Team Member user can access.



All information in this section assumes that Team Member module access is the ONLY module access assigned to a user. If Team Member module access is not the only module access assigned to a user, the user can access all of the functionality described in this section in addition to the functionality enabled by the user's other assigned module access rights.

In general, all users with Team Member module access can:

- create private and multi-user dashboards
- create private and multi-user portfolios (from the Dashboards action menu only)
- import appointments
- create private and multi-user activity views
- set global and project preferences

Depending on OBS access to projects (as described in the following sections), users with Team Member module access can also:

- add/edit project issues
- add/edit resource assignments
- add activity steps
- edit activity dates
- edit activity status
- add/edit/delete activity relationships
- add/edit activity expenses
- add/edit activity notebook topics
- add/edit user-defined fields

- add private documents



Invited users to projects can access the same project data as a Team Member user without OBS access to the project, as described in this section. In P6 Web Access, users with the required module access and privilege can invite users to a project on the Invited Users page in the Projects section or on the Manage Invited Users page of a workgroup.



If you assign a user interface view to a user who has only Team Member module access, view settings are ignored; the functionality available to Team Member users is always controlled by module access rights. For more information on assigning user interface views, refer to [“Defining User Access to P6 Web Access Functionality”](#) on page 384.

Dashboards

In the Dashboards section of P6 Web Access, Team Member users can create private and multi-user dashboards, create private and multi-user portfolios, import appointments, and approve timesheets (with the required security privilege). Dashboard portlets display data for projects the user is associated with that meet the criteria of the specified Dashboard Filter. Together, a user’s association with a project, OBS access, and security privileges, determine the level of view and edit access that is granted to project data. A Team Member can be associated with a project via OBS access, by assignment as an activity resource, through invitation to join a project, and by assignment as activity owner in a Reflection project.



The Reflection project and Activity Owner features can be used together to collect and review activity progress information from Team Member users who are not assigned as activity resources and who do not use the Progress Reporter application for status reporting. For more details, refer to [“Using Reflection projects and Activity Owner features to collect and review activity status”](#) in the Project Management Help.

Team Member users can access the following Dashboards portlets (full functionality is available except where noted):

- My Projects
- My Workgroups

- My Activities
- My Risks — Users can view, but not add, risks.
- My Issues — Users without OBS access to a project can view, but not add, issues. Users with OBS access to a project can add issues with the required security privilege.
- Communication Center
- My Documents — Users can add private documents only. This portlet is available only when the Content Repository is configured for use with P6 Web Access, regardless of a user's module access.
- My Calendar
- My Reports
- Action Required
- Project and Document Workflows
- Cost Worksheet
- Custom Portlet

All other portlets are not available to Team Member users.

Projects

In the Projects section of P6 Web Access, Team Member users can access the Open Project dialog, the Manage Activity Views page, the Project Workspace, and the Activities page.

The **Open Projects dialog** can be organized by EPS, portfolio, or project code. Within each grouping category, the dialog displays all projects to which the user has OBS access, all projects in which the user is assigned as an activity resource, all Reflection projects in which the user is designated as an activity owner, and all projects the user is invited to. Users can access the Open Projects dialog by choosing Open Projects from the Projects action menu in the global navigation bar.

From the **Manage Activity Views page**, a Team Member user can create and edit private and multi-user activity views. Users can access the Manage Activity Views page by choosing Manage Activity Views from the Projects action menu in the global navigation bar.

The **Activities** page in the Projects section displays all activities the user is associated with either as an assigned resource or as an activity owner. Users who are associated with activities, but who do not have OBS access rights, can view, print, and export data but can not access features and functions that change project data. For example, they can not edit activity data in the table, modify the Gantt chart, or modify activity details. Users associated with activities who have OBS access to the project and the required security privileges can access, add, and edit activities, edit fields in the activity table, modify Gantt Chart bars, establish relationships, print, export, and import information.



Team Member users cannot delete activities or add/edit WBS elements.

In the **Project Workspace**, Team Member users can access the following portlets (full functionality is available except where noted):

- **Project Documents** — Users can view, download, and check out, but not add, project documents. Advanced document management capabilities are only available when the Content Repository is configured for use with P6 Web Access, regardless of a user's module access rights.
- **Project Risks** — Users can view, but not add or edit, project risks.
- **Project Issues** — Users without OBS access to the project can view, but not add or edit, project issues. Users with OBS access to the project can add and edit issues if they are assigned the required project privilege.
- **Project Notebooks** — Users can view, but not add or edit, project notebooks.
- **Overallocated Resources**
- **Critical activities behind schedule** — Users can view all activities behind schedule for the project. For users without OBS access to the project, all activity details accessed from this portlet are read-only. For users with OBS access to the project, users can edit activity details accessed from this portlet if they have the appropriate security privileges and are a resource on the activity or are the activity owner.

- Milestone status — Users can view all milestone activities for the project. For users without OBS access to the project, all activity details accessed from this portlet are read-only. For users with OBS access to the project, users can edit activity details accessed from this portlet if they have the appropriate security privileges and are a resource on the activity or are the activity owner.
- Project Reports
- Communication Center
- Project Calendar — Users can view all activities for the project scheduled for the selected week. For users without OBS access to the project, all activity details accessed from this portlet are read-only. For users with OBS access to the project, users can edit activity details accessed from this portlet if they have the appropriate security privileges and are a resource on the activity or are the activity owner.
- Workgroups
- Custom Portlet
- Contract Management portlets — Users can view all Contract Management portlets if P6 Web Access is configured to access Contract Management and the P6 Web Access project is linked to a Contract Management project.

All other Project Workspace portlets are not available to Team Member users.

For information on creating a default user interface view for new users, refer to “Defining User Access to P6 Web Access Functionality” on page 384.

Adding a prototype user and defining default settings for P6 Web Access

As an administrator, you can create a prototype user that enables you to create default global Dashboards and select Global Preferences that apply to all new P6 Web Access users. Defining a prototype user configuration, in combination with defining user interface views, ensures that new users of P6 Web Access will have a consistent interface customized for the business needs of the organization. After you complete the steps below, the prototype user configuration you create is automatically copied to each new P6 Web Access user you add.



If you do not create a prototype user configuration, the default “User Interface View for new users” will be used to determine which dashboards will be displayed when a user logs in for the first time. If no “User Interface View for new users” is set, the user will be prompted to select dashboard settings during the initial login.

To create a prototype user configuration, do the following:

- 1 In the Project Management module, choose Admin, Users.
- 2 Click Add. A (New User) row is added to the Users table.
- 3 In the Login Name column, or in the Login Name field on the General tab, type a login name for the prototype user (for example, prototype_user).
- 4 In the Global Profile column, select a Global Profile that will enable the prototype user to appropriately configure default Dashboards and Global Preferences for all new users.

For more information about assigning a Global Profile, see “[Assign a global profile](#)” on page 363.

- 5 Log into P6 Web Access as the new prototype user, using the login name you set for the prototype user.
- 6 From the Dashboards action menu in the global navigation bar, choose Manage Dashboards to create default global dashboards that will be displayed for each new P6 Web Access user. Be sure to select All Users as the access type on the Access tab of Dashboard Preferences to ensure that each dashboard you create is a global dashboard.

Click Help on the Manage Dashboards or Dashboard Preferences pages for details on creating a dashboard, choosing the portlets to display in a dashboard, and specifying user access.



*If upgrading from myPrimavera 5.0 to P6 Web Access:
After the upgrade and before adding new users, log into P6 Web Access as the prototype user and make sure that all selected dashboards for the prototype user are global.
Otherwise, users dependent on the prototype may not have a dashboard displayed after the upgrade.*



By default, the maximum number of portlets you can display in a dashboard is twelve. You can change this setting in the P6 Administration Application. For the P6 Configuration you want to modify, the Maximum Portlets per Dashboard setting is located in the Application folder. Refer to [“Configuration Settings for P6 Web Access”](#) on page 198 for more information.

*If upgrading from myPrimavera 5.0 to P6 Web Access:
After upgrading, only twelve portlets will be selected. The program will automatically select the portlets in this order: wide, narrow, custom.*

- 7 At the top right of P6 Web Access, click Preferences. On the Global tab, set the Global Preferences you want to apply to new users. When finished, click Save and Close.
- 8 Log out of P6 Web Access.
- 9 Log into the P6 Administration Application.
- 10 Expand the configuration for which you want to add the prototype user (for example, Primavera Configuration), then expand the Application folder.

For information on changing configuration settings, refer to [“Reviewing and Modifying Configurations for P6 Web Access”](#) on page 187.
- 11 Select the PrototypeUser setting, then press F2 to edit the field.
- 12 Type the prototype user login name you created, click Save Changes, and exit the Administration Application.
- 13 In the Project Management module, choose Admin, Users, then select the Login Name of the prototype user you created. On the Module Access tab, clear all boxes under “Access” to ensure against unauthorized login.



Assigning OBS Elements and Project Profiles

To restrict or grant access to projects and their data, you must assign project profiles to users. A project profile is a role-based profile that limits privileges to specific project data, such as baselines, the WBS, and thresholds. Project profiles are linked to users through one or more OBS assignments. You assign responsibilities to specific projects and work within projects by assigning OBS elements to various levels of the EPS and each project's WBS.

The combination of the user assignment to an OBS element, and the OBS assignment to the EPS/project/WBS, determines which projects and project data the user can view. For each OBS element a user is assigned to, the user's assigned project security profile (per OBS assignment) further determines the project data the user can view or edit.



OBS assignments can be made at both the project and WBS levels; therefore, a project and its WBS elements may have different OBS assignments. When this occurs, a user's OBS assignment/project security profile only applies to WBS elements that have the same OBS assignment as the project; for WBS elements with a different OBS assignment than the project, the data is read-only for users that are not assigned to the same OBS element as the WBS element. To grant a user rights (beyond read-only rights) to a WBS element that has a different OBS assignment than the project, you must assign the user to the same OBS element that the WBS element is assigned to, then select the appropriate project security profile for the new OBS assignment.

For more information on project profiles, see "Defining Project Profiles" on page 353.

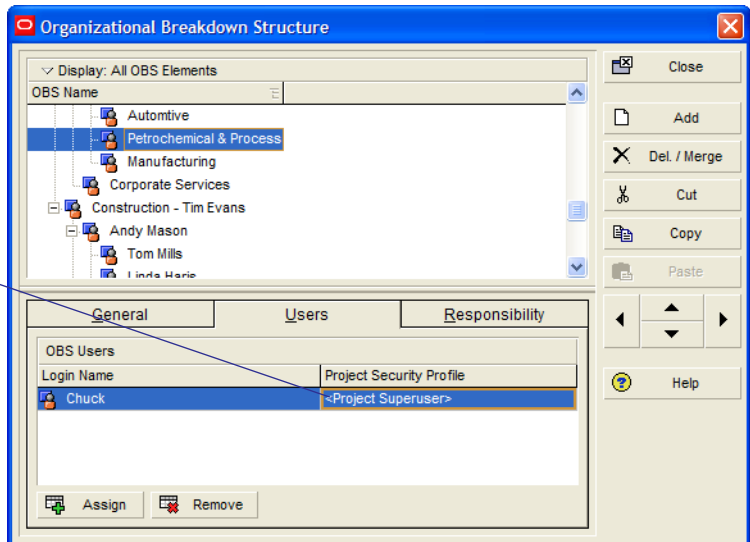
You can assign a user an OBS element and a corresponding project profile in the Users dialog box when you are adding users, or you can make the assignment in the OBS dialog box during or after creating the OBS.



You need to assign a user to an OBS (or an OBS to a user) for a user to access a project. When that assignment is made, the default project profile is automatically related to and made available to the user. You can subsequently assign a different project security profile to that user.

Assign users and project profiles to OBS elements Choose Enterprise, OBS. Click the Users tab. Select the OBS element whose user and project profile you want to specify, then click Assign. Select the user to associate with the specified OBS element, then click the Select button. A default project profile is associated with the user. Double-click the project profile to choose another project profile from the predefined list.

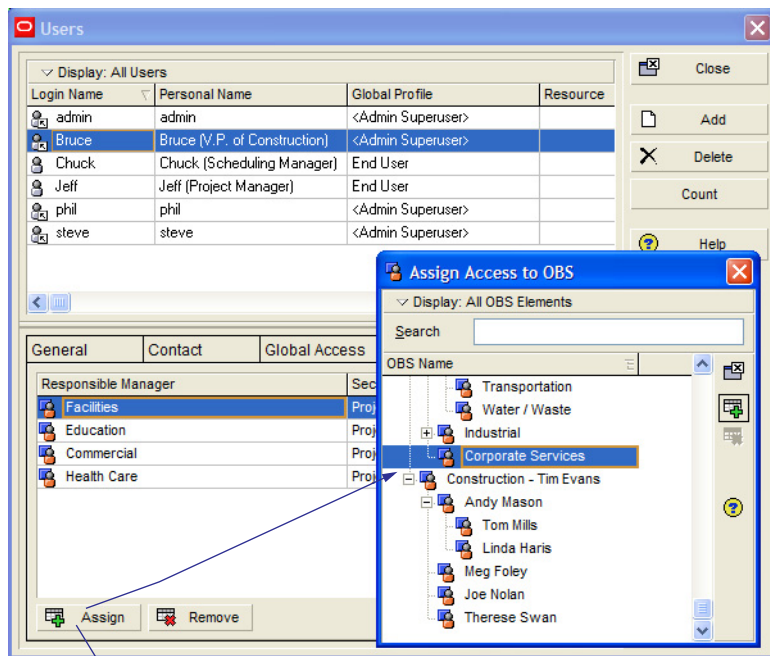
Double-click to select another project profile. To grant the user read-write privileges for all aspects of a project, select Project Superuser.



Assign OBS elements and project profiles to users You can also assign OBS elements and project profiles to a user when you first add the user. Choose Admin, Users. Click the Project Access tab. Select the user to whom you want to assign an OBS element and project profile, then click Assign. Select the OBS element associated with the user, then click the Select button. A default project profile is associated with the user. Double-click the project profile to choose another profile from the predefined list.



If an OBS element is the Responsible Manager for several projects in the EPS, any user you associate with that OBS element will have access to all the corresponding projects.



Click to assign the OBS element associated with the selected user. A user can have more than one OBS assignment, depending on the user's role in different projects.



To deny the user access to an OBS element's project information, select the Responsible Manager's name, then click Remove.

