



PRIMAVERA

**P6 EPPM User's Guide
Release 8.0**

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Preface

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About Oracle Primavera P6 Enterprise Project Portfolio Management

Oracle Primavera P6 Enterprise Project Portfolio Management (P6 EPPM) is a robust and easy-to-use integrated solution for globally prioritizing, planning, managing, and executing projects, programs, and portfolios. It optimizes role-specific functionality to satisfy each team member's needs, responsibilities, and skills. It provides a single solution for managing projects of any size, adapts to various levels of complexities within a project, and intelligently scales to meet the needs of various roles, functions, or skill levels in your organization and on your project team.

Thousands of companies rely on P6 EPPM to:

- ▶ Plan, schedule, and manage the right strategic mix of projects
- ▶ Make informed project, cost, and resource management decisions
- ▶ Enhance team collaboration and workflow productivity
- ▶ Maximize each project contributor's skills and responsibilities
- ▶ Track progress and optimize capacity for maximum profitability
- ▶ Deliver programs and projects on time and within budget
- ▶ Share data with human capital, financial management, and enterprise resource planning systems

Actual deployments require a variety of databases, servers, applications, and supporting technologies. Review the topics below to get a general understanding of the primary components of the suite:

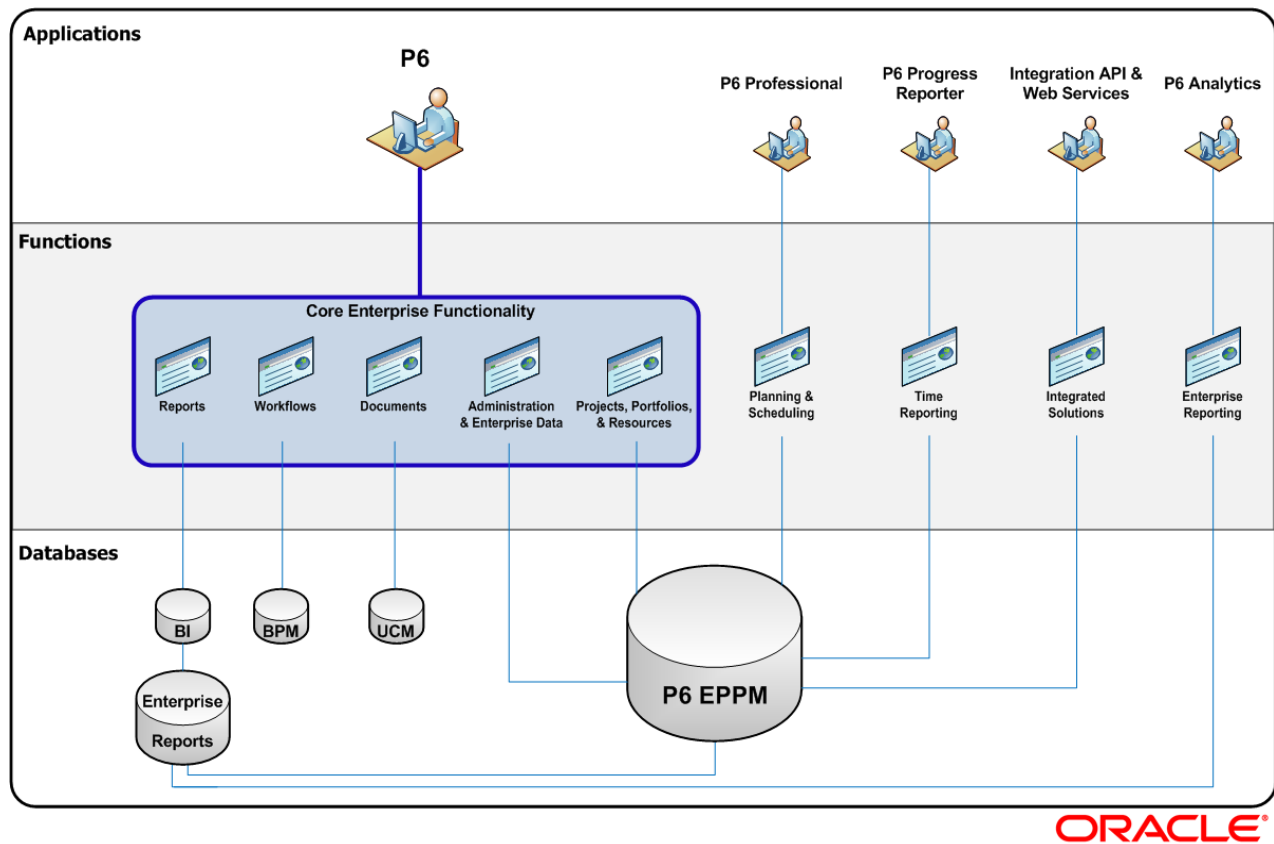
- ▶ **P6** (see "**About P6**" on page 20)
- ▶ **P6 Professional** (see "**About P6 Professional**" on page 21) for EPPM
- ▶ **P6 Reporting Database** (see "**About P6 Reporting Database**" on page 23)
- ▶ **P6 Progress Reporter** (see "**About P6 Progress Reporter**" on page 22)
- ▶ **P6 Integration API** (see "**About the P6 Integration API**" on page 25)
- ▶ **P6 Web Services** (see "**About P6 Web Services**" on page 25)

- ▶ **BI Publisher** (see "About Oracle BI Publisher and the OBIEE Platform" on page 23)
- ▶ **P6 Analytics** (see "About P6 Analytics" on page 23)
- ▶ **Oracle Business Process Management Suite** (see "About the Oracle Business Process Management Suite" on page 22)
- ▶ **Oracle Universal Content Management** (see "About Oracle Universal Content Management" on page 25)

P6 EPPM also integrates with many other optional Oracle solutions such as Contract Management, Oracle Risk Analysis, Oracle PPM, and Cost Manager.

Working with Oracle Primavera P6 Enterprise Project Portfolio Management Suite

Depending on your organization's specific deployment, P6 EPPM generally consists of the applications, functions, and databases depicted below.



Applications:

P6: Most users will rely almost exclusively on the P6 web application running in a standard web browser. Simply termed *P6*, it is the primary interface for administering and managing projects.

P6 Professional for EPPM: The P6 web application is the main interface for all project management functionality; however, you can also use the optional P6 Professional software to take advantage of its core project planning and scheduling functionality. The P6 Professional application and its features, including the built-in TSLD viewer, run on the Microsoft Windows operating system.

P6 Progress Reporter: P6 EPPM includes the P6 Progress Reporter integrated timesheet entry software. Resources use P6 Progress Reporter to record their time spent working on assignments via electronic timesheets, and approving managers use P6 to review and approve them.

P6 Integration API: A Java-based application programming interface (API) enabling your P6 EPPM deployment to interface with other components and systems.

P6 Web Services : P6 Web Services is an integration technology that extends P6 business objects and functionality. Based on open standards including SOAP, XML and WSDL, P6 Web Services enables developers to leverage standard interfaces to create integrated software solutions that interoperate with a wide variety of enterprise software applications running on a diversity of hardware and operating system platforms.

P6 Analytics: An optional integrated dynamic reporting tool with advanced visual features, including dashboards.

Functionality (included with P6 EPPM):

Core Enterprise Functionality: Use P6 for all of the following core enterprise functionality:

- ▶ **Administration and Enterprise Data:** Administer user accounts, preferences, views, application settings, and enterprise data.
- ▶ **Project, Portfolio, and Resource Management:** P6 provides an extensive array of features designed to optimize all phases of Project Management, Resource Management, and Portfolio Management. It includes full support for activities, work breakdown structures, costs, resource administration and assignment, roles, teams, portfolio analysis, capacity planning, and convenient dashboards for measuring status at any level at every moment.
- ▶ **Document Management:** P6 includes document management support with or without the optional document repository option. Use the optional document collaboration features to conduct document reviews with key stakeholders to keep projects moving or meet regulatory compliance.
- ▶ **Workflows:** The workflow engine bundled with P6 EPPM provides Business Process Modeling Notation (BPMN) compliant graphical notation that depicts the steps in your project initiation workflows. Use the integrated Workflows portlet to coordinate the sequence of tasks that flow between different process participants in a series of stages.
- ▶ **Reports:** Generate and view reports using your standard web browser running P6. Reports can be generated electronically and routed via e-mail, saved to a shared or local file, or printed to a traditional printer.

Planning and Scheduling: The optional P6 Professional component of the suite provides a robust set of features primarily for planners and schedulers, including reflections, schedule comparison (Claim Digger), and a report designer. Use the new built-in **Timescaled Logic Diagram** (TSLD) viewer to create and customize condensed visual depictions of complex project schedule information.

Time Reporting: P6 EPPM includes P6 Progress Reporter, an optional integrated timesheet entry application.

Integrated Solutions: Build or deploy other systems and use the P6 Integration API or P6 Web Services to integrate them with P6 EPPM.

P6 Analytics: Extend your solution by adding P6 Analytics with the Oracle Business Intelligence (OBI) metadata layer to facilitate the creation of ad-hoc reports and interactive custom dashboards reflecting trends and metrics for activities, portfolios, resource assignments, utilization, and project history. Also receive proactive alerts based on integrated report data mined from the ODS and star databases.

Technology:

The P6 EPPM Database: The main database for all your P6 EPPM data.

BPM Workflow: The separate workflow engine bundled with P6 EPPM.

Oracle BI Publisher: The database server hosting the reporting library, templates, and views required to build complex reports with ease.

The Reporting Database: The P6 Reporting Database portion of the suite consists of the Star database and the Operational Data Store (ODS) database used to extract, transform, and load data from the P6 EPPM database. This data is specifically designed to be used to create reports.

Oracle Universal Content Management: This server hosts documents in a shared repository enabling collaborative functionality such as document check-out/check-in and versioning.

About P6

P6 is the main web application of the P6 EPPM solution. P6 provides enterprise-wide web access to features arranged into the following main sections:

- ▶ Dashboards
- ▶ Portfolios
- ▶ Projects
- ▶ Resources
- ▶ Reports
- ▶ Administration

P6 is a complete Enterprise Project Portfolio Management application with a powerful but easy-to-use interface. It completely tracks projects, portfolios, and resources across their full project lifecycles capturing all related costs, issues, risks, and performance metrics along the way. It also supports project templates, allowing you to reuse projects in full or in part. It is designed for organizations that need to simultaneously manage multiple projects and support multi-user access across job sites and throughout the entire organization.

The user interface provides structured menus where you can access a wide range of data views and features that enable you to manage your projects from initial concept review and approval through to completion. You can customize your own web pages, called dashboards, to create a custom view of the specific projects and categories of project data that are most relevant to your role in managing projects and resources. Project workspaces and workgroups extend the model of customizable, focused data views by enabling designated project members to create a uniform view of data that relates to one specific project or to a subset of activities within a project.

P6 provides centralized resource administration, planning, and management, which even includes resource timesheet approval and the ability to communicate with project resources who use P6 Progress Reporter, the Web-based timesheet management application of P6 EPPM. Use P6 to match people with roles and proficiency levels, and then use that information to assign tasks effectively.

P6 includes robust reporting, workflow, e-mail notifications, events, and document collaboration and review features.

Finally, P6 is the single source for administrative functions, including centralized enterprise data, user accounts, application settings, and security for all users in P6 EPPM.

About P6 Professional

P6 Professional is a separate optional module that integrates traditional project management with streamlined resource and cost management. It is ideal for planners and schedulers.

Note: If you decide to use P6 Professional, you must still use P6 to administer user accounts, enterprise data, and other settings.

The P6 Professional software includes a subset of the P6 features, as well as several of its own specialized features. As a primary example, P6 Professional includes the new Timescaled Logic Diagrams viewer for the creation, viewing, and modification of timescaled logic diagrams (TSLDs). TSLDs condense the project plan displayed in the Gantt chart into a more concise visual snapshot illustrating the chain of activities that drive the project schedule. When you create a TSLD, it appears in the TSLD viewer.

Note: The TSLD viewer is designed for use with *only* the P6 Professional application.

About P6 Progress Reporter

The P6 Progress Reporter module is a Web-based project communication and timekeeping system. As a team-level tool for project participants, it helps project participants focus on the work at hand with a simple cross-project to-do list of their upcoming assignments. Project team members can record time worked and enter information about their project assignments. Regardless of location, team members can communicate timesheet and activity status directly to their managers.

Because all project participants can use P6 Progress Reporter to enter up-to-the-minute information about their assignments and to record the time they spent working on each one, project managers can make crucial project decisions with the confidence that only comes from having the most current information possible. Timesheet review and approval takes place directly from within P6.

About the Oracle Business Process Management Suite

The Oracle Business Process Management (BPM) Suite provides an integrated environment for developing, administering, and using business applications centered around business processes. BPM supports BPMN and BPEL standards from modeling and implementation to run time and monitoring.

P6 directly integrates with BPM allowing you to initiate and manage workflows. Take advantage of the ready-to-run project initiation workflow sample included with P6 EPPM or design your own workflows.

You can also expand your use of BPM to include all stages of your application, program, project, or product development life cycle from design-time and implementation to run-time and application management.

The Oracle BPM Suite enables you to:

- ▶ Create and customize business processes, models, and standards using pre-defined components for web-based applications.
- ▶ Collaborate between process developers and process analysts.
- ▶ Expand business process management to include flexible, unstructured processes.
- ▶ Add dynamic tasks and support approval routing using declarative patterns and rules-driven flow determination.
- ▶ Unify different stages of your development life cycle by addressing end-to-end requirements for developing process-based applications. Oracle BPM unifies the design, implementation, run time, and monitoring stages based on an SCA infrastructure. This allows different personas to participate through all stages of the workflow life-cycle.

About Oracle BI Publisher and the OBIEE Platform

BI Publisher and the Operational Data Store (ODS) are integrated with the P6 EPPM suite. These components deliver on-demand web-based reporting through P6.

You have the option of expanding the capabilities of P6 EPPM using these components.

Oracle Business Intelligence Publisher: Oracle Business Intelligence Publisher (formerly XML Publisher) is an enterprise reporting solution allowing you to design, manage, and deliver highly formatted documents. Because it is built on open standards, your IT developers can create data models against practically any data source and use BI Publisher APIs to build custom applications leveraging existing data sources and infrastructure. BI Publisher users can design report layouts using familiar desktop tools, reducing the time and cost needed to develop and maintain reports. Extremely efficient and highly scalable, BI Publisher can generate documents with minimal impact to transactional systems. Using the convenient P6 web interface, reports can be viewed online or scheduled for delivery to a wide range of destinations.

Oracle Business Intelligence Enterprise Edition (OBIEE): Expand your business intelligence capabilities with this optional foundation platform. OBIEE enables your organization to buy and plug in ready-to-run analytics packages or to build your own applications on one common BI architecture.

About P6 Reporting Database

The P6 Reporting Database works with the P6 EPPM database to provide a robust and powerful reporting solution. Project data from the P6 EPPM database is periodically extracted, transformed, and loaded into an Operational Data Store (ODS) database. Use P6 Reporting Database with BI Publisher to create and administer reports.

About P6 Analytics

P6 Analytics provides an in-depth and comprehensive method for gathering, analyzing, sharing, and storing project performance, project history, resource assignment, and utilization data. Use the P6 Analytics add-on application with P6 EPPM to create powerful custom dashboards and reports to help your organization make better business decisions. P6 Analytics requires Oracle Business Intelligence Enterprise Edition (OBIEE) or Oracle Business Intelligence Standard Edition.

Built upon the Oracle Business Intelligence (OBI) suite, P6 Analytics delivers a catalog of requests called *Dashboards and Answers* that provide an interactive way of viewing, analyzing, and evaluating P6 EPPM data. In addition, it provides a Repository (RPD) file which contains the data mappings between the physical data and the presentation layer of OBI.

The dashboards provide detailed insight into your P6 EPPM data, through the use of analytical charts, tables, and graphics. Dashboards have the ability to navigate to other requests, to provide precise root cause analysis. In addition, you can configure individual requests with the P6 EPPM Action Link, which enables you to navigate directly to your P6 site for true "Insight to Action" capabilities. Reports created with Oracle BI Answers can be saved in the Oracle BI Presentation Catalog, and can be integrated into any Oracle BI home page or dashboard. Results can be enhanced through options such as charting, result layout, calculation, and drill-down features.

In summary, use P6 Analytics to:

- ▶ Perform root-cause analysis and employ management-by-exception.
- ▶ Gather critical insights into current and historical performance of all projects, programs, and portfolios.
- ▶ Make better decisions to eliminate project failure.
- ▶ Quickly visualize critical project performance in early stages from dashboards.
- ▶ Predict and identify cost trends early in project lifecycle to rescue troubled projects.
- ▶ Gain visibility into resource performance through s-curves in dashboards with interactive dashboards you can drill down to examine the root-cause problem.
- ▶ Show staffing needs by portfolio with early warning indicators for upcoming under-staffed project work.

Performance Data

P6 Analytics provides an RPD file to be used with the Oracle Business Intelligence suite. The RPD file contains:

- ▶ A physical representation of the Star schema.
- ▶ A business layer where customized calculations are performed.
- ▶ A presentation layer that groups all of the Star database fields into logical subject areas.

The RPD delivers an extensive amount of earned value, cost, unit, percent complete, and other key performance indicators. It enables data to be sliced by items such as time, project, eps, portfolios, activities, and resources.

P6 Analytics delivers a sample dataset (P6 EPPM, Stage, ODS, and Star) from which the Dashboards and Answers requests in the catalog are built. This sample data can be used to view the power of Dashboards and Answers requests delivered in the catalog, which will give the user an idea of how the catalog can be integrated with their data. For information on configuring the sample dataset, see the SampleData.pdf document that is included in the P6Analytics\Sample folder on your release media pack or download.

The Star Database

The Star database enables your organization to perform advanced business analysis on project and portfolio data. It supplies a dimensional schema that organizes P6 EPPM hierarchical relationships, enables the highest level of query efficiency and flexibility in data analysis, and accumulates project data over time. This provides organizations with baselines for tracking trends and for advanced business intelligence.

About the P6 Integration API

The P6 Integration API is a Java-based Application Programming Interface (API) and server that enables developers to create application code aligned with P6 EPPM business rules in order to seamlessly access P6 EPPM data.

About P6 Web Services

P6 Web Services enables your organization to seamlessly integrate P6 EPPM functionality into other applications using open standards, languages, and protocols, including XML, SOAP, SOA, and WSDL. P6 Web Services enables your organization to share P6 EPPM data between applications independent of operating system or programming language. Use P6 Web Services when you need to extend or customize integrated functionality, for example, with BPM workflows, events, or forms-based applications.

About Oracle Universal Content Management

Integrated with P6, Oracle Universal Content Management (UCM) turns cluttered, often unstructured content into organized assets by making it easier to catalog, access, search, and reuse. All popular document formats such as HTML, XML, DOC, XLS, GIF, and PDF are supported.

Using P6 with UCM, project participants can better manage their documents. Specific functions include:

- ▶ Upload new documents for storage in the unified UCM database
- ▶ Categorize documents within folders for better organization
- ▶ Link projects, WBS elements, activities, and issues to documents
- ▶ Check in and check out documents (version control)
- ▶ Review documents

You can also extend UCM to deliver content via Web sites, desktops, RSS feeds, mobile devices, and P6 Web Services.

P6 EPPM Release 8 New Feature Summary

Building on a tradition that includes worldwide sales and recognition spanning the last quarter century, this release of P6 EPPM offers significant new or improved functionality described in the following topics.

Note: This *New Feature Summary* is intended solely to remind readers of various P6 EPPM documentation deliverables of the major new or changed features since the last release. Refer to the separate online help systems and individual documents for the various components that comprise the P6 EPPM suite to learn more about the features.

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Web Administration and Configuration

Easy Web Setup, Configuration, and Administration

Routine setup, configuration, and administration tasks can be achieved using only the P6 application from a single centralized new menu with the following options:

- ▶ **My Calendar:** Customize your personal work schedule.
- ▶ **My Preferences:** Customize P6 for the way you prefer to work. Personalize the units, formats, views, and other settings unique to each user.
- ▶ **Application Settings:** Configure global application settings for data limits, earned value calculations, timesheets, IDs, and time periods.
- ▶ **Enterprise Data:** Define the data entities, types, categories, and user-defined fields recognized by your industry or organization.
- ▶ **User Access:** Configure who will use the various components of the P6 EPPM suite and the P6 application, and what permissions to assign to them.
- ▶ **User Interface Views:** In a single convenient location, configure the main menus and pages of the application users of each view are permitted to access. This improved feature helps you enforce a consistent enterprise-wide user experience.

Web-Based User Administration

Create and administer user accounts for all P6 EPPM users via the P6 web application. Set each user's contact and login information, and configure their security privileges, profiles, access, and user interface views. Configure the management hierarchy at your organization (the organizational breakdown structure, or OBS) and manage project assignments to reflect the areas of responsibility within your entire enterprise.

Also new in this release, you can use the P6 web application to define privileges for a set of global and project security profiles and then assign them to users to restrict access in accordance with your organization's information assurance and security policies.

In addition, the P6 web application now includes integrated Lightweight Directory Access Protocol (LDAP) support for user provisioning. In the previous release, a Windows PC was required to perform these tasks. You can now configure, search for, and add users directly from your company's central LDAP directory using P6 in your web browser. Enterprise deployments can also batch import multiple user accounts from an LDIF file.

The P6 Web Services module now supports single sign-on via Security Assertion Markup Language (SAML).

In summary, improvements have been made in this release to the native, single-sign on (SSO), LDAP, API, and Oracle Access Manager (OAM) features supporting more secure user authentication for P6.

One Source for All Enterprise Data

Use P6 as a one-stop shop for administering all the enterprise data used by P6 and P6 Professional users. Centrally manage all enterprise data grouped by category, including:

Global category

- ▶ Currencies
- ▶ Financial Periods
- ▶ Global Calendars
- ▶ Overhead Codes
- ▶ Timesheet Periods

Projects category

- ▶ Baseline Types
- ▶ Funding Sources
- ▶ Notebook Topics
- ▶ Project Calendars
- ▶ Project Codes
- ▶ Project User-Defined Fields
- ▶ WBS Categories
- ▶ WBS User-Defined Fields

Activities category

- ▶ Activity Codes
- ▶ Activity User-Defined Fields
- ▶ Cost Accounts
- ▶ Expense Categories
- ▶ Expense User-Defined Fields
- ▶ Step Templates
- ▶ Step User-Defined Fields

Resources category

- ▶ Assignment User-Defined Fields
- ▶ Rate Types
- ▶ Resource Calendars
- ▶ Resource Codes
- ▶ Resource Curves
- ▶ Resource User-Defined Fields
- ▶ Units of Measure

Risks category

- ▶ Risk Thresholds
- ▶ Risk Scoring Matrix
- ▶ Risk Categories
- ▶ Risk User-Defined Fields

Issues category

- ▶ Issue Codes
- ▶ Issue User-Defined Fields

Documents category

- ▶ Document Categories
- ▶ Document Statuses
- ▶ Document User-Defined Fields

Project and Portfolio Management

Web-Based EPS and Project Views

Configure the project hierarchy at your organization (the enterprise project structure, or EPS) and use it to structure projects and control user access to project and portfolio data. Project managers will also use the new web-based EPS features to create and edit projects, templates, preferences, baselines, and summaries. Other useful new features include configuring multi-user EPS views that target key data, importing and exporting Primavera XML, Microsoft Excel, and Microsoft Project 2007 data, and creating new projects and templates directly within the EPS hierarchy.

Similar to the traditional activity views users have relied on for multiple releases, this release now offers project managers more robust project views at the EPS level. Now, you will be able to configure the entire EPS and monitor the status of multiple projects, all from this single page.

The new EPS Gantt chart view on the web is also included. It shows a flat list or grouped list of projects on a timeline. You can choose to display multiple bars, such as current dates versus baseline dates for a comparison view. The timescale can be shown in increments of years (for a long-range view), quarters, months, all the way down to days (for a more granular view.)

Enhanced Portfolio Filtering

Automatic filter refreshing helps keep your portfolios in sync with the latest project data, without the need for user intervention. This release also supports an expanded number of filter parameters offering greater precision when configuring and comparing filtered portfolios.

Schedule Preview

When hundreds or thousands of activities appear in a Gantt chart, P6 allows you to add, modify, or delete them; however, historically, it wouldn't immediately update the results in order to maximize performance. You could reschedule the project in order to view the impacts of your changes and share them with other users, but what if you wanted to preview the results before applying them?

New in P6 for this release is the optional *Schedule Preview* feature which will instantly generate a preview of any schedule changes locally on your PC. This allows you to preview the impact of adding, deleting, or modifying activities on the overall project schedule before deciding to save the schedule changes or discard them.

Recalculate Assignment Costs

The web application now provides an optional command for updating resource and role assignment cost data in your project to reflect recent changes to one or more rates. Use this command during or after scheduling a project in case changes to dates cause assignments to span periods with more than one rate in effect. This command can also be run during leveling.

Project Baselines

In addition to supporting the administration of baseline types, this release of the P6 web application also enables you to convert projects into baselines and then restore baselines back into projects.

Project Templates

Reusable Project Templates

The new templates feature in P6 represents a significant feature improvement for this release, replacing the Methodology Management functionality from the previous release.

A template is a stored copy of, or blueprint for, a project. It includes all the details, best practices, and de facto standards your organization associates with projects of a particular type. For example, use project templates to create a library of predefined project structures that can later be used as starting points for new projects. In addition, specific WBS branches and their activities can be copied from projects or templates and inserted wherever you need them.

Organize your template projects within the EPS, assign them project codes, and provide them with descriptions to aid in reuse. Because templates and projects now share a common database and user interface, it is easy to create templates from projects or to create projects from templates. You can also create projects based on other projects, and templates based on other templates.

Note: Methodologies from the previous release can be converted into P6.

Resource Management

Completely Redesigned Resource and Role UI

The entire Resources section has been redesigned with a new, more intuitive interface that offers robust and responsive enterprise-wide resource management features. A single centralized resource page now provides point-and-click access to resource, role, and team administration, assignments, detailed and high-level planning, and resource and role usage and analysis. Editable tables and supplemental windows empower you to manage enterprise resource information quickly and efficiently. You'll see all resources at a glance and be able to edit details and make resource team and primary role assignments with ease.

Other new highlights include:

- ▶ Access important enterprise data for resources directly from a convenient new menu item and dialog box without navigating away from your current work.
- ▶ Ability to view an assigned resource's calendar.

Improved Resource Planning and Analysis

Navigate to a central location to view and evaluate resources by project, role, resource, allocation, or your own custom filter. Toggle between resource analysis and resource planning modes.

Optimized Resource and Role Team Handling

Select the resources that make up a team faster with fewer steps using the redesigned resource team components. Rather than creating and configuring new resource teams, save time by first duplicating the closest matching team and then simply editing its configuration. When you use this "copy and paste" technique for creating a resource team, all its resources are included in the new copy. You can also use copy and paste to create and manage role teams.

Risk Management

This release of P6 includes significantly expanded Risk Management functionality based on industry best practices and standards for project risk management.

Qualitative Risk Management

Using the new Risk Register, project managers can now assess potential risks on a project plan, associate risks with activities, assign risk probabilities, calculate impacts to schedule and cost, and develop risk response and contingency plans to mitigate risks.

The application's built-in *qualitative* risk management features are complemented by the *quantitative* risk analysis features available with the full Oracle Primavera Risk Analysis solution, an optional integrated component.

Risk Scoring Matrix, Categories, and Thresholds

Define risk probability, tolerance, and impact thresholds using the new risk scoring matrix. When assigned to a project, users can assess risks in order to calculate relative project risk scores. This feature includes a new color-coded probability and impact diagram (PID), probability threshold scale, tolerance scale, and impact severity table.

Enhanced support for risk categories enables you to manage, track, and analyze your own particular conventions for grouping and managing risk. A new risk threshold page provides ways to configure color-coded assessment levels to measure the probability, cost, and schedule impacts of each risk.

Enterprise Reporting

Integrated On-Demand or Scheduled Reports

This release of P6 includes the P6 Reporting Database integrated with Oracle Business Intelligence Publisher. BI Publisher is an enterprise reporting solution allowing you to design, manage, and deliver highly formatted documents. Report formats include Microsoft Word, Excel, OpenOffice, PDF, and support an array of familiar columnar and graphical styles. P6 provides more than 30 new reports dynamically generated when BI Publisher accesses P6 data in the Operational Data Store (ODS).

Other key features include:

- ▶ **Ready-to-Run Reports:** Run pre-defined reports to quickly get started
- ▶ **Room to Grow:** Create reports via data models or templates (also includes custom layout designer)
- ▶ **E-mail or save a report to a file:** E-mail reports to your predefined distribution lists and even save reports to a shared content repository.
- ▶ **Deliver the same report in multiple formats to satisfy different users:** BI Publisher supports several file formats including HTML, PDF, Excel, PPT, MHTML, RTF, XML, and CSV. Each report can be published to all these formats or configured to only specific formats and will have a default format defined.
- ▶ **Schedule reports or generate ad hoc reports on-demand:** Schedule reports to be generated on a defined interval. Reports can be scheduled to execute once, daily, weekly or monthly. A report can have multiple schedule runs defined, each with its own interval, delivery recipients, template and parameters. Of course, any report can also be instantly generated on-demand.
- ▶ **Store archives and access report histories:** Previous runs of a report can be saved, providing a report archiving solution to allow for access to historical reports. Organizations can configure BI Publisher to save reports for a defined time period, and individuals can access the historical reports through BI Publisher.

- ▶ **Adjustable Parameters:** To further reduce the effort and cost of creating and maintaining reports, parameters can be defined within a report, and passed in during runtime. Parameters can be used to filter and organize the information on a report. By using parameters, a single report can meet the need of several project managers, planners and stakeholders. The new P6 reports also include easy lists of values you can browse to select the values you need to run your report.
- ▶ **Secure Access:** The new reporting capabilities provide three layers of security to ensure data is protected and individuals only have access to the reports they are permitted to run.
 - ▶ The entire reporting section can be hidden through the new Enterprise Reporting module access setting. Provisioning this new module will expose the reporting section and create database views in the ODS for each user.
 - ▶ The hierarchical folder structure used for organizing the reports can also define which reports each user has access to run.
 - ▶ Reports pulling project information from the ODS will only return data for projects a user has access to, as determined by P6 application security settings.

Also provided with this release are the ODS and its associated Extract, Transform and Load (ETL) process. The ODS is part of the P6 Reporting Database and provides secure access to information in an easy to use data schema.

Users seeking even greater leverage and analysis of their report data should consider deploying P6 Analytics, available separately from Oracle.

Note: Users of the previous version of P6 may notice the removal of the Project Reports and My Reports portlets. The new Reports section replaces those old features. Users still interested in viewing P6 Professional reports in a P6 portlet can select the **Store report in Work Products and Documents** option in P6 Professional when creating report batches or printing reports. See the *P6 Professional Help* for more information.

Workflow

Oracle BPM Integration

Teams can collaborate with greater efficiency using the built-in project initiation workflow included with P6. Additional workflows can be managed and customized using the separate and optional Oracle Business Process Management (BPM) Suite. Oracle BPM supports BPMN and BPEL at all stages from modeling and implementation to run time and monitoring.

In prior versions of P6, there were embedded workflow engines (jBPM or Interwoven) to automate only three P6 EPPM processes: project initiation, project processes, and document review. While easy to configure, these lacked the depth of functionality to truly model real-world processes. The prospect of using that legacy workflow integration to automate additional processes was limiting. Beginning with Release 8, P6 leverages Oracle's Unified Business Process Management (OBPM) solution to serve as the engine to automate any process related to the management of projects, programs, and portfolios.

All users participating in workflows are not required to use any other application besides P6. Users can initiate, participate, approve, reject, delegate, escalate, and continuously monitor any project workflow process flow by launching it from within a P6 dashboard.

Note: BPM is not the only solution for deploying custom workflows in P6. This release also supports creation of an unlimited number of custom workflows using P6 Web Services and *P6 Events*.

Technological Advances

Integrated LDAP Provisioning

The web application now directly includes Lightweight Directory Access Protocol (LDAP) provisioning support for seamless LDAP or SSO user authentication. In the previous release, a Windows PC was required to configure and add users from an LDAP repository. You can now configure, search for, and add users from your company's central LDAP directory using the P6 web application.

Note: Improvements have also been made in this release to the native, LDAP, single-sign on (SSO), API, and Oracle Access Manager (OAM) features supporting more secure user authentication for P6.

Enhanced and Expanded Job Services

The historic client/server job services architecture has been completely redesigned. Now, all jobs can be invoked and run in real-time from the web. Examples of on-demand jobs include *Recalculate Assignment Costs* and *Store Period Performance*.

In addition, job scheduling also takes place in a web-based environment. The following key jobs can be scheduled, for example, you might run these every Tuesday at a particular time:

- ▶ *Summarize Project*
- ▶ *Schedule Project*
- ▶ *Level Project Resources*
- ▶ *Apply Actuals*

Expanded Event Support

In alignment with all its new features, this release also supports an expanded number of events, triggered by interactions with various classes of objects that comprise the solution. For example, specific types of interactions with activities, projects, EPS elements, risks, documents, jobs such as *Apply Actuals*, and other special operations such as copying a project will now trigger events. Compared with the previous release, nearly three times as many events are available to developers at organizations where they are used for a variety of purposes such as workflows, notifications, data warehousing, or integrations with other enterprise software.

For more information, refer to the *Using Events with P6* manual.

Integration Ready

P6 is now designed and tested to support major integrated enterprise management solutions, including Oracle Primavera Portfolio Management 8.0 (formerly ProSight), Oracle Enterprise Business Suite (EBS), JD Edwards, and other ERP products. Other popular integrations include P6 Progress Reporter for timesheets, Contract Management for contract management, and new in this release, BPM for workflows and BI Publisher or P6 Analytics for reporting.

P6 Web Services Security Enhancements

The P6 Web Services module now supports:

- ▶ Single sign-on via Security Assertion Markup Language (SAML)
- ▶ XML encryption
- ▶ Digital signatures

Improvements have also been made in this release to the native, single sign-on (SSO), LDAP, API, and Oracle Access Manager (OAM) features supporting more secure user authentication.

Platforms

With each release of P6 EPPM, the supported platforms are updated to reflect new technologies and the discontinuation of support for older technologies.

New Supported Platforms:

- ▶ Apple Mac OS X with Safari browser for P6
- ▶ Oracle Business Intelligence Publisher 10g for reporting
- ▶ Oracle BPM 10g & 11g for workflows
- ▶ HP Itanium application servers
- ▶ Oracle Enterprise Manager 11g for enterprise administration

Components or Versions No Longer Supported:

- ▶ JackRabbit previously used for document management
- ▶ jBPM previously used for workflows
- ▶ JBoss application server
- ▶ WebLogic 10g application servers
- ▶ Oracle HTTP 2.0 (10.1.3.2.0), IIS 6.0, and Apache 2.0 web servers
- ▶ SiteMinder previously used for Single Sign-On

User Productivity

Auto-Complete Field Values

Available on select pages and dialog boxes, the new *Auto-Complete* feature offers helpful functionality while entering new values in fields. As you key in an entry in a field that only accepts values from a predefined list of existing values, including some calendar fields, the closest single matching value is automatically selected for you. If multiple values match your input, they are displayed in a list for you to make a selection.