Assigning OBS Elements to the EPS

For more information on the EPS, see “Setting Up the Enterprise Project Structure” in the *Project Management Reference Manual*.

In the Project Management module, your database of projects is arranged in a hierarchy called the enterprise project structure (EPS). The EPS can be subdivided into as many levels or nodes as needed to parallel work in the organization. Nodes at the highest, or root, level might represent divisions within your company, project phases, site locations, or other major groupings that meet the needs of your organization, while projects always represent the lowest level of the hierarchy. Every project in the organization must be included in an EPS node.

User access and privileges to nodes within the EPS hierarchy are implemented through a global OBS that represents the management responsible for the projects in the EPS. Each manager in the OBS is associated with an area of the EPS, either by node or by project, and the WBS of the particular level of the hierarchy.

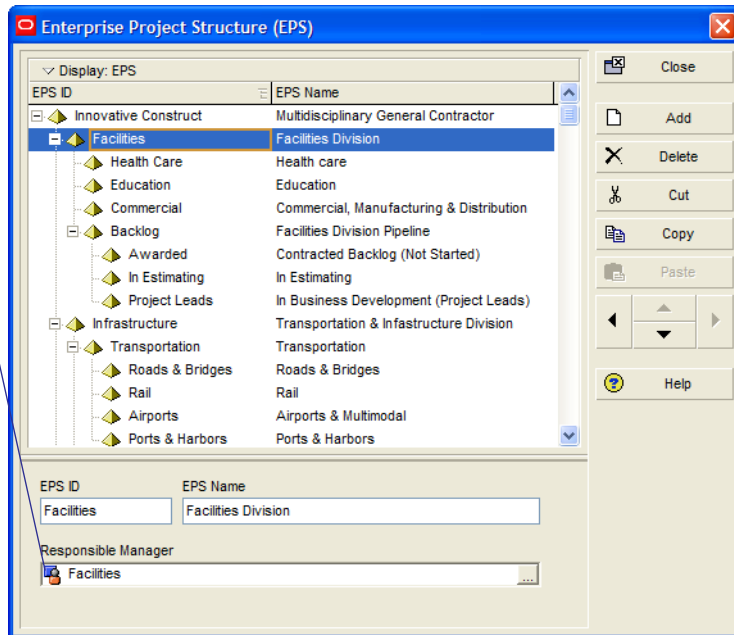
Once you have added users and associated them with OBS elements and project profiles, you can define the EPS and assign a responsible manager (OBS element) to each level. You must specify a responsible manager for each node of the EPS.

Assign OBS elements to the EPS You can change the responsible manager (OBS element) for each level of the EPS when you create the project structure. Choose Enterprise, Enterprise Project Structure. Select the EPS node, then click the Browse button in the Responsible Manager field to select the appropriate OBS element. The users associated with the responsible manager will have access rights to the selected node and all nodes/projects within that branch. The specific data that can be accessed within the projects depend on the project profile that corresponds to the OBS element.



If more than one user is responsible for the same node of the EPS, you must assign each of those users to the corresponding OBS element.

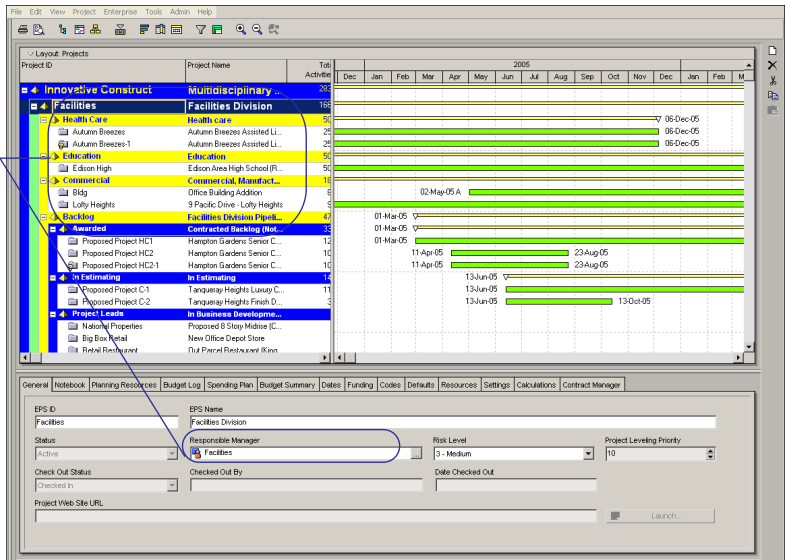
You must specify a responsible manager for each node in the EPS to enable security rights and privileges; the Project Management module uses the OBS root as the default for all nodes if you don't provide one.



Be aware when assigning at the root level that users assigned to an OBS that is assigned to the root EPS have access to all nodes beneath the root.

You can also assign/review the responsible manager in the Projects window. Choose Enterprise, Projects, then click the General tab.

The user assigned to this OBS element has access to the Apex Project node and all nodes/projects beneath it.



Once the EPS and OBS structures are defined and security is implemented at the EPS level, project managers can begin to add their own projects to the hierarchy. To further control security within projects, project managers can assign specific OBS elements to WBS levels. See “Setting Up the Enterprise Project Structure” and “Reviewing Work Breakdown Structures” in the *Project Management Reference Manual* for more information.

Defining User Access to Resources

Resource security enables you to restrict a user's access to resources. Each user can have access to all resources, no resources, or a limited number of resources in the resource hierarchy. To provide access to a limited number of resources, you can designate each user's root resource by assigning each user to a resource in the resource hierarchy. The position of the assigned resource in the hierarchy determines the user's resource access. When the user logs in, the resource hierarchy displays only the assigned resource node and its children. Resources outside the user's root resource are not displayed.



Users with restricted resource access can still view and edit all current project resource assignments if they have the proper project privileges.

You can grant one of the following three types of resource access to each user:

- **All Resource Access** disables resource security and provides access to all resources. This is the default option for upgrading users. Admin Superusers always have all resource access, no matter what option is selected.
- **No Resource Access** does not provide access to any resources. This is the default option for new users. With no resource access, the user cannot view any global resource data in the resource dictionary.
- **Resource Node** provides access to one selected resource (root resource node) and all its children in the resource hierarchy. Users with this restricted access can view global resource data for resources they have access to.



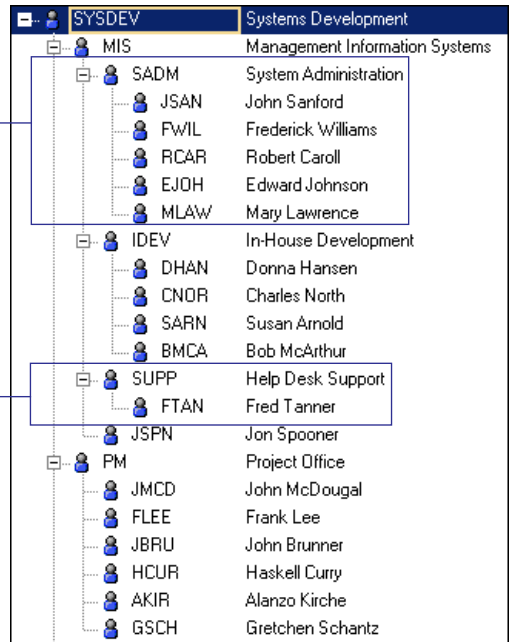
You can assign only one resource node to each user. Multiple resource nodes are not supported.

The following example shows how resource access is determined by the root resource assigned to different users.

If USER1 has restricted access with root resource SADM assigned, USER1 would see only these resources in the resource dictionary.

If USER2 has restricted access with root resource SUPP assigned, USER2 would see only these resources in the resource dictionary.

If USER3 has no resource access, USER3 would not see any resources in the resource dictionary.



Refer to the “Defining Resources and Roles” chapter in the *Project Management Reference Manual* for more information on setting up the resource hierarchy.

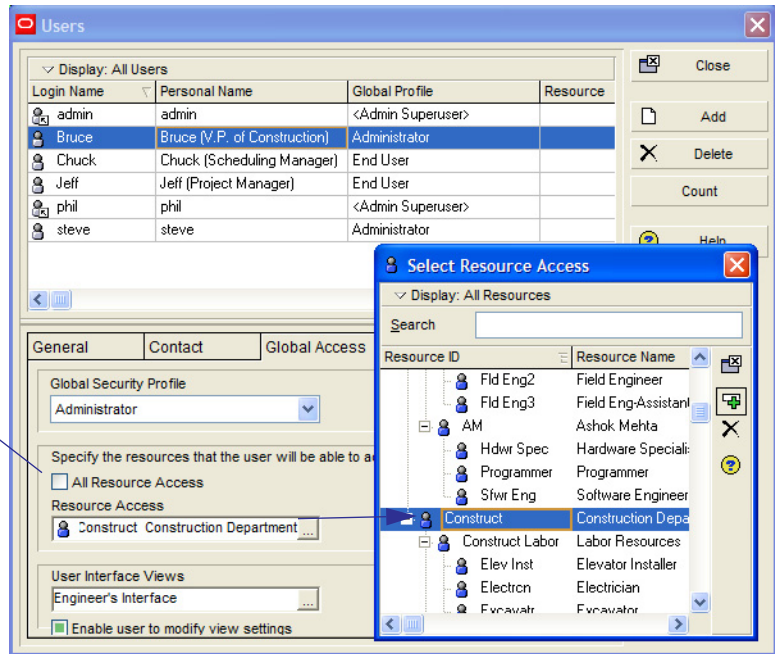
Implementing resource security Before you implement resource security, you must first set up your resource hierarchy in a manner that enables you to assign users to single resource nodes. For example, you can use resource security to restrict user’s access to resources who are not in the same department or geographic location. In this case, you would create a resource hierarchy containing separate branches for each department or geographic location. Once the resource hierarchy is in place, you can implement resource security by completing the following steps:

- 1 In the Project Management module, choose Admin, Users.

The Users dialog displays a filtered users list based on your resource access.

You can display All Resource Access and Resource Access columns in which you can enter/edit resource access settings. These two columns display the same resource security information as the Global Access tab.

Select the desired user, then select All Resource Access if you want the user to have access to all resources. If you want to limit the user’s resource access to a particular resource node, click the browse button to select the resource node you want the user to have access to.



- 2 Select the Global Access tab.
- 3 Select the user that you want to set resource security for.

You can select only one user at a time.

Resource access settings are ignored for Admin Superusers. Admin Superusers always have all resource access.

- 4 Set resource access for the selected user as follows:
 - To provide all resource access to the selected user, mark the All Resource Access checkbox.
 - To restrict resource access to a single resource node for the selected user, unmark the All Resource Access checkbox. Then, click the browse button in the Resource Access field and select a resource.
 - If you do not want the selected user to have any resource access, unmark the All Resource Access checkbox and be sure there is no resource selected in the Resource Access field.

Defining User Access to P6 Web Access Functionality

For more information on user interface views, creating and assigning user interface views, and selecting fields that users can edit in the Activity page in P6 Web Access, refer to the P6 Web Access Help.

In addition to module access and security privileges, you can further control access to P6 Web Access functionality using user interface views. A user interface view is a defined set of tabs, pages, and Action Menu items that a user assigned to that view can access in each section of P6 Web Access (Dashboards, Portfolios, Projects, and Resources), plus it helps to control the fields that a user can edit in the Activity page. You can create multiple user interface views that correspond to the job functions performed by each role in your organization, or you can create user interface views to meet each individual user's needs. User interface views can only be defined in P6 Web Access but can be assigned to users from both P6 Web Access and the Project Management module.



You must designate one user interface view as the default view for new P6 Web Access users. The default view controls user access to functionality only for new users who are not assigned to a user interface view. Existing P6 Web Access users who do not have an assigned user interface view can continue to access all functionality.

When creating user interface views in P6 Web Access, provide a name for each user interface view that enables you to easily identify the user interface view's associated functionality.

Creating user interface views From the Content tab in the Manage User Interface Views section of the Administration Home page in P6 Web Access, create user interface views as required for your organization. Creating user interface views is a useful way to enable users to more easily access the functionality they use when performing project work and managing projects. For example, executives may require access to some, but not all, project information. In this case, you can create a user interface view named 'Executive' that provides access to some or all Portfolios functionality, along with access to the Projects data executives require.



A user's associated module access and security privilege settings always override the settings defined in the user's assigned user interface view. For example, if a user has Web Access Resources module access rights but not Web Access Portfolios module access rights, the user cannot access any functionality in the Portfolios section of P6 Web Access, even if Portfolios functionality is enabled in the user's assigned user interface view. Additionally, if you assign a user interface view to a user who has only Team Member module access, view settings are ignored; the functionality available to Team Member users is always controlled by module access rights. For more information on functionality available to Team Member users, refer to ["What does the Team Member module access enable a user to access?"](#) on page 367.

You can also use user interface views to hide P6 Web Access functionality your organization does not use. For example, if your organization does not use P6 Progress Reporter for time reporting, you can hide the Approve Timesheets Action Menu item in the Dashboards section.

Activity editing controls After creating the content for user interface views, use the Activity Editing tab in P6 Web Access to choose which fields a user can edit in the Activity page. Your selections can provide users with editing capabilities or restrict users from editing specific fields, adding a greater level of command over what users can edit and further controlling your project data.

Mark a field's checkbox to enable a user to edit the field in the Activity page. Clear a field's checkbox to restrict a user from editing the field in the Activity page.



The selections for which fields can be edited in the Activity page do not override the user's project profile assigned in the Project Management module. For example, even if the Activity Name field is enabled for a user interface view, a user assigned that user interface view will not be able to edit the Activity Name field if the user is assigned a project profile that does not contain the "Add/Edit Project Activities Except Relationships" security privilege.

Assign a user interface view to a user in the Project Management module

In P6 Web Access, a user interface view can be assigned to a user from the Users tab in the Manage User Interface Views section of the Administration Home page. A user interface view can also be assigned in the Project Management module. To do so from the Project Management module, choose Admin, Users. Select the user to whom you want to assign a user interface view, then click the Global Access tab. In the User Interface Views section, click the Browse button to select a user interface view. Mark the **Enable user to modify view settings** checkbox if you want to enable the user to change personal user interface view content selections from the View tab in the P6 Web Access Preferences page.

In addition to customizing the P6 Web Access interface using user interface views, you can create a prototype user to specify default dashboards and global preference settings. Refer to “Adding a prototype user and defining default settings for P6 Web Access” on page 372.

Mark this checkbox to allow the selected user to change content selections in the user's assigned view. When a user changes user interface view settings, the changes do not affect the settings of other users assigned to the same view.

The screenshot shows the 'Users' window with the following data:

Display: All Users	Login Name	Personal Name	Global Profile	Resource
	steve	steve	<Admin Superuser>	
	phil	phil	<Admin Superuser>	
	admin	admin	Administrator	
	Bruce	Bruce (V.P. of Construction)	Administrator	
	TomO	Tom Orrow	Administrator	

The 'admin' user is selected. The 'Global Access' tab is active, showing the 'User Interface Views' section with the following settings:

- Global Security Profile: Administrator
- Specify the resources that the user will be able to access:
 - ☐ All Resource Access
 - Resource Access: OR Oliver Rock
- User Interface Views: Engineer's Interface
- ☒ Enable user to modify view settings

Click to select a user interface view.

Setting Security in the Methodology Management Module

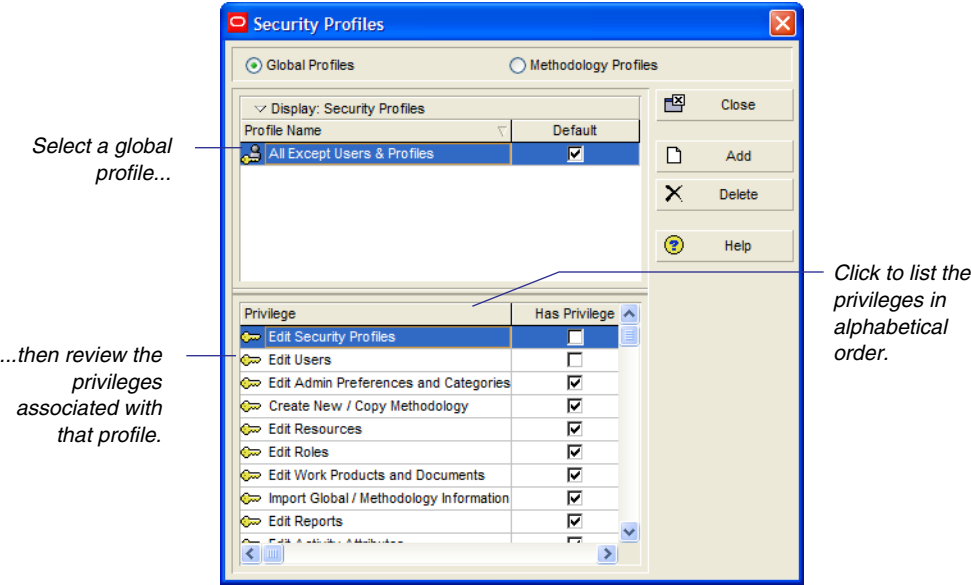
The Methodology Management module uses its own set of users, global profiles, and methodology profiles to control access to Methodology Management data. These security data are stored in the methodology management database.

No security data are shared between the Project Management and Methodology Management modules. Methodology Management uses its own OBS, users, global and methodology profiles, and module access.


The security model for Methodology Management differs from the Project Management module. Only one methodology can be open at a time, and there is no EPS. Users and methodology profiles cannot be assigned to OBS elements; methodology profiles must be assigned directly to users to allow the user access to a methodology.


This section discusses the process of creating security profiles and users in the Methodology Management module.

Create global profiles In the Methodology Management module, choose Admin, Security Profiles. Choose Global Profiles, then click Add. Type the new profile's name. To make the new profile the default global profile, mark the Default checkbox. In the Privilege area, mark the appropriate Has Privilege checkboxes to grant privileges to the profile.



The following table defines each global privilege:

 The following table groups each privilege by functionality. The privileges are listed in the same order as in the Security Profiles dialog box. To view the privileges in alphabetical order in the Security Profiles dialog box, click the Privileges bar as shown in the previous image.

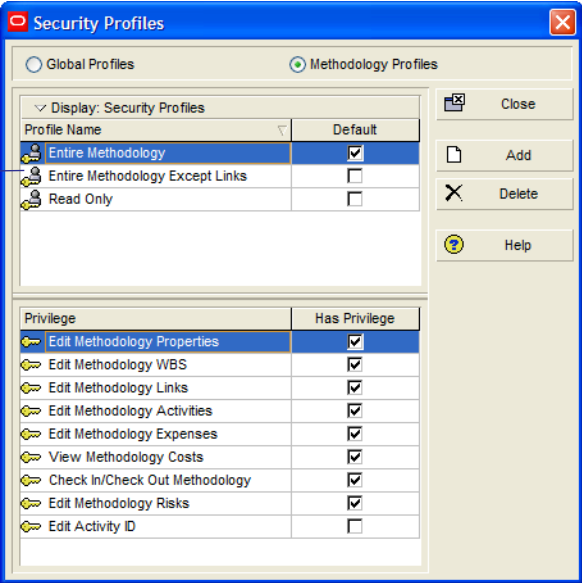
 Privileges that are new or modified in P6 are marked with an asterisk (*).

Privilege Name	Privilege Definition
Edit Security Profiles	Change security profile information.
Edit Users	Create and delete Methodology Management module users, and change user access permissions.
Edit Admin Preferences and Categories	Change administrative preferences as defined in the Admin Preferences dialog box. Create, change, and delete administrative categories as defined in the Admin Categories dialog box. Edit currency data in the Currencies dialog box.
Create New / Copy Methodology	Create, import, or copy a methodology.
Edit Resources	Create, delete, and change elements of the resource hierarchy.
Edit Roles	Create, delete, and change role information.
Edit Work Products and Documents	Create, delete, and change work product and document records.
Import Global / Methodology Information	Import global and methodology information.
Edit Reports	Create, edit, and delete reports; save reports in the Report Wizard.
Edit Activity Attributes	Create, change, and delete activity attributes.
Edit Activity Codes	Create, change, and delete global activity codes and values.
Edit Estimation Factors	Create, change, and delete estimation factors.
View Resource Prices	View resource prices.
Edit Global Activity Layouts and Filters	Create, delete, and change global activity layouts and filters.
Edit OBS	Create, delete, and change organizational breakdown structure information.

Privilege Name	Privilege Definition
Edit Methodology Codes and Resource Codes	Create, delete, and change methodology and resource codes.
Edit User Defined Fields	Create, edit, and delete user-defined fields. Users that do not have this privilege can view user-defined fields.
Edit Activity Step Templates	Create, edit, and delete Activity Step Templates used to add a set of common steps to multiple activities.

Create methodology profiles Choose Admin, Security Profiles. Choose Methodology Profiles, then click Add. Type the new profile's name. To make the new profile the default methodology profile, mark the Default checkbox. In the Privilege area, mark the appropriate Has Privilege checkboxes to grant privileges to the profile.

You can create an unlimited number of methodology profiles based on the varying roles in your company.



The following table defines each methodology privilege:



Privileges that are new or modified in P6 are marked with an asterisk ().*

Privilege Name	Privilege Definition
Edit Methodology Properties	Create, delete, and change a methodology's properties, as defined in the Methodology Properties dialog box.
Edit Methodology WBS	Create, delete, and change a methodology's work breakdown structure (WBS) elements and versions.
Edit Methodology Links	Create, delete, and change a methodology's links, if the user has this privilege for both linked methodologies.
Edit Methodology Activities	Add, change, and delete activities and activity information.
Edit Methodology Expenses	Add, change, and delete expenses.
View Methodology Costs	View methodology cost information.
Check In/Check Out Methodology	Check methodologies in and out of the Methodology Management module.
Edit Methodology Risks	Create, delete, and change a methodology's risks.
Edit Activity ID	Edit methodology activity IDs.

Add new users Choose Admin, Users. Click Add.

- If Password Policy is not enabled in Administrative Preferences, click the General tab, type the user's login name and personal name, then click Password. Type the user's password, then retype the password to verify it. Click OK.
- If Password Policy is enable in Administrative Preferences, the Add User dialog box will appear. You will be required to fill in the Login name, Personal name, Enter new password, and Confirm new password fields. Click OK.



For more information on Administrative Preferences, see "Defining Default Settings" on page 420.



If the Methodology Management module is running in LDAP authentication mode, when you click Add, a dialog appears for you to enter a user name and verify it against the LDAP store. When you click Test, if the user exists in the LDAP store, the actual name, e-mail address, and telephone number fields are populated—if you previously mapped those fields through the Authentication Configuration tool. To add the user, click Add. When you click Test, if the user is not found in the LDAP store, a message appears to notify you that the user cannot be added.



If your organization centralizes user information in an LDAP directory, you can add P6 users by provisioning from the LDAP store. For more information, see [“Configuring Authentication Modes”](#) on page 313. After you provision users, you will need to assign each user a security profile.

Displays the list of users with access to the Methodology Management module

Identifies the name required to log in to the Methodology Management module

The Password button does not appear if the Methodology Management module is running in LDAP authentication mode.

Display: All Users	Login Name	Personal Name	Global Profile
(New User)	(New User)	All Except Users & Profiles	
admin	Administrator	<Admin Superuser>	
phil	Administrator	<Admin Superuser>	
steve	Administrator	<Admin Superuser>	

General

Methodology Profiles

Login Name

Personal Name

(New User)

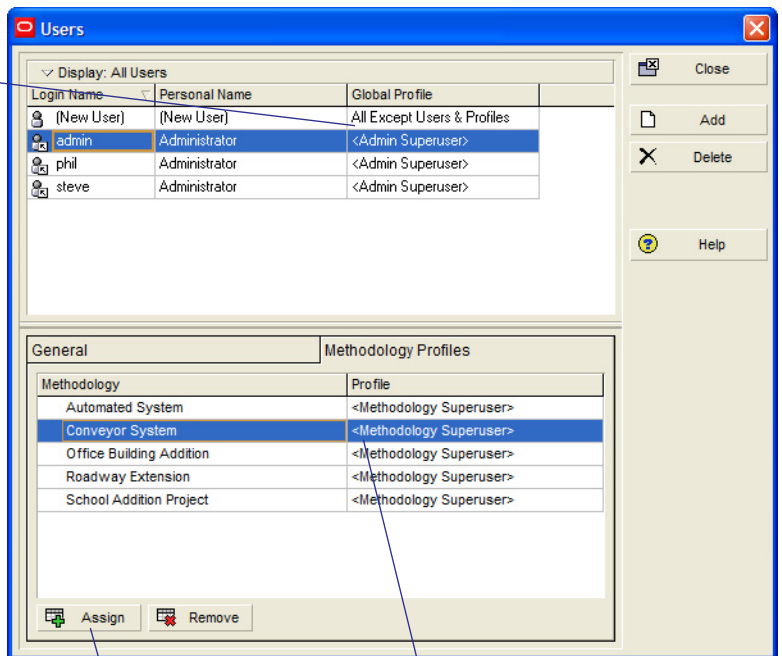
(New User)

Password

Module Access You do not need to assign module access for the Methodology Management module. Each user of the Project Management module is automatically granted access to the Methodology Management module.

Assign a global profile and methodology profiles A global profile determines a user's access to global data, such as resources and roles; methodology profiles restrict the user's access to methodology data. The Methodology Management module requires that each user be assigned a global profile. To open a methodology, the user must be assigned a methodology profile for that methodology. Choose Admin, Users. Select the user to whom you want to assign a global profile and methodology profiles. Click the Methodology Profiles tab.

Double-click in the Global Profile column and choose the appropriate profile for the selected user.



Click to select a methodology to which the user requires access...

...then double-click in the Profile column and choose a methodology profile for the selected user.



The Methodology Management module includes an Admin Superuser global profile that allows complete access to all global information and methodologies.



The Methodology Superuser profile grants read-write privileges to all aspects of a methodology. A user with Admin Superuser global privileges automatically has Methodology Superuser access to all methodologies. If a user creates a new methodology, that user is automatically granted the Methodology Superuser profile for that methodology.

Defining Administrative Preferences and Categories in Project Management

In this chapter:

Defining Default Settings

Defining Standard Categories and Values

Defining Currencies

Defining Financial Periods

The Project Management module enables your organization to define a series of module-wide parameters and values that apply to all projects in an enterprise project structure (EPS). Use these settings to customize the module to meet specific project management requirements and standards. While all users can view these settings, a user must have special security privileges to edit them.

This chapter discusses the types of settings you can specify: Administrative Preferences, which are default settings; Administrative Categories, which are standard values that apply to all projects; and Currencies, which consist of a base currency used to store costs in the database and a view currency used to display cost data in windows and dialog boxes.

This chapter also describes how to define financial periods to plan and record activity and assignment progress per financial period.

Defining Default Settings


For detailed information on each field in Admin Preferences, click Help in the Admin Preferences dialog box.

Use the Admin Preferences dialog box to specify default settings established by the project controls coordinator. Choose Admin, Admin Preferences.

General information Use the General tab to specify general default options, such as the weekday on which the calendar week begins. You can also change the character used to separate hierarchy levels in resource, project, and activity codes; roles; cost accounts; and WBS elements.

The first day of the week for global, project, and resource calendars

The default duration for new activities in all projects; simplifies the process of adding new activities



Mark to enable a strong password policy for new or modified passwords. When cleared, passwords can be from 0 to 20 characters and can be all letters or numbers.

Code Separator

Specify the character for separating concatenated codes. It is also the default WBS code separator for new projects.

Code Separator

Starting Day of Week

Specify the starting day of the week for calendars.

First day of week

Sunday

Activity Duration

Specify the default duration for new activities.

Default Duration


8

Password Policy

The Password Policy requires a minimum length of 8 characters and at least one number and one letter in a user's password.

☐ Enable password policy

The character that separates hierarchy levels in roles, resource codes, project codes, cost accounts, and activity codes; it is also the default separator for WBS codes in all new projects. You can enter a WBS code separator for specific projects in the Settings tab of Project Details.



The start day of the week affects how all days in a week are displayed in profiles, spreadsheets, and other layouts in which a weekly timescale can be displayed. For example, if Wednesday is selected as the starting day of the week, the week is displayed as WTFSSMT in an Activity Usage Profile.

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For more information on installing and configuring the Progress Reporter module, see “Installing P6 Progress Reporter” on page 113 and “Implementing P6 Progress Reporter” on page 433.