Customizable Toolbars

On most pages of the application, fixed toolbars appear by default wherever they are needed based on your current selection. This functionality existed in the last release and was continued where needed for new pages in this release. However, on three of the most commonly used pages of the application, the Activities, EPS, and Resource Assignments pages, you can now customize the toolbars. Optimize your productivity by hiding the commands you rarely use to make room for the ones you use most often. In addition, you can rearrange and dock toolbars on these pages by clicking and dragging.

Enhanced Activity, Assignment, and EPS Filters

Apply filters to the Activities, Assignments, and EPS pages to constrain the number of activities, resource assignments, and projects, respectively, based on precise criteria you specify. Filter enhancements in this release include:

- ▶ Create, configure, and apply your own custom filters independent of the current activity view. Even apply multiple combinations of custom or shared filters at the same time. The filters you want to apply can also be saved with a customizable view, so they are automatically reapplied along with all the other settings stored in the view.
- ▶ Share filters globally with all users, designate them only for certain users, or keep them private for your own exclusive use.
- ▶ Cut, copy, and paste filters.
- ▶ Specify a greatly expanded number of filter criteria rules, a significant improvement over the previous release's 10-rule limit.

- ▶ Define nested logical filter rules for pinpoint accuracy when scanning rows of data. For example, define inclusive (*any* of the following) and exclusive (*all* of the following) rules.

E-mail Activity Views

Instantly capture one or more projects in your current multi-user view as a hyperlink you can e-mail to others so they can also view the same project, WBS, activity, and step data with all your customized settings applied.

Keyboard Shortcuts

The menus on the **EPS**, **Activities**, and **Resource Assignments** pages include new time-saving keyboard equivalents for important commands. The **Enterprise Data** pages in the administration section of the application also include keyboard equivalents for many of its popular commands (for example, press the **Insert** key to add a new item). Most pages and dialog boxes generally support **Tab** key traversal for easy access and navigation between fields.

Menus and Icons

New in this release, the **Activities**, **EPS**, and **Resource Assignments** pages now organize their feature-rich offering of commands within a series of standard menus titled **Actions**, **Edit**, and **View**. Throughout the entire suite, nearly 100 icons representing various commands have been redesigned and optimized for recognition and ease-of-use.

Redesigned Detail Windows

When a table of entries includes specific related information that supplements the data already shown on the page, P6 presents the detailed information in one or more detail windows. For added convenience, tabbed detail windows are minimized and restored collectively as a group. Users no longer need to open and close each detail window separately, although this level of control is still supported on the EPS and Activities pages.

Overall, for improved efficiency, the application makes greater use of the consistent detail window design. For example, detail windows also appear when administering resources, user accounts, and security profiles. The new **EPS** page includes eight detail windows with specific supporting information related to EPS elements and projects. And finally, the **Activities** page adds three new detail windows for issues, risks, and general data. The detail windows on the **Activities** and **EPS** pages, two of the most widely used pages in the application, can individually be shown or hidden from view.

Learning Assistance

Completely Redesigned Online Help

A new context-sensitive Online Help system is both re-authored and re-architected to provide instant support to users in a time-saving structured interface. Topics include descriptions for all screen elements, icons, and fields. Key concepts, related links, step-by-step tasks, and valuable reference information are provided. Also includes new hierarchical table of contents and search features.

UPK Multimedia Tutorials

Take advantage of the built-in integration with Oracle's User Productivity Kit (UPK) allowing you to launch context-sensitive tutorials. In addition to opening the P6 Online Help, the expanded **Help** menus and buttons in P6 also present options for viewing UPK multimedia simulations from within the P6 interface.

As your organization grows, expand your UPK investment to include custom tutorials developed exclusively for your particular environment, training needs, or business requirements. Oracle UPK must be purchased separately to create new simulations or modify existing ones.

P6 Professional

An overview of the new features available only in P6 Professional, the client edition of P6 for Microsoft Windows PCs designed for planners and schedulers, follows.

To learn more about the features included in or removed from this release of P6 Professional, see the P6 Professional online help topic *What's New in P6 Professional?*

Timescaled Logic Diagrams

A much-anticipated new feature, *Timescaled Logic Diagrams* allows users to condense the project schedule into smaller snapshots. A convenient timescale logic viewer, seamlessly launched from within the P6 Professional application, facilitates the creation, customizing, saving, and printing of timescaled logic diagrams and Gantt charts.

Tabbed Views

By popular demand, users can now switch between open layouts, screens, or views by clicking their identifying tab. Tabs can also be grouped, splitting the window, and then merged back into a single group of tabs within a window. This means that all main windows in the entire application, including Projects, Activities, and Resources, can be displayed simultaneously as tabs and can be tiled horizontally, vertically, or some combination of both.

Customizable Menus

Users can now change the display order of menus, rearrange menu commands, delete menus and commands, and create custom menus.

Customizable Toolbars

An improved default arrangement of toolbars and command buttons reduces visual clutter. In addition, users can fully create and customize any toolbars in the client interface with the commands of most importance to their goals and assignments.

Page Breaks by Group Band

P6 Professional now supports page breaks within layouts. Similar to reports, layouts can be printed and page breaks determine if output will split your charts or other data onto separate pages. Page breaks can be set manually, on customary Page Setup dialog boxes, or automatically based on group band values.

Apply Actuals and Summarize Project Now Run as Services

Apply Actuals and *Summarize Project* jobs now run as java services. These jobs are no longer processed locally within P6 Professional. You can view the status of these services in the **Job Status** dialog box accessible from the **Tools** menu in P6 Professional and will be notified when a service completes or fails.

Auto-Refresh Grouped Data by Window

Enable and disable automatic refresh of grouped data per window. This setting applies to the active window only, and can be different for each open window.

Client-Web Delineation and Integration

This release offers greater web support and ease of use without sacrificing the raw power our P6 Professional users have found indispensable. The P6 Professional client application's legacy administrative functionality has been shifted to a redesigned web interface to allow the client interface to focus entirely on planner/scheduler functionality. P6 Professional users can decide to continue to rely on the optional client application, with its strong core scheduling features, while most enterprise users will migrate to and benefit from the greatly-expanded capabilities and convenience now found in the P6 web application.

Streamlined Installer

P6 Professional now installs all of its files into a single directory with fewer required registry settings. (Note: Only certain secondary applications using the API and the optional SDK use registry settings.) The two main benefits of the new installer are that its footprint is simple and that it is generally easier for IT administrators to deploy (e.g., installations can be *pushed* over the network down to users' desktops).

Of interest to customers of P6 Professional version 7.0, the previous version, is the new supported capability of installing P6 Professional Release 8.0 side-by-side with a version 7.0 installation. Users requiring an upgrade to the P6 SDK would first have to uninstall the 7.0 version of the P6 SDK.

Improved HTML Editor

A new HTML editor provides an expanded set of formatting options for use with notebook and description fields.

Command Line Support

This release supports running batch report jobs and exporting projects from a command line.


Note: To view P6 Professional reports in P6, select the **Store report in Work Products and Documents** option when creating report batches or printing reports. See the *P6 Professional Help* for more information.

P6 EPPM Documentation

You can access reference manuals and administrator's guides from the P6 EPPM Documentation Center, located in the \Documentation\<language> folder of the P6 EPPM physical media or download. Most documentation assumes a standard setup of the product, with full access rights to all features and functions.

Media packs include all files necessary to install P6 EPPM applications, all manuals and technical documents related to the installation, administration, and use of P6 EPPM components, and the Quick Install Guide. For information on the contents of the P6 EPPM Media Pack, see the *P6 EPPM Quick Install Guide*.

The following table describes documentation publications and lists the recommended readers by role. P6 EPPM roles are described in Installation Process Overview in the *P6 EPPM Administrator's Guide*.

Title	Description
<i>P6 EPPM Administrator's Guide</i>	Explains how to set up the P6 EPPM database, servers, and components; it also provides an overview of all the components in the P6 EPPM solution. The guide describes the procedures required to administer P6 EPPM, including setting up security and configuring global preferences.  The P6 EPPM network administrator/database administrator and P6 administrator should read this guide.
<i>P6 EPPM User's Guide</i>	This guide explains how to plan, set up, and manage projects in a multiuser environment. If you are new to P6 EPPM, 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 P6 Help. The program manager, project manager, resource/cost manager, and team leader should read this guide.
<i>P6 Professional Help</i>	Explains how to use P6 Professional to plan, set up, and manage projects in a multiuser environment. If you are new to P6 Professional, use this Help to learn how to use the software effectively to plan and manage projects. The P6 Professional administrator, program manager, project manager, resource/cost manager, and team leader should read this Help.
<i>P6 Help</i>	Describes how to create, manage, plan, and schedule projects, group projects into portfolios, administer all enterprise data, application settings, user accounts, and security profiles, maintain both the organizational breakdown structure (OBS) and enterprise project structure (EPS), manage resources and roles, track risks, issues, and notebooks, create and reuse templates, evaluate budgets, analyze performance and ROI for project portfolios, participate in workflows and document reviews, approve timesheets, and generate reports. The operations executive, P6 EPPM and P6 administrator, program manager, project manager, resource/cost manager, and team leader should read this Help.
<i>P6 Progress Reporter Administrator Help</i>	Describes how to enter database connection information for the P6 Progress Reporter server and modify P6 Progress Reporter server and application settings. The P6 EPPM network administrator/database administrator should read this Help.

<i>P6 Progress Reporter Help</i>	Describes how to use P6 Progress Reporter to enter and update time spent on assignments. Team members should read this Help.
<i>Primavera Timescaled Logic Diagram Help</i>	Describes how to create, modify, and manage Timescaled Logic Diagrams. Timescaled Logic Diagrams condense the project schedule displayed in the Gantt Chart into a more readable, easier to understand format that provides a snapshot of the entire project plan and the chains of activities that drive the project schedule.
<i>P6 Integration API Administrator's Guide</i>	Explains how to install and configure the P6 Integration API, which allows direct access to P6 EPPM via Java. Those creating client code in Java and needing direct access to the P6 EPPM database should read this guide.
<i>P6 Web Services Administrator's Guide, P6 Web Services Programmer's Guide, and P6 Web Services Reference Manual</i>	Explains how to install and configure P6 Web Services, which enables organizations to seamlessly integrate P6 EPPM functionality into other applications using web services standards. 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/operations 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.
<i>P6 SDK Web-based documentation</i>	Describes how to use the P6 SDK to connect to the P6 EPPM database. The tables, fields, and stored procedures that you can access through the P6 SDK are described. Examples are also provided to show how you can use the P6 SDK to perform several basic tasks, such as creating a new project or assigning a resource to a project activity. The P6 EPPM network administrator/database administrator and P6 administrator should read this documentation, which is available in <i>local drive\Program Files\Oracle\Primavera P6 Professional\PM SDK\Doc\</i> by default. Double-click the INDEX.HTML file to open the Table of Contents.
<i>P3 to P6 EPPM Migration Guide</i>	This guide provides best practices for migrating your P3 data to P6 EPPM, and details how P3 functionality maps to P6 EPPM functionality.

<i>P6 Reporting Database Administrator's Guide</i>	This document explains how to install and configure the P6 Reporting Database application, and generate the ODS database. It describes how to install and configure the Oracle Gateway if the P6 Reporting Database is installed on a Microsoft SQL Server. It also provides information about how to run the Configuration Utility
<i>P6 Reporting Database User's Guide</i>	Provides information about using ODS and Star (if you purchased P6 Analytics) with the P6 EPPM database to extract data that you can use to create reports.

Distributing Information to the Team

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

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/us/support/index.html>

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

Go to **http://download.oracle.com/docs/cd/E17266_01/index.htm** for the latest updates to the P6 EPPM 8.0 Documentation library.

Implementation Strategy

In This Chapter

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Roles and Responsibilities

The following section describes the organizational roles as they typically apply to the modules in P6 EPPM. Roles can vary or overlap, depending on the organization and industry.

Network administrators

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

Network administrators ensure that the hardware and software supporting P6 EPPM 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 EPPM databases. 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 databases by

- ▶ Installing, configuring, and upgrading database server software and related products as required;
- ▶ Creating and implementing the databases;
- ▶ Monitoring database performance and tuning as needed;

- ▶ Planning for growth and changes and establishing and maintaining backup and recovery policies and procedures.

Program managers

Program managers are responsible for strategic planning and ongoing performance analysis. They use P6 to identify and monitor problem areas in current projects and analyze past projects to apply lessons learned when planning future projects.

Program managers might be responsible for

- ▶ Initiating, prioritizing, and budgeting projects;
- ▶ The profit/loss for a specific business unit;
- ▶ Funding and go/no-go decisions about projects.

Project managers and schedulers

Project managers and/or project schedulers are responsible for managing multiple small, repetitive projects or a single, complex project. They use P6 Professional and/or P6 to

- ▶ Add projects to the database;
- ▶ Determine resource requirements for a project;
- ▶ Perform cross-project analysis;
- ▶ Perform baseline analysis;
- ▶ Manage projects to on-time and on-budget completion;
- ▶ Plan projects before they are funded.

They might also perform detailed financial analysis of projects, handle project billing, and integrate financial information within the company.

Crew foreman

Crew foremen manage the work for a project that might be a portion of a larger project. They are managers who produce work and manage a team, and they often use P6 and P6 Progress Reporter to prioritize short-term tasks or objectives, typically when the duration is less than the planning period of the project.

Crew members

Crews are trained in a specific skill required on a project. They work with their manager to develop activities and durations for incorporation into the schedule. Once activities are added to the schedule, crew members update them using P6 or P6 Progress Reporter to indicate the work they performed during designated accounting periods.

Set Your Goals and Business Objectives

In most companies, though their scope and duration can vary, projects tend to have similar goals: improve quality, reduce costs, increase productivity and revenue, reduce delivery time, and streamline operations. Often, the ultimate goal is to gain a competitive advantage. Controlling these projects is becoming increasingly difficult, especially if they are planned and run by project teams that are distributed across multiple locations. Organizations need to ensure that each team stays on track with its projects without losing sight of company objectives.

Company-wide project management using P6 EPPM enables project teams to plan and control their work while providing a continuous, centralized understanding of progress and performance. To begin the process of implementing P6 EPPM, you might want to broaden your project management goals to focus on the multi-user, role-based environment.

Specific objectives could include:

- ▶ Providing the project office with access to dynamic status information that they can use to make timely decisions.
- ▶ Improving efficiency of resource use by properly allocating skilled labor, communicating methodologies, and forecasting resource needs more accurately.
- ▶ Improving productivity across the project team as a result of continuous collaboration.
- ▶ Improving communication with all project participants through the use of integrated, organizational-wide products that put project information on individual's desktops.
- ▶ Increasing accountability by making consistent, summarized project status information available to top management.
- ▶ Increasing quality and client satisfaction through the use and reuse of best practices.
- ▶ Enabling maintenance of performance data on completed projects to confirm estimating metrics, generate new or revise existing templates, and collect job cost data.
- ▶ Integrating with other business systems to provide a total information system.

These goals are specific to project management. You can include additional goals that are particular to your company or industry. For example, one specific objective for a construction company might be to complete the inspection process in a more timely manner. Use best practices from your industry as a guide to setting your goals.

Develop an Implementation Strategy

Implementing P6 EPPM successfully requires that an appropriate "culture" be established within your organization. Instead of having many independent projects with no ability to aggregate and control them, you can now have a consolidated, organized project information system.

Creating the culture requires an understanding of the data and how it flows, and the roles and responsibilities of individuals as project participants and managers. Your challenge will be to create an open environment in which all these participants share data and performance information.

You wouldn't think of allowing construction workers to work on a job site without designating a field manager to oversee the work, nor would you implement a new project without assigning a general contractor. The project management environment is best created by your own expert staff, who would perform an equivalent function—if you don't have such a person, you need one. Designate one person or a team of people to plan and coordinate the implementation. The responsibility of this team will be to develop an implementation strategy that includes helping participants understand the organizational project management approach. You might decide you need help with your implementation from Oracle Primavera Consulting or one of our business partners. Contact Oracle Primavera for more information.

While the implementation strategy will be specific to your organization, it will most likely include a needs assessment as one of the first steps. Even though you are already using project management software, take the opportunity to analyze and determine your company's business requirements, along with system requirements and the processes necessary to fulfill those requirements. You will also need to determine how to structure data to facilitate those processes. It is important to document the processes and procedures that you define. Assessing needs is discussed in more detail in **Assess Needs**.

To ensure that data is flowing as planned, create a prototype. Use real project data to set up structures in a test database and run your processes through a typical work cycle. The prototype should include all components of P6 EPPM you'll be using, along with any interfaces to external applications. Develop a plan that identifies all the possible scenarios to test. Include a method for collecting test data and a way to resolve issues. Use this step to make sure your system requirements are sufficient to meet the needs of all users.

A prototype can be followed by a pilot program, where you establish a small group of users to work with P6 in their environment. They can be introduced to the software using familiar project data while performing their daily work tasks. More than likely, the pilot users will identify flaws in the processes and have suggestions and questions. Make refinements and changes based on their feedback. You can also want to begin internal training programs at this time, using your pilot group of users. Ongoing performance monitoring should continue during this stage and adjustments made as necessary.

When the pilot program is satisfactory, a rollout of P6 EPPM to your entire company can begin. This step involves installing the client software on all necessary desktops and populating the database with project data. You should develop a rollout schedule and get the appropriate approvals. Be sure to include the lessons learned from the pilot testing. Communicate the rollout schedule to ensure its success.

Assess Needs

A needs assessment is a crucial step to a successful P6 EPPM implementation. It will provide the basis for the entire system design, how it will operate, and who will use it.

Assessing needs can range from an evaluation of the corporate culture to analyzing hardware/software requirements to reviewing existing processes and developing new ones. Most of your information will come from interviewing key personnel. Meet with representatives from all areas of the company who participate in the project management process, from the owners to the individuals doing the actual work. Ask questions about the tasks they need to perform and the project information they need to know to do their jobs effectively.

Determine corporate culture

As mentioned, understanding the corporate culture plays an important role in any major implementation. You need to know ahead of time whether your company is ready, willing and capable for the change. Evaluate your company's state of readiness for company-wide project management. For example,

- ▶ Does your organization have a clear understanding of project management?
- ▶ Are they familiar with computers and software?
- ▶ Are standard processes in place for managing projects?

If the answer to these questions is No, include a training program in your implementation plan. Depending on the degree of readiness, you might also need to address issues that involve preparing employees mentally for dealing with change.

Define hardware/software requirements

Review the system requirements necessary to run P6 EPPM. Then, conduct interviews with your Information Technology (IT) personnel, or those responsible for maintaining network integrity and new hardware/software installations to inquire about the current technical environment. Include questions, such as

- ▶ Do you have servers or hardware in place? If so, what kind?
- ▶ How are remote locations managed?
- ▶ Do you have separate servers for development and production?
- ▶ Are you running Oracle or SQL server on one or more servers? If so, which version?
- ▶ Are you running any other database software?
- ▶ Do you have a LAN and/or WAN in place?
- ▶ Do you have mobile user requirements?

Answers to these types of questions will help you determine your hardware specifications. Be sure to identify items such as database server requirements, application server requirements, LAN requirements, and PC requirements. This step should be performed early in the process, since you might need to order new equipment or upgrade existing software before installing P6 EPPM.

Define integration requirements

While examining hardware requirements, review any integration requirements.

- ▶ Will you be interfacing with other software systems, such as ERP?
- ▶ Will custom integration to an existing financial system or asset management system be required?
- ▶ Do you have resources who are skilled to develop necessary interfaces or are consultants required?

If you are integrating P6 EPPM with third-party applications or legacy systems, you should identify interface points that provide continuous flow of data while minimizing data loss.

Define how data is structured

To manage projects successfully in P6 EPPM, you first need to set up data structures for your organization, projects, resources, and costs. You might also want to define special codes to help you organize and report on data more effectively. To structure data properly, review how you handle data currently along with how you want to handle it. For example,

- ▶ How do you group projects? How many levels of projects do you have?
- ▶ Are projects cross-departmental? Do they have multiple locations?
- ▶ What is your typical project scope, size, and cost?
- ▶ How many projects are you managing at one time?
- ▶ What is your organizational structure?
- ▶ How do you group resources? Are resources assigned to projects as groups or individuals? Are resources shared across projects?
- ▶ Do you track skills for each resource?
- ▶ Do you have a work breakdown structure already in place?
- ▶ Do you have a need for multiple calendars? Do resources need calendars?
- ▶ What types of reports do you use? How often are they produced?

When you answer these types of questions, you can define the necessary data structures, such as the project hierarchy, organizational breakdown structure, and the work breakdown structure.

Determine current procedures/processes

To define how data will flow in P6 EPPM, you need to understand how your business operates. Look at your current processes and procedures and modify them to suit your project management objectives. Making decisions early about process changes saves time and money. Answer the following types of questions when you analyze business processes.

- ▶ Do you have a project methodology in place? If so, is it working?
- ▶ What is the life cycle of a project?
- ▶ What are the determining factors in deciding if a project is go or no-go?
- ▶ How are decisions made regarding project selection and budgeting?
- ▶ Is your budgeting/planning process top-down or bottom-up oriented?
- ▶ How do you estimate and track costs?
- ▶ Do you have a Project Management Office or something similar?
- ▶ What time reporting mechanism do you use?
- ▶ How do you track and measure progress?
- ▶ How do project participants get work assignments?
- ▶ What is your process for communicating project information to others?
- ▶ What information do you require or expect from the project management process?
- ▶ Who controls security? What security is required for project information? Do you need to restrict data access on a group or individual basis?

Communicate the Plan

In successful P6 EPPM implementations, people accept the changes and use the new system. Any new system or business process means a change to the way people are currently doing their jobs. Employees who are affected by the change need to know what to expect. Top management also needs to know what is going on if they are to provide support and commitment.

Communicate the implementation plan early and repeat it often. Set expectations and manage them continuously, being careful to avoid disappointing, frustrating, or surprising people.

There are many ways to communicate the implementation plan. You could introduce the plan at a company meeting along with a demonstration of P6 EPPM to show how it will benefit the entire organization. Explain any changes to business processes that might occur and what it means to individuals. Define a timeframe so everyone knows when the changes will happen. Encourage people use the software and experiment hands-on to increase their comfort level when it comes time for them to make the change. Publicize commitment by ensuring that the implementation team has support and by providing training programs and seminars. Provide a method for all levels of the organization to address concerns, questions, and suggestions.

Read the topics under, **The Implementation Process** (on page 53), to learn about the data structures and how they fit together in P6 EPPM.

If you foster a challenging workplace that can develop individual careers along with open communication, those individuals will want to make the process successful.

The Implementation Process

In This Chapter

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Understanding Data Structures in P6 EPPM

P6 EPPM contains many data structures to support your project management needs and business processes. Well-defined structures make entering data faster and easier; they enable you to organize and summarize data more effectively. Review the following definitions to help you better understand the data structures in P6 EPPM.

Enterprise project structure (EPS)

The EPS is a hierarchy that represents the breakdown of projects in a company. Nodes at the highest, or root, level might represent divisions within your company, phases of projects, 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 the EPS.

Resource hierarchy

The resource hierarchy represents the people, materials, and/or equipment used to perform work on activities. The resource hierarchy includes the resources across all projects in the organization. Resources are assigned to activities in P6 EPPM and can be set up to use P6 Progress Reporter to report actual workhours.

Role hierarchy

The role hierarchy represents the roles, or job titles, that exist in your organization and have some responsibility to complete project requirements. You can associate resources with roles. In the planning stages of a project, you can assign roles to activities to establish an initial project plan without committing individual resources to activities; then, before work on an activity begins, you can assign a resource that meets the defined role requirements. You are not required to define a role hierarchy.

Work breakdown structure (WBS)

The WBS is a hierarchical arrangement of the products and services produced during and by a project. In P6 EPPM, 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.

Organizational breakdown structure (OBS)

The OBS is an outline of managers responsible for the projects in your company. There is one OBS for the entire organization. It is used to control access to projects and data.

Project, activity, and resource codes

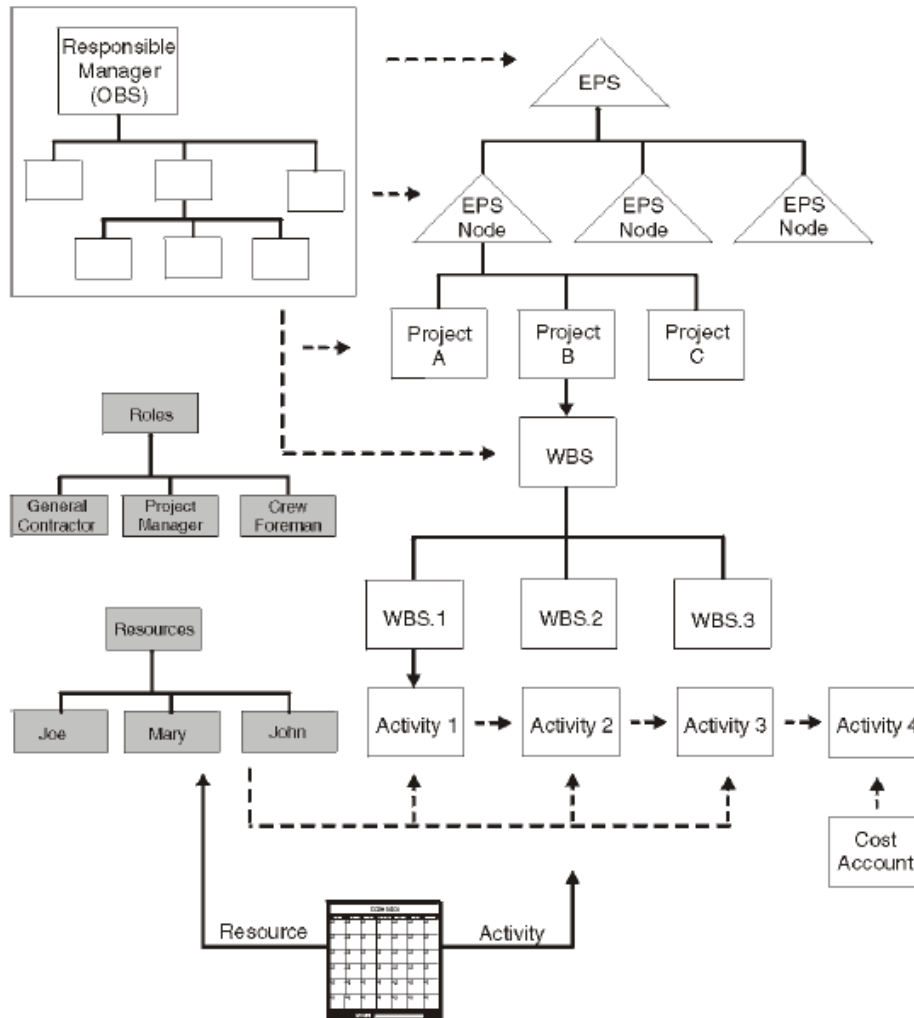
In addition to the EPS, WBS, and resource hierarchy, you can also create coding structures. Codes allow you to categorize projects, activities, and resources that have similar attributes; you can group, sort, filter, and summarize based on these codes.

Calendars

Calendars define standard workdays and the available number of hours in each day, along with holidays, vacations, and other nonworktime. You can create global, project-specific, and resource-specific calendars. Calendars are assigned to activities and/or resources; they determine start and end dates during scheduling and resource leveling.

Connecting Data Structures

The following diagram illustrates how the data structures relate to each other in P6 EPPM.



The EPS categorizes work in your company. Projects belong to EPS nodes. Each project has its own WBS that further breaks down the work in that project. Activities are the lowest level of the WBS. Additional structures include resources, roles, calendars, and cost accounts, which are assigned to activities. The OBS represents the responsible managers in your company and can be assigned at the EPS, project, and/or WBS level.

Structuring Projects

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Process Overview: Structuring Data in P6 EPPM

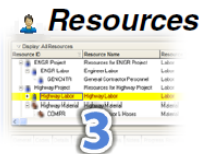
The hierarchical structuring of data serves as the foundation before the addition of actual project data. The following sequence is suggested for setting up the main structures:



Set up the EPS—
the hierarchical structure that identifies company-wide projects and enables organization and management of those projects.



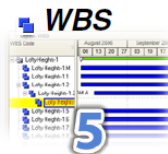
Set up the OBS—
the hierarchical arrangement (by actual individuals or by roles) of your company's management structure.



Set up Resources—
your organization's hierarchical resource structure; these resources will later be assigned to activities.



Set up Roles—
a hierarchy based on your organization's recognized job functions; resources will later be assigned to these roles. (Optional)



Set up the WBS—
the hierarchical arrangement of the sub-projects, task groups, products, and services produced during and by each project.

Administrators, working with program managers and project managers, structure the EPS and OBS hierarchies. An EPS can consist of multiple root nodes, which enable particular types of projects to be grouped together, such as project templates or high-risk projects. Within each root node, you can further break down an EPS into multiple EPS nodes to categorize the types of projects.

The WBS acts as a continuation of the EPS for the individual projects in the enterprise. A WBS provides organization and control of project and activity information through a hierarchy of WBS elements. When you create projects, P6 EPPM automatically creates a WBS element at the same hierarchy level and with the same name as the project. The P6 EPPM enables you to set anticipated project dates, budgets, and spending plans for a WBS at a high level to indicate when the work should occur and how much its planned budget and monthly spending should be. You can use the pre-established budget amounts and funding information you set for WBS elements for their project and activity counterparts.

Setting Up the Enterprise Project Structure

About the Enterprise Project Structure (EPS)

The enterprise project structure (EPS) represents the hierarchical structure of all projects in the database. The EPS can be subdivided into as many levels or nodes as needed to represent work at your 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; projects always represent the lowest level of the hierarchy. Every project must be included in an EPS node.

The number of EPS levels and their structure depend on the scope of your projects and how you want to summarize data. For example, you might want to define increasingly lower levels of EPS nodes, similar to an outline, to represent broad areas of work that expand into more detailed projects. Specify as many projects as needed to fulfill the requirements of your operations executives and program managers.

Multiple levels enable you to manage projects separately while retaining the ability to roll up and summarize data to higher levels. For example, you can summarize information for each node in the EPS. Conversely, you can use top-down budgeting from higher-level EPS nodes down through their lower-level projects for cost control.

User access and privileges to nodes within the EPS hierarchy are implemented through a global organizational breakdown structure (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.

Working with the EPS

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 at your 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. Projects always represent the lowest level of the hierarchy. Every project must be included in an EPS node.

Ideally, one person or group controls the EPS across the organization. The project control coordinator creates the hierarchical structure that identifies the company-wide projects. The coordinator works with the project manager in each area of the organization to define basic project information for each group and to develop standards before any projects are added.

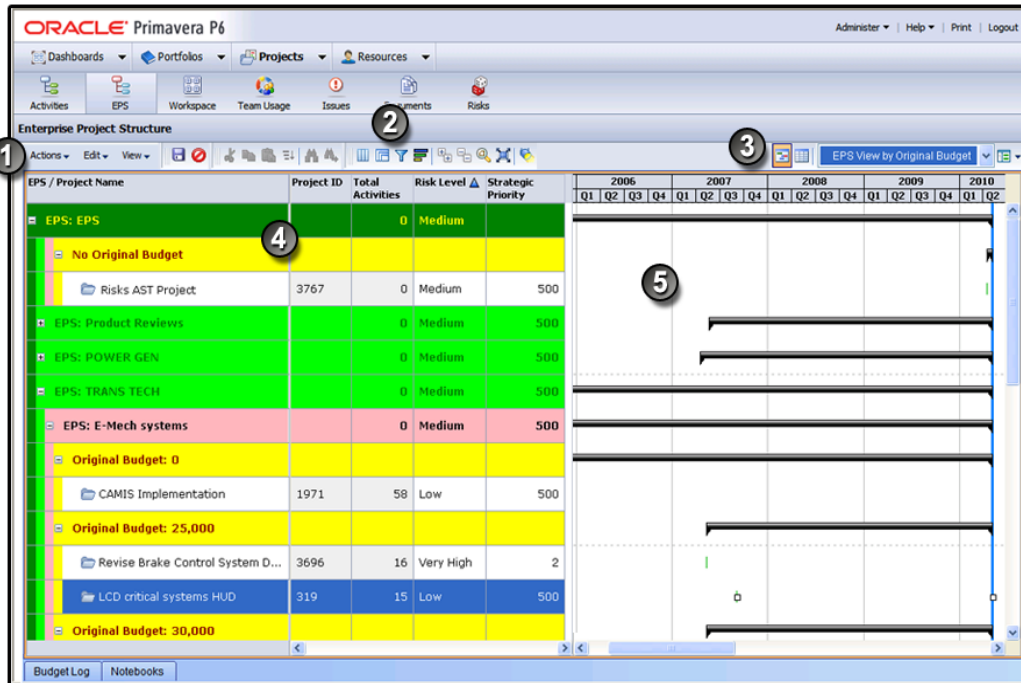
Organizational breakdown structure (OBS)

User access and privileges to nodes within the EPS hierarchy are implemented through a global OBS that represents the management responsible for each project. 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.

Build the hierarchy

After you set up an EPS, you can define additional data about each EPS node, such as anticipated dates, budgets, and spending plans. Use the detail windows on the EPS page to specify this information. Or, you can begin adding projects under the applicable nodes in the structure if you have access rights to these functions. Access rights are set by your application administrator.

Throughout the application, when selecting projects to work with, you can open all projects that belong to an EPS node or sort them by EPS. When you create a project, you must specify a single parent EPS node.



The EPS Page






Item	Description
------	-------------

- | | |
|---|--|
| 1 | Actions, Edit, and View menus: Use these menus to customize the EPS page. |
| 2 | EPS toolbars: Customize the toolbars to include toolbuttons that you use often. |
| 3 | Project View toolbar: Determines how you see data on the EPS page. |
| 4 | Project table: Displays each project within the EPS. In this example, the data is grouped to three (3) levels by EPS, grouped at a fourth level by Original Budget, and sorted by Risk Level. |
| 5 | EPS Gantt chart: Displays project and EPS data in a Gantt chart format. |

Creating EPS Elements

Create enterprise project structure (EPS) elements to represent the hierarchical positions of all the projects in your database. You can create sibling EPSs to represent those that are hierarchically equal, or child EPSs to represent those that are subordinate.

To create EPS elements:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select an EPS. The EPS can act as a sibling or a parent.
 - b. Click the **Actions** ▼ menu:
 - To add a sibling, select **Add** ►  **Add Sibling EPS** (Shift+Insert).
 - To add a child, select **Add** ►  **Add Child EPS** (Ctrl+Insert).
 - c. Enter a name in the **EPS/Project Name** field of the new EPS.
 - d. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips









- ▶ You might find it helpful to apply the *EPS Only* standard filter when creating an EPS element. This will remove all projects and templates from the view so you can easily see where your new EPS fits into the EPS hierarchy as a whole. See **Applying Filters** (on page 139).
- ▶ To create an EPS, the entire EPS hierarchy must be visible, so you might have to configure your grouping or filter settings. Grouping should be configured to have the **Field** list set to *EPS* and the **To Level** list set to *All*. Also, the **Hide if empty** option cannot be selected. Filtering cannot be configured to display projects that belong to an EPS as this will select the **Hide if empty** option.
- ▶ The application automatically names the new EPS *New EPS*, *New EPS-1*, *New EPS-2*, et cetera.
- ▶ You can also right-click an EPS on the table and select **Add Child EPS** or **Add Sibling EPS** to create an EPS.