Timesheets Use the Timesheets tab to specify default setup options when using the Progress Reporter module. You can specify general timesheet settings and how timesheets are approved before project data is updated.



The “Enable Timesheet Auditing” setting is also available from the Progress Reporter Administrator.

The screenshot shows the 'General Settings' dialog box with the following options:

- General Settings**
 - ☐ New resources use timesheets by default
 - ☒ Resources can assign themselves to activities by default
 - ☐ Enable timesheet Auditing
- Timesheet Approval Level**
 - ☐ Auto Submission - No submission or approval is required
 - ☐ Auto Approval - Automatically approve upon submission
 - ☒ 1 Approval Level - Resource manager approval required
 - ☐ 2 Approval Levels - Project and resource managers approval required
 - ☒ Project manager must approve before resource manager
- Default resource manager approving timesheets**
 - admin admin

The General Settings section contains the following options:

- **New resources use timesheets by default** Mark to require that all new resources use timesheets, unless you specify otherwise.
- **Resources can assign themselves to activities by default** Mark when you want every newly created project to grant permission for resources to assign themselves to activities. When you change this setting, it does not affect existing projects; the new setting is applied only when a new project is created. For individual projects, you can override this setting on the Project Details Resources tab.
- **Enable Timesheet Auditing** Mark if you want to save the history of timesheet submission, approval, rejection, reviewers, and associated dates. If you select this option, you can add the Timesheet History subject area to a timesheet report to view the historical data.

For information on approving timesheets, see the “Updating, Scheduling, and Leveling” chapter in the *Project Management Reference Manual*.

The Timesheet Approval Level section contains the following options:

- **Auto Submission** Choose to indicate that resource timesheets do not need to be submitted or approved. Timesheet data are automatically updated in the database when you apply actuals.
- **Auto Approval** Choose to indicate that resource timesheets do not require management approval. Timesheets are approved automatically when they are submitted.
- **1 Approval Level** Choose to indicate that resource timesheets require approval by the resource/cost manager only. If you select this option, the status of all submitted timesheets remains “Submitted” until the approving manager changes the timesheet’s status. If you previously required both project manager and resource/cost manager approval, and you select this option, the status of all current timesheets that have received one level of approval changes to “Approved.”
- **2 Approval Levels** Choose to indicate that resource timesheets require approval by project and resource/cost managers. If you select this option, the status of all submitted timesheets remains “Submitted” until both managers approve the timesheet.
- **Project Manager Must Approve Before Resource Manager** If you choose 2 Approval Levels, mark to indicate that project managers must approve timesheets before resource/cost managers.
- **Default Resource Manager Approving Timesheets** The name of the manager who approves resource timesheets, unless you specify otherwise. Click the Browse button to select a new manager.



Once Progress Reporter module users have begun submitting timesheets, if you change the approval level to a lower setting, all currently submitted timesheets are altered to reflect the change. For example, if you change your setting from 2 Approval Levels to Auto Submission, all timesheets, including those that are currently approved by only one manager, are changed to no longer require submission or approval, and the project management database is updated with their data when you apply actuals.

Data limits Use the Data Limits tab to specify the maximum number of levels for hierarchical structures. You can also specify the maximum number of baselines and activity codes that can be included in a project.

The maximum combined number of hierarchy levels in the EPS and WBS: 1 is the lowest, and 50 is the highest.

Data Limits	
Specify the maximum number of levels for trees.	
EPS/WBS tree maximum levels	5
OBS tree maximum levels	8
Resources tree maximum levels	20
Role tree maximum levels	4
Cost Account tree maximum levels	8
Activity Code tree maximum levels	4
Resource Code tree maximum levels	4
Project Code tree maximum levels	4
Maximum activity codes per project	8
Maximum baselines per project	4
Maximum baselines copied with project	1

The maximum number of hierarchy levels in these structures: 1 is the lowest, and 25 is the highest.

The maximum number of activity codes in projects: 0 is the lowest, and 500 is the highest.

The maximum number of baselines in projects. You can enter an unlimited number.

Maximum baselines copied with project: Specify the maximum number of baselines that can be copied with the project. You can enter a number between 1 and 50 in this field.



If you change maximum hierarchy level settings, the new settings apply only when you add new elements or edit existing elements.

ID lengths Use the ID Lengths tab to specify the maximum number of characters for IDs and codes.

The maximum number of characters in these IDs and codes: 1 is the lowest, and 20 is the highest.

Field	Maximum Characters
Project ID maximum characters	20
WBS Code maximum characters	10
Resource ID maximum characters	10
Activity ID maximum characters	10
Cost Account ID maximum characters	10
Role ID maximum characters	10



If you change the maximum number of characters in an ID or code, the new number applies only when you add new IDs/codes or edit existing IDs/codes.

Time Periods Use the Time Periods tab to define the default number of hours in a workday, workweek, workmonth, and workyear, or to specify that the default number of work hours for each time period is defined per calendar. You can also specify abbreviations for displaying minutes, hours, days, weeks, months, and years.

The Hours per Time Period values are used as conversion factors when users choose to display time units and durations in units other than hours. For example, if the default Hours/Day is set to 8.0, when a user enters 1d as a duration, this value is stored as 8h in the database.

Valid entries range from 1.0 to 168.0.

Valid entries range from 1.0 to 24.0.

Valid entries range from 1.0 to 744.0.

Valid entries range from 1.0 to 8784.0.

If your resources and activities require different hours per timeperiod settings, you should mark this checkbox, then specify the Hours per Time Period for each defined calendar. To define these settings per calendar, choose Enterprise, Calendars.

Type a one-character abbreviation to use when displaying the time units and duration display formats you select.

Hours per Time Period

Specify the number of work hours for each time period.

Hours/Day	Hours/Week	Hours/Month	Hours/Year
<input type="text" value="8.0"/>	<input type="text" value="40.0"/>	<input type="text" value="172.0"/>	<input type="text" value="2000.0"/>

☐ Use assigned calendar to specify the number of work hours for each time period

Time Period Abbreviations

Specify the abbreviation for each time period.

Minutes	Hours	Days
<input type="text" value="n"/>	<input type="text" value="h"/>	<input type="text" value="d"/>
Weeks	Months	Years
<input type="text" value="w"/>	<input type="text" value="m"/>	<input type="text" value="y"/>

If you clear the **Use assigned calendar to specify the number of work hours for each time period** checkbox, the Hours per Time Period values you specify on this tab are always used to convert time units and durations. If you mark the **Use assigned calendar to specify the number of work hours for each time period** checkbox, the Hours per Time Period settings on this tab are ignored (in most cases) and the module converts units and durations using the Hours per Time Period settings defined in the activity's or resource's assigned calendar. Using a task-dependent activity as an example, the module converts units and durations for the activity using the settings defined in the activity's assigned calendar.



*You should enter values for each time period on the Time Periods tab, even if you mark the **Use assigned calendar to specify the number of work hours for each time period** checkbox. In some scenarios, the Admin Preference settings are still used as conversion factors.*

Using Calendars to Define Hours Per Time Period Settings

P6 calculates and stores time unit values in hourly increments, but users can set preferences to display time units in other increments, such as days or weeks. The values specified for Hours per Time Period are used to convert hours to other time increments for display, and to convert all non-hourly time increments to hours for storage in the database. As an administrator, from the Admin Preferences, Time Periods tab, you can define Hours per Time Period settings globally, or you can specify that the Hours per Time Period settings should be defined per calendar.

When Hours per Time Period settings are defined per calendar, units and durations are displayed more accurately. When Hours per Time Period settings are defined globally and users set preferences to display units and durations in time increments other than hours, units and durations will display unexpected values when the Admin settings for Hours per Time Period do not match the work hours specified in calendars assigned to activities and resources. This occurs because the display reflects the conversion factor of the Admin Preference Hours per Time Period settings, not the hours per day defined by the activity's or resource's assigned calendar. For example:

User Preferences, Time Units = day

Admin Preferences, Hours per Time Period = 8h/d

Activity calendar, Work hours per day = 10h/d

User-entered activity duration = 30h

Actual duration display = 3d6h (30h duration/8h per day, based on the conversion factor set in Admin Preferences)

Expected duration display = 3d (30h duration/10h per day, based on the conversion factor set in the activity calendar)

To avoid unexpected display results, mark the 'Use assigned calendar to specify the number of work hours for each time period' checkbox on the Admin Preferences, Time Periods tab. Then, specify the Hours per Time Period settings for each defined calendar, and assign these calendars to the appropriate activities and resources.

Earned value Use the Earned Value tab to specify default settings for calculating earned value. You can change the settings for specific WBS elements in the Earned Value tab in Work Breakdown Structure Details.

For details about the fields on the Earned Value tab, see the Project Management Reference Manual.

Choose which type of baseline value is used to calculate earned value.

Technique for computing performance percent complete	
<input type="radio"/> Activity % Complete	<input type="radio"/> 50/50 % Complete
<input checked="" type="radio"/> Use WBS Milestones	<input type="radio"/> Custom % Complete
<input type="radio"/> 0/100 % Complete	<input type="text" value="8"/>
Technique for computing Estimate to Complete (ETC)	
<input type="radio"/> ETC = remaining cost for activity or $ETC = PF * (Budget\ at\ Completion - Earned\ Value)$, where:	
<input checked="" type="radio"/> PF = 1 <input type="radio"/> PF = 1 / Cost Performance Index <input type="radio"/> PF = 1 / (Cost Performance Index * Schedule Performance Index) <input type="radio"/> PF = <input type="text" value="0.82"/>	
Earned value calculation	
When calculating earned value from a baseline use	
<input type="text" value="At Completion values with current dates"/>	

Reports Use the Reports tab to define up to three sets of headers, footers, and custom labels for reports.

Choose to define a set that consists of a header, footer, and custom text label...

...then specify the custom text for that set's header, footer, and custom label.

Report Headers and Footers	
Specify three sets of header, footer, and custom labels to place on application reports.	
<input checked="" type="radio"/> First Set <input type="radio"/> Second Set <input type="radio"/> Third Set	
Header Label 1	<input type="text" value="Header 1"/>
Footer Label 1	<input type="text" value="Footer 1"/>
Custom Label 1	<input type="text" value="User Variable 1"/>

Options Use the Options tab to specify the time intervals in which cost and quantity summaries should be calculated for activities and resources/roles: by calendar intervals, by financial period intervals, or both. Your choices determine the data available for display in charts and spreadsheets that display summarized activity and assignment data in P6 Web Access and the Project Management module. The By calendar option is selected by default. You can choose to not summarize by calendar intervals, however this is not recommended for most companies.

To ensure that P6 Web Access users can view activity and assignment data (both actual to date and past period actual) in Financial Period timescale intervals in charts and spreadsheets, choose to summarize by financial period; choosing this option additionally ensures that Financial Period timescale intervals in the Project Management module accurately display summarized actual to date values for closed projects.



If you modify summarization settings (for example, you select the 'By financial period' option) after upgrading to P6 Web Access version 7.0 from P6 version 6.0 or earlier, some projects are ignored when you summarize all projects. Specifically, projects that were summarized prior to upgrading, and have not been modified since, WILL NOT BE SUMMARIZED when you choose to summarize all projects.

To include summary financial period data for these projects, after upgrading you must delete the existing summary data for these projects, then summarize each project (either individually or through the job service). To delete summary data for a project, in the Projects window in the Project Management module, right-click on the project name and choose Delete Project Summaries.

Summarizing by both calendar and financial period intervals will increase the runtime of summarizer jobs. If you experience performance issues, refer to ["Job Service Registry Settings"](#) on page 250 for information on how to improve summarizer performance.



Financial periods must be properly defined for P6 Web Access users to display a Financial Period timescale, even if data is summarized by financial period. See ["Defining Financial Periods"](#) on page 416 for more information on properly configuring financial periods.



If you choose to summarize by financial period intervals and you want data for closed projects to be included when users display a Financial Period timescale, you must summarize each closed project once. For more information on summarizing projects, refer to the Project Management Reference Manual.

You can select whether users can access methodologies to add activities or create new projects using Project Architect. To enable users to launch Content Repository documents and the Timesheet Approval application from the Project Management module, type the URL to the P6 Web Access server. The Workflow Administrator is the web user responsible for administrative tasks related to P6 Web Access workflow templates, which are used for project requests. Click the browse button to select. You can additionally use this tab to set up a link to the Contract Management module (formerly known as Expedition).

The time interval to which activity costs and quantities should be summarized.

Choose this option to enable users to view summary data and edit high-level planning assignments in financial period timescale intervals in P6 Web Access, and to ensure accurate data display in financial period timescale intervals in the Project Management module.

To enable users to launch Content Repository documents and the Timesheet Approval application from the Project Management module, type the URL to the P6 Web Access server.

Specify the interval to summarize and store resource spreads	
Select summarization periods	
<input checked="" type="checkbox"/> By calendar	
WBS Level	Week
Resource/Role Assignment Level	Week
<input type="checkbox"/> By financial period	
Project Architect	
<input checked="" type="checkbox"/> Allow use of Project Architect	
Web Access Server URL	
<input type="text" value="http://P6WAServerName:port_number/context_x_"/>	
Workflow Administrator	
<input type="text" value="admin Administrator"/> ...	
Contract Management URL	
<input checked="" type="checkbox"/> Enable Link to Contract Management	
<input type="text" value="http://<serverIP>:<listenport>"/>	

The time interval to which resource/role assignment cost and quantities should be summarized.

Type the URL of the Contract Management Web server. The URL must include the server name (or IP address). The port number is also required if you are not using 80, the default port.








Once a link to the Contract Management module is set up, users can create a link to a Contract Management project to import and view project-level data. Refer to the Project Management Reference Manual for more information.

Rate Types Use the Rate Types tab to provide a title for each of the five available Price/Unit fields. The title should describe what the rate type represents. The rate type titles you define appear wherever the rate types are displayed in a list or column.

You can define new titles for these rate types, for example, Commercial Rate or Government Rate.

Resource and Role Rate Types

Specify titles for Resource and Role Rate Types.

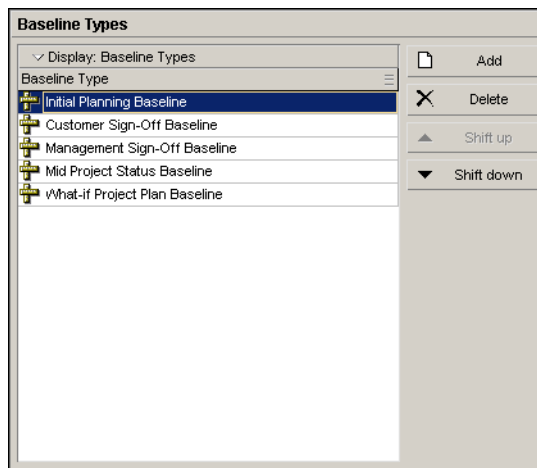
Default Title	User-defined Title
 cost_per_qty	Price / Unit
 cost_per_qty2	Price / Unit2
 cost_per_qty3	Price / Unit3
 cost_per_qty4	Price / Unit4
 cost_per_qty5	Price / Unit5

Defining Standard Categories and Values

Use the Admin Categories dialog box to define standard categories and values that you can apply to all projects. Choose Admin, Admin Categories.

For more information about baselines, see the Project Management Reference Manual.

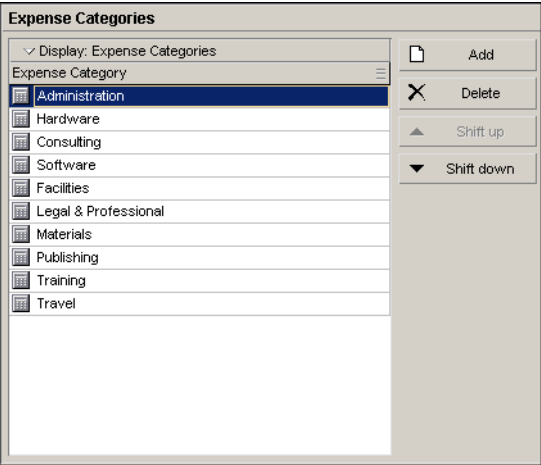
Baseline types Use the Baseline Types tab to create, edit, and delete baseline types. Baseline types enable you to categorize and standardize baselines across projects. To change the name of a baseline type, double-click it, then type a new name. The change applies to all projects to which the baseline is assigned.



Click the Shift Up/Shift Down buttons to move the selected category/type to a higher/lower position in the display. This changes the order in which the categories/types are listed when you assign them. These buttons are available only when the list is not sorted alphabetically.

For more information about expenses, see the Project Management Reference Manual.

Expense categories Use the Expense Categories tab to create, edit, and delete expense categories. Expense categories can be used to categorize and standardize project expenses, and to organize and maintain your expense information. To change an expense category, double-click it, then type a new name. The change applies to all projects to which the expense item is assigned.

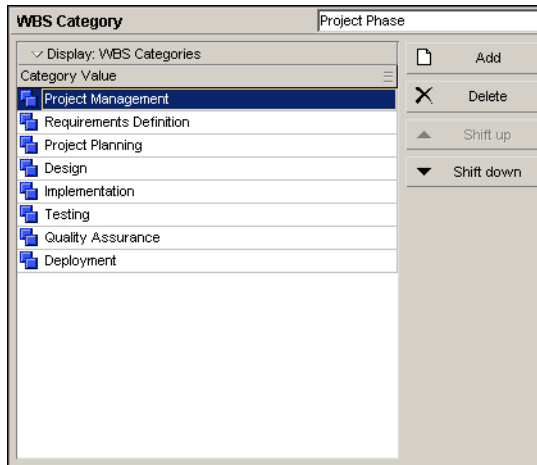


For more information about the WBS, see the Project Management Reference Manual.

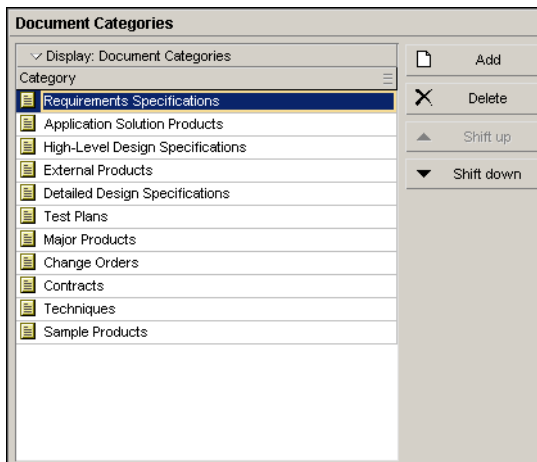
WBS custom category Use the third tab on the Admin Categories dialog box to define a custom WBS category and category values. The tab displays the name you define. To change the category name, click in the field in the top right, then type a new name. Use this category to organize, filter, and report WBS information in all projects. To change a category value, double-click it, then type a new name. The change applies to all projects to which the WBS item is assigned.



If you change the WBS category, the category's values or value assignments do not change.

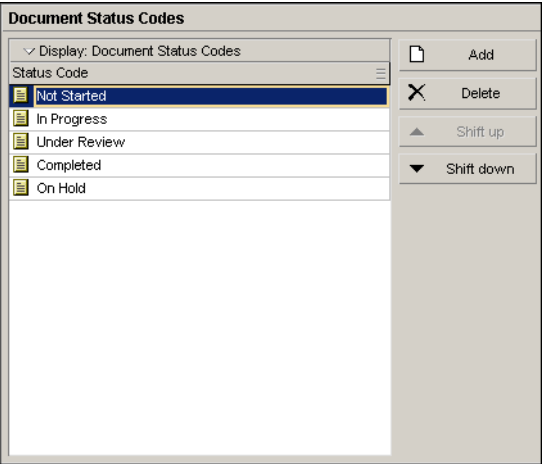


Document categories Use the Document Categories tab to set up categories for work products and documents, then assign these categories to documents in the Work Products and Documents window and activities in the WPs & Docs tab of Activity Details. To change a document category, double-click it, then type a new name. The change applies to all projects to which the document is assigned.



For more information about work products and documents, see the **Project Management Reference Manual**.

Document status Use the Document Status tab to create, edit, and delete document status types. Status types identify the current status of work products and documents within a project. Use them to determine which documents can be assigned to activities or WBS elements. To change a status type, double-click it, then type a new name. The change applies to all projects to which the document is assigned.



For more information about the **Progress Reporter** module, see the **Project Management Reference Manual**.

Overhead codes Use the Overhead Codes tab to create, edit, and delete overhead activity codes for Progress Reporter module users. Progress Reporter module users add overhead activities to their timesheets to log timesheet hours that are not associated with project activities. For example, users can enter time for vacations, holiday hours, sick time, or general administrative work as overhead activities. To change a code, double-click it, then type a new name. The change applies to all projects in which the code is assigned.



When you specify that two approval levels are required to approve timesheets, timesheets that contain only overhead activities bypass project manager approval and are sent directly to the resource/cost manager for approval. For timesheets containing a mix of regular and overhead activities, project managers can view, but not approve, the overhead activities.

OH Code	Overhead Description
HOL	Holiday
G&A	General & Accounting
VAC	Vacation
SICK	Sick Leave
COH	Corporate Overhead
JURY	Jury Duty
PERS	Personal Time

For more information about risks, see the **Project Management Reference Manual**.

Risk types Use the Risk Types tab to create, edit, and delete risk types, or categories of possible risks. Risk types allow you to classify and standardize risks across projects. To change a risk type, double-click it, then type a new name. The change applies to all projects in which the risk is assigned.

Risk Type
New Requirements
Requirement Changes
Project Staff
Schedule Constraints
Project Facilities
Support & Funding
System Performance
Technology Integration

For more information about activity notes, see the Project Management Reference Manual.

Notebook topics Use the Notebook Topics tab to create, edit, and delete notebook topics. Notebook topics typically consist of instructions or descriptions for performing an activity. However, notebook topics can also be assigned at the EPS, project, and WBS levels. Examples include Purpose, Entry Criteria, Tools and Techniques, and Exit Criteria. To change a notebook topic, double-click it, then type a new name. The change applies to all notebook assignments.

Notebook

▼ Display: Notebook Topics

Notebook Topic	EPS	Proj	WBS	Actv
Purpose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Activity Constraint R	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lessons Learned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Scope	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Objectives	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Recent Highlights	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anticipated Problems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Status Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rationale	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Entry Criteria	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Core Requirements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Verification / Validati	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tools / Techniques	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Metrics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Exit Criteria	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add

Delete

Shift up

Shift down

Units of Measure Use the Units of Measure tab to set up units of measure labels that you can assign to material resources. To change a unit of measure label, double-click it, then type a new name. The change applies to all unit of measure assignments.

Units Of Measure

▼ Display: Units of Measure

Unit Abbreviation	Unit Name
lf	Linear Feet
lb	Pounds
gal	Gallons
ea.	Each
sq	Square Yards
Unit	(New Unit of Measure)

Add

Delete

Shift up

Shift down

Defining Currencies

You can specify the monetary unit or *base currency* used to store cost data for all projects in the database, as well as the monetary unit or *view currency* used to display cost data in windows and dialog boxes.



Only a user with Admin Superuser privileges can change the base currency and define additional view currency types.

The exchange rate for the base currency is always 1.0. If you select a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Euros, and the exchange rate for Euros is .75, a value of \$10 stored in the database is displayed as 7.5 Euros in cost and price fields in windows and dialog boxes. Similarly, if you enter 10 Euros in a cost or price field, it is stored in the database as \$13.30.



When you enter values in cost and price fields, they are always displayed in the view currency.

Indicates the currency is the base used to store cost data

Base	Currency ID	Currency Name	Currency Symbol	Exchange Rate
<input checked="" type="checkbox"/>	USD	Dollar	\$	1.000000
<input type="checkbox"/>	CAD	Canadian Dollar	CA\$	1.538200
<input type="checkbox"/>	BRL	Brazilian Real	R\$	2.481000
<input type="checkbox"/>	EUR	Euro	€	0.771367
<input type="checkbox"/>	HKD	Hong Kong Dollar	HK\$	7.799200
<input type="checkbox"/>	INR	Indian Rupee	Rs.	48.969700
<input type="checkbox"/>	ILS	Israel Shekel	NIS	4.864600

WBS: F-SYS1.FUSYS.IM System Implementation

General | Appearance

Currency ID: USD Currency name: Dollar

Currency symbol: \$ Exchange rate: 1.000000

Use the Currencies dialog box to set up the base and view currencies.



If you are upgrading from a previous version of the Project Management module, you should set up the base currency in the new version before you start adding and changing projects.

Define a base currency The base currency, by default, is U.S. dollars. To define a different currency as the base, choose Admin, Currencies. Select the base currency, then, in the General tab, type the currency's ID, name, and symbol. The exchange rate for the base currency is always one. Click the Appearance tab to further define how the currency is displayed.

Separates whole values from decimal values in the currency display, for example, 500.5 or 500,5

Separates groups of digits in the currency display, for example, 300,000 or 300-000

Decimal symbol •	Number of decimal places 2
Digit grouping symbol ,	
¤ = Universal currency symbol	
Positive currency format ¤1.1	Negative currency format (¤1.1)

Indicates how many decimal places to display, for example, none (70), one (70.1), or two (70.14)



If you want to view costs in the old base currency, you will need to add it to the list of available currencies.

Add a view currency Choose Admin, Currencies. Click Add. Specify the currency's ID, name, symbol, and exchange rate, and indicate how the currency should be displayed.

Choose **Edit, User Preferences**, then click the **Currency** tab to select the currency used to view costs.

Type an ID that clearly defines the currency type.

Enter the universal symbol used to identify the currency.

Base	Currency ID	Currency Name	Currency Symbol	Exchange Rate
<input checked="" type="checkbox"/>	USD	Dollar	\$	1.000000
<input checked="" type="checkbox"/>	CAD	Canadian Dollar	CA\$	1.538200
<input type="checkbox"/>	BRL	Brazilian Real	R\$	2.481000
<input type="checkbox"/>	EUR	Euro	€	0.771367
<input type="checkbox"/>	HKD	Hong Kong Dollar	HK\$	7.799200
<input type="checkbox"/>	INR	Indian Rupee	Rs.	48.969700
<input type="checkbox"/>	ILS	Israel Shekel	NIS	4.864600

WBS: F-SYS1.FUSYS.IM System Implementation

General | Appearance

Currency ID: CAD Currency name: Canadian Dollar

Currency symbol: CA\$ Exchange rate: 1.538200

Enter the current global exchange rate for the currency.

Defining Financial Periods

For more information on financial periods, including storing period performance and editing past period actuals, refer to the *Project Management Reference Manual* or Help.

For more information on displaying a financial period timescale in P6 Web Access, refer to the P6 Web Access Help.

The Project Management module enables you to define your organization's global financial periods in the Financial Periods dialog box. Customized financial periods provide more accurate display and reporting of actual units and costs. Rather than spreading units and costs evenly throughout the length of a project, users can view how actual units and costs were incurred by customized financial period. Users can store period performance for any predefined period in the Financial Period dictionary.

In P6 Web Access, for the range of defined financial periods, users can display summary project data in financial period timescale intervals in charts and spreadsheets, as well as edit high-level planning assignments in financial period intervals.



You must have the Edit Financial Period Dates global privilege to add or edit data in the Financial Periods dialog box. To store past period actuals for a project's defined financial periods, you must have the Store Period Performance project privilege. To edit past period actual data after storing period performance, users must have the Edit Period Performance project privilege.

Financial period considerations for P6 Web Access users In P6 Web Access, users can customize many tabs and pages to display a financial period timescale if financial periods are properly defined in the Project Management module. To enable P6 Web Access users to display financial period timescale intervals, you must adhere to the following guidelines when creating financial periods:

- all defined financial periods must have a minimum duration of one week (seven days)
- there can not be a time gap between any two financial periods



Following these requirements only ensures that P6 Web Access users can display a financial period timescale. To ensure that data is displayed in financial period timescale intervals in P6 Web Access, you must additionally summarize projects by financial period. To summarize projects by financial period, choose Admin, Preferences, select the Options tab, then select the 'By financial period' option. For more information on this option, see "[Options](#)" on page 404.

Create batches of financial periods In the Project Management module choose Admin, Financial Periods.

After the batch is created, click in the *Period Name* column to edit the name. Names must be unique. When you create a financial period, the default name is YYYY-MM-DD (e.g., 2007-04-01). To ensure the financial periods are listed in the proper order (e.g., in the Columns dialog box), you should use the default name or a sequential naming convention (e.g., 2005 Fiscal Month 1, 2005 Fiscal Month 2, etc.).