Configuring the EPS

Configure the EPS for your organization to develop a hierarchy that establishes the way your organization operates. Divide the EPS into multiple levels or nodes to represent the work that needs to be done in your organization. You can then assign projects to these nodes and levels to reflect work that needs to be done in each area.

The number of EPS levels and their structure depend on the scope of your projects and how you want to summarize data. For example, you might want to define increasingly lower levels of EPS nodes, similar to an outline, to represent broad areas of work that branch into more detailed projects.

To configure the EPS:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Create the EPSs you need to represent the divisions in your company, site locations, or other major groupings of projects. See **Creating EPS Elements** (on page 61).
 - b. Use the  **Move Up** (Ctrl+Alt+Up),  **Move Down** (Ctrl+Alt+Down),  **Move Left** (Ctrl+Alt+Left), and  **Move Right** (Ctrl+Alt+Right) arrows on the **Edit** menu to arrange the EPS nodes in a hierarchy that establishes the highest level and lowest level EPSs.
 - c. Add projects to the EPS nodes. See **Creating Projects** (on page 62) or **Creating Projects from Existing Projects or Templates** (on page 63).
- 4) On the **EPS** page, click the **Actions**  menu and select  **Save** (Ctrl+S).

Tips

The farther to the left an EPS is, the higher-level EPS it is.






About Projects

A project is any temporary series of activities performed in some coordinated arrangement in order to create a product, service, or measurable business result. Projects have a definite beginning and end. A project is concluded when its objectives have been reached or when the project is terminated.

Creating Projects

Create projects to define a set of activities and WBSs that work toward a common goal.

To create a project:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select the  **EPS** element to which you want to add the new project.
 - b. Click the **Actions**  menu and select **Add**  **Add Project**.
- 4) In the **Add Project** dialog box:
 - a. Click the **General** tab and select an option or enter a value in each required field.

Note: You can add a description or a **Must Finish By** date. You can also copy the project from an existing project or template.
 - b. Click **Create**.







Tips

- ▶ To configure advanced options, you must select a project to copy. This will enable the **Advanced** tab. If you select to copy a template, the **Advanced** tab will not be enabled.
- ▶ You can also right-click the table and select **Add Project** to create a project.
- ▶ You can copy existing projects to create new projects.

Creating Projects from Existing Projects or Templates

In place of making a project from scratch, you can use a template or a copy of an existing project as a starting point.

To create a project from an existing project or template:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select the  **EPS** element to which you want to add the new project.
 - b. Click the **Actions**  menu and select **Add** ▶  **Add Project**.
- 4) In the **Add Project** dialog box, click the **General** tab.
- 5) On the **General** tab:
 - a. Select an option or enter a value in each required field.
 - b. In the **Copy from existing project or template** field, click  **Select Project or Template to Copy** and select an option from the dialog box.

Note: Click  **Select Project Type** and select **Projects** or **Templates** to open the list of projects or templates.

- c. Click **Create**.





Tips

- ▶ To configure advanced options, you must select a project to copy. This will enable the **Advanced** tab. If you select to copy a template, the **Advanced** tab will not be enabled.
- ▶ You can also right-click the table, select **Add Project**, and follow steps 4 and 5 to create a project from an existing project or template.
- ▶ You cannot copy from a project unless you have the privilege to view costs for a project.

Deleting Projects or EPSs

Delete projects or EPSs when they are no longer necessary.

To delete projects or EPSs:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select the project or EPS to delete.
 - b. Click the **Actions** ▼ menu and select  **Delete** (Delete).
 - c. In the **Primavera P6** dialog box, click **Yes**.
 - d. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).



Caution:

- You cannot retrieve deleted projects.
 - When you delete a project or EPS, you are also deleting all of the WBSs, activities, and projects (if you are deleting an EPS) contained therein.
-

Opening Projects or Templates in the EPS

You can open projects or templates from the EPS page. When you then move to other areas of the application, such as the Workspace page, these projects or templates will be open.

To open EPS node projects or templates:



- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project, project template, or EPS to open.

Note: If you select an EPS, all the projects contained in that EPS will also open.

- b. Click the **Actions** ▼ menu and select  **Open Project** or  **Open Project Template**.

Tips









- ▶ You can open more than one project or EPS at a time. Use **Shift+click** or **Ctrl+click** to select all the items you want to open.
- ▶ You can also right-click a project and select **Open Project** or **Open Project Template** from the menu to open a project or project template.

- ▶ You cannot open a template in combination with any other item.
- ▶ To close a project, right-click the project you want to close and select **Close Project**. To close all of the open projects on the **EPS** page, click the **Actions** menu on the **EPS** page and select **Close All**.
- ▶ When a project is open, it will display an open folder icon . When a project is closed, its corresponding folder icon will also be closed .
- ▶ The **Team Usage**, **Workspace**, **Documents**, and **Issues** pages are not available if you are working with a project template.

Customizing Detail Windows


You can customize which detail windows appear on the EPS or Activities pages.

To customize detail windows:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects**  menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects**  menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:
 - a. Select a view from the **Activity** or **EPS View** list.
 - b. Click the **View**  menu and select **Customize Detail Windows**.
- 4) In the **Customize Detail Windows** dialog box:
 - a. In the **Area** section, select one of the options to determine which listing of detail windows is available for you to customize.
 - b. In the **Detail Window** section, select or clear the options beside detail windows to add or remove them from the page.
 - c. Click **Save**.

Tips




- ▶ Select or clear the option beside the **Detail Window** title to add all or remove all the detail windows.
- ▶ Right-click a detail window tab to customize detail windows. Click **Customize** on the menu to open the **Customize Detail Windows** dialog box, or click a detail window name to add or remove it from the page.
- ▶ Click and drag detail windows to change their order. Otherwise, the detail windows appear in the same order that they appear in the **Customize Detail Windows** dialog box.

- ▶ Click  **Float** on the detail window to convert it to a dialog box. You can then drag this dialog box to change its position.
- ▶ When you navigate to a new page, you can save or cancel the view changes you made to the detail windows. These changes will only be saved for the view selected in the **Activity** or **EPS View** list.

Configuring Project Preferences

Set project preferences to configure basic settings for the selected project.




To configure project preferences:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions** ▼ menu and select  **Set Project Preferences....**
- 4) In the **Project Preferences** dialog box, configure the tabs as needed for the selected project.
 - a. Configure the **Calculations** tab. See **Configuring Project Calculations** (on page 66).
 - b. Configure the **Contract Management** tab. See **Linking Contract Management Data** (on page 346).
 - c. Configure the **Defaults** tab. See **Configuring Project Defaults** (on page 67).
 - d. Configure the **General** tab. See **Configuring General Project Preferences** (on page 68).
 - e. Configure the **Progress Reporter** tab. See **Configuring P6 Progress Reporter** (on page 68).
 - f. Configure the **Summarization** tab. See **Configuring Project Summarization** (on page 68).
 - g. When you are finished, click **Save and Close**.

Configuring Project Calculations

Configure project calculations to define how the application will compute values concerning activities, earned value, and units and costs.

To configure project calculations:


- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions** ▼ menu and select  **Set Project Preferences....**

- 4) In the **Project Preferences** dialog box, click the **Calculations** tab.
- 5) On the **Calculations** tab:
 - a. Configure the options in each section.
 - b. Click **Save** to continue working or click **Save and Close** if you are finished.

Linking P6 and Contract Management Projects

When the P6 and Contract Management applications are linked, you can then link a specific project in P6 to a Contract Management project. This will enable you to view up-to-date contractual information for the project within portlets.

To link a P6 project to a Contract Management project:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions**  menu and select  **Set Project Preferences...**
- 4) In the **Project Preferences** dialog box, click the **Contract Management** tab.
- 5) On the **Contract Management** tab, click **Group Name: Project Name** .
- 6) In the **Primavera P6** dialog box, log on to **Contract Management**.
- 7) In the **Select Project and Group** dialog box, expand a project, select a group, and click **OK**.
- 8) In the **Project Preferences** dialog box, click **Save** to continue working or click **Save and Close** if you are finished.



Tips


To link the project to a Contract Management project, you must have a valid user name and password. If you have a Contract Management user name and password that is the same as the user name and password with which you are currently logged in to P6, you are not prompted to login again. If you do not have the same user name and password for both applications, you must enter a valid Contract Management user name and password in the **Primavera P6** dialog box.

Configuring Project Defaults

Configure project defaults to define how new activities and assignments will display in a project.

To configure project defaults:




- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.

- b. Click the **Actions** ▼ menu and select  **Set Project Preferences....**
- 4) In the **Project Preferences** dialog box, click the **Defaults** tab.
- 5) On the **Defaults** tab:
 - a. Configure the defaults to represent how you want the application to handle new activities and assignments.
 - b. Click **Save** to continue working or click **Save and Close** if you are finished.

Configuring General Project Preferences

Configure general project preferences to specify general information concerning the project such as when the fiscal year begins.




To configure general project preferences:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions** ▼ menu and select  **Set Project Preferences....**
- 4) In the **Project Preferences** dialog box, click the **General** tab.
- 5) On the **General** tab:
 - a. Configure the field and list.
 - b. Click **Save** to continue working or click **Save and Close** if you are finished.

Configuring P6 Progress Reporter

Configure statusing and managing activities options to specify how users interact with activities.





To configure P6 Progress Reporter:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions** ▼ menu and select  **Set Project Preferences....**
- 4) In the **Project Preferences** dialog box, click the **Progress Reporter** tab.
- 5) On the **Progress Reporter** tab:
 - a. Configure the options for each section.
 - b. Click **Save** to continue working or click **Save and Close** if you are finished.

Configuring Project Summarization

You can configure how projects are summarized.

To configure project summarization:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project.
 - b. Click the **Actions**  menu and select  **Set Project Preferences....**
- 4) In the **Project Preferences** dialog box, click the **Summarization** tab.
- 5) On the **Summarization** tab:
 - a. Select or clear the **Enable Summarization** option.
 - b. If you select the option, configure the newly enabled options and list.
 - c. Click **Save** to continue working or click **Save and Close** if you are finished.

Tips

If you clear the **Enable Summarization** option on the table, you will be asked if you would like to delete the summary information. If there is no summary information, then the application will not prompt you.

About Project Templates

Project templates are reusable models of projects you can store and use later, in whole or in part, to save time and standardize your operations.

A template includes all the details, best practices, and de facto standards your organization associates with projects of a particular type. For example, use project templates to create a library of predefined project structures that can later be used as starting points for new projects. In addition, specific WBS branches and their activities can be copied from projects or templates and inserted wherever you need them.

You can organize your template projects within the EPS, assign them project codes, and provide them with descriptions to aid in reuse. You can create templates from projects or to create projects from templates. You can also create projects based on other projects, and templates based on other templates.

Working with Project Templates

Project templates act as a format that you can use when creating new projects or templates.

Working with project templates

The **Documents**, **Issues**, **Team Usage**, and **Workspace** pages are not available for project templates. If you navigate to one of these pages while working with a project template, you will see the message: *Project templates are not supported on this page*. When working with templates on the **Activities** or **EPS** pages, the **Issues** and **Documents** detail windows are visible but their icons are disabled.

Creating project templates

You can create a brand new project template, or you can copy and modify an existing template or project to make a new template. If you select to copy a project or template, you can copy the entire template, or you might insert only the WBS portion into a project.

Because issues and documents are not available for project templates, when you copy an existing project to make a template, the issue and document information does not carry over.

When you copy a project to create a template, some fields are automatically cleared of any values and disabled to prevent the reuse of data out of context. For example, actual dates and costs are not permitted in templates.

Opening project templates






Project templates cannot be opened in conjunction with other project templates or with projects. If you open a project or a project template on the **EPS** page when you have a project template open, the initial project template will close. Conversely, if you have a project or group of projects open and you open a project template, the projects will close.

This is also true when working in the **Open Projects** dialog box. For example, when you have a project template open, the **Open Projects** dialog box will display the template in the **Selected Templates** list. If you add a project to the **Selected** list, the application will remove the project template from the list. If you already have a project template selected, the application will not allow you to add another template to the list. On the other hand, if you try to open a project template when projects are already open, the projects are replaced by the project template.

Creating Project Templates

You can create project templates to act as a standard or format for future projects.

To create project templates:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select the  **EPS** element to which you want to add the new project template.
 - b. Click the **Actions**  menu and select **Add**  **Add Project Template**.
- 4) In the **Add Project Template** dialog box:
 - a. Click the **General** tab and configure each required field.

Note: You can add a description or copy from an existing project or template.

- b. Click **Create**.

Tips

- ▶ To configure advanced options, you must select to copy from an existing project or template. This will enable the **Advanced** tab.
- ▶ If you choose to copy from an existing project, select either the **Use Actual Costs and Units** or **Use Planned Costs and Units** option. If you select to copy from a template, the application will disable the **Use Actual Costs and Units** option.
- ▶ You can also right-click the table and select **Add Project Template** to create a project template.

Setting Up the Organizational Breakdown Structure

About the OBS

The organizational breakdown structure (OBS) is a hierarchical way to represent the managers responsible for the projects in your enterprise. You can associate the responsible managers with their areas of the enterprise project structure (EPS) with either an EPS node or a project. When you associate a responsible manager with an EPS node, any projects you add to that branch of the EPS are assigned that manager element by default. An OBS supports large projects that involve several project managers with different areas of responsibility.

To access a project, a user must have access permissions for an OBS element within the project. You can then assign users to OBS elements. When you assign users to OBS elements, users get access privileges to projects and EPS nodes where they have OBS access. The type of access granted to a user is determined by the project security profile assigned to the user.

Creating an OBS




Create an organizational breakdown structure (OBS) to hierarchically represent the managers responsible for your projects. You must have the appropriate privileges to create an OBS.

To create a new OBS:

- 1) Click the **Administer** ▼ menu and select **User Access**.
- 2) On the **User Access** page, click **OBS**.
- 3) On the **OBS** page:
 - a. Click **+ Add**.

Note: The OBS is automatically added as a child of another OBS.

- b. Move the OBS to the correct location in the list and hierarchical position by clicking the **Move Up**, **Move Down**, **Move Left**, or **Move Right** arrows.
- c. In the **OBS Name** field, double-click and type a unique name.
- d. Click the **Users** detail window.

- 4) In the **Users** detail window, remove or assign users to the OBS.
 - To remove a user from the OBS, select a user and click the  **Delete** icon.
 - To assign a user to the OBS, click the  **Add** icon.
- 5) In the **Select Users** dialog box, select a user and click **OK**.
- 6) On the **OBS** page, click  **Save**.

Tips



- ▶ When you set up enterprise project structure (EPS) nodes, a root OBS is automatically assigned to the root EPS.
- ▶ When you create a new project, the default responsible manager is automatically assigned so that an OBS element is available for each work breakdown structure (WBS) element added to the project.

Assigning Users to an OBS


Except for a project owner or a Team Member user, a user must have permission to access an organizational breakdown structure (OBS) to access a project assigned to that OBS. If you have appropriate privileges, you can assign users to OBS elements using their login names.

Caution: Users assigned to an OBS that is assigned to the root EPS have access to all nodes beneath the root.

To assign users to an OBS:

- 1) Click the **Administer**  menu and select **User Access**.
- 2) On the **User Access** page, click **OBS**.
- 3) On the **OBS** page, select an OBS and click the **Users** detail window.
- 4) In the **Users** detail window, click  **Add**.
- 5) In the **Select Users** dialog box:
 - a. Select a user and click **Assign**.
 - b. Select any additional users and click **Assign**.
 - c. Click **Close** when finished.

Note: The default project security profile will automatically be assigned when the User is selected.

- 6) In the **Users** detail window, select a different project security profile for each user, if needed.
- 7) On the **OBS** page, click  **Save**.

Defining Resources and Roles

About Roles

Roles represent personnel job titles or skills needed to execute projects. Architect, general laborer, quality assurance tester, and engineer are all examples of possible roles. You can create a standard set of roles that you then assign to labor and non-labor resources and activities for all projects in the organization. You can establish an unlimited number of roles and organize them in a hierarchy for easier management and assignment. The set of roles you assign to an activity defines the activity's skill requirements. You can also define multiple price per unit rates and unit per time limits for each role to accurately plan future costs and allocation.









You can assign one or more roles to individual resources. When you assign roles to a resource, you also indicate their proficiency in that role and identify which role is their primary role. A primary role is the main role the resource is currently performing. The proficiency level describes the resource's skill level in that role. For example, Joe is a resource and fills the role of both software engineer and manager. He has been a software engineer for 20 years and is *1 - Master* in that role; however, his primary role is manager, which he has been for 5 years and his proficiency level is *3- Skilled*.

Assign roles to activities as you would resources during project schedule and cost planning. When your plans are finalized, you can replace roles with resources, based on each activity's role and skill requirements.



Creating Roles

Create a standard set of roles that you can assign to labor and nonlabor resources and activities.

To create roles:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Roles** tab.
- 4) On the **Roles** tab:
 - a. Click  **Add** (Insert), or click an existing role and click  **Add Child** to add a role in a hierarchy. A new row is added to the **Roles** table.
 - b. In the **ID** field, click and type a unique identifier for the new role.
 - c. In the **Name** field, click and type a unique role name.
 - d. To create or modify a hierarchy of roles, use the arrows     on the toolbar to position the new row.

For example, if a Project Manager role exists in the system and you just created a Design Manager role, which is a type of Project Manager, use the up/down arrows to position the new Design Manager role under Project Manager, and then click the right arrow to indent the new row.

- e. Click the **Description** detail window.
- 5) In the **Description** detail window, type a description of the role's responsibilities.
- 6) On the **Roles** tab, click the **Prices** detail window.
- 7) In the **Prices** detail window, click in a rate type field and enter the rate. Repeat for all applicable rate fields.
- 8) On the **Roles** tab, click the **Limits** detail window.
- 9) In the **Limits** detail window:
 - a. Click  **Add** (Insert) to define the units/time for the role over time.
 - b. In the **Effective Date** field, double-click and select the effective date on the calendar.
 - c. In the **Max Units/Time** field, click and type the maximum work units per time for this role.
- 10) On the **Roles** tab, click  **Save** (Ctrl+S).




Tip


Click **Select Columns** to select any additional fields that you want in the table. Then, enter data in the additional fields you added.

Assigning a Resource to a Role

The set of roles you assign to a resource describes the resource's skill capabilities. These role assignments make it easy to assign resources to activities according to role. You can also assign roles to activities directly when you are unsure of the actual resources available to work on the activities. You can later replace the roles with the applicable resources.

To assign a role to a resource from the Roles tab:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Roles** tab.
- 4) On the **Roles** tab:
 - a. Click the name of the role.
 - b. Click the **Resources** detail window.
- 5) In the **Resources** detail window, click  **Add** (Insert).
- 6) In the **Select Resource** dialog box:
 - a. Choose a resource and click **Assign**.
 - b. Choose any additional resources for the role and click **Assign**.
 - c. Click **Close**.
- 7) In the **Resources** detail window:

- a. To change the proficiency level for that resource, double-click the **Proficiency** field and select a level.
 - b. If this is the primary role for the resource, select the **Primary Role** option for the resource.
- 8) On the **Roles** tab, click  **Save** (Ctrl+S).

Tips

You can also assign a role to a resource from the Resources tab. Use this method if you want to view all roles assigned to a single resource. See **Assigning a Role to a Resource** (on page 79).

Assigning a Role Team to a Role

Using role teams can simplify resource planning. You can do this from either the Roles tab or the Role Teams tab in the Resource Administration area. Use this method if you want to view all role teams assigned to a particular role.

To assign a role to a role team:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Roles** tab.
- 4) On the **Roles** tab:
 - a. Click the role you are assigning to a role team.
 - b. Click the **Role Teams** detail window.
- 5) In the **Role Teams** detail window, click  **Add** (Insert).
- 6) In the **Select Role Team** dialog box:
 - a. Expand either the **Global** or **User** category, choose a role team, and click **Assign**.
 - b. Choose any additional role teams and click **Assign**.
 - c. Click **Close**.
- 7) On the **Roles** tab, click  **Save** (Ctrl+S).




Tips

You can also assign a role to a role team from the Role Teams tab. Use this method if you want to view all roles assigned to a particular role team. See **Assigning a Role to a Role Team** (on page 77).

Assigning Rates to Roles

Use this procedure to assign rates to the roles you created. Assigning rates to roles enables you to more accurately determine total resource (and activity) costs. You can assign up to five rate types depending on number of rate types set up by your administrator.





To assign role rates:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Roles** tab.
- 4) On the **Roles** tab:
 - a. Click a role.
 - b. Click the **Prices** detail window.
- 5) In the **Prices** detail window, click in the appropriate price fields and enter an amount. The default time period is price per hour unless you specify another time period.
- 6) On the **Roles** tab, click  **Save** (Ctrl+S).

Assigning Work Limits to Roles

Assign role work limits to define the maximum amount of work units the selected role can perform in a single work period.

To assign limits to a role:





- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Roles** tab.
- 4) On the **Roles** tab:
 - a. Click a role.
 - b. Click the **Limits** detail window.
- 5) In the **Limits** detail window:
 - a. Click  **Add** (Insert).
 - b. In the **Effective Date** field, double-click to open the calendar and choose a date to start the Max/Unit limit.
 - c. In the **Max Units/Time** field, click and type the maximum work units per time for this role. Enter these values as units per duration or as a percentage, depending on your choice in the Time Unit Format area on the Global tab of the My Preferences page.
- 6) On the **Roles** tab, click  **Save** (Ctrl+S).

About Role Teams

A role team is a collection of roles that are often needed on the same project or the same activities. Role teams are useful when you want to categorize and view allocation for related roles. Role teams allow you to categorize and group roles so you can readily find data relating to a particular role. When working with tabs and pages that display role data, you can choose to organize the hierarchy by role team. You can view team data such as total team units or individual unit values. If you have the required security privilege, you can create global role teams. All users that have access rights to view resource data can create user role teams.

Creating Role Teams



Use this procedure to create role teams. Role teams let you categorize roles so you can view and analyze data that relates to a specific group that interests you. When working with tabs and pages that display role data, you can choose to organize the hierarchy by role team, then choose to view team data, such as total units for the team, or individual unit values for each team member.



- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Role Teams** tab.
- 4) On the **Role Teams** tab:
 - a. Click either **Global Role Teams** or **User Role Teams**.
 - b. Click  **Add** (Insert). A new row is added to the **Role Teams** table.
 - c. In the **Name** field, double-click and type a role name.
 - d. Click  **Save** (Ctrl+S).
- 5) To assign roles to the role team, see **Assigning a Role to a Role Team** (on page 77).

Assigning a Role to a Role Team

Use this task to assign a role to a role team. You can assign a role to a role team from the Role Teams tab or the Roles tab. Use this method if you want to view all roles assigned to a particular role team.

To assign a role to a role team:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Role Teams** tab.
- 4) On the **Role Teams** tab:
 - a. Expand either the **Global Role Team** or **User Role Teams** category, and click the role team for which you are assigning a role.
 - b. Click the **Roles** detail window.

- 5) In the **Roles** detail window, click  **Add** (Insert).
- 6) In the **Select Role** dialog box:
 - a. Choose a role and click **Assign**.
 - b. Choose any additional roles to assign to the role team and click **Assign**.
 - c. Click **Close**.
- 7) On the **Role Teams** tab, click  **Save** (Ctrl+S).

Tips

To view all role teams assigned to a particular role, assign a role to a role team from the Roles tab. See **Assigning a Role Team to a Role** (on page 75).

About Resources





A resource is any quantifiable item in limited supply and of sufficient value to justify tracking and assigning to specific activities for a project. Resources include general or specialized labor, non-labor items such as equipment, and material items such as bricks.



Resources perform roles, if defined. Resources are indirectly assigned to activities by first planning the role required. It is also possible to directly assign resources to activities. For example, Chris, a level 2 contractor with the confirmed skills and status, is directly assigned to activity 01. However, a technician level 4 role is assigned to activity 02. The project will proceed while management determines the best available resource to fulfill this role.

Adding Resources

Use this task to add resources to the resource pool. Resources include the personnel and equipment that perform work on activities across all projects. Resources are generally reused between activities and/or projects. Resources can be distinguished as either labor, material, or nonlabor. Labor and nonlabor resources are always time-based, and material resources, such as consumable items, use a unit of measure you can specify.

To add a resource:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click  **Add** (Insert), or click an existing resource and click  **Add Child** to add a resource in a hierarchy. A new row is added to the table.
 - b. Click the **General** detail window.
- 5) In the **General** detail window, enter information in the appropriate fields.
- 6) On the **Resources** tab:

- a. Click  **Select Columns** and select any additional column headings that you need in your view.
 - b. Double-click in any additional fields to enter data.
 - c. Click the **Notes** detail window.
- 7) In the **Notes** detail window, type any notes you want to capture for the resource.
- 8) On the **Resources** tab, click  **Save** (Ctrl+S).





Tips

See **Creating Import Templates and Importing Resource Data** in P6 Help to learn more about adding resources to the resource pool by importing resource data from a Microsoft® Excel (.xls) spreadsheet.

Assigning a Role to a Resource

The set of roles you assign to a resource describes the resource's skill capabilities. These role assignments make it easy to assign resources to activities according to role. You can also assign roles to activities directly when you are unsure of the actual resources available to work on those activities. You can later replace the roles with the applicable resources.

To assign a role to a resource:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click the resource.
 - b. Click the **Roles** detail window.
- 5) In the **Roles** detail window, click  **Add** (Insert).
- 6) In the **Select Role** dialog box:
 - a. Choose a role and click **Assign**.
 - b. Choose any additional roles for the resource and click **Assign**.
 - c. Click **Close**.
- 7) In the **Roles** detail window:
 - a. To change the proficiency level for that role, double-click the **Proficiency** field and select a level.
 - b. A resource can have many roles. The first role added is marked as the primary role. To change this, select the **Primary Role** field for the appropriate role.
- 8) On the **Resources** tab, click  **Save** (Ctrl+S).




Tips

To view all resources assigned to a particular role, assign a role to a resource from the Roles tab. See **Assigning a Resource to a Role** (on page 74).


Assigning a Resource Team to a Resource

Use this task to assign a resource team to a resource. You can do this from either the Resources tab or the Resource Teams tab. Use this method if you want to view all the resource teams assigned to a single resource.

To assign a resource to a resource team:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click the name of the resource you are assigning to a resource team.
 - b. Click the **Resource Teams** detail window.
- 5) In the **Resource Teams** detail window, click  **Add** (Insert).
- 6) In the **Select Resource Team** dialog box:
 - a. Expand either the **Global** or **User** category, choose a resource team, and click **Assign**.

Note: If you need to create a new resource team click on the **Global** or **User** category, and then click **Add Team**.

- b. Select additional teams, if necessary, and click **Assign**.
 - c. Click **Close**.
- 7) On the **Resources** tab, click  **Save** (Ctrl+S).



Tips

To view all resources assigned to a particular resource team, assign a resource to a resource team from the Resource Team tab. See **Assigning a Resource to a Resource Team** (on page 87).

Configuring Resource Settings

Use the Settings detail window available from the Administration Resources tab to define settings for the resource, such as the resource calendar and default units/time, as well as P6 Progress Reporter settings.

To configure resource settings:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab, select the resource for which you want to define general settings.
- 5) Click the **Settings** detail window, review the following options and make selections based on your project needs.


Calendar: See *Assigning Calendars to Resources* (on page 82).

Default Units/Time: Use the default value or change the default units/time value. Enter these values as units per duration or as a percentage, depending on your choice in the Units/Time Format area of the My Preferences page.

Overtime Allowed: Select to enable the labor resource to record overtime hours for activities.

Overtime Factor: Type the number by which the resource's standard price should be multiplied to determine the resource's overtime price.

Auto Compute Actuals: Select to automatically calculate the selected resource's actual quantity of work according to the project plan rather than reported hours in P6 Progress Reporter. Clear this option if you plan to select **Uses Timesheets**.

Currency: Click  to select a currency that is different from the default currency, and click **OK**.

Calculate Costs from Units: Select this option to indicate that any new assignment for this resource will have its cost recalculated whenever any quantity changes occur, such as changing an activity's remaining duration.




Progress Reporting Settings: See *Configuring Timesheet Reporting for Resources* (on page 82).

- 6) On the **Resources** tab, click  **Save** (Ctrl+S).

Assigning Calendars to Resources

Assign a global or resource calendar to a resource to determine when the resource is available to work.

To assign a calendar to a resource:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click a resource.
 - b. Click the **Settings** detail window.
- 5) In the **Settings** detail window, click  in the **Calendar** field.
- 6) In the **Select Calendar Name** dialog box:
 - a. Choose the **Global** or **Resource** option.
 - b. Choose a calendar.

Note: If you want a personal calendar for the resource, click **Create Personal Calendar**. See **About My Calendar** in P6 Help. You can also create a personal calendar from the **Enterprise Data** page. See **Creating Resource Calendars** (on page 109).

- c. Click **OK**.
- 7) On the **Resource** tab, click  **Save** (Ctrl+S).

Tips

- ▶ You can perform the same procedure from the Calendars field on the Resources tab.
- ▶ A resource can edit exceptions to their personal calendar. See **Configuring My Calendar** in P6 Help. To view a personal calendar, the resource must be a user in the system.

Configuring Timesheet Reporting for Resources

Configure timesheet reporting if you are using P6 Progress Reporter.

To configure timesheet reporting for a resource:

- 1) If the resource is not already defined as a user in the system:
 - a. Add the user. See **Creating Users** in P6 Help.
 - b. Assign the resource to the new user. See **Assigning Associated Resources** in P6 Help.
- 2) Enable access to P6 Progress Reporter. See **Assigning Module Access** in P6 Help and mark the **Team Member** or **Progress Reporter** option.

- 3) Set the timesheet configuration options for the resource if you are implementing non-automatic approval. See **Configuring Resource Settings for Timesheet Reporting** (on page 83).

Tips




For faster setup of timesheet reporting, you can set Application Setting options to automatically require timesheet use and designate a default approval manager whenever you create a new resource. See **Configuring Timesheets Settings** in P6 Help.

Configuring Resource Settings for Timesheet Reporting


Configure timesheet reporting settings if you are using P6 Progress Reporter and are implementing non-automatic approval.

To configure resource settings for timesheet reporting:

Note: You must perform these steps in order when configuring these settings for the first time for each new resource.

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab, click the **Settings** detail window.
- 5) In the **Settings** detail window, next to the **Timesheet User Login** field, click .
- 6) In the **Select User** dialog box, select the resources name from the list and click **OK**.
- 7) In the **Settings** detail window:
 - a. Select the **Uses Timesheets** option to enable timesheet reporting for the resource.

Note: If **Auto Compute Actuals** is selected, clear the option before selecting **Uses Timesheets**.

- b. In the **Timesheet Approval Manager** field, click .
- 8) In the **Select User** dialog box, choose a manager to assign to the resource and click **OK**.

- 9) On the **Resources** tab, click  **Save** (Ctrl+S).

Notes:




- If you selected the **New Resources Use Timesheets by Default** option on the **Timesheets** page of the **Application Settings** pane, when you create a new resource, the **Uses Timesheets** option is selected automatically after you select a user for the **Timesheet User Login** field. You must still grant that user module access 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.
-

Assigning Resource Codes

With potentially hundreds of resources in use across the enterprise, resource codes provide an efficient means for tracking and sorting resources for reporting or analysis.

Use this procedure to assign resource codes to resources. Once assigned, you can categorize resources using codes.

To assign resource codes:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click a resource.
 - b. Click the **Codes** detail window.
- 5) On the **Codes** detail window, click  **Add** (Insert).
- 6) On the **Select Resource Code** dialog:
 - a. Choose a resource code and click **Assign**.
 - b. Select additional resource codes, if necessary, and click **Assign**.





Note: You can only select one value from each code name category. If you try to assign a second value from the same category, the first value will be replaced with the new value.

- c. Click **Close**.
- 7) On the **Resources** tab, click  **Save** (Ctrl+S).

Assigning Resource Rates

Use this procedure to assign rates to resources. You can assign multiple rates to resources to reflect price changes over time. For example, suppose the price per unit for a group of resources was \$20.00 per hour for the months January through June, but the price rate increases to \$30.00 starting in July through December. You can assign time-varying rates for resources to more accurately determine total resource (and activity) costs.




To assign resource rates:



- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resources** tab.
- 4) On the **Resources** tab:
 - a. Click a resource.
 - b. Click the **Units and Prices** detail window.
- 5) In the **Units and Prices** detail window:
 - a. Click  **Add** (Insert).
 - b. In the **Effective Date** field, double-click to open the calendar and choose a date to start the new rate.
 - c. In the **Max Units/Time** field, double-click and type the maximum work units per time for this resource.
 - d. In the appropriate price fields, double-click and type an amount. The default time period is price per hour unless you specify another time period.
- 6) On the **Resources** tab, click  **Save** (Ctrl+S).

Assigning Resource Curves to Resource or Role Assignments from the Resources Assignments Page

You can assign a resource distribution curve to any resource or role assignment on activities with a duration type of Fixed Duration and Units/Time or Fixed Duration & Units. Resource usage and costs are distributed evenly during an activity unless you specify nonlinear distribution using custom curves.

To assign a resource curve:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Assignments**.
- 3) On the **Assignments** page, display the **Curves** column if it is not visible on the table. To display the **Curves** column:
 - a. Click  **Customize Columns**.
- 4) In the **Customize Columns** dialog box:

- a. Expand **General** and double-click **Curve** to move it to the **Selected Columns** list.
 - b. Click **OK**.
- 5) On the **Assignments** page:
 - a. Click the row with the resource or role.
 - b. Double-click the **Curve** field, and click .
- 6) In the **Select Curves** dialog box, choose a curve and click **OK**.
- 7) On the **Assignments** page, click  **Save** (Ctrl+S).

Note: You can also assign resource curves to resource or role assignment from the Projects Activities page. See **Assigning Resource Curves to Resource or Role Assignments from the Activities Page** (on page 150).

About Resource Teams

Resource teams provide a convenient way for you to associate personnel into smaller, more meaningful groups within an organization. Using resource teams increases efficiency in staffing activities, tracking allocation, and communicating project progress and performance. When working with pages and tabs that display resource data, such as the Resources Planning, Assignments, or Analysis pages, you can choose to organize by resource team. You can then choose to view team data, such as total units for the team, or view individual unit values for each team member. For example, the Resource Usage tab available from the Analysis page provides total allocation data for the team, as well as for each team resource when the tab is grouped by Resource Team.


Global resource teams are available to all users. User resource teams are only accessible to the user currently logged in. You can create and modify user resource teams for your personal use. If you have the required security privilege, you can also create and modify global resource teams.





In addition to viewing Resource Teams from the Resources section, you can view the resources that belong to a team, including each resource's primary role and number of active projects, by viewing the Resource Team Summary portlet on the Dashboards page.

Creating Resource Teams

Create resource teams to reduce potentially large resource pools into smaller, more meaningful and manageable groups.

To create a resource team:





- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resource Teams** tab.

- 4) On the **Resource Teams** tab:
 - a. If you are creating a global resource team, click the **Global Resource Teams** row and click  **Add** (Insert).
If you are creating a team only for your use, click the **User Resource Teams** row and click  **Add** (Insert).
 - b. In the **Name** field, double-click and type a resource team name.
- 5) In the **Resources** detail window, click  **Add** (Insert).
- 6) In the **Select Resource** dialog box:
 - a. Choose a resource and click **Assign**.
 - b. Choose any additional resources to add to the resource team and click **Assign**.
 - c. Click **Close**.
- 7) On the **Resource Teams** tab, click  **Save** (Ctrl+S).

Assigning a Resource to a Resource Team

Use this task to assign a resource to a resource team. You can assign a resource to a resource team from the Resource tab or the Resource Teams tab. Use this method if you want to view all resources assigned to a particular resource team.

To assign a resource to a resource team:

- 1) Click  **Resources**.
- 2) On the **Resources** navigation bar, click  **Administration**.
- 3) On the **Administration** page, click the **Resource Teams** tab.
- 4) On the **Resource Teams** tab, expand either the **Global Resource Teams** or the **User Resource Teams** category and click a resource team name.
- 5) In the **Resources** detail window, click  **Add** (Insert).
- 6) In the **Select Resource** dialog box:
 - a. Choose a resource and click **Assign**.
 - b. Select additional resources, if necessary, and click **Assign**.
 - c. Click **Close**.
- 7) On the **Resource Teams** tab, click  **Save** (Ctrl+S).

Tips

To view all resource teams assigned to a particular resource, assign a resource to a resource team from the Resources tab. See **Assigning a Resource Team to a Resource** (on page 80).

Setting Up The Work Breakdown Structure

About Work Breakdown Structures (WBS)

A WBS, or work breakdown structure, is a hierarchical arrangement of work activities that divides a project into discrete levels, phases, or layers. The WBS is structured in levels of work detail, beginning with the deliverable and separated into identifiable work elements.

When creating a project, the project manager typically develops the WBS first. The manager assigns documents to each WBS element, and then defines activities to complete that element. In addition to document and activity assignments, each WBS element can also have specific earned value calculation settings, issue assignments, and notebook topics.

Each project has its own WBS hierarchy with the top-level WBS element equal to that of each enterprise project structure (EPS) node or project. Each WBS element can contain more detailed WBS levels, activities, or both.

Working with WBS Elements

If you have the required privilege, you can add, modify, or delete WBS elements.

Before you begin

To add, edit, or delete WBS elements, whether you are working with a single project or a group of projects, you must be working in an EPS view that is organized based on all levels of the WBS hierarchy. Either select this type of view from the **EPS View** list or, if necessary, create one.

Add WBS elements

Except for the top level element of the WBS hierarchy, which represents the project, you can add a WBS element at the same level as an existing element (sibling) or at a subordinate level (child). At the top level of the WBS, you can add only child elements.

Modify WBS elements

Horizontal arrows change the level of an element in the hierarchy. Vertical arrows change the position of an element within its current level.

Delete WBS elements

If you attempt to delete a WBS that has activities associated with it, you must specify what you want to do with the activities:








- ▶ To delete the WBS, but reassign its activities to the parent WBS, select **Merge**.
- ▶ To delete both the WBS and its associated activities, select **Delete**.

Note: These two options also appear if the WBS has both activities and planned resource allocations. However, resource allocations cannot be merged. Regardless of the option you choose, the planned resource allocations are deleted. For this reason, when a WBS has planned resource allocations but no activities, these options do not appear.


Creating a WBS

Create a work breakdown structure to divide a project into levels. You can create sibling WBSs to represent WBSs that are hierarchically equal, or child WBSs to represent WBSs that are subordinate to projects or other WBSs.

To create a WBS:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select a WBS or project. The WBS can act as a sibling or a parent. The project will act as a parent.
 - b. Click the **Actions** ▼ menu:
 - To add a sibling, select **Add** ▶  **Add Sibling WBS** (Shift+Insert).
 - To add a child, select **Add** ▶  **Add Child WBS** (Ctrl+Insert).
 - c. Enter a name in the **WBS/Activity** field of the new WBS.
 - d. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).







Tips

- ▶ To add, edit, or delete WBS elements, whether you are working with a single project or a group of projects, you must be working in an activity view that is organized based on all levels of the WBS hierarchy. This type of view is identified by the  (WBS) icon. Click the **Activity View** list on the **Activities** toolbar, and select this type of view or, if necessary, create one. See **Creating Activity Views** (on page 135).
- ▶ The WBS will automatically be assigned a name based upon the project or WBS you select. For example, if the project or WBS is named *WBS: Business Project 1.5*, the application will automatically name the new WBS: *Business Project 1.6*.
- ▶ You can also right-click a WBS or project and select **Add Sibling WBS** or **Add Child WBS** to create a WBS.

Adding a WBS from Template

You can add a predefined WBS element from a template to a project.

To add a WBS from template:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the View menu and select **Table**.
 - b. Click the View menu and select **Group...**
 - c. On the **Customize Groupings** dialog box, set the Level 1 field to WBS and the Sort Order to Hierarchy. Click OK.
 - d. In the Activity Table, right-click a project or WBS element and select  **Add WBS from Template**.
- 4) In the **Select WBS** dialog box, select a WBS from the list of templates and click **OK**.
- 5) On the **Activities** page:
 - a. Update the name in the **WBS/Activity** field.
 - b. Click the **Actions** ▾ menu and select  **Save** (Ctrl+S).




Tips




- ▶ The application automatically assigns the WBS element a name based upon the selected WBS.

Configuring General WBS Information

Configure WBS information to account for any updates or changes made to the WBS.

To configure general WBS information:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.

- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select a WBS and click the **General** detail window.
- 4) In the **General** detail window:
 - a. Add the columns you need to configure to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - b. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions**  menu and select  **Save** (Ctrl+S).

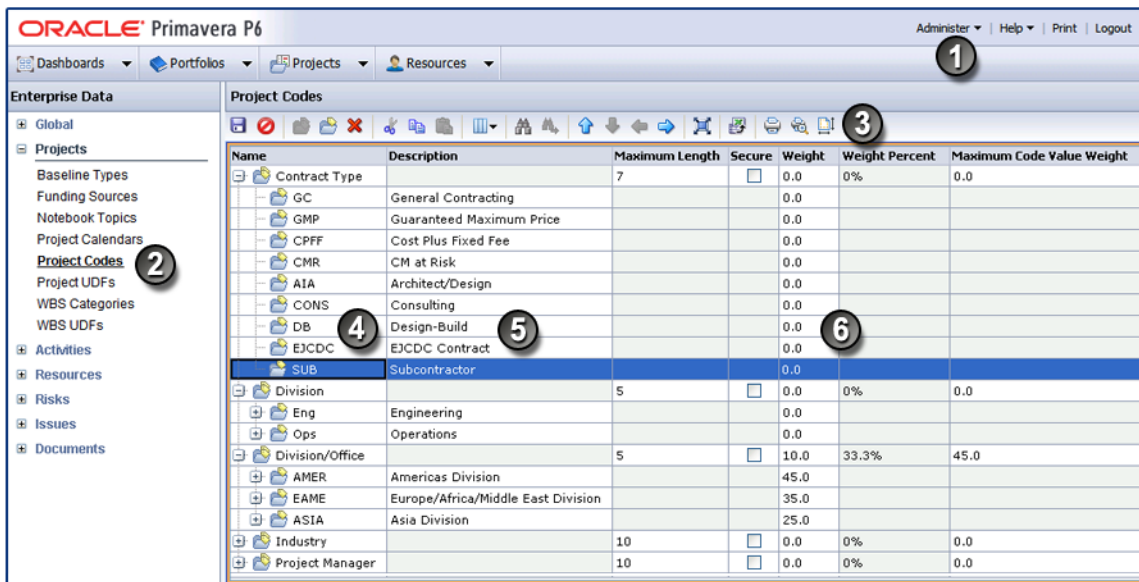
Establishing Project Codes

About Project Codes

Project codes help you track different projects based on characteristics they share. You can use project codes to arrange projects hierarchically when your EPS contains many projects within many levels. If you have many projects in the hierarchy, project codes help you group and filter potentially vast amounts of information spanning different areas of the organization. The application supports an almost unlimited number of hierarchical project codes and values; you can establish as many as you need to meet the filtering, sorting, and reporting requirements of your organization.

Working with Project Codes

Create and configure project codes in the Administer section of the application. For each project code, create as many code values as needed to assign to projects to track them over time. Periodically, revisit your enterprise data settings to add, modify, or delete project codes and values.



Name	Description	Maximum Length	Secure	Weight	Weight Percent	Maximum Code Value Weight
Contract Type		7	<input type="checkbox"/>	0.0	0%	0.0
GC	General Contracting			0.0		
GMP	Guaranteed Maximum Price			0.0		
CPFF	Cost Plus Fixed Fee			0.0		
CMR	CM at Risk			0.0		
AIA	Architect/Design			0.0		
CONS	Consulting			0.0		
DB	Design-Build			0.0		
EJCDC	EJCDC Contract			0.0		
SUB	Subcontractor			0.0		
Division		5	<input type="checkbox"/>	0.0	0%	0.0
Eng	Engineering			0.0		
Ops	Operations			0.0		
Division/Office		5	<input type="checkbox"/>	10.0	33.3%	45.0
AMER	Americas Division			45.0		
EAME	Europe/Africa/Middle East Division			35.0		
ASIA	Asia Division			25.0		
Industry		10	<input type="checkbox"/>	0.0	0%	0.0
Project Manager		10	<input type="checkbox"/>	0.0	0%	0.0

Table 1 of 3: Administering Project Codes

Item	Description
1	Administer menu: Define project codes in Enterprise Data.
2	Project Codes page: The Project Codes page available under the expanded Projects entry.
3	Project Codes toolbar: Create codes and values, add columns, and move entries using the tools in the toolbar.
4	Name field: Displays both the code's name and the code value's short identifier. For example, the SUB code value appears under the Contract Type project code.
5	Description field: Displays the full name for the code value.
6	Weighted Code fields: Weighted project codes enable you to rank or prioritize projects using a weight value and then view projects by a score determined by the application. For example, assume you rank projects in terms of risk. Project codes with the highest score have the most risk; those with the lowest score have the least risk. To add weight to a project code, enter a value in the Weight column. To view the score of each weighted project code, display the Project Score field in the Project Statistics portlet, in any scorecard portfolio view, or on the EPS page.

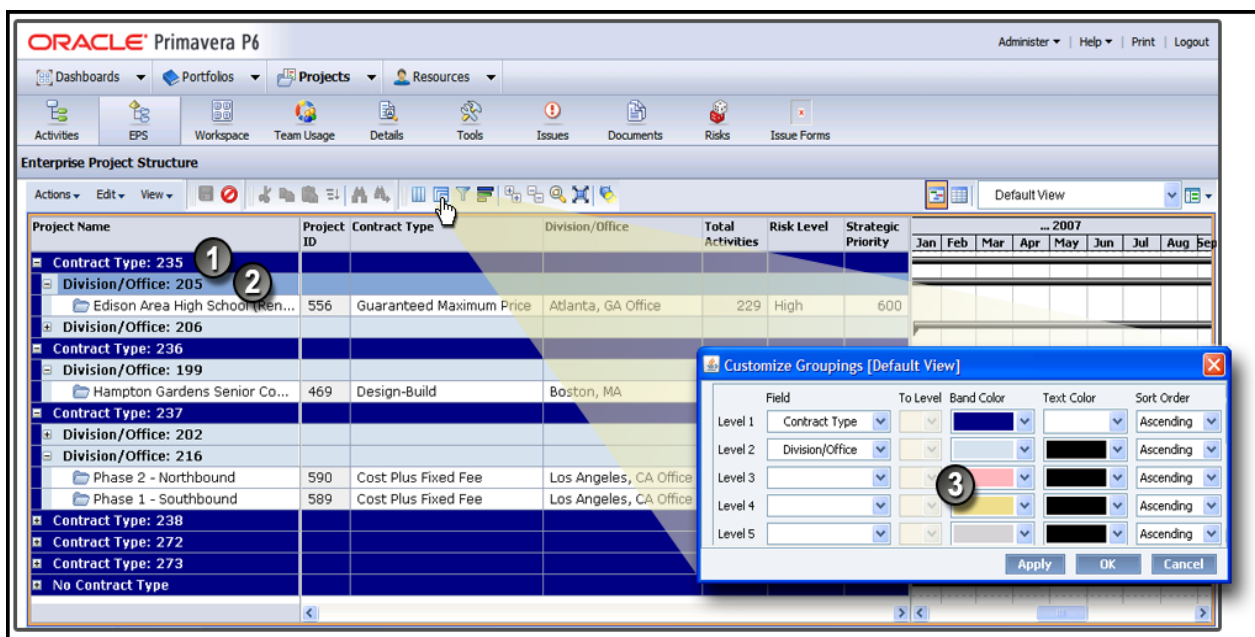


Table 2 of 3: Using Project Codes with the EPS

Item	Description
1	Grouped by Contract Type: The projects in this EPS view are grouped at their outermost level (Level 1) by Contract Type .
2	Grouped by Division/Office: The projects are also grouped by Division/Office at their second level (Level 2).
3	Customize Groupings dialog box: Use this dialog box to set the groupings, colors, and sort order.

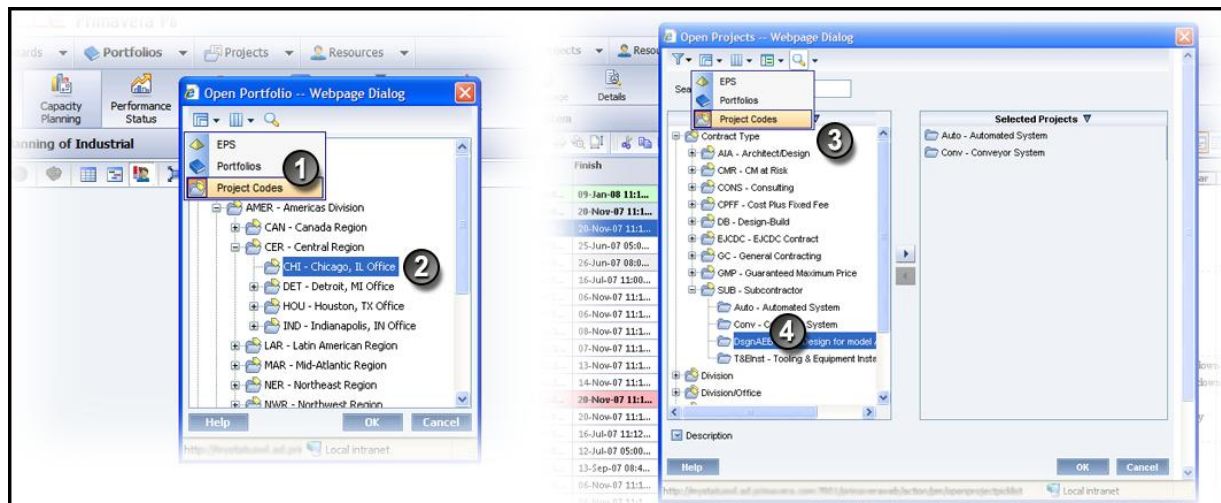







Table 3 of 3: Using Project Codes with Portfolios and Projects

Item	Description
1	Portfolios Grouped by Project Code: The Open Portfolio dialog box grouped by project code.
2	A Portfolio Based on a Project Code Value: In this example, the user has selected the <i>CHI - Chicago, IL Office</i> project code. All projects assigned to this code value will be opened as a portfolio.
3	Projects Grouped by Project Code: The Open Projects dialog box grouped by project code. Behind the list, notice the search field. You can use this field to search for a project by project code.
4	Projects Based on a Project Code Value: In this example, the user has selected the third of four projects under the SUB - Subcontractor code value, which is itself part of the Contract Type project code.

Creating Project Codes

Create project codes to represent project evaluation criteria. These steps represent the minimum required to create a project code.

To create a project code:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Codes**.
- 3) On the **Project Codes** page:
 - a. Click  **Add Code** (Insert).
 - b. Move the project code to the correct location in the list by clicking the  **Move Down** (Ctrl+Alt+Down) and  **Move Up** (Ctrl+Alt+Up) arrows.
 - c. In the **Name** field, double-click and type a unique code.
 - d. In the **Maximum Length** field, double-click and click the up or down arrow to specify project code value length.
 - e. Click  **Save** (Ctrl+S) .

Tips

Project codes at the same level are siblings. Subordinate project codes are children.





Creating Project Code Values

Create project code values to group, sort, and filter project data.

To create project code values:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Codes**.
- 3) On the **Project Codes** page:
 - a. Select a code.
 - b. Click  **Add Code Value**.

Note: The code value will be added to the selected project code.

- c. Move the project code value to the correct location in the list and hierarchical position by clicking the  **Move Up** (Ctrl+Alt+Up),  **Move Down** (Ctrl+Alt+Down),  **Move Left** (Ctrl+Alt+Left), and  **Move Right** (Ctrl+Alt+Right) arrows.
- d. In the **Name** field, double-click and type a code value.

Note: The code value cannot exceed the **Maximum Length** specified by the project code.

- e. In the **Description** field, double-click and type a brief narrative about the code value.
- f. In the **Weight** field, double-click and type a value. Weight defaults to 0.0 if you do not type a value.

Note: The weight reflects the ranking of this value against other values in the project code.

- 4) Click  **Save** (Ctrl+S).







Tips

Project code values at the same level are siblings. Subordinate project code values are children.

Assigning Project Codes

Assign project codes to categorize projects.

To assign a project code:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page, select a project and click the **Codes** detail window.
- 4) In the **Codes** detail window, click  **Assigning Project Codes** (Insert).
- 5) In the **Select Project Codes** dialog box, assign codes and click **Close**.
- 6) On the **EPS** page, click the **Actions** ▼ menu and click  **Save** (Ctrl+S).

Working With User Defined fields

About User Defined Fields




User defined fields allow you to create and maintain data specific to your organization. For example, you can track additional activity data, such as delivery dates and purchase order numbers. You can also track additional resource data or project cost-related data, such as profit, variances, and revised budgets. User defined fields are global, so they can be used across all projects in your organization.

You can also create project user defined fields. Project user defined fields track information specific to projects. For example, your organization might require a custom field to track project profit. Project user defined fields are unique in that you can define a formula or statement to automatically calculate field values, and identify graphical indicators to display for a field, based on its value.

Creating Activity UDFs

Create activity user defined fields (UDFs) if the predefined fields do not meet your needs.




To create an activity UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Activity UDFs**.
- 3) On the **Activity UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
 - d. Click  **Save** (Ctrl+S).

Creating Assignment UDFs

Create assignment user defined fields (UDFs) if the predefined fields do not meet your needs.

To create an assignment UDF:



- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Assignment UDFs**.
- 3) On the **Assignment UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
 - d. Click  **Save** (Ctrl+S).

Creating Document UDFs

Create document user defined fields (UDFs) if the predefined fields do not meet your needs.

To create a document UDF:




- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Documents** and click **Document UDFs**.

- 3) On the **Document UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
 - d. Click  **Save** (Ctrl+S).

Creating Expense UDFs

Create expense user defined fields (UDFs) if the predefined fields do not meet your needs.




To create an expense UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Expense UDFs**.
- 3) On the **Expense UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
- 4) Click  **Save** (Ctrl+S).

Creating Issue UDFs

Create issue user defined fields (UDFs) if the predefined fields do not meet your needs.

To create an issue UDF:


- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Issues** and click **Issue UDFs**.
- 3) On the **Issue UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
- 4) Click  **Save** (Ctrl+S).

Creating Project UDFs


Create project user defined fields (UDFs) if the predefined fields do not meet your needs. Project UDFs have formulas that automatically calculate values for the field.

To create a project UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.

- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project UDFs**.
- 3) On the **Project UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
 - d. In the **UDF Type** field, double-click and choose **Manual** or **Formula** from the list.

Note: Choosing **Formula** enables the fields in the **Formula** detail window, allowing you to define a formula or statement to calculate the value of the field. If no calculation is required, choose **Manual**.

- 4) In the **Formula** detail window, define a formula or statement. See **Defining Formulas for User Defined Fields** (on page 100) or **Defining Statements for User Defined Fields** (on page 101).
- 5) In the **Indicators** detail window, define a graphical indicator. See **Defining Indicators for User Defined Fields** (on page 100).
- 6) On the **Project UDFs** page, click  **Save** (Ctrl+S).




Tips

- ▶ You cannot define a formula for fields with 'Indicator' marked.
- ▶ If you define an indicator, a checkmark will appear in the **Indicator** field.
- ▶ You can edit the Indicator detail window only if you select Integer, Cost, and Number.

Creating Resource UDFs

Create resource user defined fields (UDFs) if the predefined fields do not meet your needs.

To create a resource UDF:




- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource UDFs**.
- 3) On the **Resource UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, enter a name.
 - c. In the **Data Type** list, select a type.
 - d. Click  **Save** (Ctrl+S) .

Creating Risk UDFs

Create risk user-defined fields (UDFs) to store additional project risk data on the Projects Risks page that is pertinent to your project or business and is not available from the default fields. For example, you might need to include a location field to identify where the risk might occur, or a ranking field to determine the order in which the risks will be handled.

User-defined fields can be of many types: text, start date, finish date, cost, number, integer, or indicator. Data from UDFs is not used in scoring calculations.




To create a risk UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and click **Risk UDFs**.
- 3) On the **Risk UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a data type from the list.
 - d. Click  **Save** (Ctrl+S).

Creating Step UDFs

Create step user defined fields (UDFs) if the predefined fields do not meet your needs.

To create a step UDF:



- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Step UDFs**.
- 3) On the **Step UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a type from the list.
 - d. Click  **Save** (Ctrl+S).

Creating WBS UDFs

Create WBS user defined fields (UDFs) if the predefined fields do not meet your needs.

To create a WBS UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **WBS UDFs**.
- 3) On the **WBS UDFs** page:

- a. Click  **Add** (Insert).
- b. In the **User Defined Field**, double-click and type a name.
- c. In the **Data Type** field, double-click and choose a type from the list.
- d. Click  **Save** (Ctrl+S).

Defining Formulas for User Defined Fields

Define formulas to calculate values for the user defined field.

Before defining a formula, you need to first create a project user defined field. To create a project user defined field see **Creating Project UDFs** (on page 97).


To define formulas for user defined fields:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project UDFs**.
- 3) On the **Project UDFs** page, select a UDF and click the **Formula** detail window.

Note: The **UDF Type** must be set to **Formula** to access the **Formula** detail window.

- 4) In the **Formula** detail window:
 - a. Click the **Fields** list and choose a field.

Note: You can select any existing project-related field defined in the project management database, including project codes, or any other user defined field that exists for your organization.

- b. Click **Insert Field**.
 - c. Continue to build your formula by inserting fields and using the operator buttons.
- 5) Click  **Save** (Ctrl+S).

Tips

Operator buttons include: +, -, *, /, (, and).

Defining Indicators for User Defined Fields

Define indicators for user defined fields (UDFs) that will display based on criteria set for field values. For example, you can choose a graphical indicator to display when the value of the field equals a certain number, or when the value of the field falls between a certain range of dates.

Before defining an indicator, you need to first create a project user defined field. To create a project user defined field see **Creating Project UDFs** (on page 97).

Note: You can identify graphical indicators only for fields with a 'Cost', 'Integer', or 'Number' **Data Type**.


To define indicators for UDFs:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project UDFs**.
- 3) On the **Project UDFs** page, select a UDF and click the **Indicators** detail window.

Note: You can also follow these steps for the **Summary Indicators** detail window

- 4) In the **Indicators** detail window repeat the following for each parameter statement:
 - a. Click the **Select Parameter** list and choose a parameter.
 - b. Mark the **Value** or **Field** option.
 1. If you mark the **Value** option, double-click the field and type a value.
 2. If you mark the **Field** option, click the list and select a field.

Note: If you select a "is within the range of" or "is not in the range of" condition, use the **Value** field to specify the lower range value and the **High Value** field to specify the upper range value.

- c. Click each **Indicator** list and choose an indicator.
- 5) On the **Project UDFs** page, click  **Save** (Ctrl+S).

Tips

Click  to add another indicator statement or  to remove a statement.

Defining Statements for User Defined Fields

Define statements to calculate values for the user defined field.

Before defining a statement, you need to first create a project user defined field. To create a project user defined field see **Creating Project UDFs** (on page 97).

To define statements for user defined fields:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project UDFs**.
- 3) On the **Project UDFs** page, select a UDF and click the **Formula** detail window.

Note: The **UDF Type** must be set to **Formula** to access the **Formula** detail window.

4) In the **Formula** detail window:

- a. Click **Advanced** ▾.
- b. Click **IF/THEN/ELSE**.

Note: The default statement 'IF (condition) THEN (expression) ELSE (expression)' is displayed in the detail window.

- c. Highlight a (condition) or (expression) entry and its parentheses.
- d. Click the **Fields** list and choose a field.

Note: You can select any existing project-related field defined in the project management database, including project codes, or any other user defined field that exists for your organization.

- e. Click **Insert Field**.

Note: The selected field will replace the highlighted (condition) or (expression) entry.

- f. Continue to replace fields and use the operator, relational operator, and expression buttons to build your statement.

Note: Relational operators (<, >, =, <>) are only valid for the 'IF' condition statement.

5) On the **Project UDFs** page, click  **Save** (Ctrl+S).

Tips

- ▶ Text values must be enclosed in quotes. For example: IF [Division]="Marketing." Numeric values do not require quotes. For example: IF [Proposed Budget]>500000.
- ▶ Only the = (equal) and <> (not equal) relational operators are valid for text values.
- ▶ Date values must be enclosed in quotes and follow the dd-mm-yyyy format. For example, IF [Start Date]>"01-APR-2007".
- ▶ Operator buttons include: +, -, *, /, (, and). Expression buttons include: AND, OR, and IF/THEN/ELSE.
- ▶ You can also replace (condition) and (expression) entries by deleting the entries and their parentheses, placing the cursor in the appropriate location in the statement, and following steps 4.d. through 4.f.

About Calendars

Calendars enable you to define available workdays and workhours in a day. You can also specify national holidays, recognized holidays, project-specific work/nonworkdays, and resource vacation days. You can establish an unlimited number of calendars to accommodate different work patterns. There are three calendar pools: global, project, and resource. The global calendar pool contains calendars that apply to all projects in the database. The project calendar pool is a separate pool of calendars for each project in the organization. The resource calendar pool is a separate pool of calendars for each resource. You can assign multiple users a resource calendar that they can share, but cannot edit. You can also assign a personal calendar to a resource that will show up in My Calendars and that the resource can customize. You can assign resource or global calendars to resources, and global or project calendars to activities.

Assign calendars to each resource and activity to determine time constraints in a uniform way. For example, based on its calendar, a resource might not be available; or, if the resource is available, the activity might not fit the calendar requirements.

The application uses your calendar assignments for leveling resources, scheduling, and tracking activities.

Working with Calendars

The P6 application supports three types of calendars:


- ▶ **Global:** Global calendars can be defined and applied to all projects and resources in the database.
- ▶ **Project:** Separate project calendars can be defined and applied to projects through activity assignments.
- ▶ **Resource:** Resource calendars can be defined and applied to each individual resource.

Begin by defining one or more global calendars and then link any project or resource calendars to them. Changes to a global calendar apply to all project and resource calendars linked to it.



Assign global or resource calendars to resources, and global or project calendars to activities. You can establish an unlimited number of calendars to accommodate different work patterns. For example, if some activities require a five day workweek, while others are performed part-time (such as Monday, Wednesday, and Friday), you can create different calendars and assign them to the activities and resources in your projects.

An activity's **Activity Type** field value determines whether the activity uses the calendar of an assigned resource or its project calendar.

Creating Global Calendars

Create global calendars to identify global work or nonwork days. You can use global calendars as base calendars when creating a resource or project calendar. The exception days in a global calendar appear in the resource or project calendar and are identified by a  (globe).

To create a global calendar:

- 1) Click the **Administer**  menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Global** and click **Global Calendars**.
- 3) On the **Global Calendars** page, click  **Add** (Insert).
- 4) In the **Select Calendar to Copy** dialog box:
 - a. Select the **Global** or **Resource** option.

Note: This determines which list of calendars you can select.

- b. Select a calendar and click **OK**.
- 5) On the **Global Calendars** page, click the **Calendar** tab.
- 6) On the **Calendar** tab, triple-click the **Name** field and enter a name.

Note: The application automatically assigns the name *New Calendar*.

- 7) On the **Global Calendars** page, click  **Save** (Ctrl+S).
- 8) To configure the global calendar, see **Configuring Global Calendars** (on page 104).




Configuring Global Calendars

Perform the following tasks when creating or updating a global calendar:

Setting Work Hours Per Time Period for Global Calendars

Configure the work hours per time period settings to specify the default number of hours in a work period for a calendar.


To set the number of work hours for each time period:

- 1) Click the **Administer**  menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Global** and click **Global Calendars**.
- 3) On the **Global Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click  **Edit Hours Per Period**.
- 4) In the **Set Time Periods** dialog box, click and type an hour value in each field, and then click **OK**.
- 5) Click  **Save** (Ctrl+S).

Configuring the Standard Work Week for Global Calendars

Configure the standard work week for the calendar to set the work and nonwork days and hours for a standard work week.


To modify the standard work week:

- 1) Click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Global** and click **Global Calendars**.
- 3) On the **Global Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click the **Standard Work Week** tab.
- 4) On the **Standard Work Week** tab, right-click on a working or nonworking timeslot and use the menu options to adjust the workday. You can also resize the working time to increase or decrease the work hours.
- 5) Click  **Save** (Ctrl+S).

Modifying Calendar Days on Global Calendars

Modify calendar days to account for work or nonwork days or hours that are different than the standard hours defined on the Standard Work Week tab.



To modify work or nonwork calendar days:

- 1) Click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Global** and click **Global Calendars**.
- 3) On the **Global Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click the **Calendar** tab.
- 4) On the **Calendar** tab, right-click on a working or nonworking day and use the menu options to adjust the workday.
- 5) Click  **Save** (Ctrl+S).

Setting the Default Global Calendar

Choose a calendar to use as the default when new calendars are created.

To set the default global calendar:


- 1) Click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Global** and click **Global Calendar**.
- 3) On the **Global Calendar** page:
 - a. Click on the calendar you want to designate as the default calendar.
 - b. Click  **Set As Default Calendar**.
 - c. Click  **Save** (Ctrl+S).


Creating Project Calendars

Create project calendars to determine work or nonwork time for a project.


To create a project calendar:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.
- 3) On the **Project Calendars** page:
 - a. Click on a project.

Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.

- b. Click  **Add** (Insert).
- 4) In the **Select Calendar to Copy** dialog box:
 - a. Select the **Global**, **Resource**, or **Project** option.

Note: This determines which list of calendars you can select.

- b. Select a calendar and click **OK**.
- 5) On the **Project Calendars** page, click the **Calendar** tab.
- 6) On the **Calendar** tab, click in the **Name** field and enter a name for the project calendar.
- 7) On the **Project Calendars** page, click  **Save** (Ctrl+S).

Tips

To configure the project calendar, see **Configuring Project Calendars** (on page 106).

Configuring Project Calendars


Perform the following tasks when creating or updating a project calendar:



Assigning a Base Calendar to a Project Calendar

Assign a base calendar to determine holidays and exceptions for the selected project calendar.


To assign a base calendar:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.
- 3) On the **Project Calendars** page:
 - a. Expand a project.

Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.

- b. Select a calendar to assign a base calendar.
 - c. Click  **Select a Base Calendar**.
- 4) In the **Select Base Calendar** dialog box, select a calendar and click **OK**.
 - 5) Click  **Save** (Ctrl+S).

Tips


The  (globe) on calendar days indicates exception days marked in the base calendar. You can modify these exceptions days and the globe will disappear. If you set the calendar day back to standard, the exception day will reset and the globe will reappear.



Setting Work Hours Per Period for a Project Calendar

Configure the work hours per time period settings to specify the default number of hours in a work period for a calendar.

To set the number of work hours for each time period:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.
- 3) On the **Project Calendars** page:
 - a. Expand a project.

Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.

- b. Click on the calendar you want to modify.
 - c. Click  **Edit Hours Per Period**.
- 4) In the **Set Time Periods** dialog box, click and type an hour value in each field, and then click **OK**.
 - 5) Click  **Save** (Ctrl+S).

Configuring the Standard Work Week for Project Calendars


Configure the standard work week for the calendar to set the work and nonwork days and hours for a standard work week.

To configure the standard work week:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.

3) On the **Project Calendars** page:

- a. Expand a project.

Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.

- b. Click on the calendar you want to modify.

- c. Click the **Standard Work Week** tab.

4) On the **Standard Work Week** tab, right-click on a working or nonworking timeslot and use the menu options to adjust the workday. You can also resize the working time to increase or decrease the work hours.

5) Click  **Save** (Ctrl+S).

Modifying Calendar Days on Project Calendars


Modify calendar days to account for work or nonwork days or hours that are different than the standard hours defined on the Standard Work Week tab.

1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.

2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.

3) On the **Project Calendars** page:

- a. Expand a project.

Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.


- b. Click on the calendar you want to modify.

- c. Click the **Calendar** tab.

4) On the **Calendar** tab, right-click on a working or nonworking day and use the menu options to adjust the workday.

5) Click  **Save** (Ctrl+S).

Tips

The  (globe) on calendar days indicates exception days in the base calendar. You can modify these exceptions days and the globe will disappear. If you set the calendar day back to standard, the Global exception day will reset and the globe will reappear.


Changing a Project Calendar to a Global Calendar



You can turn an existing project calendar into a global calendar.

To make a project calendar a global calendar:

1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.

- 2) In the **Enterprise Data** pane, expand **Projects** and click **Project Calendars**.
- 3) On the **Project Calendars** page:
 - a. Expand a project.




Note: If the project you need is not open, click  **Select Projects**. Choose one or more projects and click **OK**.

- b. Click on the calendar you want to change to global.
- 4) On the toolbar, click  **Promote to Global Calendar**.
- 5) Click  **Save** (Ctrl+S).

Creating Resource Calendars

Create a resource calendar to determine when a resource can work.

To create a resource calendar:

- 1) Click the  **Resources** ▾ menu and select **Enterprise Resource Data**, or click the **Administer** ▾ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page:
 - a. Click on **Personal Calendars** to create a private calendar for the resource, or click on **Shared Calendars** to create a calendar for multiple resources to share that the resources cannot edit.
 - b. Click  **Add** (Insert).
- 4) If you are creating a **Personal Calendar**, in the **Select Resource** dialog box, select a resource and click **OK**.
 If you are creating a **Shared Calendar**, in the **Select Calendar To Copy** dialog box:
 - a. Choose **Global** or **Resource** calendar to use as the base for the new calendar.
 - b. Click on a global or resource calendar.
 - c. Click **OK**.
- 5) On the **Resource Calendars** page, click the **Calendar** tab.
- 6) On the **Calendar** tab, click in the **Name** field and enter a name for the personal or resource calendar.
- 7) On the **Resource Calendars** page, click  **Save** (Ctrl+S).
- 8) To configure the resource calendar, see **Configuring Resource Calendars** (on page 109).