The screenshot shows the 'Financial Periods' dialog box. On the left, the 'Batch Create Financial Periods' section contains fields for 'Last Period End Date' (Jan-28-06), 'Batch Start Date' (Jan-29-06, Sunday), and 'Batch End Date' (Feb-25-06, Saturday). Below these is the 'Financial Period' section with radio buttons for 'Every 4 Weeks', 'Every 3 Months', and 'Every Year'. The 'Period Ends On' dropdown is set to 'Saturday'. A 'Batch Create' button is at the bottom. On the right, a table displays the generated financial periods. Annotations with arrows point to the 'Batch Start Date' and 'Batch End Date' fields, the 'Financial Period' section, and the 'Batch Create' button.

Period Name	Start Date	End Date
Fiscal Month 1	Jan-01-05	Jan-31-05
Fiscal Month 2	Feb-01-05	Feb-28-05
Fiscal Month 3	Mar-01-05	Mar-31-05
Fiscal Month 4	Apr-01-05	Apr-30-05
Fiscal Month 5	May-01-05	May-31-05
Fiscal Month 6	Jun-01-05	Jun-30-05
Fiscal Month 7	Jul-01-05	Jul-31-05
Fiscal Month 8	Aug-01-05	Aug-31-05
Fiscal Month 9	Sep-01-05	Sep-30-05
Fiscal Month 10	Oct-01-05	Oct-31-05
Fiscal Month 11	Nov-01-05	Nov-30-05
Fiscal Month 12	Dec-01-05	Dec-31-05
FY 2004	Jan-01-06	Jan-28-06

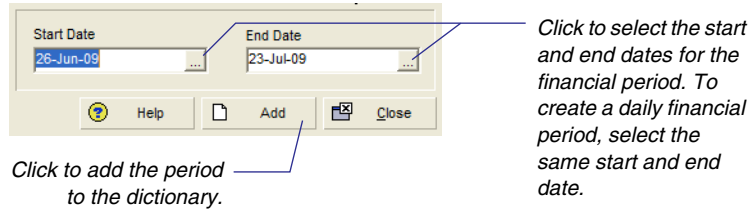


The start and end dates of a financial period cannot overlap existing financial periods. Also, you cannot modify the start and end dates of a financial period after you create it.



If your organization summarizes project data by financial period (as specified on the Admin Preferences, Options tab), to ensure that all project data in the database will be summarized (including closed projects), you must create financial periods that span the date range of all projects in the database. For example, if the oldest project in your database has a project start date of October 1st, 2001, your financial periods should begin on or before that date.

Create a single financial period In the Project Management module choose Admin, Financial Periods. Click Add.



All periods start at midnight and end at 11:59 PM. You can create financial periods with durations as short as one day; however, to enable users to display financial period timescale intervals in P6 Web Access, all financial periods must have a minimum duration of one week (seven days).

Delete a financial period In the Project Management module choose Admin, Financial Periods. Select the financial period(s) you want to delete. Click Delete.



You cannot delete a financial period that stores past period actuals for any project. If you attempt to delete multiple financial periods at the same time, none of the financial periods will be deleted if any period stores past period actuals for any project. In this case, to delete a financial period, you must archive and delete the project containing past period actuals, then delete the financial period.



You can delete a financial period that has high-level assignment planning values (as entered on the Plan Resources page of P6 Web Access) as long as the financial period does not contain past period actuals. When you delete a financial period that has high-level assignment planning values, the values are deleted as well.

Defining Administrative Preferences and Categories in Methodology Management

In this chapter:

Defining Default Settings

Defining Standard Categories and Values

Defining Currencies

The Methodology Management module enables your organization to define a series of module-wide parameters and values that apply to all methodologies. Use these settings to customize the module to meet specific project management requirements and standards. While all users can view these settings, a user must have special security privileges to edit them.

This chapter discusses the types of settings you can specify: Administrative Preferences, which are default settings used in the module; Administrative Categories, which are standard values that apply to all methodologies in the module; and Currencies, which consist of a base currency used to store cost data in the database and a view currency used to display cost data in windows and dialog boxes.

Defining Default Settings

Use the Admin Preferences dialog box to specify default settings established by the project controls coordinator. Choose Admin, Admin Preferences.

General information Use the General tab to specify general default options for new activities, such as the duration type, percent complete type, and activity type. You can also change the character used to separate hierarchy levels in resource, methodology, and activity codes; roles; and work breakdown structure (WBS) elements.

Code Separator

Specify the character for separating code fields for WBS, Activity Code, Resource Code and Methodology Code trees.

Code Separator

Defaults for New Activities

Specify the default settings for new activities.

Duration Type

Percent Complete Type


Activity Type

Password Policy

The Password Policy requires a minimum length of 8 characters and at least one number and one letter in a user's password.

☐ Enable password policy

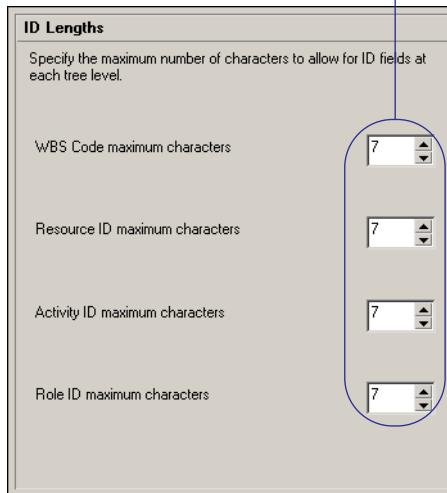
These default types are used only for new activities. Changing these settings does not affect existing activities.

 *Mark to enable a strong password policy for new or modified passwords. When cleared, passwords can be from 0 to 20 characters and can be all letters or numbers.*

The character that separates hierarchy levels in roles, resource codes, methodology codes, and activity codes; it is also the default separator for WBS codes in all new methodologies.

ID lengths Use the ID Lengths tab to specify the maximum number of characters for IDs and codes.

The maximum number of characters in these IDs and codes: 1 is the lowest, and 20 is the highest.



ID Lengths

Specify the maximum number of characters to allow for ID fields at each tree level.

WBS Code maximum characters 7

Resource ID maximum characters 7

Activity ID maximum characters 7

Role ID maximum characters 7



If you change the maximum number of characters in an ID or code, the new number applies only when you add new IDs/codes or edit existing IDs/codes.

Data limits Use the Data Limits tab to specify the maximum number of levels for hierarchical structures.

Data Limits
Specify the maximum number of levels for trees.

WBS tree maximum levels	10
OBS tree maximum levels	10
Resource tree maximum levels	10
Role tree maximum levels	20
Activity Code tree maximum levels	10
Resource Code tree maximum levels	20
Methodology Code tree maximum levels	20

The maximum number of hierarchy levels in these code types: 1 is the lowest, and 25 is the highest.

The maximum number of hierarchy levels in these structures: 1 is the lowest, and 25 is the highest.



If you change maximum hierarchy level settings, the new settings apply only when you add new elements or edit existing elements.

Timeperiods Use the Time Periods tab to define the default number of hours in a workday, workweek, workmonth, and workyear. The module uses these values as conversion factors when displaying the time units and duration display formats you select. You can also specify abbreviations for displaying minutes, hours, days, weeks, months, and years.

Valid entries range from 1.0 to 168.0.

Valid entries range from 1.0 to 744.0.

Valid entries range from 1.0 to 24.0.

Valid entries range from 1.0 to 8784.0.

The module uses these abbreviations when displaying the time units and duration display formats you select. You can type a new one-character abbreviation.

Hours per Time Period			
Specify the number of work hours for each time period.			
Hrs/Day	Hrs/Week	Hrs/Month	Hrs/Year
8.0	40.0	172.0	2000.0

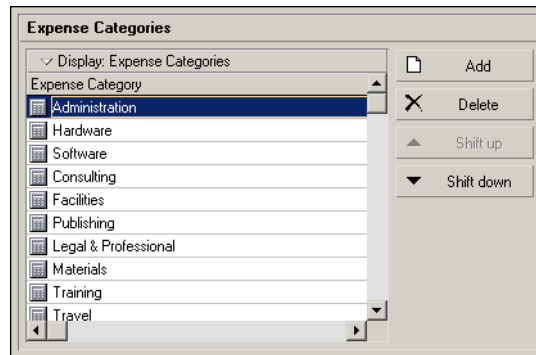
Time Period Abbreviations		
Specify the abbreviation for each time period.		
Minutes	Hours	Days
n	h	d
Weeks	Months	Years
w	m	y

Defining Standard Categories and Values

Use the Admin Categories dialog box to define standard categories and values that you can apply to all methodologies. Choose Admin, Admin Categories.

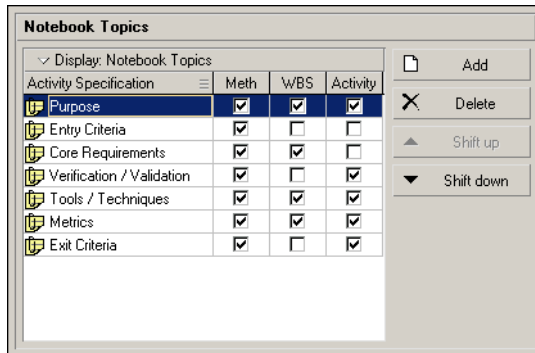
For more information about expenses, see the Methodology Management Reference Manual.

Expense categories Use the Expense Categories tab to create, edit, and delete expense categories. Expense categories can be used to categorize and standardize methodology expenses, and organize and maintain your expense information. To change an expense category, double-click it, then type a new name. The module applies the change to all activities to which the expense item is assigned.



For more information about activity notes, see the Methodology Management Reference Manual.

Notebook topics Use the Notebook Topics tab to create, edit, and delete notebook topics. A notebook typically consists of instructions or descriptions for performing an activity. You can also assign notebooks to categorize notes about methodologies and WBS elements. Mark the appropriate Methodology, WBS, and Activity checkboxes to activate the availability of a selected notebook topic in the Notebook Topics tab. Examples of topics include Purpose, Entry Criteria, Tools and Techniques, and Exit Criteria. To change a notebook topic, double-click it, then type a new name. The module applies your change to all methodologies, WBS elements, and activities to which the notebook topic is assigned.

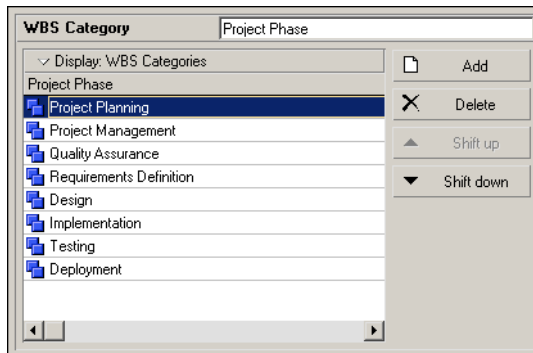


For more information about the WBS, see the Methodology Management Reference Manual.

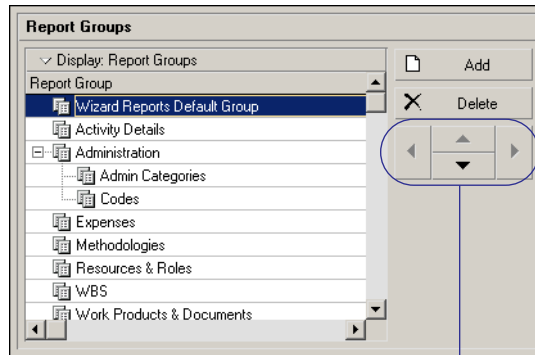
WBS custom category Use the third tab on the Admin Categories dialog box to define a custom WBS category and category values. To change the category name, click in the field in the top right, then type a new name. Use this category to organize, filter, and report WBS information in an open methodology. To change a category value, double-click it, then type a new name. The module applies the change to all methodologies to which the WBS item is assigned.



If you change the WBS category, the module does not change any of the category's values or value assignments.

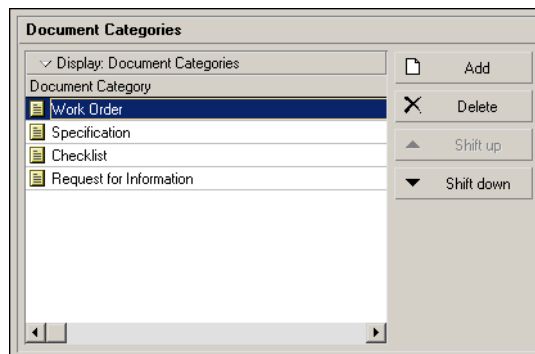


Report groups Use the Report Groups tab to create, edit, and delete report groups, which help you organize reports.



Click the left/right arrows to indent or outdent a selected report category to further categorize it in the hierarchy. Click the up/down arrows to move a selected report category up or down in the hierarchy.

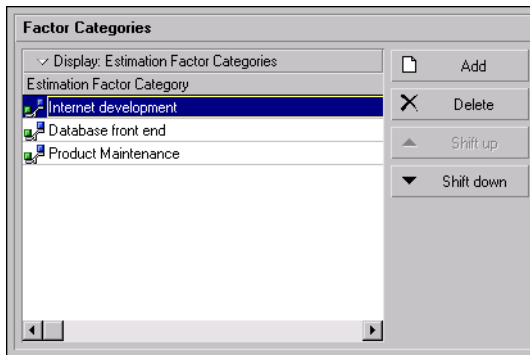
Document categories Work products typically refer to activity output, such as blueprints or testing plans, and documents refer to items such as standards and guidelines. Use the Document Categories tab to set up categories for work products and documents, then assign these categories to work products and documents in the Work Products and Documents window, and to WBS elements and activities in the WPs & Docs tab of Work Breakdown Structure Details and Activity Details, respectively. To change a document category, double-click it, then type a new name. The module applies the change to all WBS elements and activities to which the document category is assigned.



For more information about establishing estimation data, see the Methodology Management Reference Manual.

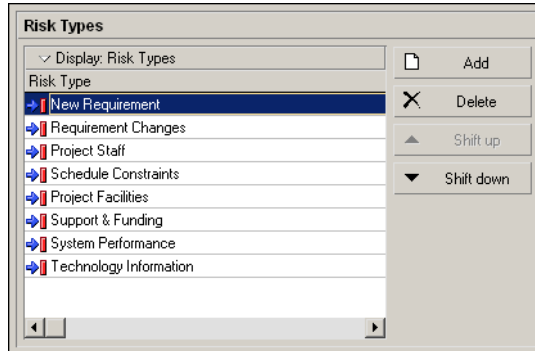
Factor categories Use the Factor Categories tab to set up categories for organizing estimation factors in methodologies. These factors are used in Project Architect to calculate a project size and complexity value for performing bottom-up estimating in the Project Management module.

Estimation factor categories are beneficial when you want to assign sets of factors to each methodology and categorize them according to a specific area or phase, such as Internet development and product maintenance. To change an estimation factor category, double-click it, then type a new name. The Methodology Management module applies the change to all methodologies to which the estimation factor category is assigned.

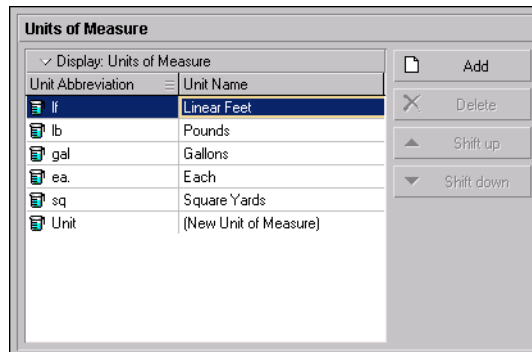


Once you establish estimation factor categories, you can assign one or more estimation factors to them in the Estimation Factors dialog box (choose Define, Estimation Factors).

Risk types Use the Risk Types tab to identify, categorize, and prioritize potential risks associated with specific WBS elements. To change a risk type, double-click it, then type a new name. The module applies the change to all WBS elements to which the associated risk type is assigned.



Units of measure Use the Units of Measure tab to set up units of measure labels that you can assign to material resources. To change a unit of measure label, double-click it, then type a new name. The change applies to all unit of measure assignments.



Defining Currencies

You can specify the monetary unit or *base currency* used to store cost data for all methodologies in the database, as well as the monetary unit or *view currency* used to display cost data in windows and dialog boxes.



Only a user with Admin Superuser privileges can change the base currency and define additional view currency types.

The exchange rate for the base currency is always 1.0. If you select a different currency than the base currency to view cost data, the base currency value is multiplied times the current exchange rate for the view currency to calculate the values displayed in cost and price fields.

For example, if the base currency is U.S. Dollars, the view currency is Euros, and the exchange rate for Euros is .75, a value of \$10 stored in the database is displayed as 7.5 Euros in cost and price fields in windows and dialog boxes. Similarly, if you enter 10 Euros in a cost or price field, it is stored in the database as \$13.30.



When you enter values in cost and price fields, they are always displayed in the view currency.

Indicates the currency is the base used to store cost data

Base	Currency ID	Currency Name	Currency Symbol	Exchange Rate
<input checked="" type="checkbox"/>	USD	Dollar	\$	1.000000
<input type="checkbox"/>	ARS	Argentine Peso	\$	3.569740
<input type="checkbox"/>	AUST	Australian Dollar	A\$	1.796400
<input type="checkbox"/>	BRL	Brazilian Real	R\$	2.481000
<input type="checkbox"/>	U.K.£	British Sterling Pound	£	0.685097
<input type="checkbox"/>	CAD	Canadian Dollar	CA\$	1.538180
<input type="checkbox"/>	CNY	Chinese Yuan	Y	8.276900

General | Appearance

Currency ID: Currency name:

Currency symbol: Exchange rate:

Use the Currencies dialog box to set up the base and view currencies.



If you are upgrading from a previous version of the module, you should set up the base currency in the new version before you start adding and changing methodologies.

Define a base currency The base currency, by default, is U.S. dollars. To define a different currency as the base, choose Admin, Currencies. Select the base currency, then, in the General tab, type the currency's ID, name, and symbol. The exchange rate for the base currency is always 1.0. Click the Appearance tab to further define how the currency is displayed.

Separates whole values from decimal values in the currency display, for example, 500.5 or 500,5

Separates groups of digits in the currency display, for example, 300,000 or 300-000

Decimal symbol: .

Number of decimal places: 2

Digit grouping symbol: ,

R = Universal currency symbol

Positive currency format: [R1.1]

Negative currency format: [R1.1]

Indicates how many decimal places to display, for example, none (70), one (70.1), or two (70.14)



If you want to view costs in the old base currency, you will need to add it to the list of available currencies.

Add a view currency Choose Admin, Currencies. Click Add. Specify the currency's ID, name, symbol, and exchange rate, and indicate how the currency should be displayed.

Choose *Edit, User Preferences*, then click the *Currency* tab to select the currency used to view costs.

Type an ID that clearly defines the currency type.

Enter the universal symbol used to identify the currency.

The screenshot shows the 'Currencies' dialog box. At the top, there is a section titled 'Display: Currencies' with a table listing currencies. Below this is a form with two tabs: 'General' and 'Appearance'. The 'General' tab is active, showing fields for 'Currency ID', 'Currency name', 'Currency symbol', and 'Exchange rate'. The 'Currency ID' field contains 'CAD', 'Currency name' contains 'Canadian Dollars', 'Currency symbol' contains '\$', and 'Exchange rate' contains '0.656500'. On the right side of the dialog, there are buttons for 'Close', 'Add', 'Delete', and 'Help'.

Base	Currency ID	Currency Name	Currency Symbol	Exchange Rate
<input checked="" type="checkbox"/>	U.S.	Dollar	\$	1.000000
<input type="checkbox"/>	CAD	Canadian Dollars	\$	0.656500

General | Appearance

Currency ID: CAD
Currency name: Canadian Dollars
Currency symbol: \$
Exchange rate: 0.656500

Buttons: Close, Add, Delete, Help

Enter the current global exchange rate for the currency.

Implementing P6 Progress Reporter

In this chapter:

Implementation Overview

Configuring Resources to Use P6 Progress Reporter

Creating Timesheets for P6 Progress Reporter Users

Setting Project-Specific Progress Reporter Preferences

Accessing P6 Progress Reporter from Client Browsers

Configure Access to Timesheet Approval

Project team members can use P6 Progress Reporter to submit timesheets that update their activities in the Project Management module. This chapter describes how to configure the Project Management module for use with P6 Progress Reporter, how to run the Progress Reporter module once it has been configured, and how to configure access to the Timesheet Approval application for timesheet approval managers.

Implementation Overview

P6 Progress Reporter enables project team members to use the web to communicate timesheet and activity status directly to their organization's database, regardless of their location. This ensures that project managers are always working with the most up-to-date project information, making it easier to plan resource use or resolve conflicts.

P6 Progress Reporter consists of the P6 Progress Reporter application hosted on an application server and the P6 database server that contains your organization's projects. Additionally, the P6 Web Access application server hosts the Timesheet Approval application, which timesheet approval managers use to review resource timesheets.



Refer to “[Installing P6 Progress Reporter](#)” on page 113 for complete details on how to install and configure the Progress Reporter server.



To support the full functionality of P6 Progress Reporter, you must use a supported browser. See “[Client and Server Requirements](#)” on page 35 for information on supported configurations.

Before you implement P6 Progress Reporter, first ensure that the following steps have been completed:

- Install the project management database, as described in “[Database Installation and Configuration](#)” on page 43.
- Install and configure the Progress Reporter server, as described in “[Installing P6 Progress Reporter](#)” on page 113.
- Set preferences for how users will use timesheets and create overhead codes for recording nonproject hours, as described in “[Defining Administrative Preferences and Categories in Project Management](#)” on page 395.

After the steps above have been completed, use the Project Management module to perform the following steps, which are described in detail in this chapter:

- Configure resources to use P6 Progress Reporter.
- Create timesheets.
- Set project-specific preferences for P6 Progress Reporter.

Finally, if your organization plans to use the Timesheet Approval application, perform the following steps:

The Timesheet Approval application, when properly configured, is accessible from P6 Web Access, the Project Management module, and as a stand-alone application. Since P6 Web Access hosts the Timesheet Approval application, you must install P6 Web Access regardless of how users will access the application.

- Install and configure P6 Web Access as described in [“Installing P6 Web Access”](#) on page 139.
- Specify timesheet approval requirements in Admin Preferences as described in [“Defining Administrative Preferences and Categories in Project Management”](#) on page 395.
- Assign product module access and the required security privileges to timesheet approval managers as described in [“Administering Users and Security”](#) on page 333.
- Configure access to Timesheet Approval as described in [“Configure Access to Timesheet Approval”](#) on page 447.



When you have actual units assigned to resource assignments (whether they came from an imported project or whether you decided to start using P6 Progress Reporter in the middle of your project), all pre-existing actual values are lost the first time you use P6 Progress Reporter unless you run the Timesheet Actualizer. For more information, refer to the Oracle Primavera Support Knowledgebase.

Configuring Resources to Use P6 Progress Reporter

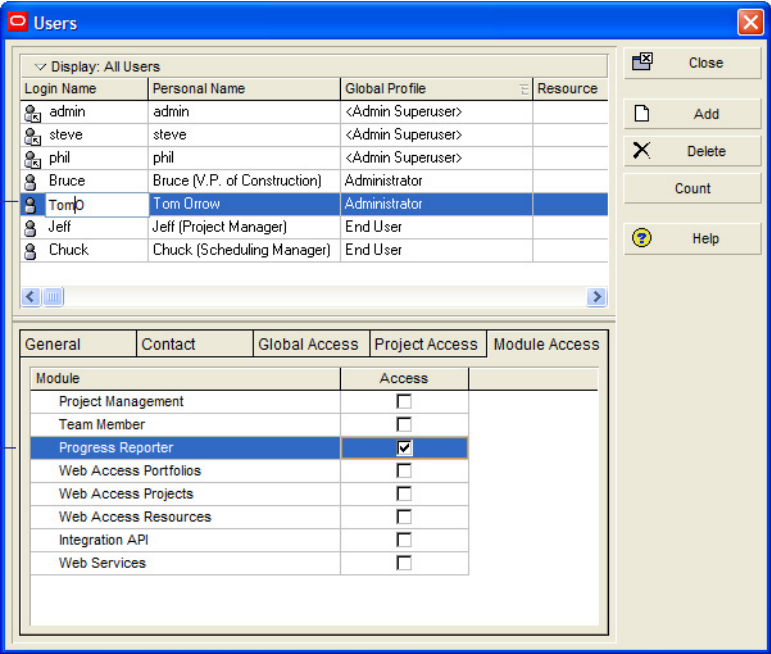
To enable a project resource to use P6 Progress Reporter, you must assign a user login account to the resource and set the resource to use timesheets.

Create a user login for P6 Progress Reporter In the Project Management module, choose Admin, Users. Click Add. Type a unique login name, then click the Module Access tab. Mark the Access checkbox next to Team Member or Progress Reporter.

For more information on the functionality associated with module access, refer to “Assign module access” on page 364.

Progress Reporter module access enables the user to log into the Progress Reporter application and enables the user to log into P6 Web Access to import appointments only (provided that this functionality is configured for the user). Team Member module access enables the user to log into the Progress Reporter application and, in P6 Web Access, enables the user to access some dashboard portlets, the project workspace (for projects they have rights to access), the activities to which they are assigned, and more.

Ensure that the user is given permission to log into P6 Progress Reporter.





A user login must have a resource assigned to it for the user to access P6 Progress Reporter. To assign a resource to a login name in the Users dialog box, select the General tab. In the **Resource ID / Resource Name for Timesheets** field, click the browse button to select a resource. You can also associate users with resources in the Resources window as described in [“Configure resources to use timesheets”](#) on page 438.

Configure resources to use timesheets In the Project Management module, choose Enterprise, Resources. Display resource details, then click the Timesheets tab.

The screenshot shows the Primavera P6 Resources dialog box. The 'Resources' tab is active, displaying a list of resources. The 'Timesheet' tab is selected in the bottom right pane. Annotations point to specific elements:

- 1 Select the resource.** Points to the 'John McDougall' resource in the list.
- 2 Click the Browse button to assign a user login to the resource.** Points to the 'User Login' field in the 'General' tab.
- 3 Mark to enable the resource to use timesheets to report progress.** Points to the 'Uses timesheets' checkbox in the 'Timesheet' tab.
- 4 Click to select an approval manager.** Points to the 'Timesheet Approval Manager' field in the 'Timesheet' tab.

Each resource can be associated with only one user login.



If you marked the *New Resources Use Timesheets by Default* checkbox on the *Timesheets* tab of the *Admin Preferences* dialog box, when you create a new resource, the *Use Timesheets* checkbox is marked automatically. You still must assign a user login to the resource and grant that user permission to log into P6 Progress Reporter.



Users designated as timesheet approval managers are not automatically granted access to P6 Progress Reporter, even if they are assigned the required module access. To enable timesheet approval managers to access P6 Progress Reporter, you must configure them as timesheet resources, as you would any other resource that requires access to P6 Progress Reporter. Configuring timesheet approval managers as timesheet resources enables approval managers to log in to P6 Progress Reporter to edit the timesheets of their reporting resources.

Set overtime policy You can enable users to enter overtime in their timesheets. In the Project Management module, choose Enterprise, Resources, then click the Details tab. Mark the Overtime Allowed checkbox. Type the overtime factor by which the resource's standard price is multiplied to determine the overtime price (standard price * overtime factor = overtime price).



Resources indicate overtime with a slash (/) in the time field. For example, if a resource worked 10 hours in one eight-hour day, the user types 8/2 for that day.

Creating Timesheets for P6 Progress Reporter Users

Use the Timesheet Dates Administration dialog box to create timesheets for Progress Reporter module users. You can also view a list of previous timesheets and determine which timesheets are currently in use by P6 Progress Reporter users. Users cannot view any timesheets in P6 Progress Reporter until you create them in the Project Management module.

Create a batch of timesheets In the Project Management module, choose Admin, Timesheet Dates.

The screenshot shows the 'Timesheet Dates Administration' dialog box. It has a title bar with a close button. The main area is divided into two panes. The left pane, titled 'Batch Create Timesheet Dates', contains several input fields and a list of radio buttons. The right pane, titled 'Display: Timesheet Date Periods', shows a table of date ranges. On the far right, there is a vertical toolbar with buttons for 'Close', 'Add', 'Delete', and 'Help'.