Configuring Resource Calendars

Perform the following tasks when creating or updating a resource calendar:


Assigning a Base Calendar to a Resource Calendar

Assign a base calendar to apply all the exception days (i.e. holidays and other work or nonwork days) from the base calendar for the selected resource calendar.

To assign a base calendar:

- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page, expand **Shared Calendars** or **Personal Calendars**.
 - a. Select a calendar to assign a base calendar.
 - b. Click  **Select a Base Calendar**.
- 4) In the **Select Base Calendar** dialog box, select a calendar and click **OK**.
- 5) Click  **Save** (Ctrl+S).


Tips

- ▶ The  (globe) on calendar days indicates exception days marked in the base calendar. You can modify these exceptions days and the globe will disappear. If you set the calendar day back to standard, the exception day will reset and the globe will reappear.
- ▶ If you are editing your personal calendar, you cannot change the base calendar.

Assigning a Resource to a Resource Calendar


Resources can be assigned a personal calendar or a shared calendar. A resource is assigned to a personal calendar when creating a personal calendar. See **Creating Resource Calendars** (on page 109).

To assign a resource to a shared calendar:

- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page:
 - a. Click on a shared calendar.

Note: Click the **Used By** tab to view resources currently assigned to the shared calendar.

- b. Click  **Assign Resource**.
- 4) In the **Select Resource** dialog box:

- a. Choose a resource and click **Assign**.
 - b. Assign any additional resources to the shared calendar, and then click **Close**.
- 5) On the **Resource Calendars** page, click  **Save** (Ctrl+S).

Tips

If you need to remove a resource from a shared calendar, navigate to the correct resource or global calendar you want to assign to the resource, and then assign the resource.




You can also assign a calendar to a resource from the Resources tab on the Resources Administration page. See **Assigning Calendars to Resources** (on page 82).

Setting Work Hours Per Time Period for a Resource Calendar

Configure the work hours per time period settings to specify the default number of hours in a work period for a calendar.

To use this feature, the **Use assigned calendar to specify the number of work hours for each time period** option must be selected in Application Settings. See **Configuring Time Periods Settings** in P6 Help.


To set the number of work hours for each time period:


- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click  **Edit Hours Per Period**.
- 4) In the **Set Time Periods** dialog box, click and type an hour value in each field, and then click **OK**.
- 5) Click  **Save** (Ctrl+S).

Configuring the Standard Work Week for Resource Calendars

Configure the standard work week for the calendar to set the work and nonwork days and hours for a standard work week.

To configure the standard work week:



- 1) Click the  **Resources** ▼ menu and select **Enterprise Resource Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click the **Standard Work Week** tab.

- 4) On the **Standard Work Week** tab, right-click on a working or nonworking timeslot and use the menu options to adjust the workday. You can also resize the working time to increase or decrease the work hours.
- 5) Click  **Save** (Ctrl+S).


Modifying Calendar Days

Modify calendar days to account for work or nonwork days or hours that are different than the standard hours defined on the Standard Work Week tab. For example, if you are using a personal calendar, you might choose to specify vacation days by setting the standard working days to nonworking days.

To modify work or nonwork calendar days:



- 1) Click the  **Resources** ▾ menu and select **Enterprise Resource Data**, or click the **Administer** ▾ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page:
 - a. Click on the calendar you want to modify.
 - b. Click the **Calendar** tab.
- 4) On the **Calendar** tab, right-click on a working or nonworking day and use the menu options to adjust the workday.
- 5) Click  **Save** (Ctrl+S).

Tips

The  (globe) on calendar days indicates exception days in the base calendar. You can modify these exceptions days and the globe will disappear. If you set the calendar day back to standard, the Global exception day will reset and the globe will reappear.

Changing the Calendar Type

You can change the type of calendar you created from a resource calendar to a global calendar, a personal calendar to a shared calendar, or a shared calendar to a personal calendar.

- 1) Click the  **Resources** ▾ menu and select **Enterprise Resource Data**, or click the **Administer** ▾ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Resources** and click **Resource Calendars**.
- 3) On the **Resource Calendars** page, click on a personal or shared calendar.
 - ▶ To change a calendar from a resource calendar to a global calendar:
On the **Resource Calendars** toolbar, click  **Promote to Global Calendar**.
 - ▶ To change a personal calendar to a shared calendar, or to change a shared calendar to a personal calendar:

Note: If you are converting a shared calendar to a personal calendar, you must remove all but one resource before proceeding with this step. To remove a resource from a calendar, navigate to the correct calendar for the resource and assign the resource to that calendar.

- 4) Click  **Convert to Personal Calendar** or  **Convert to Shared Calendar**.

Implementing the Schedule

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Establishing Activity Codes

About Activity Codes

Activity codes enable you to categorize activities into logical groups based on your organization's criteria. An activity code can be one of three types: Global, EPS, or Project. Global activity codes organize activities across all projects in an organization. EPS activity codes organize activities within a specific branch or node of the enterprise project structure (EPS). Project activity codes categorize activities based on specific features within a project.

Activity codes represent broad categories of information, a department or project manager for instance. You can create multiple activity codes according to specific categories, then assign different values for each code. For example, assume your organization has many departments and you want to review activities within each department. You can first create an activity code "department," then assign different values such as quality assurance, finance, and sales. You can then associate activities with specific departments.

A key characteristic of an activity code as opposed to an activity user defined field is that activity codes will only allow entries from a predefined list of values. After you create activity codes, users can assign activity code values to activities to group, sort, and filter project data based on these values.

Working with Activity Codes

There are three types of activity codes: Global, EPS, and Project. Global activity codes can be used in all projects within the enterprise. EPS activity codes can only be used in projects that belong to a specific EPS, including its subordinate EPS nodes, if any. Project activity codes can be used only in their designated project. The EPS or project that an activity code is associated with is specified when the code is created.

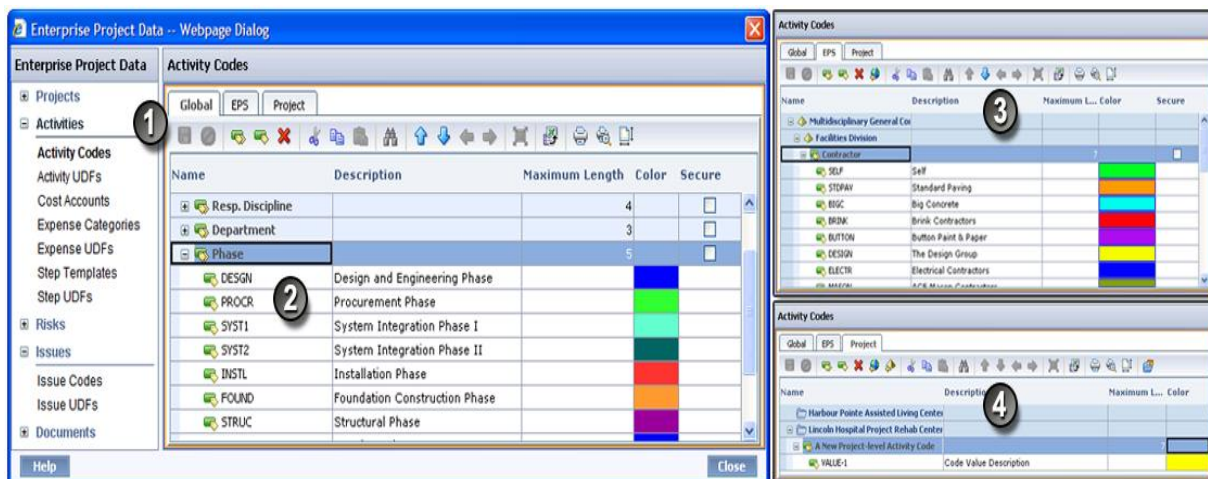


Table of Key Activity Code Administration Elements

Item	Description
1	Navigation Controls: After expanding Activities and clicking Activity Codes in the Enterprise Project Data pane, select the Global , EPS , or Project tab to configure activity codes.
2	Global tab: In this example, Phase is a global activity code. Like all activity codes, each of its values contains a short code Name, Description, and Color. For example, INSTL is the Installation Phase activity code value for the Phase activity code.
3	EPS tab: In this example, Contractor is an EPS activity code. DESIGN is The Design Group activity code value.
4	Project tab: This tab displays a third set of activity codes arranged by project for use only within that project.

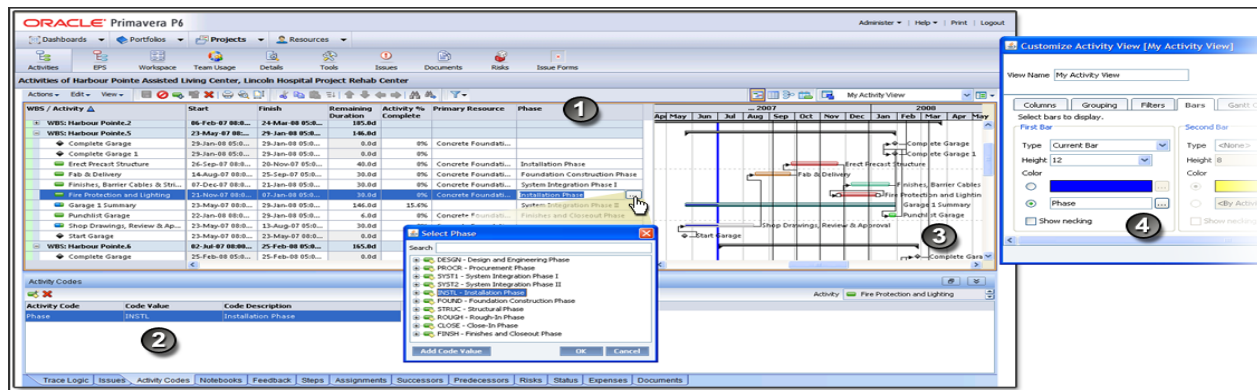






Table of Key Activity Code Assignment Elements

Item	Description
1	Phase activity code field: In this example, the user has added the Phase activity code field to the columns in the table and has assigned the INSTL code value to the selected activity.
2	Codes detail window: Use this detail window to assign global, EPS, or project activity codes to the currently selected activity.
3	Activity Gantt chart: The color of the bars can be configured to display the corresponding colors of the assigned activity code.
4	Bars tab of the Customize Activity View dialog box: In this example, the Phase activity code will determine the color of the bar in the Gantt chart.

Creating Activity Codes

Create activity codes organizes activities into groups. Activity codes can be one of three levels: global, EPS, or project.

To create activity codes:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Activity Codes**.
- 3) On the **Activity Codes** page, click the **Global**, **EPS**, or **Project** tab to determine the level for the activity code.
- 4) On the **Global**, **EPS**, or **Project** tab, click the  **Add Activity Code** icon.
 - a. Move the activity code to the correct location in the list by clicking the  **Move Up** (Ctrl+Alt+Up) and  **Move Down** (Ctrl+Alt+Down) arrows.
 - b. In the **Name** field, double-click and type a unique code.

Note: Project-level activity codes must be unique across all projects. Enterprise-level activity codes must be unique across all EPSs. Global activity codes must be unique across the organization.

- c. In the **Maximum Length** field, double-click and click the up or down arrow to specify project code value length.
- d. In the **Secure** field, mark the option to make the code read-only for users without the necessary security privileges to make changes.

Note: You can designate an activity code as secure only if you have the appropriate security privilege; otherwise, this option does not display.

- e. Click  **Save** (Ctrl+S).



Tips

- ▶ Activity codes at the same level are siblings. Subordinate activity codes are children.
- ▶ Click **Move to Global** to move an EPS-level or project-level activity code to a global-level activity code. Click **Move to EPS** to move a project-level activity code to an EPS-level activity code.
- ▶ If you are working on the **Project** tab and the project you need is not visible, click **Select Projects**. In the **Select Projects** dialog box, select a project and click **OK**. For help adding projects to the **Selected Projects** list, see **Customize Columns or Values** (on page 239).





Creating Activity Code Values

Create activity code values to represent variations within the larger scope of the activity code. It is these values, not the activity codes, that you will assign to projects. You can add code values for project-level, EPS-level, and global activity codes. These steps represent the minimum required to create an activity code value. To configure an activity code value, see **Configuring Activity Code Values** in P6 Help.

To create activity code values:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Activity Codes**.
- 3) On the **Activity Codes** page, click the **Global**, **EPS**, or **Project** tab to determine the level for the activity code value.
- 4) On the **Global**, **EPS**, or **Project** tab:
 - a. Select a code.
 - b. Click  **Add Activity Code Value**.

Note: The code value will be assigned to the selected code.

- c. Move the activity code value to the correct location in the list and hierarchical position by clicking the  **Move Up** (Ctrl+Alt+Up),  **Move Down** (Ctrl+Alt+Down),  **Move Left** (Ctrl+Alt+Left), and  **Move Right** (Ctrl+Alt+Right) arrows.
- d. In the **Name** field, double-click and type a code value unique to that tree level.

Note: The code value cannot exceed the **Maximum Length** specified by the activity code.

- e. Click  **Save** (Ctrl+S).

Tips







- ▶ Activity code values at the same level are siblings. Subordinate activity code values are children.
- ▶ You can also assign project-level activity code values to an open project. On the **Projects** navigation bar, click **Activities** and click the **Codes** detail window. In the **Codes** detail window, click **Assign Activity Code Value**. In the **Select Code Value** dialog box, you can assign a preexisting code value or add a new code value. To assign an existing code value, mark **Global**, **EPS**, or **Project** and select an activity code value from that level. To add a new code value, select an activity code and click **Add Code Value**. Type a name and description and click **Create**.
- ▶ To select multiple projects in the **Select Projects** dialog box, press the Ctrl key and click the projects to be selected.
- ▶ Each time you update the list of projects on the **Project** tab, the application saves the list of displayed projects.

- ▶ If you are working on the **Project** tab and the project you need is not visible, click **Select Projects**. In the **Select Projects** dialog box, select a project and click **OK**. The dialog box only displays the projects you have access to view. For help adding projects to the **Selected Projects** list, see **Customize Columns or Values** (on page 239).

Creating Activity Code Values for Activities

You can quickly create activity code values in the Activity Codes detail window of the Activities page.

To create activity code values in the Activity Codes detail window:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Codes** detail window.
- 4) In the **Codes** detail window, click  **Assign** (Insert).
- 5) In the **Select Code Value** dialog box:
 - a. Select the **Global**, **EPS**, or **Project** option for a list of activity codes.
 - b. Select an activity code to which you will add the value.
 - c. Click **Add Code Value**.
- 6) In the **Add Activity Code Value** dialog box, enter a value in each field and click **Create**.
- 7) In the **Select Code Value** dialog box:
 - ▶ Assign the value to the selected activity and click **Close**.
 - Or
 - ▶ Click **Close**.
- 8) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ In the **Code Value** field, you must enter a value that is unique across the project.
- ▶ You can also create activity code values from the **Enterprise Project Data** dialog box or the **Administer** menu, see **Creating Activity Code Values** (on page 119).




Item	Description
3	Menus and Toolbars: The menus and customizable toolbars on the Activities page provide you with convenient access to the commands of most importance to your work.
4	Activity Table: You can select activities and update them within the table itself or on the detail windows. In the table, you can modify, Cut, Copy, Paste, and Fill Down values. When multiple projects are open, you can copy and paste activities between projects just as you would within a single project. When you cut or copy an activity, all attributes are copied along with it.
5	Activity Gantt: Refer to the optional Gantt chart to supplement your work in the table with a visual representation of the schedule.
6	Assignments detail window: Update resource and role assignments in this detail window. The first resource also appears in the Primary Resource column in the table. In this example, the Assignments detail window is floatable, meaning it can freely be moved within the screen.
7	Steps detail window: Break the activity down into smaller units called steps. The progress of steps can also be measured. In this example, some progress has been recorded in the Step % Complete field for each of three steps for the activity. The user in this example, has also elected to dock the Steps detail window above the other windows but below the Activity Table.
8	General detail window: Record basic details about the activity in this detail window. You can show or hide the series of detail windows that appears for each activity and WBS.





Note: Using P6 Administrator application, your administrator can set a default value for the maximum number of activities that appear within an activity view.

Creating Activities

Create activities to define a more detailed breakdown of projects or WBSs.

To create activities:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects**  menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select a project, WBS, or activity; the new activity will be added beneath your selection.
 - b. Click the **Actions** ▼ menu and select **Add** ▶  **Add Activity**.
 - c. Enter a name in the **WBS/Activity** field.
 - d. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






Tips

- ▶ Right-click a project, WBS, or activity and select **Add Activity** to quickly add an activity.
- ▶ The application automatically names new activities *New Activity*.
- ▶ You can create up to 15000 activities per activity view.

Configuring General Activity Information

You can configure some of the general information for activities, including Activity Type, Duration Type, and activity constraints.






To configure general activity information:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **General** detail window.
- 4) In the **General** detail window, configure the **Details**, **Durations**, **Units and Costs**, **Status**, and **Constraints** sections to represent the information you want to display for that activity.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Recalculating Assignment Costs

Recalculate assignment costs to update price per time values on activities. This ensures that project costs reflect any updates.

To recalculate assignment costs:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select an activity.
 - b. Click the **Actions** ▼ menu and select **Run** ▶  **Recalculate Assignment Costs**.
- 4) In the **Recalculate Assignment Costs** dialog box:
 - a. (Optional) Select the **Synchronize Overtime Factor** option to synchronize the overtime factor defined for each resource when recalculating costs.
 - b. Click **Recalculate**.






Tips

- ▶ When activity dates change, run **Recalculate Assignment Costs** to update resource costs based on the new dates.
- ▶ These services are removed from the database based on the **ASAP Cleanup Rate** your P6 administrator specifies on the **Configurations** tab in P6 Administrator application. Once the time is met all ASAP jobs that have a status other than running or delegated will be removed from the table automatically. Running and delegated jobs will be removed if they are older than the cleanup rate or if they are older than one day, whichever is greater.

Sending Project Data to ERP

If P6 is configured to function with an Oracle Enterprise Resource Planning (ERP) application, such as JD Edwards EnterpriseOne, and your administrator has granted you appropriate security privileges, you can send project cost data for an approved and baselined project to the configured ERP application for integration. The data from your projects then becomes available within your ERP applications for assignment and tracking.

To send project data to ERP:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **Actions** ▼ menu and select **Import/Export** ▶  **Send to ERP**.






Note: Any pending changes are automatically saved.

- 4) In the **Send Projects to ERP** dialog box:
 - a. Select the projects you want to send to ERP.
 - b. Select or clear the options.
 - c. Click **Send**.

Customizing Detail Windows


You can customize which detail windows appear on the EPS or Activities pages.

To customize detail windows:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:

- a. Select a view from the **Activity** or **EPS View** list.
 - b. Click the **View** ▾ menu and select **Customize Detail Windows**.
- 4) In the **Customize Detail Windows** dialog box:
- a. In the **Area** section, select one of the options to determine which listing of detail windows is available for you to customize.
 - b. In the **Detail Window** section, select or clear the options beside detail windows to add or remove them from the page.
 - c. Click **Save**.

Tips

- ▶ Select or clear the option beside the **Detail Window** title to add all or remove all the detail windows.
- ▶ Right-click a detail window tab to customize detail windows. Click **Customize** on the menu to open the **Customize Detail Windows** dialog box, or click a detail window name to add or remove it from the page.
- ▶ Click and drag detail windows to change their order. Otherwise, the detail windows appear in the same order that they appear in the **Customize Detail Windows** dialog box.
- ▶ Click  **Float** on the detail window to convert it to a dialog box. You can then drag this dialog box to change its position.
- ▶ When you navigate to a new page, you can save or cancel the view changes you made to the detail windows. These changes will only be saved for the view selected in the **Activity** or **EPS View** list.

About Activity Types

One of many attributes for an activity, the *Activity Type* determines how the activity is scheduled according to various scheduling scenarios:

- ▶ **Task Dependent:** This type of activity indicates that assigned resources should be scheduled based on the activity's calendar, rather than the calendars of the resources.
- ▶ **Resource Dependent:** This type of activity indicates that resources should be scheduled based on their assigned calendars. Use this type when the activity duration may be affected by resource availability.
- ▶ **Level of Effort:** This type of activity indicates that it is ongoing with a duration determined by its dependent activities. The duration is calculated based on the schedule dates of its predecessors and successors. Administrative activities are typically designated as *Level of Effort*.
- ▶ **Start Milestone:** This type of activity indicates the beginning of a major project phase. Activities of this type have a duration of zero (0) with no resource assignments.
- ▶ **Finish Milestone:** This type of activity indicates the end of a major project phase. Activities of this type have a duration of zero (0) with no resource assignments.

About WBS Summary Activities

A WBS summary activity type represents a group of activities that share a common work breakdown structure (WBS) level. The summary-level WBS activity enables the rollup of dates for the activity group. Rollup values for a WBS summary activity are calculated when the project is scheduled. The duration of a WBS summary activity extends from the start of the earliest activity in a group to the finish of the latest activity.

The WBS summary activity type combines the summary capabilities of the WBS structure with task-level attributes such as relationships, resource assignments, and notebooks. Use this activity type to roll up dates, duration, and percent complete values for a group of activities that share a common WBS code.

The WBS code of a WBS summary activity determines which activities comprise the group. For example, a WBS summary activity assigned to WBS code A, would roll up values for all activities under any subordinate WBS that relates to code A: A.1, A.1.1, A.2, A.2.1, and so on. If the WBS summary activity in this case were assigned to WBS code A.1, it would roll up values for activities under WBS A.1 and A.1.1, but not for those activities under A.2 or A.2.1.

About Gantt Charts

A Gantt chart is a graphical representation of the duration and sequence of activities or projects. It is useful for planning, scheduling, and monitoring progress against a timeline.

Working with the Activity Gantt Chart

Use the Activity Gantt chart to view the progression and relationships of activities or projects on a timeline.

Gantt chart bars and activity dates or durations

You can easily update dates and durations by resizing or moving Gantt chart bars. When you change bar positions in a Gantt chart, the start and finish date columns update automatically to reflect the new bar position. After moving a Gantt bar, when you save your changes, the remaining duration is recalculated based on the new dates and the activity or project calendar. Because this calendar is applied when you save, if you move but do not resize a Gantt bar, the duration might shorten or lengthen based on the calendar's nonworktime.

Note: If you click the center of a bar and drag it along the timescale, you will be prompted to add a **Start On** or **After** constraint. In the Gantt chart, you can impose only a **Start On** or **After** constraint.

Customizing the Gantt chart

You can change the progress line options or the timescale for the Gantt chart in the **Customize Activity View** dialog box.

Viewing the Gantt chart

In the Gantt chart, a vertical blue line represents the current data date for the project. Vertical sightlines appear at each minor increment (bottom) of the timescale. Horizontal sightlines appear at the bottom of every fifth table row. The timescale background is shaded to indicate nonworktime based on the global default calendar.







Activity highlight

To quickly locate the activities you need to update, you can use the Progress Spotlight feature, which highlights all activities that should have progressed during a specific time period. This time period is defined by the smallest increment of the current timescale since the last data date. For example, if the current timescale is set to Month/Week, Progress Spotlight highlights all activities that should have progressed during the week since the data date.

Configuring Gantt Charts

Configure the Gantt chart to adjust activity beginning and finishing dates as well as constraints.

To configure the Gantt chart:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page, click the **View** ▼ menu and select  **Gantt Chart**.
- 4) On the **Gantt chart**:
 - a. To resize bars, select a bar and click and drag the beginning or end of it to a new date. (Only applicable on the **Activities** page.)
 - b. To focus the Gantt chart on a specific time interval, double-click a year, quarter, month, week, or day on the timescale. The Gantt chart timescale will expand or shrink to show the entire time interval.
 - c. To expand a specific area of the Gantt chart, click the timescale at the top of the Gantt chart once (the pointer will become a double-headed arrow), move the pointer to select the portion of the timescale you want to expand, and click again. You can perform this step several times.

- d. To apply a **Start On or After Activity Constraint**, click the middle of a bar and drag it along the timescale. (Only applicable on the **Activities** page.)
- 5) On the **Activities** or **EPS** page, click the **View** ▾ menu and select  **Save** (Ctrl+S).

Tips

- ▶ To back out of a zoom, double-click the top bar of the timescale.
- ▶ For more information on configuring Gantt charts, see **Configuring Activity View Gantt Chart** (on page 142) or **Configuring Project View Gantt Chart** in P6 Help.
- ▶ After resizing or moving a Gantt bar, when you save your changes, the activity remaining duration is recalculated based on the new dates and the activity's calendar. Because the calendar for the activity is applied when you save, a date you specified for an activity might change slightly if it occurs during calendar nonworktime. Also, if you move, but do not resize, a Gantt bar, the duration might shorten or lengthen based on the activity calendar's nonworktime.
- ▶ If you select the option **Do not show this again** in the **Activity Constraint** dialog box, it will not reappear until the next time you log in.
- ▶ To create or configure activity relationships in the **Gantt chart**, see **Creating Activity Relationships** (on page 165) or **Configuring Activity Relationships** (on page 166).

About the Activity Table

The Activity Table presents all WBS and activity information for the currently open projects in a familiar table format. You can customize Activity Table columns, filters, grouping, sorting, fonts, and colors.

For example, you might change the information displayed in columns to show scheduling data, resource and cost data, user-defined fields, or any data items you select, including calculated data. You can also format specific information to call attention to it by using the filter, group and sort, and other table display features.

Use the Activity Table to:





- ▶ Create a list of activities and activity information quickly when you don't need to see the information graphically over time as in a Gantt chart.
- ▶ Group activities that share a common attribute into hierarchies. For example, focus on activities by resource, responsibility, or date. Once you organize activities into groups, you can summarize or "roll up" project data to simplify their presentation.
- ▶ Sort activities to arrange them in an order you specify. For example, to view activities chronologically, you might sort them by a date field.

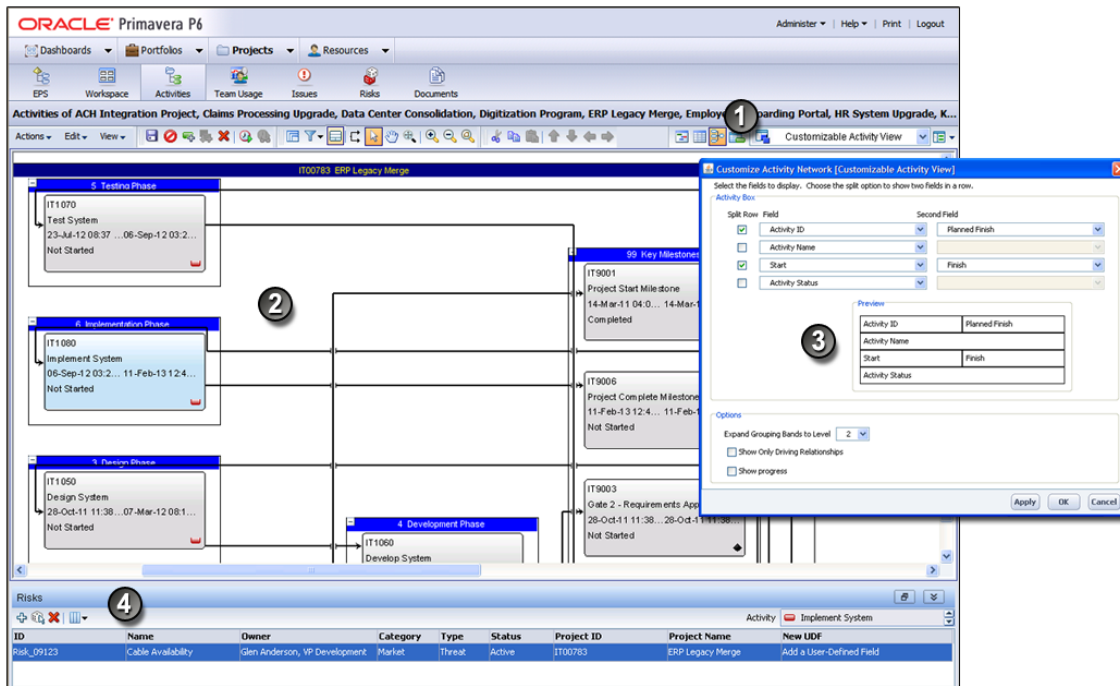
About Activity Networks

An Activity Network is a graphical display of activities and their logical relationships according to the WBS. You can use an Activity Network to view activity relationship paths and the flow of work through a project. Activity Networks also allow you to examine and edit an activity and its predecessors and successors.

Working with Activities in the Activity Network

In addition to the Activity Table format, you can also view activities in an Activity Network. You can also include your choice of WBS and activity detail windows in this alternate viewing format.

The Activity Network maps the WBS elements and activities in your project into a series of interconnected boxes. Arrows between boxes represent the relationships between activities. The standard color-coded activity status icons also appear in this viewing format: black diamonds represent milestones, and other status icons reveal when an activity is  not yet started,  in progress,  completed, or  critical. Activity boxes outlined in red represent critical activities while activity boxes outlined in blue are not.




The screenshot displays the Oracle Primavera P6 interface. The main window shows the 'Activities of ACH Integration Project, Claims Processing Upgrade, Data Center Consolidation, Digitization Program, ERP Legacy Merge, Employee Training Portal, HR System Upgrade, K...' project. The 'Activity Network' view is selected, showing a network diagram with activity boxes and milestones. A 'Customize Activity Network' dialog box is open, allowing users to select fields to display (Activity ID, Activity Name, Start, Activity Status) and a preview of the resulting view. A 'Risks' table is visible at the bottom.

ID	Name	Owner	Category	Type	Status	Project ID	Project Name	New UDF
Risk_09123	Cable Availability	Gen Anderson, VP Development	Market	Threat	Active	IT00783	ERP Legacy Merge	Add a User-Defined Field

Activity Network

Item Description

1

Activity View: Select an activity view that already includes the Activity Network or click  **Activity Network**.

Item	Description
2	<p>Activity Network: The arrow from a predecessor activity points to its successor. Solid red lines between boxes represent critical relationships, while blue lines represent non-critical relationships. Solid lines represent driving relationships, which indicate when a predecessor activity influences the start date of its successor. The predecessor drives the start date of the successor activity by causing it to start earlier or later than the scheduled date depending on the finish date of the predecessor. Dashed lines represent non-driving relationships, which include all predecessor and successor activity relationships: Start-to-Start, Finish-to-Start, Start-to-Finish, and Finish-to-Finish. You can show only driving relationships or show all relationships.</p>
3	<p>Customize Activity Network: You can customize the content and arrangement of the boxes that represent your activities in the network. If you select the Show progress option on the Customize Activity Network dialog box or on the Activity Network tab of the Customize Activity View dialog box, you can view activity progress in the Activity Network. Completed activities are marked with an X across the activity box. Activities in progress are marked with a slash (\) across the activity box.</p>
4	<p>Detail Windows: The same WBS and Activity detail windows are available with any activity viewing format. In this example, the user has elected to show the Risks detail window. When you select an Activity Network box, the selected box displays a light blue background while the boxes that are not selected display a gray background.</p>

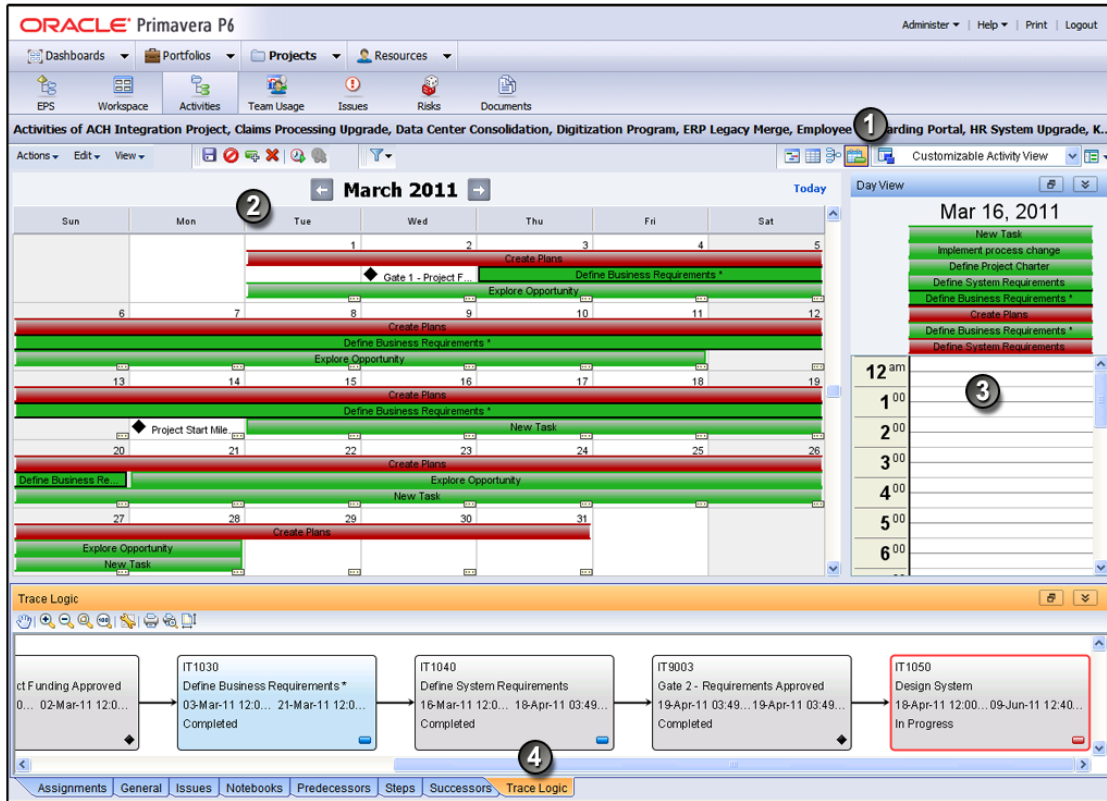
Note: P6 identifies relationships as driving when all of the following are true: 1) the successor activity has **Free Float** less than or equal to zero; 2) the activity does not have a **Start On** or **Finish On** constraint; and, 3) the activity does not have an **Actual Finish** date.

About Calendar View

The Calendar View displays activities in a monthly calendar format. Bars on the calendar represent each activity and its duration.

Working with Activities in Calendar View

In addition to the Activity Table format, you can also view activities in a calendar format, including a special **Day View** detail window. You can also include your choice of WBS and activity detail windows in this alternate viewing format.



The Activity Calendar Viewing Format

- | Item | Description |
|------|--|
| 1 | Activity View: Select an activity view that already includes the Calendar or click Calendar View . |
| 2 | Calendar Work Area: View project activities in the calendar by month. Use the controls at the top to view the next or previous month. In Calendar View, activity bars display in the color specified within the First Bar section of the Bars tab in the Customize Activity Views dialog box, or as the color assigned to an activity code value. Critical activities display as red bars. Milestones display as black diamonds. |
| 3 | Day View Detail Window: Double-click an activity in the Calendar View to see the activities assigned to an individual day. When more activities are scheduled on a day than can be displayed in a day of Calendar View, an ellipsis is displayed within the day. |

Item	Description
4	Detail Windows: The same WBS and activity detail windows are available with any activity viewing format. In this example, the user has elected to show the Trace Logic detail window below the Calendar View.

About Progress Spotlight

Progress Spotlight highlights the activities that should have progressed during a specific time period. A yellow curtain is dropped behind the activities to enable quick navigation to the activities in this timeperiod. Use the Progress Spotlight feature (View, Progress Spotlight) to highlight activities in the layout that have started, progressed, or finished between the previous data date and the new data date.

About Relationship Lines

Relationship lines graphically illustrate the links between activities in Gantt charts and Activity Networks. Whether the relationship line is connected to the beginning or end of an activity bar determines the type of relationship. For more information on relationships, see **About Relationships** (on page 164).

About Progress Lines

A progress line is a way to graphically trace progress on activities and see how a project is performing with regard to its scheduled deadlines. When a progress line is drawn to the left of the data date, the activity is behind schedule. When a progress line is drawn to the data date, the activity is on schedule. When a progress line is drawn to the right of the data date, the activity is ahead of schedule.

Progress lines can be either progress point lines or variance lines. As a progress point line, the progress line shows either the remaining duration of an activity or the percent of the activity that has been completed. Progress points are determined by calculating the difference between current and baseline dates for each activity, or based on actual progress determined by each activity's remaining duration or percent complete. As a variance line, the progress line can represent an inconsistency between the planned and actual start dates or finish dates of a task.

About Activity Views

An activity view is the visual layout of project information. For each view, you can customize data and content-specific choices such as grouping, column selection, and visual display options. Selecting the best view for your needs can facilitate the process of recording project data. For example, to quickly record a range of details for new activities, you might select a table view which maximizes the number of data columns available. Or, to automatically apply a particular attribute, such as WBS or activity code, to newly added activities, you could select a view which groups activities based on that attribute.

Working with Activity Views

Using activity views

Configure the **Activities** page and the **Customize Activity View** dialog box to customize the views that display the project and activity data you require in a format that meets your needs. You can save these settings with the view. Save the changes if you want them to appear the next time you work with the view. Do not save the changes if you only want your alterations to last for the session.

The view list on the **Activities** toolbar provides quick and easy access to all activity views that are available to you. While working with activities, choosing the best view for your needs can facilitate the process of recording project data.

Choose and organize the data content of a view

You can configure the content and organization of any activity view you create. For activity views you can access but did not create, you can review activity view settings, but you cannot make changes.

Note: On the **Activities** page, to quickly rearrange the columns currently displayed in a view, drag and drop them.

Your ability to perform certain actions in a view depends on the view's access class, your role as either creator or user of the view, and your security profile. For example, if a multi-user or global view includes cost data elements and the current user does not have rights to view costs, the data is dashed out so it is not visible to the user.

Grouping and sorting activities









You can group all activities that contain the same value for a specific data field. For example, if you choose to group by **Project** then by **Primary Resource**, the **Activities** page groups activities in project groupings. Then, within each project group, activities are further categorized according to primary resource. Finally, within each primary resource group, activities are sorted based upon the sort field and sort order you specify, for example **Start Date**.

In the Gantt chart, when you group activities, a summary bar appears for each group. You can expand and collapse the group as needed to focus only on the project **Summary Schedule** or on the **Detailed Schedule**. In the table, when you group activities, each grouping level is identified and separated by a colored band or background. You can elect to show rollups, or summary totals, for each group.

Creating Views

Create views to determine how information is visually displayed. These steps represent the minimum required to create an activity or project view.

To create an activity or project view:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:
 - a. Select a view similar to the view you want to create from the **Activity** or **EPS View** list.
 - b. Click  **View** and select  **Save View As**.
- 4) In the **Save View As** dialog box, type a name in the **Please specify the view name** field and click **OK**.
- 5) On the **Activities** or **EPS** page:
 - a. Configure the new view to have the properties you want. See **Configuring Activity Views** (on page 135) or **Configuring Project Views**.
 - b. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S) when you are finished.






Tips

The application will add your new view to the **Users** section of the **Activity** or **EPS View** list.

Configuring Activity Views

Configure activity views to define how you see activity data. Activity views affect the filters, grouping, and columns that are applied to the Activities page. Detail window visibility is also affected by the selected activity view.

To configure activity views:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 1. Click the **Activity View** list and select an activity view.
 2. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box:
 - a. Configure the **Columns** tab. See **Configuring Activity View Columns** (on page 137).
 - b. Configure the **Grouping** tab. See **Configuring Activity View Grouping** (on page 137).
 - c. Configure the **Filters** tab. See **Configuring Activity View Filters** (on page 138).
 - d. Configure the **Bars** tab. See **Configuring Activity View Bars** (on page 141).
 - e. Configure the **Gantt Chart** tab. See **Configuring Activity View Gantt Chart** (on page 142).
 - f. Configure the **Activity Network** tab. See **Configuring Activity View Activity Network** (on page 143).
 - g. Configure the **Access** tab. See **Configuring Activity View Access** (on page 143).
 - h. Click **OK**.






Tips

- ▶ You can modify any view you create. You can only modify multi-user and global activity views if you have the appropriate security privileges.
- ▶ Many of these configurations, configuring columns and filters for example, do not require you to open the **Customize Activity View** dialog box. If the necessary toolbuttons are available on your toolbar, you can use them to configure the activity view.

Configuring Activity View Columns

Configure activity view columns to specify which columns are visible in the Gantt chart or table.

To configure columns:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box, click the **Columns** tab.
- 5) On the **Columns** tab:
 - a. In the **Select the columns to display** section, customize the **Selected Columns** list. See **Customizing Selected Lists** (on page 239).
 - b. In the **Column Options** section, select an option from each list.
 - c. Click **OK**.



Tips




- ▶ You can display a maximum of 30 columns.
- ▶ Click **Font Picker** and select a font and size from the dialog box to change the font for a column.
- ▶ You can customize activity view columns from the **View** menu. Click the **View** menu and select **Columns**.

Configuring Activity View Grouping

Configure grouping to define how fields are grouped on the Activities page.

To configure activity view grouping:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box:
 - a. Click the **Grouping** tab and configure the grouping options in each section.
 - b. Click **OK**.






Tips

- ▶ When activities are grouped, the **Gantt chart** on the **Activities** page displays a summary bar for each group. The summary bar represents the time period from the earliest **Early Start** to the latest **Early Finish** for the group.
- ▶ Use the **To Level** list to select the number of hierarchy levels when grouping by a hierarchical field. When grouping by dates, use the **To Level** list to select a time interval.
- ▶ The band color you select will display in the table and the Activity Network.
- ▶ You can also access activity view grouping from the **View** menu. Click the **View** menu and select **Group**.
- ▶ Grouping bands are displayed by default when you group by a project code or EPS even if the bands are empty. Select the **Hide if empty** option in the **Customize View** or **Customize Groupings** dialog boxes to remove these bands from view.

Configuring Activity View Filters

You can modify or create filters. These filters can then be applied to several different activity views.

To configure activity view filters:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**

- 4) In the **Customize Activity View** dialog box, click the **Filters** tab.
- 5) On the **Filters** tab:
 - a. You can modify a filter. See **Configuring Filters** (on page 140).
 - b. You can create a filter. See **Creating Filters** (on page 140).
 - c. You can apply filters. See **Applying Filters** (on page 139).
 - d. Click **OK** when finished.







Tips

- ▶ The **My Activities** filter displays all project activities you are either assigned to as a resource or designated as the activity owner.
- ▶ For the **Activities occurring within (blank) days** or **Activities finishing within (blank) days** filters, specify a number of days.
- ▶ You can also customize activity view filters from the **View** menu. Click the **View** menu and select **Filters** from the **Filters** submenu.

Applying Filters

Apply filters to a project to specify the data you want to display. You can add user-created filters or select from the list of standard filters.

To apply filters:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:
 - a. Click the **Activity View** or **EPS View** list and select a view to which you will add the filters.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** or **Customize Project View** dialog box, click the **Filters** tab.
- 5) On the **Filters** tab:
 - a. Select an option from the **Show matches for** list.
 - b. In the **Apply to View** column, select the option for each filter you want to apply.
 - c. Click **OK**.








Tips

- ▶ If you have Team Member module access, either assigned as a resource or activity owner, applying the **My Activities** filter will have no affect on the activity list display because your access is already restricted to your assigned and owner activities.
- ▶ You can also click the **View** menu and select **Filters** from the **Filters** submenu to open the **Customize Filters** dialog box. You can apply filters from this dialog box.
- ▶ If you want to save the application of these filters to the view, click **Yes** in the **Primavera P6** dialog box which opens when you navigate away from the page.




Creating Filters

Create filters to to narrow activity or project information to a specific data group.

To create filters:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:
 - a. Click the **Activity** or **EPS View** list and select a view to which you will add the filters.
 - b. Click the **View** ▾ menu and select  **Customize View....**
- 4) In the **Customize Activity View** or **Customize Project View** dialog box, click the **Filters** tab.
- 5) On the **Filters** tab, click  **Add Filter**.
- 6) In the **Create Filter** dialog box:
 - a. Click the **Definition** tab and configure the fields and lists for one or more filter statements.
 - b. Click the **Access** tab and define user access.
 - c. Click **OK**.








Tips

- ▶ To add more criteria statements, click . To remove a criteria statements, click . To nest a criteria statement inside another, click . You can add up to ten levels of nesting.
- ▶ You can also click the **View** menu and select **Filters** from the **Filters** submenu to open the **Customize Filters** dialog box. From this dialog box, you can create filters.




Configuring Filters

You can configure the detailed statements of a filter and who can use it.

To configure filters:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project** navigation bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page:
 - a. Click the **Activity** or **EPS View** list and select a view to which you will add the filters.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** or **Customize Project View** dialog box, select a filter and click  **Modify Filter**.
- 5) In the **Modify Filter** dialog box:
 - a. Click the **Definition** tab and configure the fields and lists to edit the filter statements.
 - b. Click the **Access** tab, and select an access option.
 - c. Click **OK**.



Tips




- ▶ You can not edit **Standard Filters**.
- ▶ To add more filter statements to the **Definition** tab, click . To remove a filter, click . To nest a criteria statement inside another, click . You can add up to ten levels of nesting.
- ▶ You can also click the **View** menu and select **Filters** from the **Filters** submenu to open the **Customize Filters** dialog box. You can configure filters from this dialog box.

Configuring Activity View Bars

Configure bars to represent different items on the timeline in the Gantt chart and the Calendar View.

To configure activity view bars:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box, click the **Bars** tab.
- 5) On the **Bars** tab, configure the bar options in each section and click **OK**.






Tips

- ▶ The **Color** option you select determines how the bar will be represented, whether by color or code.
- ▶ You can configure options for up to three bars.
- ▶ A Late bar does not display if the project has not been scheduled.
- ▶ The Progress bar is blue.
- ▶ Select the **Show Critical** option to represent critical activities with a red bar instead of the color you selected for the Current bar.
- ▶ You might find it helpful to vary the position of the label on the Current bar.
- ▶ Click **Font Picker** and select a font and size from the dialog box to change the font for a bar.
- ▶ You can also customize activity view bars from the **View** menu. Click **Gantt Chart Options** on the **View** menu and click the **Bars** tab.

Configuring Activity View Gantt Chart

Configure Gantt chart options to determine how the chart will display.

To configure Gantt chart options:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box:

- a. Click the **Gantt Chart** tab and configure the Gantt chart options in each section.
- b. Click **OK**.






Tips

- ▶ Bar necking extends down to the day.
- ▶ You can also select **Gantt Chart Options** on the **View** menu and click the **Gantt Chart** tab in the **Customize Gantt Chart Options** dialog box to configure Gantt charts.

Configuring Activity Network

Configure an Activity Network to determine how the network displays in the activity view.

To configure an Activity Network:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box, click the **Activity Network** tab.
- 5) On the **Activity Network** tab, configure the options, fields, and level and click **OK**.


Tips





- ▶ Select the **Split Row** option in the **Activity Box** section to divide a row into two fields. The **Second Field** list for that row is disabled until the **Split Row** option is selected.
- ▶ You can also customize **Activity Network** options from the **View** menu. In the **Activity Network** view, select **Activity Network Options** on the **View** menu.

Configuring Activity View Access

Configure activity view access to define which users will have access to a particular view.

To configure access:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.

- ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
 - 3) On the **Activities** page:
 - a. Click the **Activity View** list and select an activity view to configure.
 - b. Click the **View** ▼ menu and select  **Customize View....**
 - 4) In the **Customize Activity View** dialog box, click the **Access** tab.
 - 5) On the **Access** tab, select one of the access options and click **OK**.







Tips

- ▶ Unless you specify otherwise, **Current User** is the default access.
- ▶ If you select **List of Users**, search for the user, or select users from the **Available Users** list.

Sending E-Mail of an Activity View

You can send e-mail of an activity view to distribute details about activities or projects.

To send e-mail of an activity view:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the  **View** menu and select  **E-mail View**.
- 4) In the **E-mail View** dialog box:
 - a. Edit the recipient list, message, and subject as needed.
 - b. Click **Send E-mail**.

Tips

You must have an e-mail address listed in your user profile to send an e-mail.

About Grouping and Sorting

To simplify the display of complex tables of data, you can group rows of similar data and sort the grouped bands as well as the data under them. Grouping helps you block distracting data and focus only on the information you need. It also permits you to collapse and expand hierarchical arrangements of your data rather than navigate large flat lists.






About Resource Assignments

The Resources Assignments area enables you to view a customized list of resource or role assignments based on the filters you assign to the view. Using this view, you can analyze assignment unit and cost values and make any necessary modifications to the assignment data. You can also view unit and cost values in a spreadsheet based on a specified timescale using the Usage spreadsheet. In addition, you can extend your customized view by displaying the Gantt chart, which is a graphical display of the start and end dates for the resource assignments.

Assigning Activity Resources

Assign resources to work on an activity.

To assign a resource to an activity:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select the activity to which you want to assign resources and click the **Assignments** detail window.
- 4) In the **Assignments** detail window, click  **Assign Resource and Save** (Ctrl+Alt+R).
- 5) In the **Select Resource** dialog box, assign resources and click **Close**.

Tips:






- ▶ When assigning resources to activities, the list of available resources includes only the resources that belong to your access node, based on resource access, and resources who are currently assigned to the project.
- ▶ Activity resource assignments are displayed in the **Resource Names** column of the table.

- ▶ When you assign a resource to an activity that does not have any resource assignments, the resource is identified as the primary resource. If you subsequently assign more resources to the same activity, you can change the primary resource assignment for the activity. To change the primary resource, click **Customize Columns** in the **Assignments** detail window, and select **Primary Resource** if not already selected. Select the **Primary Resource** option for one of the resources.
- ▶ You can also assign resources to an activity from the **Resources** dialog box on the **Team Usage** page, the **Resources** dialog box on the **Role Usage** tab of the **Analysis** page, the **Open Requests for Resources** portlet of the **Dashboards** page, or the **Activities** page **Actions** menu. To assign resources from the **Actions** menu on the **Activities** page, select an activity and click **Assign Resource** on the **Actions** menu.

Configuring Activity Resources

You can configure resource information for activities, including the Planned Units/Time, Proficiency, or Rate Type for a resource.

To configure activity resources:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Assignments** detail window.
- 4) In the **Assignments** detail window:
 - a. Select a resource.
 - b. Add the columns you need to configure to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
 - d. Click  **Apply Changes** (Ctrl+S).






Tips

You can also configure activity resources from the **Open Requests for Resources** portlet of the **Dashboards** page.

Requesting Resources for Activities

When planning for an activity you can assign a role to the activity and replace that role with the appropriate resource at a later time. To assign a role with specific search criteria, including role proficiency, resource name, and resource code, use the Request Resources feature.

To request resources:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Assignments** detail window.
- 4) In the **Assignments** detail window, click  **Request Resources** (Ctrl+Alt+Q).
- 5) In the **Open a request for a resource** dialog box, enter criteria for the resource and click **Save**.





Tips


- ▶ The list of available resources includes only the resources you have access to, based on resource security, and current project resources.
- ▶ You must specify a **Primary Role**.
- ▶ The resource request criteria is stored and available when assigning resources to roles using the **Open Request for Resource** portlet from **Dashboards** or the **Role Usage** tab from the **Resources Analysis** page.

Specifying Resource Assignment Rates

You can set rate information for resources or roles.

To specify resource assignment rates:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.

- 3) On the **Activities** page, select an activity in the table and click the **Assignments** detail window.
- 4) In the **Assignments** detail window:
 - a. Add the **Rate Type** and **Rate Source** columns. See **Showing and Hiding Columns in a Table** (on page 239).
 - b. Select an option for the type and source.
 - c. Click  **Apply Changes** (Ctrl+S).








Tips

When you save your changes, costs for the assignment are recalculated based on the new rate: Cost equals Units times Price/Unit. You can add the **Price/Unit** column to the detail window to view the price used. To manually specify a price/unit, select **Override** in the **Rate Source** field and type a value in the **Price/Unit** field.

Adding Activity Resource Estimates

You can plan resource usage by adding resource estimates to activities.






To add resource estimates:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects**  menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects**  menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Assignments** detail window.
- 4) In the **Assignments** detail window:
 - a. Assign a resource or role to the selected activity. See **Assigning Activity Resources** (on page 145) or **Assigning Activity Roles** (on page 148).
 - b. Add the **Planned Units/Time**, **Planned Units**, **Planned Cost**, and **Planned Duration** columns to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
 - d. Click  **Apply Changes** (Ctrl+S).

Assigning Activity Roles

Assign roles to an activity to show which roles can perform the work required by that activity.

To assign a role to an activity:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Assignments** detail window.
- 4) In the **Assignments** detail window, click  **Assign Role and Save** (Ctrl+Alt+O).
- 5) In the **Select Role** dialog box, assign roles and click **Close**.






Tips

You can also assign roles from the **Resources** section, the **Open Requests for Resources** portlet of the **Dashboards** page, or the **Activities** page **Actions** menu. To assign roles from the **Actions** menu of the **Activities** page, select an activity and click **Assign Role** on the **Actions** menu.

Configuring Activity Roles

You can configure role information for activities.

To configure activity roles:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Assignments** detail window.
- 4) In the **Assignments** detail window:
 - a. Select a role.
 - b. Add the columns you need to configure to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) In the **Assignments** detail window, click  **Apply Changes** (Ctrl+S).






Tips

You can also configure activity roles from the **Open Requests for Resources** portlet of the **Dashboards** page.



Assigning Resource Curves to Resource or Role Assignments from the Activities Page

You can assign a resource distribution curve to any resource or role assignment on activities with a duration type of Fixed Duration and Units/Time or Fixed Duration & Units. Resource usage and costs are distributed evenly during an activity unless you specify nonlinear distribution using curves.

To assign a resource curve:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, to set the **Duration Type** to **Fixed Duration and Units/Time** or **Fixed Duration & Units**, click the **View** ▼ menu and select  **Columns**. (If the **Duration Type** is already set, select an activity and go to step 5.b.)
- 4) In the **Customize Columns** dialog box:
 - a. Expand **General** in the **Available Columns** section.
 - b. Double-click **Duration Type**.
 - c. Click **OK**.
- 5) On the **Activities** page:
 - a. Select **Fixed Duration and Units/Time** or **Fixed Duration & Units** from the **Duration Type** list for the activity whose curve you want to configure.
 - b. Click the **Assignments** detail window.

Note: The activity must have a resource or role assigned to it. See **Assigning Activity Resources** (on page 145) or **Assigning Activity Roles** (on page 148).

- 6) In the **Assignments** detail window, double-click the **Curve** field, and click .
- 7) In the **Select Curves** dialog box, select a curve and click **OK**.
- 8) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ If you assign a resource curve to an assignment with a manual curve, the manually-entered future period values will be overwritten.
- ▶ Resource curves do not support expenses. The **Accrual Type** will continue to spread the expenses.
- ▶ If the **Curve** column is not available, add it to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
- ▶ You can also assign resource curves to resource or role assignments from the **Resources Assignments** page. See **Assigning Resource Curves to Resource or Role Assignments from the Resources Assignments Page** (on page 85).

About Activity Codes

Activity codes enable you to categorize activities into logical groups based on your organization's criteria. An activity code can be one of three types: Global, EPS, or Project. Global activity codes organize activities across all projects in an organization. EPS activity codes organize activities within a specific branch or node of the enterprise project structure (EPS). Project activity codes categorize activities based on specific features within a project.




Activity codes represent broad categories of information, a department or project manager for instance. You can create multiple activity codes according to specific categories, then assign different values for each code. For example, assume your organization has many departments and you want to review activities within each department. You can first create an activity code "department," then assign different values such as quality assurance, finance, and sales. You can then associate activities with specific departments.





A key characteristic of an activity code as opposed to an activity user defined field is that activity codes will only allow entries from a predefined list of values. After you create activity codes, users can assign activity code values to activities to group, sort, and filter project data based on these values.

Creating Activity Code Values for Activities

You can quickly create activity code values in the Activity Codes detail window of the Activities page.

To create activity code values in the Activity Codes detail window:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects**  menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
 - 3) On the **Activities** page, select an activity and click the **Codes** detail window.
 - 4) In the **Codes** detail window, click  **Assign** (Insert).
 - 5) In the **Select Code Value** dialog box:
 - a. Select the **Global**, **EPS**, or **Project** option for a list of activity codes.
 - b. Select an activity code to which you will add the value.
 - c. Click **Add Code Value**.
 - 6) In the **Add Activity Code Value** dialog box, enter a value in each field and click **Create**.
 - 7) In the **Select Code Value** dialog box:
 - ▶ Assign the value to the selected activity and click **Close**.
 - Or
 - ▶ Click **Close**.
 - 8) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).







Tips

- ▶ In the **Code Value** field, you must enter a value that is unique across the project.
- ▶ You can also create activity code values from the **Enterprise Project Data** dialog box or the **Administer** menu, see **Creating Activity Code Values** (on page 119).

Assigning Activity Code Values to Activities

Assign activity code values to selected activities to group and filter data.

To assign activity code values:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Codes** detail window.
- 4) In the **Codes** detail window, click  **Assign** (Insert).
- 5) In the **Select Code Value** dialog box, assign code values and click **Close**.
- 6) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

About Expenses







Expenses are non-resource costs associated with a project and assigned to a project's activities. An expense is typically a one-time expenditure for non-reusable items. Expenses are project-specific and not time-based. Some examples include facilities, travel, consulting, and training. Each expense has an actual, remaining, and at completion value for both cost and units that is either budgeted or planned.

Expense categories classify and standardize expenses, and organize and maintain your expense information.

Creating Expenses

Create expenses to show costs that you expect each activity to accrue.




To create expenses:



- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Expenses** detail window.
- 4) In the **Expenses** detail window:
 - a. Click  **Add Expense Item** (Insert).
 - b. Enter a name in the **Expense Item** field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Configuring Expenses

Configure expenses to update costs associated with an activity.

To configure expenses:






- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.

- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Expenses** detail window.
- 4) In the **Expenses** detail window:
 - a. Select an expense.
 - b. Add the columns you need to configure to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Configuring Auto Compute Actuals for Expenses

You can configure auto compute actuals for activity expenses.

To configure auto compute actuals:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Expenses** detail window.
- 4) In the **Expenses** detail window:
 - a. Select an expense item.
 - b. Select the **Auto Compute Actuals** option in the **Auto Compute Actuals** column.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

If the **Auto Compute Actuals** column is not displayed, add it to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).

About Feedback

Feedback is the exchange of activity-specific notes between team members. Notes are added to activities either to or from the resource.

Adding Feedback

Add feedback to or from an activity resource for selected activities.

To add feedback:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select the activity about which you want to add feedback and click the **Feedback** detail window.
- 4) In the **Feedback** detail window:
 - ▶ If you are the resource, click the field under **Feedback from Resources**, enter feedback, and click **Add**.
 - ▶ If you are not the resource, click the field under **Notes to Resources**, enter feedback, and click **Add**.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






Tips

- ▶ Once added, feedback cannot be modified.
- ▶ Anyone with rights to view the activity can read the feedback.

Adding the New Feedback Column

Add the New Feedback column to act as a visual cue when there are new notes in the Feedback detail window.

To add the feature feature:






- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **View** ▼ menu and select  **Columns**.
- 4) In the **Customize Columns** dialog box:
 - a. Expand **Timesheet Feedback** in the **Available Columns** list and double-click **New Feedback** to add it to the **Selected Columns** list.

- b. Click **OK**.

Acknowledging Feedback

Acknowledge feedback you receive to show that you have seen comments about an activity. This task assumes that you have added the feedback feature to your table or Gantt chart. See **Adding the New Feedback Column** (on page 155).

To acknowledge feedback:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select the activity with new feedback. (The new **New Feedback** column option will be selected.)
 - b. Click the **Feedback** detail window to read and respond to the feedback. See **Adding Feedback** (on page 154).
 - c. Clear the option to acknowledge you have read the feedback.
 - d. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

The message is displayed with the timestamp when the note was sent and the name of the sender.







About Status

Status is a brief representation of an activity's condition at any given time. Status tracks the duration, beginning and ending dates, percent complete, units and costs, and constraints associated with an activity.

Configuring Status

Configure status to define percent complete and start and finish dates.





To configure status:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Status** detail window.
- 4) In the **Status** detail window, in the **Status** section:
 - a. Select or clear the **Started** and **Finished** options.
 - b. If you select an option, click  and select a date from the calendar.
 - c. In the **Status** section, enter a percentage in the **Activity % Complete** field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Configuring Status Units and Costs

Configure status units and costs to define the units and cost for a selected activity.

To configure status units and costs:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) , select an activity and click the **Status** detail window.
- 4) In the **Status** detail window, in the **Units and Costs** section:

- a. Select an option from the list.
 - b. Enter a value with a time unit abbreviation in each field.
- 5) On the **Activities** page, click the **Actions**  menu and select  **Save** (Ctrl+S).

Tips

- ▶ You can only enter **At Completion Cost/Units** for activities that are not started or in progress.
- ▶ The application will calculate the values for **Remaining Cost/Units** and **Actual Cost/Units**.

About Duration Types

Duration type is the basis for estimating the selected activity's completion time. It determines whether the schedule, resource availability, or costs are most important when updating activities. The duration type applies only when you have resources assigned to the activity. Select one of the following duration types based on which factor is most important (least flexible) in planning your project: Fixed Duration & Units/Time, Fixed Duration & Units, Fixed Units/Time, or Fixed Units.

Fixed Duration & Units/Time or **Fixed Duration & Units**: Indicate that the schedule is a limiting factor in your project. The activity's duration does not change regardless of the number of resources assigned when you modify or update activities. You usually select one of these duration types when you are using task-dependent activities. When you update the remaining duration for the activity, you can select to calculate either the remaining units or the units per timeperiod. The duration type enables you to control which variables of an equation are calculated when you change a value.

If you want to recalculate the remaining units and keep the units/time for the resource constant, select Fixed Duration & Units/Time. The application uses the equation: $\text{Remaining Units} = \text{Units/Time} \times \text{Remaining Duration}$. For example, if a resource is assigned to an activity for 8 hours/day for 5 days, the remaining units or work is calculated as 40 hours.

If instead you want to keep the remaining units constant and recalculate the units/time, select Fixed Duration & Units. The application uses the equation: $\text{Units/Time} = \text{Remaining Units} / \text{Remaining Duration}$. For example, if a resource is assigned to work 40 hours in 5 days, the units/time is calculated as 8 hours/day.

Fixed Units/Time: Indicates that resource availability is the most critical aspect of your project. In this case, the units/time or rate of the resource remains constant, even if the activity's duration or work effort changes. You most often use this duration type when you are planning resource-dependent activities.

Fixed Units: Indicates that the budget (units or cost) is a limiting factor; that is, the total amount of work is fixed. When you update activities, the work effort required to complete the activity does not change, even if the activity's duration or the resource rate changes. Typically, you would use this type in conjunction with resource-dependent activities. Increasing resources can decrease the activity duration.

Working with Duration Types

Duration type options

Duration type determines whether the schedule, resource availability, or cost is most inflexible when calculations are performed to reflect activity progress. Duration type affects update calculations only when resources are assigned to an activity.






Choose a duration type based on which factor is the most important, or least flexible, in planning your project.

- ▶ If schedule is most important, choose **Fixed Duration and Units/Time** or **Fixed Duration and Units**.
- ▶ If resource availability is most important, choose **Fixed Units/Time**.
- ▶ If total work effort or fixed costs are most important, choose **Fixed Units**.

Configuring Status Durations

Configure status durations to define time assignments for activities.

To configure status durations:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) , select an activity and click the **Status** detail window.
- 4) In the **Status** detail window, in the **Durations** section, enter a value with a time unit abbreviation in each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ You can only enter **At Completion Duration** for activities that are not started or in progress.
- ▶ The application will calculate the values for **Remaining Duration** and **Actual Duration**.
- ▶ Durations are rounded to the nearest half hour.
- ▶ You can quickly and easily change durations in the **Gantt chart** by dragging and resizing activity bars. The application will automatically update the activity durations for you.

About Constraints

Constraints are recognized real-world restrictions that affect project performance. Any factor that potentially delays when an activity can be scheduled is a constraint. The most typical constraints are date restrictions. Constraints can apply to the entire project or only to individual activities and can even reflect external project requirements that cannot be built into the network logic. Some examples of constraints are: must finish by (project-level constraint) and start on or after (activity-level constraint).

Working with Activity Constraints

P6 supports the following types of activity constraints:

Start On: Imposes the specific start date you select. The Start On constraint can delay an activity's early start or move forward an activity's late start to satisfy the constraint date.

Start On or Before: Defines the latest date an activity can start. This constraint only affects late dates and can decrease total float. When calculating a schedule, P6 imposes the start on or before constraint in the backward pass only if the calculated late start date will be later than the imposed date.

Start On or After: Defines the earliest date an activity can begin. This constraint affects only early dates. When calculating a schedule, P6 imposes the start on or after constraint in the forward pass only if the calculated early start date will be earlier than the imposed date.

Finish On: Imposes the specific finish date you select. The Finish On constraint can delay an activity's early finish or move forward an activity's late finish to satisfy the constraint date.

Finish On or Before: Defines the latest time an activity can finish. The finish on or before constraint affects only late dates.

Finish On or After: Defines the earliest date an activity can finish. The finish on or after constraint reduces float to coordinate parallel activities, ensuring that the finish of an activity is not scheduled before the specified date. It is usually applied to activities with few predecessors that must finish before the next phase of a project.

As Late As Possible: Imposes a restriction on an activity with positive float to allow it to start as late as possible without delaying its successors. When calculating a schedule, P6 sets the activity's early dates as late as possible without affecting successor activities. This option disables the calendar icon.






Mandatory Start: Imposes the early and late start dates you select. P6 uses the mandatory early start date regardless of its effect on network logic. A mandatory early start date could affect the late dates for all activities that lead to the constrained activity and all early dates for the activities that lead from the constrained activity.

Mandatory Finish: Imposes the early and late finish dates you select. P6 uses the mandatory finish date regardless of its effect on network logic. This constraint affects the late dates for all activities that lead to the constrained activity and all early dates for the activities that lead from the constrained activity.

Configuring Status Constraints

Configure status constraints to show restrictions on project performance.

To configure status constraints:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) , select an activity and click the **Status** detail window.
- 4) In the **Status** detail window, in the **Constraints** section:
 - a. Select a constraint from the **Primary Constraint** list.
 - b. Click the **Primary Constraint**  and select a date from the calendar.

Note: You may add a **Secondary Constraint**.

- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

When mandatory constraints are placed on calendar nonworktime, the early date is moved forward to the next valid worktime and the late date is moved back (earlier) to the first valid worktime. This can cause negative float in the schedule.

About Issues

Issues are perceived problems within a schedule that require attention or corrective action. When you create them in the Activities section, you can associate them with a single project or workgroup and assign them to a responsible manager in the OBS for follow-up based on priority. You can also associate issues with a single activity. When adding new issues to a project or workgroup, you can control the information you capture for each new issue. You can choose to receive e-mail notifications when new issues of a certain priority are added, when existing issues are modified, or when issues are assigned a specific issue code.





You can also think of issues as impediments, action items, open items, punch lists, logs, or concerns. Over time, if you do not resolve or close open issues or issues placed on hold, they can become risks.

Issue codes enable you to organize and categorize issues in a way that is meaningful to you. For example, you can create an issue code titled *Severity*, and subsequently create issue code values: *High*, *Medium*, and *Low*. You can assign each of these code values to issues across multiple projects, enabling you to categorize each issue according to how severe it is. Similarly, you can create codes to categorize issues by responsibility, subproject, or any other classification you require to organize issues. Assigning issue codes enables you to quickly search for and view issues according to specific criteria.



Creating Activity Issues

Create activity issues to identify problems that must be addressed before a project can be completed.

To create activity issues:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Issues** detail window.

Note: To create a project or WBS issue, select a project or WBS in place of an activity.

- 4) In the **Issues** detail window:
 - a. Click  **Add Issue** (Insert).
 - b. Enter or select a value for the **Issue Name**, **Priority**, **Status**, and **Responsible Manager** fields.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).





Tips:

- ▶ You cannot add an issue to a project that is checked out or locked.
- ▶ The application automatically names the issue *New Issue*. Update the issue so it has a unique name.


Configuring Activity Issues

Configure activity issues to account for changes since the last update on the issue.

To configure activity issues:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Issues** detail window.

Note: To configure a project or WBS issue, select a project or WBS in place of an activity.

- 4) In the **Issues** detail window:
 - a. Select an issue.
 - b. Add the columns you need to configure to the detail window. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

About Notebooks

A notebook is another name for a log or binder of electronic details about an activity, WBS, project, or EPS element. All the notes users enter or paste into the notebook, including e-mail messages, web links, tables, and other entries, share a single common theme called a notebook topic. See **About Notebook Topics** (on page 164).

Working with Notebooks

Notebook topics are created by the administrator on the **Enterprise Data** page of the **Administer** menu. These topics are then assigned to activity, WBS, project, or EPS node notebooks.





About Notebook Topics

Notebook topics help multiple users apply a common theme or label to shared information about an activity, WBS, project, or EPS element such as its purpose, completion instructions, or other helpful notes. For example, you might place an e-mail message, a web link, a table of observations, and a series of text notes into a notebook topic called *Budget Recommendations* to capture the ongoing cost impacts of a recurring project.


Assigning Notebook Topics

Depending on the page you are working on, you can assign notebook topics to a selected project or activity.

To assign a notebook topic to a project:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page, select a project or EPS node and click the **Notebooks** detail window.
- 4) In the **Notebooks** detail window, click  **Assign** (Insert).
- 5) In the **Select Notebook Topic** dialog box, select a notebook topic, click **Assign**, then **Close**.
- 6) On the **EPS** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ You can also create notebook topic descriptions. In the **Notebooks** detail window, double-click the **Description** field and click  (browse). Enter a description in the dialog box.
- ▶ You can also assign notebook topics to activities from the **Notebooks** detail window of the **Activities** page or the **Activity Details** page of the **Open Requests for Resources** portlet of the **Dashboards** page.