Set the starting and ending dates for this batch of timesheets. (Annotation pointing to the 'Batch Start Date' and 'Batch End Date' fields)

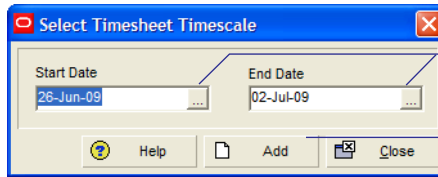
Select the amount of time covered by each timesheet. (Annotation pointing to the 'Timesheet Period' radio buttons)

Click to generate the batch of timesheets based on these settings. (Annotation pointing to the 'Batch Create' button)

Start Date	End Date
27-Aug-07	02-Sep-07
03-Sep-07	09-Sep-07
10-Sep-07	16-Sep-07
17-Sep-07	23-Sep-07
24-Sep-07	30-Sep-07
01-Oct-07	07-Oct-07
08-Oct-07	14-Oct-07
15-Oct-07	21-Oct-07
22-Oct-07	28-Oct-07
29-Oct-07	04-Nov-07
05-Nov-07	11-Nov-07
12-Nov-07	18-Nov-07
19-Nov-07	25-Nov-07
26-Nov-07	02-Dec-07
03-Dec-07	09-Dec-07
10-Dec-07	16-Dec-07
17-Dec-07	23-Dec-07
24-Dec-07	30-Dec-07

To create another set of timesheets, reset the batch start and end dates, select the appropriate timesheet period, then click Batch Create.

Create a single timesheet In the Project Management module, choose Admin, Timesheet Dates. Click Add.



Click to set the starting and ending dates for this timesheet.

Click to generate the timesheet.



You cannot create new timesheets that have start and end dates that overlap existing timesheet dates.

Setting Project-Specific Progress Reporter Preferences

For each project in an organization, you can control how resources report the status of their activities.

Set project-specific Progress Reporter preferences In the Project Management module, choose Enterprise, Projects. Select the project, then click the Resources tab.

Mark to allow resources to view activities that belong to inactive projects, to report activities or assignments as completed, and to choose which activities they should begin next.

General	Notebook	Planning Resources	Budget Log	Spending Plan	Budget Summary	Dates	Funding	Codes	Defaults	Resources
Progress Reporter <input type="checkbox"/> Resource can view activities from an inactive project <input checked="" type="checkbox"/> Resources can assign themselves to activities <input checked="" type="checkbox"/> Primary resources can mark activities as completed <input type="checkbox"/> Resources can mark assignments as completed										
Assignment Defaults Specify the default Rate Type for new assignments Price / Unit ▼										
Resource Assignments <input checked="" type="checkbox"/> Resources can be assigned to the same activity more than on										

Choose whether resources indicate progress on activities by entering percentages or units of time remaining.

Accessing P6 Progress Reporter from Client Browsers

After you install and configure the Progress Reporter server, as described in “[Installing P6 Progress Reporter](#)” on page 113, and implement P6 Progress Reporter, as described in this chapter, users can run the Progress Reporter module using the process detailed below.



If the application server has java caching turned on, Java Web Start version users only have to complete these steps the first time they attempt to access P6 Progress Reporter. After successfully completing these steps, users can access P6 Progress Reporter by using a shortcut. For example, Windows platform users can choose Start, Programs, Oracle Primavera, Primavera P6 Progress Reporter. Java Web Browser version users must always access Progress Reporter using the URL specified in [step 1](#).

To select the authentication mode for P6 Progress Reporter, use the Progress Reporter Administrator. For information about authentication configuration settings, see the Progress Reporter Administrator Help. To provision users for P6 Progress Reporter, use the Authentication Configuration wizard (LDAPCfgWiz.exe, located in the \Database\ldap-config folder of the P6 physical media or download). For details on the Configuration wizard, see “[Configuring Authentication Modes](#)” on page 313.

- 1 Access P6 Progress Reporter from a client browser using the appropriate URL structure for your application server platform and Progress Reporter version.

For the Progress Reporter Java Web Start version:

On a JBoss application server

`http://<serverIP>:<listenport>/<ContextRoot>`

Example: `http://<serverIP>:8080/pr`

The default listenport is 8080. The default context root is pr.

On a WebLogic application server

`http://<serverIP>:<listenport>/<ContextRoot>`

Example: `http://<serverIP>:7001/pr`

The default listenport is 7001. The default context root is pr.

On a WebSphere application server

`http://<serverIP>:<listenport>/<ContextRoot>`

Example: `http://<serverIP>:9080/pr`

The default listenport is 9080. The default context root is pr.

For the Progress Reporter Web Browser version (when using Single Sign-On authentication):

On a JBoss application server

`http://<serverIP>:<listenport>/<ContextRoot>/
applet?lang=<language_code>`

Example: `http://<serverIP>:8080/pr/applet?lang=en`

The default listenport is 8080. The default context root is pr. See below for available language codes.

On a WebLogic application server

`http://<serverIP>:<listenport>/<ContextRoot>/
applet?lang=<language_code>`

Example: `http://<serverIP>:7001/pr/applet?lang=en`

The default listenport is 7001. The default context root is pr. See below for available language codes.

On a WebSphere application server

`http://<serverIP>:<listenport>/<ContextRoot>/
applet?lang=<language_code>`

Example: `http://<serverIP>:9080/pr/applet?lang=en`

The default listenport is 9080. The default context root is pr. See below for available language codes.

Language Codes:

- English = en
- Spanish = es_MX
- French = fr
- German = de
- Dutch = nl
- Russian = ru
- Japanese = ja
- Traditional Chinese = zh_TW
- Simplified Chinese = zh_CN



The context root may be configurable on your application server. For information about context root configuration, refer to your application server documentation. Also, URLs might be case-sensitive, depending on your application server configuration.

2 For Progress Reporter Java Web Start version:

Click **Launch Progress Reporter Application**. One of the following scenarios will occur depending on your current JRE version:

- **If a JRE is not installed**, you are prompted to download the required JRE version. Click the provided link and download the JRE. When the JRE installation completes, Java Web Start launches P6 Progress Reporter.
- **If the required JRE version is present**, Java Web Start uses the existing JRE.
- **If a JRE version earlier than the required version is present**, Java Web Start automatically downloads the required JRE, installs it, then launches P6 Progress Reporter. Java Web Start does not change the default JRE version for the browser on the client machine when the install is complete. You can change the default version by choosing Tools, Internet Options, in your web browser. On the Advanced tab, select the default JRE in the Java (Sun) section.



Downloading the JRE may take some time, depending on your network speed.

For Progress Reporter Web Browser version:

Click **Run Progress Reporter**. If prompted, click Yes to install the Java files from Oracle. The Setup program searches for the required Java Runtime Environment (JRE). If the required version it is not found on your machine, the setup process to install it launches automatically. Click Yes to install the required JRE and accept the license agreement.

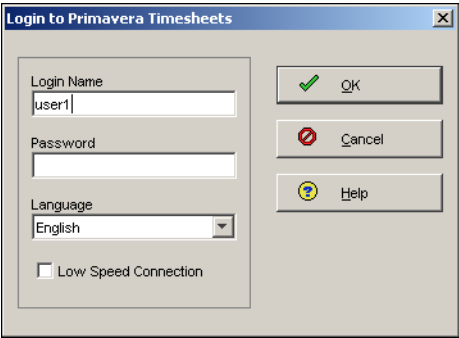


You will only be prompted to download the Java files the first time you click the Run Progress Reporter link.

If prompted, click **Grant Always** to run the applet.

- 3 Type your login name and password, and choose the language.

For the Java Web Start version, this dialog contains a drop-down menu in which you can choose the language for Timesheets. For the Web Browser version, the language is determined by the URL you enter in [step 1](#).



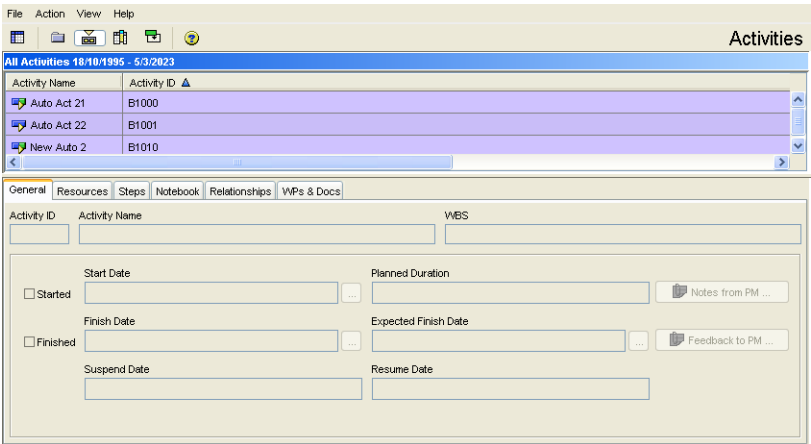
The dialog box titled "Login to Primavera Timesheets" contains the following fields and buttons:

- Login Name: A text field containing "user1".
- Password: An empty text field.
- Language: A drop-down menu showing "English".
- Low Speed Connection: An unchecked checkbox.
- Buttons: "OK" (with a green checkmark icon), "Cancel" (with a red X icon), and "Help" (with a question mark icon).



If P6 Progress Reporter is running in Single Sign-On authentication mode, the preceding dialog box does not appear. Instead, login credentials are requested and validated by the policy server.

Your activities appear in the Activities window.



The screenshot shows the "Activities" window with the following components:

- Menu bar: File, Action, View, Help.
- Toolbar: Icons for calendar, folder, printer, list, and help.
- Header: "Activities" and "All Activities 18/10/1995 - 5/3/2023".
- Table:

Activity Name	Activity ID
Auto Act 21	B1000
Auto Act 22	B1001
New Auto 2	B1010

- Tabbed interface: General (selected), Resources, Steps, Notebook, Relationships, WPs & Docs.
- Form fields under the "General" tab:

Activity ID	Activity Name	WBS

<input type="checkbox"/> Started	Start Date	Planned Duration
<input type="checkbox"/> Finished	Finish Date	Expected Finish Date
	Suspend Date	Resume Date

Buttons: "Notes from PM ..." and "Feedback to PM ...".

Configure Access to Timesheet Approval

For information on using the Timesheet Approval application, click Help in Timesheet Approval, or refer to the P6 Web Access Help, Project Management Help, or Project Management Reference Manual.

If your organization requires resource timesheets to be approved by resource/cost managers and/or project managers, timesheets can be reviewed in the Timesheet Approval application. When properly configured, any user with the appropriate module access and security privilege can access Timesheet Approval from P6 Web Access, the Project Management module, or as a virtual stand-alone application.



Prior to P6.1, Timesheet Approval was available from both the Project Management module and P6 Web Access as separate applications. Starting with P6.1, the web version of Timesheet Approval was made available from within P6 Web Access and the Project Management module, and as a stand-alone application. Due to these enhancements, all new or upgrading organizations that want to use Timesheet Approval MUST INSTALL P6 WEB ACCESS.

Preliminary setup Before configuring access to Timesheet Approval, be sure to complete the following:

- Install and configure P6 Web Access on a supported application server as described in [“Installing P6 Web Access”](#) on page 139.
- Configure user module access as described in [“Assign module access”](#) on page 364.

To access Timesheet Approval from P6 Web Access or as a stand-alone application, users must be assigned at least one of the following module access rights: Project Management, Team Member, Web Access Portfolios, Web Access Projects, or Web Access Resources. To access Timesheet Approval from the Project Management module, users must be assigned Project Management module access.

- Assign global and/or project profiles to timesheet approval managers, as described in [“Administering Users and Security”](#) on page 333, that include the required security privilege to enable approval managers to access Timesheet Approval to review timesheets.

To enable a user to approve resource timesheets as a resource/cost manager, the user must be assigned the Approve Resource Timesheets global privilege. To enable a user to approve resource timesheets as a project manager, the user must have the Approve Timesheets as Project Manager project privilege.

- Specify the required timesheet approval levels, as described in “Defining Administrative Preferences and Categories in Project Management” on page 395.

To configure access to Timesheet Approval from P6 Web Access:

For information on creating and assigning user interface views, refer to “Defining User Access to P6 Web Access Functionality” on page 384.

P6 Web Access users with the appropriate module access and security privilege can access Timesheet Approval by choosing **Approve Timesheets** from the Dashboards action menu in the global navigation bar. To ensure that the option appears, you must include the Approve Timesheets Action Menu item in each approval manager's assigned user interface view.

For new user interface views you create, and for organizations that do not utilize user interface views, the Approve Timesheets Action Menu item appears by default; if a user does not have rights to access Timesheet Approval, the menu item will not appear, even if you include it in the user's assigned user interface view.

For users upgrading to P6.1 and later, the Approve Timesheets Action Menu item appears for users who had rights to approve timesheets in previous releases.

To configure access to Timesheet Approval from the Project Management module:

Project Management module users with the appropriate module access and security privilege can access Timesheet Approval by choosing **Tools > Time Approval**. To ensure that Timesheet Approval opens when users select it, you must specify the P6 Web Access URL.

- 1 In the Project Management module, choose **Admin > Admin Preferences**, then select the **Options** tab.
- 2 In the **Web Access Server URL** field, enter the URL to the P6 Web Access server in the form of:

http://P6_Web_Access_Server_Name:port_number/context_root.

For example: http://P6WebServer:8080/primaveraweb
- 3 Click **Close**.



Opening Timesheet Approval from the Project Management module does not provide access to other areas of P6 Web Access.

To configure access to Timesheet Approval as a stand-alone application:

Any user with the appropriate module access and security privilege can access Timesheet Approval as a virtual stand-alone application. To ensure that timesheet approval managers can access Timesheet Approval as a stand-alone application, you must install and configure P6 Web Access, then communicate the location of the Timesheet Approval application on the P6 Web Access server.

After installing and configuring P6 Web Access, complete the following steps:

- 1 Send an e-mail to timesheet approval managers containing the URL of Timesheet Approval in the form of:

`http://P6_Web_Access_Server_Name:port_number/context_root/action/timesheetapproval.jnlp`

For example: `http://P6WebServer:8080/primaveraweb/action/timesheetapproval.jnlp`

- 2 Instruct users to click on the link.

Java Web Start and the required JRE are installed on the user's machine (if necessary), and users are prompted to login to P6.

- 3 Instruct users to enter their P6 username and password, select the appropriate database, and select a language to login to Timesheet Approval.

If Timesheet Approval is successfully downloaded, users can subsequently log into Timesheet Approval by selecting **Primavera > Primavera Timesheet Approval** from the Windows Start menu.

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