About Relationships

A relationship defines how an activity relates to the start or finish of another activity or assignment. An activity can have as many relationships as necessary to model the work that must be done. These relationships are used together with activity durations to determine schedule dates. Relationships can also exist between activities in different projects; this type of relationship is referred to as an external relationship.

Activities that are dependent on one another are known as predecessors and successors, where the first activity is the predecessor and the second is the successor. Between these two types of activities, there are four possible relationship types:

Finish to Start - The successor activity cannot start until its predecessor finishes.

Finish to Finish - The successor activity cannot finish until its predecessor finishes.

Start to Start - The successor activity cannot start until its predecessor starts.







Start to Finish - The successor activity cannot finish until its predecessor starts.


A permitted modification to these logical relationships is called lag. Lag values can be positive numbers (a delay, slower, deceleration of progress) or negative numbers (lead time, faster, acceleration of progress). For example, in a Finish to Start relationship, if you specify a ten-day lag (+10), the successor activity cannot start until ten days after the predecessor has finished. Likewise, if you specify a negative ten-day lag (-10), the successor activity could start ten days before the related predecessor activity finishes.

Creating Activity Relationships

Create activity relationships to show interdependencies between activities.

To create an activity relationship:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **View** ▾ menu and select  **Gantt Chart**.
 - b. Click the **View** ▾ menu and select  **Show Relationship Lines**.

Note: If  **Hide Relationship Lines** is displayed in the **View** menu, the lines are already set to show. Exit the menu and return to the **Gantt chart**.

- c. Right-click the bar to which you want to assign a relationship and click **Create Relationship**.

Note: Your cursor will become a cross.

- d. With the cross, click the beginning or end of the bar and then click the beginning or end of the bar you want to relate.

Note: Where you click each bar determines the type of relationship. See **About Relationships** (on page 164).

- e. Click the **Actions** ▾ menu and select  **Save** (Ctrl+S).







Tips



- ▶ You can scroll through the **Gantt chart** while your cursor is a cross to find a related bar.
- ▶ To delete a relationship, right-click the relationship line and select **Delete Relationship**.
- ▶ If multiple projects are open, you can create external relationships.
- ▶ You can also view or configure existing predecessor or successor relationships, from the **Predecessors** or **Successors** detail windows.

Configuring Activity Relationships

Configure activity relationships to adjust interdependencies between different activities.

To configure activity relationships:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **View** ▼ and select  **Gantt Chart**.
 - b. Click the **View** ▼ menu and select  **Show Relationship Lines**.

Note: If  **Hide Relationship Lines** is displayed in the **View** menu, the lines are already set to show. Exit the menu and return to the **Gantt chart**.
 - c. Right-click the relationship line of the relationship you want to configure and click **Edit Relationship**.
- 4) In the **Edit Relationship** dialog box, configure the relationship type and lag and click **OK**.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).







Tips

You can also configure relationships from the **Predecessor** and **Successor** detail windows. See **Configuring Predecessor Relationships** (on page 167) or **Configuring Successor Relationships** (on page 169).

Assigning Predecessor Relationships

You can assign predecessor relationships to the activities in a project.

To assign a predecessor relationship:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity to which you want to assign a predecessor and click the **Predecessors** detail window.
- 4) In the **Predecessors** detail window, click  **Assign** (Insert).
- 5) In the **Select Predecessor Activity** dialog box, assign activities and click **Close**.
- 6) On the **Activities** page, click the **Actions** ▾ menu and select  **Save** (Ctrl+S).




Tips



- ▶ You can assign relationships to multiple activities at one time. Select multiple activities using **Ctrl+click** or **Shift+click**. Right-click the selected activities and select **Link Selected Activities**. Based on their sequence in the view, the application creates **Finish to Start** relationships between selected activities. That is, a **Finish to Start** relationship is applied between the first and second activity, between the second and third activity, and so on. If an activity pair already has an **Finish to Start** relationship, the application tries, in turn, to apply each of the other relationship types, if possible. Otherwise, no relationship is applied to the pair.
- ▶ When selecting a predecessor or successor activity, you can choose from activities in the open projects only.

Configuring Predecessor Relationships

Configure predecessor relationships to define lag or relationship type.

To configure predecessor relationships:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.

- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity whose predecessor relationships you want to configure and click the **Predecessors** detail window.
- 4) In the **Predecessors** detail window:
 - a. Select a relationship.
 - b. Add the columns you need to configure to the detail window if they are not already available. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).







Tips

You can also configure activity relationships from the Gantt chart. See **Configuring Activity Relationships** (on page 166).

Assigning Successor Relationships

You can assign successor relationships to the activities in your project.

To assign a successor relationship:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity to which you want to assign successors and click the **Successors** detail window.
- 4) In the **Successors** detail window, click  **Assign** (Insert).
- 5) In the **Select Successor Activity** dialog box, assign activities and click **Close**.
- 6) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






Tips

- ▶ You can assign relationships to multiple activities at one time. Select multiple activities using **Ctrl+click** or **Shift+click**. Right-click the selected activities and select **Link Selected Activities**. Based on their sequence in the view, the application creates **Finish to Start** relationships between selected activities. That is, a **Finish to Start** relationship is applied between the first and second activity, between the second and third activity, and so on. If an activity pair already has an **Finish to Start** relationship, the application tries, in turn, to apply each of the other relationship types, if possible. Otherwise, no relationship is applied to the pair.
- ▶ When selecting a predecessor or successor activity, you can choose from activities in the open projects only.

Configuring Successor Relationships

Configure successor relationships to define lag or relationship type.

To configure successor relationships:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity whose successor relationships you want to configure and click the **Successors** detail window.
- 4) In the **Successors** detail window:
 - a. Select a relationship.
 - b. Add the columns you need to configure to the detail window if they are not already available. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▾ menu and select  **Save** (Ctrl+S).

Tips

You can also configure activity relationships from the Gantt chart. See **Configuring Activity Relationships** (on page 166).

About Risks

Risks are any uncertain events or conditions that, if they occur, have a positive or negative effect on project objectives. Risks are also known as threats, warnings, imperatives, escalation notices, or jeopardies. Positive risks are often classified as opportunities which, if they occur, are realized as rewards. Thorough documentation and analysis of risks over multiple projects offer lessons, and potentially cost and time savings, for all future projects.

Working with Project Risks

The risk register on the **Risks** page is the main area of the application where you identify and manage risks for a project. Additionally, you can add risks to a project from the Projects EPS page, and add risks to a project and assign the risks to activities from the **Activities** page.

Once you add a risk to the risk register, you can perform further analysis on the risk and create one or more risk response plans which include activities to reduce the negative impact of the risk. See **About Risk Response Plans** (on page 221).

ORACLE Primavera P6 Administer | Help | Print | Logout

Navigation: Dashboards | Portfolios | **Projects** | Resources | Reports

Tools: EPS | Activities | Workspace | Team Usage | Details | Issues | Documents | **Risks**

Risks of Baytown, TX - Offline Maintenance Work, Harbour Pointe Assisted Living Center

1

ID	Name	Type	Status	Owner	Probability	Schedule	Cost	Score	Category
Project Name: Harbour Pointe Assisted Living Center									
R001	Concrete supply constrained	Threat	Active	Concrete Foundation Subcontractor	H (50% to 70%)	H (20 to 40)	L (\$45,000.00 to ...	28	Subcontractors & Suppliers
R006	Weather delay due to unusually wet wea...	Threat	Active	Project Managers	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	Weather
R003	New roof coating cuts roof install time	Opportunity	Open	Roofing Subcontractor	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	Subcontractors & Suppliers
R011	Window manufacturing delay	Threat	Proposed	Glass & Glazing Subcontractor	L (10% to 25%)	H (20 to 40)	L (\$45,000.00 to ...	12	Subcontractors & Suppliers
R004	Poor ground conditions	Threat	Open	Project Managers	L (10% to 25%)	L (5 to 10)	L (\$45,000.00 to ...	8	Weather
R010	Interior design changes	Threat	Proposed	Project Managers	L (10% to 25%)	M (10 to 20)	M (\$90,000.00 t...	6	Planning

2

Activities

Risk: R001

Project Name	Activity ID	Activity Name	Early Start	Early Finish
Harbour Pointe Assisted Living Center	EC1090	Building Pad Including UG Utils	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1140	First Floor Masonry Structure	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1170	Second Floor Slab & Collar Beam	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1190	Second Floor Masonry Structure	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1210	Third Floor Slab & Collar Beam	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1240	Third Floor Masonry Structure	02-May-11	05-May-11
Harbour Pointe Assisted Living Center	EC1250	Fourth Floor Slab & Collar Beam	05-May-11	17-Jun-11
Harbour Pointe Assisted Living Center	EC1300	Fourth Floor Masonry Structure	17-Jun-11	11-Jul-11
Harbour Pointe Assisted Living Center	EC1310	Roof Slab	11-Jul-11	22-Aug-11

3

Response Plans | **Activities** | Description | Cause | Effect | Notes | Probability and Impact Diagram

Table of Project Risks Elements





Item	Description
1	Risks toolbar.
2	<p>Risks work area: Risks for all the projects you have open display in the risk register. You can group by field name, such as project name to view all risks organized by project, or create a filter to view only the risks that interest you.</p> <p>When adding a risk to the risk register, you supply a name for the risk, identify the risk as a threat or an opportunity, identify the current status of the risk, identify the owner of the risk, and then assign the values for probability, schedule, cost, and any other applicable user-defined impacts. The values for probability, schedule, cost, and additional user-defined impacts are used to calculate the risk score.</p> <hr/> <p>Note: If the Probability, Cost, and Schedule fields are disabled, a risk scoring matrix has not been assigned to the project. You can still use the risk register to track your risks; however, you cannot use the qualitative risk analysis features in the application until you create a risk scoring matrix and assign it to the project.</p> <hr/>
3	<p>Risks detail windows:</p> <p>Response Plans: The area where you add response plans and response plan action items. See Working with Risk Response Plans (on page 222).</p> <p>Activities: The area where you associate scheduled activities in your project to an identified risk. Refer to the example above to see a list of the project activities impacted by risk R001: Concrete supply constrained.</p> <p>Description: The area used to provide a detailed explanation of the risk.</p> <p>Cause: The area used to explain why this risk is occurring.</p> <p>Effect: The area used to describe the impact this risk has on this project.</p> <p>Notes: The area used to capture any additional information regarding the risk.</p> <p>Probability and Impact Diagram: The Probability and Impact Diagram (PID) is a graphical representation of the probability and impact thresholds assigned to the risk scoring matrix associated with the project.</p>

Assigning a Risk to an Activity





Assign a risk to an activity to explicitly identify the activity impacted by the risk.

You can assign a risk to an activity while you are adding project risks on the Risks page or while managing your activities on the Activities page.

To assign a risk to an activity from the Risks page:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) , click on a risk.
- 4) Click on the **Activities** detail window and click  **Assign Activities** .
- 5) On the **Select Activity** dialog box:
 - a. Select an activity and click **Assign**.
 - b. Select any additional activities impacted by the risk and click **Assign**.
 - c. Click **Close**.
- 6) On the **Risks** page, click  **Save** (Ctrl+S).

To assign a risk to an activity from the Activities page:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select the activity you want to assign a risk.
- 4) On the **Risks** detail window, click  **Assign Risk**.
- 5) On the **Select Risk** dialog box, select a risk and click **OK**.
- 6) On the **Activities** page, click  **Save** (Ctrl+S).

About Steps

Steps make it possible to describe and report progress for activity work at a granular level by breaking an activity into its component parts.

Steps can have a step weight that quantifies the portion of an activity's total work that each step represents. On a project per project basis, you can use step weights to calculate Activity Percent Complete. For example, three steps are assigned to an activity; the first step has a weight of 2, and the second and third steps each have a weight of 1. When you mark the first step (weight of 2) as complete, the percent complete is 50. When you mark the first and second steps complete, the percent complete is 75. When all three steps are marked complete, the percent complete is 100.

Working with Activity Steps

How can I use activity steps?

Activity steps make it possible to describe and report progress for activity work at a more granular level of detail. If you have privileges to edit activities, you can add individual steps to activities, or you can add predefined groups of steps based on templates that have been defined for your organization. You can specify a weight for each step to show how much work for the activity is contained in a step.

Activity step templates

Step templates enable an organization to define groups of steps that can be shared by many projects. By creating templates for groups of activity steps that are relevant in many projects, an organization can streamline data entry and ensure that work is identified consistently throughout the organization.

In P6, when adding steps to an activity, you can choose from a list of available templates. You can use more than one template, but you can add steps from only one template at a time.

If you use a template to add steps to an activity, you can edit the step details but not the step name.






Weighted activity steps

To indicate the portion of activity work that a single step represents, you can assign it a numerical value, or weight. Once work for a step is underway, Primavera can use the step weight and the reported progress of step work (*Step Percent Complete*) to calculate the percentage of total work that has been completed for the activity (*Activity Percent Complete*).

Creating Activity Steps

Create steps to break activities down into their component parts.

To create steps:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity you want to break down into smaller parts and click the **Steps** detail window.
- 4) In the **Steps** detail window, repeat the following for each step you want to add to the activity:
 - a. Click  **Add Activity Step** (Insert).

- b. Enter a value in the **Step Name**, **Step % Complete**, and **Step Weight** fields.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






Tips

You can also create steps on the **Activity Details** page of the **Open Requests for Resources** portlet of the **Dashboards** page.

Configuring Activity Steps

Configure steps to show percent complete and to give a description of the step.

To configure steps:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Steps** detail window.
- 4) In the **Steps** detail window, repeat the following for each step you need to configure:
 - a. Select a step.
 - b. Add the columns you need to configure to the detail window if they are not already available. See **Showing and Hiding Columns in a Table** (on page 239).
 - c. Select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ Select the **Completed** option if the step is finished.
- ▶ You can also configure steps from the **Activity Details** page of the **Open Requests for Resources** portlet of the **Dashboards** page.







About Step Templates

Step templates enable you to define a group of steps common to multiple activities, and then assign the template to different activities. By creating templates for groups of activity steps that are relevant in many projects, an organization can streamline data entry and ensure that work is identified consistently throughout the organization.

Adding Activity Steps from a Step Template

Add steps from a step template to add a group of predefined steps to an activity.

To add steps from a step template to an activity:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Steps** detail window.
- 4) In the **Steps** detail window, click  **Add from Template** (Ctrl+Alt+S).
- 5) In the **Select Activity Step Template** dialog box, assign templates and click **Close**.
- 6) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

Step templates are created on the **Enterprise Data** or **Enterprise Project Data** page.

About Trace Logic

Trace logic provides a graphical display of dependency relationships for an activity. You can step forward or backward through a sequence of activities to focus on predecessor and successor relationships. This alternative viewing format enables you to examine a path of relationships while still viewing the entire project.

Trace logic provides visual cues to help you read the diagram. The selected activity is highlighted in blue. Activity boxes with a red border represent critical activities. Activity boxes to the left of the selected activity are predecessors. Activity boxes to the right are successors. Solid lines represent driving relationships, while dashed lines represent non-driving relationships.







You can manage activity relationships using the detail windows or Gantt chart on the Activities page. When multiple projects are open, you can even add relationships between activities in different projects. You can view activity relationships in the Trace Logic detail window on the Activities page. You can use Trace Logic to determine why an activity is scheduled at a particular time. It also helps answer questions such as:

- ▶ Were any of an activity's predecessors delayed?
- ▶ Do any predecessors or successors have an obsolete constraint?
- ▶ Are two activities that should be linked start to start currently linked finish to start?
- ▶ Why is there negative float?

Viewing Relationships with Trace Logic

Use trace logic to follow activity relationships throughout a project.

To view relationships with trace logic:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Trace Logic** detail window.
- 4) In the **Trace Logic** detail window:
 - a. The selected activity is shown with its predecessor and successor activities.
 - b. Click another activity in the detail window to see its connections to predecessor and successor activities.
 - c. Click  **Pan** and click and drag the detail window contents.
 - d. Click  **Trace Logic Options** (Ctrl+Y) to configure the number of predecessor and successor levels shown.

Tips

Click the top edge of the **Trace Logic** detail window and drag upward to make the window larger.

About Budget Change Logs

A Budget Change Log helps you keep track of budget alterations as they occur. The **Current Budget** field (original budget plus approved budget changes) and **Proposed Budget** field (original budget plus approved and pending budget amounts) incorporate changes so you have up-to-date and accurate budget information for each EPS node or project.

The Budget Change Log enables you to track modifications that affect the budget; this log also provides a clear indication of the who, what, when, where, and how behind the change.

Change amounts are not incorporated in the current budget until these amounts have an **Approved** status. Only authorized project participants can issue budget changes and mark them as approved. You can post a change amount as **Pending**; the program manager of the affected EPS node, or the project manager of the affected project, must then mark the amount as **Approved** or **Not Approved**. The module recalculates the new budgeted amount and adjusts the current budget based on approved changes to the log:

- ▶ Proposed Budget equals Original Budget plus Approved Budget Changes plus Pending Budget Changes
- ▶ Current Budget equals Original Budget plus Approved Budget Changes




Creating Budget Change Requests

Create budget change requests when seeking approval to change an EPS or WBS budget.

To create budget change requests:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page, select an EPS or project and click the **Budget Log** detail window.

Note: You can also create budget change requests for WBSs or projects from the **Budget Log** detail window of the **Activities** page.

- 4) In the **Budget Log** detail window:
 - a. Click  **Add** (Insert) to add a budget log line item.
 - b. Enter a value in the **Amount** and **Responsible** fields.
 - c. Select **Pending** from the **Status** list.
- 5) On the **EPS** page, click the **Actions**  menu and select  **Save** (Ctrl+S).

Tips


- ▶ The person listed in **Responsible** will move the request to **Approved** or **Not Approved**.
- ▶ The program manager of the affected EPS node or the project manager of the affected project will enter a reason for approval or denial in the **Reason** field.

Approving/Denying Budget Change Requests

If you have the authority, you can approve or deny a budget change request.

To approve or deny a budget change request:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.

- 3) On the **EPS** page, select the EPS or project with a budget change request and click the **Budget Log** detail window.
- 4) In the **Budget Log** detail window:
 - a. Select and review the budget change request.
 - b. Select **Approved** or **Not Approved** from the **Status** list.
 - c. Enter reasoning for the new status in the **Reason** field.
- 5) On the **EPS** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ To update the original budget, enter the amount in the **Original Budget** field and press enter. The **Current Budget** and **Proposed Budget** are updated with the new value.
- ▶ Only authorized project participants can issue budget changes and mark them as **Approved**.
- ▶ You can also approve or deny budget change requests for WBSs or projects from the **Budget Log** detail window of the **Activities** page.

About Earned Value

Earned Value Project Management, or EVPM, is the best practice concerned with early comparisons between baseline or planned project data and actual or earned project data to arrive at an accurate assessment of true schedule and cost performance. The basic concepts are rooted in early Twentieth Century industrial engineering and factory productivity techniques.

You have probably already practiced at least a basic form of this technique. If you have ever verified that the work performed was actually accomplished prior to paying a contractor's invoice, you were utilizing a simple form of Earned Value. Whenever you measure the physical work performed against a baseline project plan, you are employing basic principles of EVPM. When you need a reliable way to predict the true cost performance of a project including its final costs, scheduling, and resource requirements, you will use Earned Value calculations.

Spanning industries and decades, Earned Value is also known by any of the following titles:






- ▶ Planned Value of Work Accomplished (PVWA)
- ▶ Budgeted Cost of Work Performed (BCWP)
- ▶ Cost/Schedule Control Systems Criteria (C/SCSC)
- ▶ PERT/Costs
- ▶ Earned Value Management (EVM)
- ▶ Performance Measurement

Example: Executive management wants to assess a critical project early in its schedule. The project has a planned value of 10 million dollars for 10 WBS units of equal value and is expected to last 1 year. At the end of 3 months, its actual costs are 3 million dollars, however, it has only completed 20% of the work, namely 2 units or 2 million dollars of earned value. This project is behind its baseline schedule by 1 million dollars. It is performing at 67%. The project will require a 50% increase in funding or 5 million dollars to complete the work. This is calculated based on its 10 million dollar budget divided by .67 to yield 15 million. If the project is required to return to its original time schedule, it will require additional resources and/or overtime.

Configuring WBS Earned Value

Configure earned value to define the techniques and settings used for earned value computations.

To configure WBS earned value:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select a WBS and click the **Earned Value** detail window.
- 4) In the **Earned Value** detail window:
 - a. Select one option for each technique section.
 - b. If your selections enable fields, selectors, or options, select an option or enter a value for each field.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

About Milestones

A milestone represents any significant event, goal, or gate in a project. Although P6 considers them a type of activity, milestones have zero duration; at any given moment they are either achieved or not. Some examples of milestones in an office building addition project might include the following:

- ▶ project definition complete
- ▶ structure complete
- ▶ end bidding process.







Milestones can also be assigned at the WBS-level, and each one given a weight which indicates its importance to the project schedule. When you mark a milestone as complete, the weight is used to calculate the performance percent complete of all activities included in the WBS level.

During project planning, you will want to identify the major milestones as they will help you monitor the project's progress.

Creating WBS Milestones

Create WBS milestones to specify goals for a project.

To create WBS milestones:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select a project or WBS and click the **WBS Milestones** detail window.
- 4) In the **WBS Milestones** detail window, repeat the following steps for each milestone you want to add:
 - a. Click  **Add** (Insert) to add a WBS milestone line item.
 - b. Enter a value in each field.
 - c. Select or clear the **Completed** option.
- 5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

Tips

- ▶ The **Percent Complete** field within the the **WBS Milestones** detail window indicates the percentage of tasks completed toward achieving the milestone.
- ▶ Use the **Move Up** and **Move Down** arrows to arrange the milestones.
- ▶ The weight you apply to a milestone is used to calculate the earned value of the percent of activities completed in achieving the milestone.

About Cost Accounts









Cost accounts enable you to monitor project expenses, activity costs, and earned value throughout the project life cycle. Costs are attached to activities and resources so you can track the amount of work accomplished against the amount of money spent. You can assign default or created cost accounts to any project.

Cost accounts are established in a hierarchy. For example, if you created a cost account for a project component such as hardware, you would create other cost accounts beneath this component to show its parts such as coding and installation.

Creating Cost Accounts

Create cost accounts to track activity cost and earned value throughout the project life cycle. You can associate predefined cost accounts with expenses to categorize them.

To create cost accounts:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Cost Accounts**.
- 3) On the **Cost Accounts** page:
 - a. Click  **Add** (Insert).
 - b. Move the cost account to the correct location in the list and hierarchical position by clicking the  **Move Up** (Ctrl+Alt+Up),  **Move Down** (Ctrl+Alt+Down),  **Move Left** (Ctrl+Alt+Left), and  **Move Right** (Ctrl+Alt+Right) arrows.
 - c. In the **ID** field, double-click and type a unique ID.
 - d. In the **Name** field, double-click and type a name.
 - e. In the **Description** field, double-click and click .
- 4) In the **Description** detail window, type a brief narrative about the cost account.
- 5) On the **Cost Accounts** page, click  **Save** (Ctrl+S) .

About Expenses

Expenses are non-resource costs associated with a project and assigned to a project's activities. An expense is typically a one-time expenditure for non-reusable items. Expenses are project-specific and not time-based. Some examples include facilities, travel, consulting, and training. Each expense has an actual, remaining, and at completion value for both cost and units that is either budgeted or planned.



Expense categories classify and standardize expenses, and organize and maintain your expense information.

Creating Expense Categories

Create an expense category to organize and track various expense types within an organization.

To create expense categories:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Activities** and click **Expense Categories**.

- 3) On the **Expense Categories** page:
 - a. Click  **Add** (Insert).
 - b. In the **Category** field, double-click and type a name.
 - c. Click  **Save** (Ctrl+S).

Tips

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.

Managing the Schedule

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About Baselines

A baseline is a copy, or snapshot, of project data at a given time. Because a baseline is a static representation of a project plan, it can be used as a benchmark against which to measure performance as a project progresses.

You can create multiple baselines to establish metrics throughout the project life cycle. Typically, you would want to create an initial baseline once the project plan is approved, then you would create additional baselines according to your organization's requirements. For example, you could create new baselines at specific reporting intervals.

Although many baselines can be created for a project, only two baselines can be used at any given time to display and compare data. These are known as the Project Baseline and User's Primary Baseline. The current project can also be used as the baseline, for example, in situations where no other baseline yet exists.

The Project Baseline is a single metric for comparison that enables all members of a team to have a shared and consistent set of data against which to evaluate project progress. There is only one Project Baseline at any time. All pages that display summarized data compare and display data against the Project Baseline.

The User's Primary Baseline is an optional personal baseline that is used to evaluate project progress.

Working with Baselines

Before you update a schedule for the first time, you should create a baseline plan. The simplest baseline plan is a complete copy, or snapshot, of the original schedule. This snapshot provides a target against which you can track a project's cost, schedule, and performance. You can save a copy of the current project to use as the baseline or you can convert another project in the EPS hierarchy to a baseline for the current project.

To help categorize, or track, multiple baselines for a single project, you can assign each baseline a type that reflects its purpose, for example, *initial planning baseline*, *What-if project baseline*, *customer sign-off*, or *midproject baseline*.

Regardless of the number of baselines you store for a project, at any given time you can only select at most two baselines for use in making comparisons in P6. The project-level baseline is used for project/activity usage spreadsheets and profiles, as well as for earned value calculations.

You can convert another project in the EPS hierarchy to a baseline for use in comparisons with the current project. Before converting a project to a baseline, if you still want to have access to the original project, you should make a copy of it. Once you convert a project to a baseline, it is no longer available in the project hierarchy. You can restore a baseline, making it available again as a separate project in the project hierarchy, in order to modify it or update it.

Note: You must have the *Edit Project Details Except Costs/Financials* and *Assign Project Baseline* project privileges to set the project baseline.

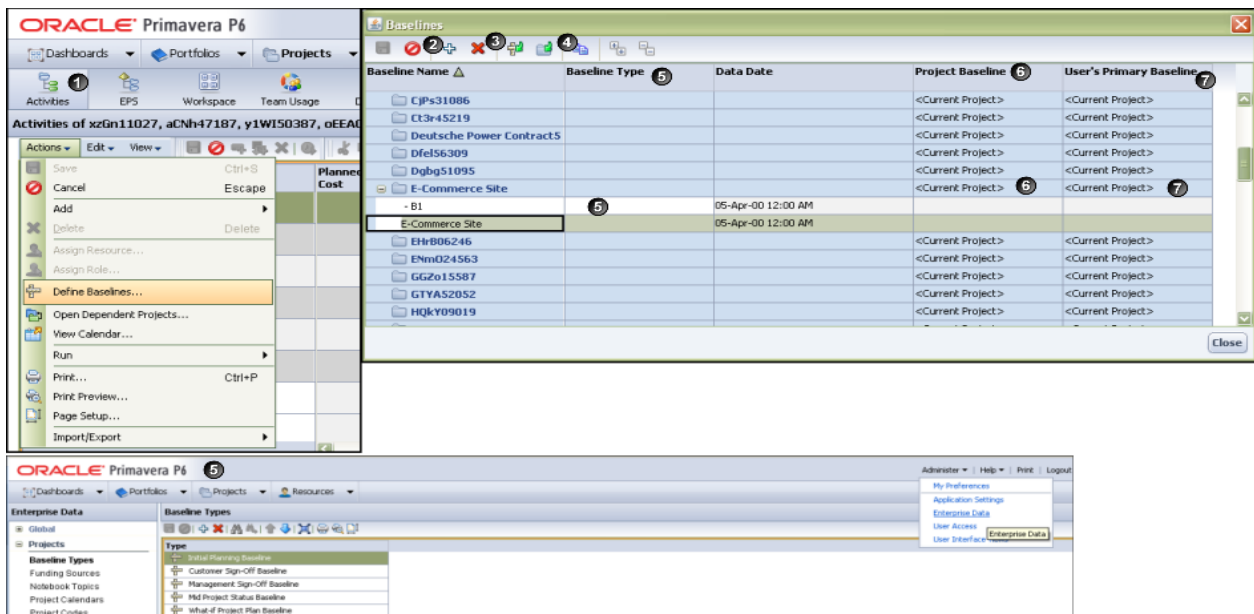


Table of Working with Baseline Elements




Item	Description
1	Define Baselines: Use Define Baselines to add, modify, convert, and restore projects and baselines.
2	Add Baselines: When you add a baseline, give it a name, assign it a type, and decide if you want to make it the Project Baseline or User's Primary Baseline for the currently selected project. Baseline designations are made in the projects rows of the table highlighted in blue.
3	Convert a Project to Baseline: Save a copy of the baseline before you convert it. Convert a project to use it as a baseline for a current project.
4	Restore a Baseline: Use restore a baseline to modify a baseline project. You must first unlink a baseline from its current project by restoring it as a separate project. You can then work with this restored baseline project as you would any other project in the EPS.
5	Baseline Type: Assign baseline types to baselines to help categorize multiple baselines for a single project. Configure the available baseline types along with your other Enterprise Data settings.
6	Project Baseline: Lists the available baselines for the selected project. Select the baseline to use as the project baseline. If a baseline does not exist, the current project is the default value.
7	User's Primary Baseline: Select the user's primary baseline from the list of available baselines. If a baseline does not exist, the current project is the default value.







Note: You can define up to three baselines for a project in P6 Professional.

Creating Baselines

Create baselines to measure project performance.

To create a baseline:

- 1) Open the project or projects for which you want to create a baseline using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects**  menu and select one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and select **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Project Navigation** bar, click  **Activities** or  **EPS**.
- 3) On the **Activities** or **EPS** page, click the **Actions** ▼ menu and select  **Define Baselines....**
- 4) In the **Baselines** dialog box:
 - a. Select the project to which you will add the baseline.
 - b. Click  **Add Baseline**.
 - c. Enter a name in the **Baseline Name** field.
 - d. Select a type from the **Baseline Type** list.
 - e. Click  **Save** (Ctrl+S).

Tips

- ▶ The application automatically assigns the baseline a name based on the selected project. For example, if you select **Project A**, the application will name the newly created baseline **A - B1**.
- ▶ Specify the default **Project Baseline** and **User's Primary Baseline** by selecting from the list of available baselines for each project in the table on the **Baselines** dialog box.
- ▶ Click **Convert a Project to Baseline** and select a project to convert a project into a baseline.
- ▶ Select a baseline and click **Restore a Baseline** to remove the baseline and make it a project.

About Critical Path Activities

Critical path activities are project tasks that must start and finish on time to ensure that a project ends on schedule. A delay in any critical path activity will delay completion of the project, unless the project plan can be adjusted so that successor tasks finish more quickly than planned. Critical activities can be one of two types: float and longest path.

Float is a measure of schedule flexibility. The application uses the Critical Path Method (CPM) to generate a project schedule. This method calculates four dates for each activity in the project plan: Early Start, Late Start, Early Finish, and Late Finish. If the Early Start date and Late Start date for an activity are the same, the activity is said to have zero float. Activities that have zero float must start on time to prevent the schedule from slipping. When an imposed finish date creates a schedule that is shorter than the duration calculated to complete the activities on the critical path, a project has negative float. A project with negative float is behind schedule.

To meet the specific requirements of your project, you can specify the float tolerance used to identify activities as critical. For example, in some situations you might want critical activities to be those with zero or negative float. In other situations, activities with float of three days or less might be identified as critical.

Longest path defines the sequence of driving activities that determine the project end date. Longest path calculation includes interproject relationships. Therefore, activities designated as on the longest path might change depending on whether you schedule a project alone or with its related projects. If a project has interproject relationships and you schedule it alone, the interproject relationships are treated as scheduling constraints. The longest path is broken when activities are no longer driven by relationships; that is, when activity dates are driven by constraints or resource leveling.

Working with Critical Path Activities

Analyze the schedule using multiple critical float paths

When you schedule a project, you can choose to calculate multiple critical float paths (sequences of activities) that affect the project schedule. By calculating multiple critical float paths, you can determine the most critical path in the project schedule, along with sub-critical paths that affect the completion of the most critical path.

While you can determine the critical path of activities based on total float or longest path, these methods do not offer insight into sub-critical paths that might also affect the project schedule. For example, if you choose to identify critical activities based on a maximum total float threshold, P6 will identify all activities beyond the threshold as critical even if the activities have no relationships or do not affect the project end date. Likewise, if you choose to identify critical activities based on longest path, P6 will identify the critical path of activities but will not identify sub-critical paths that affect the critical path.

On the **Advanced** tab of the **Scheduling Options** dialog box, you can choose to calculate a specific number of critical float paths based on total float or free float. You can also choose the activity you want the float paths to end on. By choosing an activity, you can calculate multiple float paths that affect the entire project schedule, a specific part of the schedule, or a milestone in the schedule.

When you schedule the project, P6 identifies the most critical float path in the schedule and assigns those activities a Float Path value of 1. Then, depending on the number of paths you choose to calculate, P6 identifies other float paths (sub-critical float paths) that affect the most critical float path and numbers the paths in ascending order (beginning with 2) based on the criticality of the path.

After you schedule a project, you can display the **Float Path** and **Float Path Order** columns in the table on the **Activities** page. Group by **Float Path** to view the activities in each critical float path, then sort by **Float Path Order** to view the order in which the activities were processed.

Note: Calculating multiple critical float paths does not affect how you define critical activities. When you schedule a project, you must choose to define critical activities by a maximum float time or by longest path on the **General** tab of the **Scheduling Options** dialog box. When you run the scheduler, activities are flagged as critical based on this setting. If you also choose to calculate multiple critical float paths, the float paths are calculated after the project has been scheduled. Critical activities that are not part of a critical float path remain tagged as critical.







About Schedule Preview

After modifying activity, relationship, and assignment data, but before deciding to formally schedule a project, use the optional *Schedule Preview* feature to estimate schedule changes without actually committing them to the project. *Schedule Preview* automatically recalculates the schedule for activities that have changed or were affected by a change to a relationship, resource assignment, or another activity. You can then decide to commit these changes to the schedule or, if the preview produces unwanted results, discard them. If *Schedule Preview* is disabled, changes to activities are not reflected in the schedule until you manually calculate the schedule again.

Enabling Schedule Preview


Enable Schedule Preview to have the application automatically calculate the schedule for a project each time you add or delete an activity relationship, change an activity duration or relationship type, or change anything that affects schedule dates. This feature is available on the Activities page when you open a single project; it is disabled if more than one project is open.

To enable Schedule Preview for a project:

- 1) Open the project you need to schedule using one of the following methods:
 - ▶ Click  **Projects** to open the last project you were working with.
 - ▶ Click the  **Projects** ▼ menu and select one of the most-recently used projects.
 - ▶ Click the  **Projects** ▼ menu and select **Open Projects** to select a project by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Click the **Actions** ▼ menu and select **Run** ▶  **Schedule Preview** to turn on Schedule Preview mode.
 - b. Update one or more activities; the activities will automatically be rescheduled.
 - c. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).
- 4) In the **Schedule Project** dialog box:

- a. To keep the changes and schedule the project, click **Yes**.
- b. If you do not want to keep these changes or do not want to schedule the project, click **No**.

Tips

- ▶ The Schedule Preview icon is disabled if more than one project is open, or if you do not have the Schedule Project privilege for the open project.
- ▶ To turn Schedule Preview mode off, click the **Actions** ▾ menu and select **Run** ▶  **Schedule Preview** again so it is not highlighted on the **Run** menu.
- ▶ If filters are applied to your current view, the application will prompt you to remove the filters before the project is scheduled. You might find it helpful to create an unfiltered activity view that you can use when you want to enable the Schedule Preview. See **Creating Views** (on page 135) for help. If the removal of filters from the current view causes you to exceed your activity limit, you will receive a message and the feature will not be turned on. You will then need to ask your administrator to increase the activity limit to run this feature.

About Resource Leveling



Resource leveling is an automated process that can change the start date of activities. Level resources in your project schedule to ensure that resource demand does not exceed resource availability. Typically, you level during the forward pass through a project. This determines the earliest dates to schedule an activity when sufficient resources will be available to perform the task. If forward leveling delays the project's early finish date, a backward pass might be necessary to recalculate late dates.




During resource leveling, the resource requirements of all scheduled activities are compared to the maximum quantity available at the time of leveling, and an activity is only scheduled to occur when its resource demands can be met. To accomplish this, tasks can be delayed to resolve resource availability conflicts.

Leveling Resources

Level one or more projects whenever the required shared or critical resources have limited supply or availability or to generally keep resource usage at a constant level. For example, when a resource has been assigned to more than one activity during the same time period, level the projects to eliminate potential resource over-allocation. In short, resource leveling re-distributes work among other available resources.

To level resources:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **Actions** ▾ menu and select **Run** ▶  **Leveler...** (Shift+F9).
- 4) In the **Level Resources** dialog box:
 - a. Select the **Options** tab to configure resource leveling options and set optional leveling priorities to specify which assignments are leveled first when a conflict exists.
 - b. Select the **Resources** tab to specify which resources should be leveled.
 - c. (Optional) Click **Save** to save your settings and close the dialog box.
 - d. Click **Level**.




Tips

- ▶ You can have the application level resources automatically. See **Creating Schedule Services** in P6 Help.
- ▶ These services are removed from the database based on the **ASAP Cleanup Rate** your P6 administrator specifies on the **Configurations** tab in P6 Administrator application. Once the time is met all ASAP jobs that have a status other than running or delegated will be removed from the table automatically. Running and delegated jobs will be removed if they are older than the cleanup rate or if they are older than one day, whichever is greater.






Configuring Resource Leveling Options and Priorities

Level resources in your project schedules to ensure that resource demand does not exceed resource availability. To handle scheduling conflicts that might occur during leveling, you can add priorities that specify which project or activity is leveled first. Before leveling, configure the options and priorities specified in the steps below.

To configure resource leveling options and priorities:

- 1) Click the  **Projects** ▾ menu and select **Open Projects**.
- 2) On the **Open Projects** dialog box, open the projects for which you need to configure resource leveling options and priorities.
- 3) On the **Projects** navigation bar, click  **EPS**.
- 4) On the **EPS** page, click the **View** ▾ menu and select  **Columns**.
- 5) In the **Customize Columns** dialog box, expand the **General** section in the **Available Columns** list and double-click **Project Leveling Priority** to add it to the **Selected Columns** list and click **OK**.
- 6) On the **EPS** page:
 - a. Enter a value in the **Project Leveling Priority** field for each project.

Note: Enter a value from 1, the highest priority, to 100, the lowest. The default is 10.

- b. Click the **Actions** ▾ menu and select  **Save** (Ctrl+S).
- 7) On the **Projects** navigation bar, click  **Activities**.
- 8) On the **Activities** page, click the **View** ▾ menu and select  **Columns**.
- 9) In the **Customize Columns** dialog box, expand the **General** section in the **Available Columns** list and double-click **Activity Leveling Priority** to add it to the **Selected Columns** list and click **OK**.
- 10) On the **Activities** page:
 - a. Enter a value in the **Activity Leveling Priority** field only for those activities that require a specific change to their leveling priority. For example, a **Normal** activity might become a **Top** priority.
 - b. Click the **Actions** ▾ menu and select **Run** ►  **Leveler...** (Shift+F9).
- 11) In the **Level Resources** dialog box, click the **Options** tab.
- 12) On the **Options** tab:
 - a. Select the **Consider assignments in other projects with priority equal or higher than** option and select a value from the list to include in the leveling process projects that are not currently open, but that do fit the required priority level.
 - b. Select or clear the **Preserve scheduled early and late dates** option to determine if the leveling process can alter activity dates or not.
 - If you select this option, configure the options it enables.
 - c. Select or clear the **Recalculate assignment costs when leveling** option to determine if the application should automatically recalculate assignment costs if they are affected by the leveling.
 - d. Select the **Display leveling log upon completion** option if you would like to see a summary of activities delayed by leveling and exceptions made for critical activities.
 - e. In the **Leveling Priorities** section, specify priorities that will be used to level the activities. Add priorities in the order in which you want the application to consider them. For each priority you add, repeat the following steps:
 1. Click  **Add**.
 2. In the **Field Name** list, select **Project Leveling Priority**, **Activity Leveling Priority**, or another field.
 3. In the **Sort Order** list, select Ascending, Descending, or, for some fields, Hierarchy.
- 13) In the **Level Resources** dialog box, click the **Resources** tab.
- 14) On the **Resources** tab, select an option and click **Save**.

Note: If you select **Selected Resources**, add resources to the **Selected Resources** list. See **Customizing Selected Lists** (on page 239).

Tips

You cannot edit the **Project Leveling Priority** of a project if you do not have the appropriate security privileges or if the project is checked out or opened exclusively by another user.

About The Apply Actuals Feature

After progress is recorded by approving timesheets, entering actual data, or setting the **Auto Compute Actuals** option, you can run the *Apply Actuals* feature to update the schedule. The *Apply Actuals* feature runs as a service and schedules activities with progress and/or activities that have the **Auto Compute Actuals** option set.

When you run *Apply Actuals*, you can move the data date. P6 schedules activities only within the specified time period (between the current data date and new data date) and calculates progress for those activities that are set to automatically calculate actuals.

Working with the Apply Actuals Feature

Before you run the **Apply Actuals** command, decide which method you will use to update progress, *Auto Compute Actuals* or *P6 Progress Reporter* (timesheets). If using the *Auto Compute Actuals* method, ensure project managers have marked the **Auto Compute Actuals** option for select activities, resources, and expenses. If using timesheets, make sure all project resources have recorded their timesheets in P6 Progress Reporter and those timesheets have been approved.

When you run the **Apply Actuals** command, both methods are invoked to determine the actuals that are applied to a given project:

1. **Auto Compute Actuals method:** Actual values and dates are progressed for the activities (and their resources and expenses) that are scheduled to occur between the last data date and the new one. This method acts on activities, resources, and expenses that have their **Auto Compute Actuals** option selected.
2. **Timesheets method:** Actual timesheet hours from P6 Progress Reporter are applied. This method acts on resource assignments for resources with the **Uses timesheets** option set. In P6 Progress Reporter you also have the option of updating the following, depending on what fields are being updated:
 - a. Actual units
 - b. Actual and Remaining Units

c. Actual and Percent Complete

The screenshot displays the Oracle Primavera P6 interface. On the left, the 'Resources' view shows a list of resources with columns for 'Uses Timesheets' (callout 1) and 'Auto Compute Actuals' (callout 2). Below this is a 'Settings' panel with options for 'Calendar', 'Default Units/Time', 'Overtime Allowed', 'Overtime Factor', 'Auto Compute Actuals' (checked), 'Resource Currency', and 'Calculate Costs from Units'. On the right, the 'Activities' view shows a list of activities with columns for 'Auto Compute Actuals' (callout 3), 'Start', 'Finish', and 'Actual Material Cost'. A toolbar at the top right includes an 'Apply Actuals' icon (callout 4). An 'Apply Actuals' dialog box is open in the foreground, showing a table of projects to apply actuals to (callout 5).

Project Name	Data Date	New Data Date	Planned Start	Remaining Duration Calculation	Last Apply Actuals Date
IC96A1027	13-May-10 12:00 AM	13-May-10 12:00 AM	13-May-10 12:00 AM	Based on duration type	
E-Commerce Site	17-Apr-07 12:00 AM	17-Apr-07 12:00 AM	05-Feb-07 12:00 AM	Always recalculate	
April Project	27-May-10 12:00 AM	27-May-10 12:00 AM	27-May-10 12:00 AM	Always recalculate	

Table of Key Elements When Applying Actuals

Item	Description
1	Uses Timesheets option: Select this option to indicate you want to allow this resource to enter hours using timesheets provided by P6 Progress Reporter. When applying actuals to the schedule, actual duration units (e.g., hours) for all the selected resource's assignments will be updated based on timesheet data.
2	Auto Compute Actuals option: Select this option to indicate you want actual hours to be updated for resources (shown in this example), activities, and/or expenses when project actuals are applied.
3	Auto Compute Actuals option: Select this option to indicate you want actual hours to be updated for activities (shown in this example), resources, and/or expenses when project actuals are applied.
4	Apply Actuals icon: Click this toolbar icon or select it from the Actions menu to open the Apply Actuals dialog box.

Item	Description
5	Apply Actuals dialog box: From the list of open projects, select the ones you want actuals to be applied to. You can also apply a new data date. Right-click and select Fill Down to apply the new date to multiple projects. Select a method for calculating the remaining durations in the Remaining Duration Calculation field.






Example (Labor Resource): Sarah enters her hours for the most recent timesheet period in P6 Progress Reporter. She then submits her timesheet for review and approval. Once approved, the timesheet hours are ready to be applied to the project. Paul, the project manager, runs the Apply Actuals command. P6 looks for all approved timesheets that fall within the timesheet period and that are less than or equal to the **New Data Date** value Paul entered on the **Apply Actuals** dialog box. Only Sarah's approved actuals that fall within the timesheet period will get posted. If she enters actuals in timesheets for 5 weeks but the timesheet period is set for every 2 weeks, the entries that were entered for the 5th week will not get posted until the next timesheet period. Her approved actual hours will be applied to the **Actual Units** field for the appropriate Labor or Non-Labor assignment which will then trigger the **Remaining Units**, **Actual Duration** and **Percent Complete** fields to be recalculated.

Example (Non-Labor Resource): A special pump is listed as a non-labor resource for a project. Since non-labor resources cannot enter actual hours per day in a timesheet, a designated user defined as a resource enters a lump sum amount of hours used for the non-labor resource per timesheet period in the **Prior Actuals** field. When the **Apply Actuals** command runs against the project, P6 determines if a value appears in this field, and if it does, it applies this value (with a special calculation for AIA ERP integrations) to the **Actual Units** field.

Applying Actuals to a Project

Apply actuals to update progress on the currently selected projects as of the specified data date.

To apply actuals:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **Actions** ▾ menu and select **Run** ▶  **Apply Actuals**.

- 4) In the **Apply Actuals** dialog box:
 - a. Select the projects to which you want to apply actuals.
 - b. Select a date from the **New Data Date** calendar.
 - c. Select an option from the **Remaining Duration Calculation** list.
 - d. Click **Apply**.

Tips

- ▶ You can have the application apply actuals automatically. See **Creating Schedule Services** in P6 Help.
- ▶ These services are removed from the database based on the **ASAP Cleanup Rate** your P6 administrator specifies on the **Configurations** tab in P6 Administrator application. Once the time is met all ASAP jobs that have a status other than running or delegated will be removed from the table automatically. Running and delegated jobs will be removed if they are older than the cleanup rate or if they are older than one day, whichever is greater.

About Updating Progress

To determine how a project is performing and what remains to be done, update its progress weekly, daily, or as frequently as required. Updating your projects is a two-step process. First, you record the work progress. Then, you update the project data to reflect the reported progress; also known as applying actuals.

You can record work progress in a number of ways: you can record progress for individual activities or resources by entering status data you have collected; you can use P6 Progress Reporter and collect actual data from resources using timesheets; or you can automatically calculate progress based on the schedule plan.

Working with Updating Progress

To determine how a project is performing and what remains to be done, update its progress. Updating a project to reflect the actual work performed to date can be achieved using any of the following methods:

- ▶ **Manually record progress:** Record progress for individual activities or resources by entering status data from each contributor. Then, run the *Apply Actuals* feature.
- ▶ **Automatically calculate progress:** For individual activities, resources, and expenses, use the convenient *Auto-Compute Actuals* feature to estimate work progress based on the schedule plan. Then, run the *Apply Actuals* feature. Using these features, the application calculates and applies the expected progress from the previous data date to the new data date you specify.

After you update work progress, run the *Apply Actuals* feature to update actual and remaining values as of a specified data date. To regularly update a project so that it reflects current actual and remaining values, run the *Apply Actuals* process using the **Scheduled Services** page.

About Suspending and Resuming Activities

When updating progress for a project, you might need to record that the work on a particular activity has been suspended or resumed after a period of inactivity. For example, an activity might be suspended or resumed due to a plant shutdown. To record this, you must enter suspend and resume dates. The suspend date is the date on which an activity's progress has, or is planned to be, stopped. The resume date is the date progress on an activity begins again. When you indicate a suspend or resume date, work for the activity is considered to be suspended or resumed at the beginning of the specified day.

About the Auto Compute Actuals Feature

Instead of manually recording actual progress or collecting data from P6 Progress Reporter users, you can automatically calculate expected progress based on the schedule plan. This technique, which uses an option called auto-compute actuals, is a quick and convenient way to update your project.

Working with the Auto-Compute Actuals Feature

You can use the auto compute actuals option to automatically calculate expected progress based on the schedule plan. The auto compute actuals feature is available for individual activities, resources, or expenses. Because the auto-compute actuals option is available for these individual elements, you can choose to selectively perform automatic progress calculations as needed for your project.

Activities

If you select to compute actuals automatically for an activity, the application calculates the actual dates, percent complete, remaining duration, and actual and remaining units for all assigned resources and for the activity expenses.

Caution: If you are collecting timesheet data for an activity, you should not choose the auto-compute actuals option. If you auto-compute actuals for an activity, when you update the project, actual and remaining units/costs are automatically updated for all of the activity's assigned resources. If assigned resources have existing actuals that they reported for the activity through P6 Progress Reporter, their reported data is overwritten by the auto-compute calculations.

If you want to automatically update progress for some, but not all, of an activity's resource assignments, clear the **Auto Compute Actuals** option for the activity and select the option for the specific resources you want to update automatically.

Resources

If you select to compute actuals automatically for a resource, the application calculates the actual and remaining units for all of the resource's assignments.

Note: To turn on the **Auto Compute Actuals** option for individual resources, you must have access to the features available through the **Resources** section of P6 and have access to the specific resources through Resource Security privileges.






Expenses

If you select to compute actuals automatically for an expense, the application will automatically calculate the estimated expenditure for an expense, based on the schedule plan.


Applying Auto Compute Actuals to Activities

Apply auto compute actuals to activities and P6 will calculate the actual dates, percent complete, remaining duration, and actual and remaining units for assigned resources and activity expenses.

To apply auto compute actuals:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 1. Click the **Activity View** list and select an activity view.
 2. Click the **View** ▼ menu and select  **Customize View....**
- 4) In the **Customize Activity View** dialog box, click the **Columns** tab.
- 5) On the **Columns** tab, expand **General** in the **Available Columns** list and double-click **Auto Compute Actuals** to add it to the **Selected Columns** list.
- 6) In the **Customize Activity View** dialog box, click **OK**.
- 7) On the **Activities** page:
 - a. Select the **Auto Compute Actuals** option for one or more activities.

Caution: If you are collecting timesheet data for an activity, you should not select the auto compute actuals option. If you auto compute actuals for an activity, when you update the project, actual and remaining units/costs are automatically updated for all of the activity's assigned resources. If assigned resources have existing actuals that they reported for the activity through P6 Progress Reporter, their reported data is overwritten by the auto compute calculations.

- b. Click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






About Store Period Performance

Using the Store Period Performance feature, you can track actual to date units and costs. Storing period performance records actuals for the selected financial period along with earned value and planned value, so you can track previous periods and compare current and future trends. Users can store period performance for any predefined period in the Financial Period dictionary.

Storing Period Performance

Use the Store Period Performance feature, to track actual units and costs to date. This feature allows you to track previous periods and compare current and future trends.

To store period performance:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **Actions** ▼ menu and select **Run** ▶  **Store Period Performance**.
- 4) In the **Store Period Performance** dialog box, select projects for which you want to store performance and click **Store**.

Tips

- ▶ To select or clear all projects, select or clear the option at the top of the options column.

- ▶ These services are removed from the database based on the **ASAP Cleanup Rate** your P6 administrator specifies on the **Configurations** tab in P6 Administrator application. Once the time is met all ASAP jobs that have a status other than running or delegated will be removed from the table automatically. Running and delegated jobs will be removed if they are older than the cleanup rate or if they are older than one day, whichever is greater.

About the Summarizer Service

Many features in P6 and P6 Professional use summary enterprise or project data calculations spanning multiple records and therefore rely on the creation of up-to-the-minute summarized data. When you think of summary data, think of math *sums*: totals and subtotals. You already have all the project data, you just want it added up and presented to you so you can easily evaluate it.

To ensure that enterprise records are current, you need to summarize projects. Summarization performs the series of calculations that update records with any new information that has been entered since the last update. Summary data tables temporarily store and share the data.

The summarizer is responsible for generating the following data:

- ▶ Project and WBS-level summary data including subtotals for each month, week, and financial period
- ▶ Resource and role summary data including subtotals for each WBS, month, week, and financial period
- ▶ Enterprise-level summary data including project and resource subtotals for each EPS element

Summarizer services update project records for the selected projects.

Example: You want to see resource assignments spanning multiple resources and break out the subtotals by project and WBS. By summarizing the selected projects, the database performs the calculations necessary to display subtotals for all cost and unit fields by resource, by project, by WBS, and by time period.

Working with the Summarizer Service

You can summarize data at any time or you can use the **Scheduled Services** page to schedule a time when data are regularly summarized. For example, set the application to summarize every Monday at 8:00 a.m. In each case, project data are summarized according to the settings you specify and the new summary values are saved to the project database, overwriting any previously calculated summary data. If you run the summarizer from the **Scheduled Services** page, you can select to summarize an EPS rather than individual projects. Otherwise, an EPS node uses the sum of all the project records beneath it.






Resources

Resource-related features in P6 that use summary data rely on the creation of enterprise (EPS) resource records. Each record is the sum of all assignments for a resource. When you summarize a project, the application creates resource records for that project. Each time the service runs, the records are updated.

Summarizing Projects

Summarize projects to maintain up-to-date project data.

To summarize projects:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page:
 - a. Select a project or EPS node.
 - b. Click the **Actions** ▼ menu and select  **Summarize Projects**.

Tips

- ▶ When you summarize projects from the **Activities** page, the application will summarize any of the currently open projects. When you summarize from the **EPS** page, only the selected projects will be summarized.
- ▶ You can have the application summarize projects automatically. See **Creating Schedule Services** in P6 Help.
- ▶ These services are removed from the database based on the **ASAP Cleanup Rate** your P6 administrator specifies on the **Configurations** tab in P6 Administrator application. Once the time is met all ASAP jobs that have a status other than running or delegated will be removed from the table automatically. Running and delegated jobs will be removed if they are older than the cleanup rate or if they are older than one day, whichever is greater.
- ▶ You can also summarize projects from the **Actions** menu of the **Activities** page.

Issues

About Issues

Issues are perceived problems within a schedule that require attention or corrective action. When you create them in the Activities section, you can associate them with a single project or workgroup and assign them to a responsible manager in the OBS for follow-up based on priority. You can also associate issues with a single activity. When adding new issues to a project or workgroup, you can control the information you capture for each new issue. You can choose to receive e-mail notifications when new issues of a certain priority are added, when existing issues are modified, or when issues are assigned a specific issue code.

You can also think of issues as impediments, action items, open items, punch lists, logs, or concerns. Over time, if you do not resolve or close open issues or issues placed on hold, they can become risks.

Issue codes enable you to organize and categorize issues in a way that is meaningful to you. For example, you can create an issue code titled *Severity*, and subsequently create issue code values: *High*, *Medium*, and *Low*. You can assign each of these code values to issues across multiple projects, enabling you to categorize each issue according to how severe it is. Similarly, you can create codes to categorize issues by responsibility, subproject, or any other classification you require to organize issues. Assigning issue codes enables you to quickly search for and view issues according to specific criteria.

Working with Issues

Issues are known problems within an activity, project, or workgroup that require attention or corrective action.

Viewing issues

You can view issues from several areas within the application:

- ▶ From a dashboard, you can access the **My Issues** portlet to view issues you are associated with in the context of the filter criteria selected for the dashboard.
- ▶ From the **Workspace** page, you can access the **Project Issues** portlet to view issues associated with the project selected in the **Select Project** list.
- ▶ From the **Workgroup Workspace** page, you can access the **Issues** portlet to view issues associated with the workgroups to which you belong.
- ▶ From the **Issues** page, you can access issues for any open project. On the **Issues** page, you can view all of the issues for all open projects at one time.
- ▶ From the **Activities** or **EPS** page, you can access the **Issues** detail window to view issues associated with an activity, WBS, or project.

In each of these areas, depending on your security privileges, you can customize the issue display. For example, you can choose to view issues in either a list or chart format. You can also configure group, sort, and filter options to focus on issues that are most important to you. Additionally, you can add, revise, or delete issues from each of these areas. When adding new issues to a project or workgroup, the issue forms feature enables you to control the information you capture for each new issue. If you add issues from a detail window, the issue is added as a line item and does not require the selection of an issue form.

Note: Issues cannot be used with template projects.

Organizing and managing issues

To help organize and manage issues for your project or workgroup, additional issue management features are available, depending on your security privileges.





To organize issues, you can assign enterprise-level issue codes, which enable you to categorize issues in a way that is meaningful to you.

The features for organizing and managing issues are accessible via the **Enterprise Data** option on the **Administer** menu. Use the issues options in the **Enterprise Data** pane to add, edit, and delete issue codes and issue user-defined fields. These options appear only if you have the required privileges.

Creating Project Issues

Create project issues to identify problems within a schedule that must be addressed before the project can be completed.

To create issues:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, expand a project and click **Add an Issue**.
- 4) In the **Select an Issue Form** dialog box, select a form to act as the foundation of the issue and click **OK**.
- 5) On the **Add Issue** page, configure the issue fields and lists and click **Save**.

Tips





- ▶ You cannot add an issue to a project that is checked out or locked. You also cannot create issues for template projects.

- ▶ If no issue forms are assigned to the project, the **Default Form** is the only form you can choose. The **Default Form** displays all issue fields.
- ▶ You can also create project issues from the **Project Issues** portlet of the **Workspace** page, the **Issues** detail window of the **Activities** or **EPS** page, or the **My Issues** portlet of the **Dashboards** page.
- ▶ If you are adding an issue from the **My Issues** portlet, you can choose any issue form assigned to any project that falls within the filter criteria specified for a dashboard. Issue forms are organized by project.

Configuring Project Issues

Configure project issues to update issues that have been identified for a project.

To configure project issues:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, expand a project and click an issue.
- 4) On the **Details of** page configure the following sections as necessary:
 - a. In the **General** section, configure the fields and lists.
 - b. Expand the **Description** section, and enter a description in the text field.
 - c. Expand the **Issue Codes** section and assign issue codes. See **Assigning Issue Codes** (on page 206).
 - d. Expand the **Related Items** section and assign related documents or issues. See **Assigning Related Items to Issues** (on page 204).

Tips





- ▶ You can also configure workgroup issues from the **Issues** portlet of the **Workgroup Workspace** page.
- ▶ You can also configure issues from the **Project Issues** portlet of the **Workspace** page or the **My Issues** portlet of the **Dashboards** page.

Customizing Project Issues

Customize project issues to define how columns, filters, groups, and charts are displayed in the user interface.

To customize project issues:

- 1) Open one or more projects in the **Projects** section using one of the following methods:

- ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
 - 3) On the **Issues** page, click **Customize**.
 - 4) In the **Customize Project Issues** dialog box:
 - a. Click the **Columns** tab and configure the **Selected Columns** and **Sort** lists. See **Configuring Columns or Values** (on page 239).
 - b. Click the **Filter** tab and select to show all available issues or define a filter.
 - c. Click the **Group** tab and configure the grouping lists and options.
 - d. Click the **Chart** tab and configure the chart format.
 - e. Click **Save**.





Tips

- ▶ Select the **All Issues** option on the **Filter** tab if you do not want to apply a filter. To construct a filter, select **Custom Filter** and configure the fields and lists to create one or more filter statements.
- ▶ You can also customize project issues from the **Project Issues** portlet of the **Workspace** page, the **Issues** portlet of the **Workgroup Workspace** page, or the **My Issues** portlet of the **Dashboards** page.

Assigning Related Items to Issues

You can assign related documents and issues to an issue.

To assign related items to an issue:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, expand a project and select an issue.
- 4) On the **Details of** page, expand the **Related Items** section.
- 5) In the **Related Items** section:

- ▶ To relate documents, click **Relate Documents** and select documents from the dialog box.
- ▶ To related issues, click **Relate Issues** and select issues from the dialog box.






Tips

- ▶ To remove a document or issue, select the option next to the name of the item and click **Remove**.
- ▶ The instructions in this topic assume that the content repository is configured.
- ▶ The **Related Documents** dialog box will only display documents of the selected project.
- ▶ You can also assign items to issues from the **Project Issues** portlet of the **Workspace** page. You can assign items to workgroup issues from the **Issues** portlet of the **Workgroup Workspace** page.

Sending E-Mail about Issues

You can send e-mails about project and workgroup issues that include basic information, such as project, issue name, priority and due date.

To send issue e-mails:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, expand a project and click  **E-Mail** for one of the issues.
- 4) In the **E-mail** dialog box:
 - a. Edit the recipient list, message, and subject as needed.
 - b. Click **Send E-mail**.

Tips

- ▶ You must have an e-mail address listed in you user profile to send an e-mail.
- ▶ The e-mail message is pre-filled with the addresses of the project manager and responsible manager. The subject area is pre-filled with basic information, such as project, issue name, priority and due date.
- ▶ You can also send issue e-mails from the **Issues** portlet of the **Workgroup Workspace** page, the **Project Issues** portlet of the **Workspace** page, or the **My Issues** portlet on the **Dashboards** page.





About Issue Codes

Issue codes enable you to organize and categorize issues in a way that is meaningful to you. For example, you can create an issue code titled *Severity*, and subsequently create issue code values: *High*, *Medium*, and *Low*. You can assign each of these code values to issues across multiple projects, enabling you to categorize each issue according to how severe it is. Similarly, you can create codes to categorize issues by responsibility, subproject, or any other classification you require to organize issues. Assigning issue codes enables you to quickly search for and view issues according to specific criteria.

Assigning Issue Codes

You can assign issue codes to organize and categorize issues in a way that is meaningful to you.

To assign an issue code:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, expand a project and select an issue.
- 4) On the **Details of** page, expand the **Issue Codes** section and click **Assign Issue Codes**.
- 5) In the **Select Issue Codes** detail window, select a code and click **Assign**.

Tips

- ▶ You can only assign one issue code at a time. Click **Assign Issue Codes** again to assign another code.
- ▶ You can also assign issue codes from the **Project Issues** portlet on the **Workspace** page or the **My Issues** portlet on the **Dashboards** page.






About Issue Forms

An issue form is a template, or framework, that you can use to create new issues. Issue forms specify the information required for adding a new issue to the project. You can create issue forms to capture issue information specific to a department in your organization, or for any other specific purpose.

Creating Issue Forms

Create an issue form to capture all the attributes your organization wants to track when users add issues to a project. Each form helps maintain consistency when future issues are identified. Project members must select an issue form to serve as a template when they want to create a new issue.

To create an issue form:

- 1) Click  **Projects**.
- 2) On the Projects navigation bar, click  **Issues**.
- 3) On the Issues page, click **Issue Forms**.
- 4) In the **Issue Forms** pane, click  **Modify** and then click  **Add Form**.
- 5) In the **Select a Form to Copy** dialog box, select an existing form or the default form to copy as the basis for your new form. Click **OK**.
- 6) On the **Issue Forms** page:
 - a. Enter a name in the **Form Name** field.
 - b. Select or clear the **Display** options to determine which attributes appear when users add new issues based on this form.
 - c. To associate issues with codes, expand the **Issue Codes** section, click **Assign Issue Codes**, and select issue codes from the dialog box.
 - d. To associate issues with UDFs, expand the **User Defined Fields** section, click **Assign User Defined Fields**, and select user-defined fields from the dialog box.
- 7) For all the attributes you assigned or marked with the **Display** check box:
 - a. Set their **Default Value** fields, if available. Select a value from the list, enter a value in the field, or click  and select a value from the dialog box.
 - b. Select the **Required** check box for each attribute you want to designate as mandatory. Users must provide data for these fields when adding new issues based on this form.
- 8) On the Issue Forms page, click the **Access** tab.
- 9) On the Access tab, click **Assign Projects**.
- 10) In the Select a Project dialog box, select a project in which you want to make this form available for users adding new issues. Click **Assign**. Repeat this step for all projects in which this issue form should be available. Click **Close**.
- 11) Click **Save**.





Tips

- ▶ To modify a form, navigate to the **Issue Form Details** page and select a form in the Issue Forms pane.
- ▶ To delete an issue code, user-defined field, or project assignment, click  **Delete** in the item's row. To delete an entire issue form, select the form first in the **Issue Forms** pane. Then, in that same pane, click  **Modify**, and then click  **Delete**.

Assigning Projects to Issue Forms

You can specify the issue forms you want to make available for use in a project. When you assign a project to an issue form, it becomes available for project members to use when they add a new issue to a project or workgroup within the project.

To assign projects to issue forms:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▾ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▾ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Issues**.
- 3) On the **Issues** page, click **Issue Forms**.
- 4) On the **Issue Forms** page, click the **Access** tab.
- 5) On the **Access** tab, expand the **Projects** section and click **Assign Projects**.
- 6) In the **Select a Project** dialog box, assign projects to the issue form and click **Close**.
- 7) On the **Access** tab, click **Save**.

Tips

- ▶ You can assign multiple projects to issue forms.
- ▶ Your access to pages, tabs, and menu items is controlled by the settings defined in your assigned user interface view. Depending on your view settings, you might be able to change your view preferences to show or hide items according to your needs.

Risks

About Risks

Risks are any uncertain events or conditions that, if they occur, have a positive or negative effect on project objectives. Risks are also known as threats, warnings, imperatives, escalation notices, or jeopardies. Positive risks are often classified as opportunities which, if they occur, are realized as rewards. Thorough documentation and analysis of risks over multiple projects offer lessons, and potentially cost and time savings, for all future projects.

Working with Risk Scoring Matrices

Use the Risk Scoring Matrices page to create a risk scoring matrix for one or more projects. The inputs to the risk scoring matrix are the risk thresholds, which you create on the Risk Thresholds page from the Enterprise Data section.

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Enterprise Data

- Global
- Projects
- Activities
- Resources
- Risks**
 - Risk Categories
 - Risk Scoring Matrices**
 - Risk Thresholds
 - Risk UDFs
- Issues
- Documents

Risk Scoring Matrices

Name	Matrix Size	Probability Threshold	Impact Thresholds	Tolerance Threshold	Risk Scoring Method
Harbour Pointe Risk Scoring Matrix	5 x 5	Harbour Pointe Probability Threshold	Harbour Pointe Schedule Threshold...	Harbour Pointe Tolerance Threshold	Highest Impact
Cordova Risk Scoring Matrix	5 x 5	Cordova Probability Threshold	Quality Threshold (5 level), Cordo...	Cordova Tolerance Threshold	Average Impact
Tech Projects Risk Scoring Matrix	3 x 3	Tech Projects Probability Threshold	Tech Projects Schedule Threshold, ...	Tech Projects Tolerance Threshold	Highest Impact
Maintenance Risk Scoring Matrix	5 x 5	Maintenance Probability	Maintenance Cost Impact, Mainten...	Maintenance Tolerance	Average Individual Impact

Probability and Impact Diagram

Probability	Severity 1	Severity 2	Severity 3	Severity 4	Severity 5
Very High	6	12	18	36	72
High	4	7	14	28	56
Medium	3	5	10	20	40
Low	2	3	6	12	24
Very Low	1	1	2	4	8

Description | Projects | Probability and Impact Diagram | Probability | Impacts | Tolerance

Table of Risk Scoring Matrices Elements

Item	Description
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1	Risk Scoring Matrices toolbar.
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Item	Description
2	<p>Risk Scoring Matrices work area: This work area contains all the risk scoring matrices defined for your company. The number of risk scoring matrices you create is determined by risk analysis practices incorporated in your business. You might have one corporate-wide risk scoring matrix that is used for all projects, or you might have a need for separate matrices which are used depending on different factors, such as project size. For example, a project that is a new development might require different cost impact and schedule impact threshold values than a project for a new feature development on an existing product.</p> <p>There might also be situations where a project is a joint-venture or is performed by a contractor and the prime owner's matrix must be used. However, for any project, only one matrix is assigned.</p> <p>In the work area above, you can see this company has a need for multiple risk scoring matrices, including a separate risk scoring matrix for the Harbour Pointe Assisted Living construction project.</p> <p>When creating a risk scoring matrix, you choose a matrix size based on the number of levels assigned to your probability and impact thresholds defined on the Risk Thresholds page. Using the Harbour Pointe Risk Scoring Matrix as an example, the risk scoring matrix is 5 x 5. The first 5 represents the number of levels assigned to the probability threshold and the second 5 represents the number of levels assigned to the cost and schedule impact thresholds.</p> <p>Next you choose the risk scoring method to use for risk score calculations.</p>

Item	Description
3	<p>Risk Scoring Matrices detail windows:</p> <p>Description: The area used to describe the risk scoring matrix.</p> <p>Projects: The area where you assign the matrix to one or more projects. Note that only one matrix can be assigned to a single project. If a matrix is not assigned to a project, risks can still be entered in the risk register on the Projects Risks page; however, the probability, cost impact, and schedule impact threshold fields are disabled, and you cannot use the qualitative analysis features of the application. At any time you can create a matrix and assign it to an existing project.</p> <p>Probability and Impact Diagram (PID): The PID is a graphical representation of the selections made in the Risk Scoring Matrices work area. The number of rows and columns is determined by the matrix size. The rows are the probability levels and the columns are the impact levels.</p> <p>The code and name fields for the impact threshold levels are customizable when creating a threshold; therefore, the column labels for the impacts are "Severity <i>n</i>." The number of severity columns reflects the number of levels assigned to the impact thresholds.</p> <p>The color coding indicates the tolerance threshold assigned to the risk scoring matrix. These same tolerance colors are also visible in the Score and Score (Text) fields on the risk register on the Projects Risks page when risk values are entered.</p> <p>Probability: The details of the probability threshold assigned to the matrix needed to perform a qualitative assessment on project risks. This detail window is read-only. To change anything related to the threshold, navigate to the Risk Thresholds page.</p> <p>Impacts: The details for the impact thresholds assigned to the matrix. A cost and schedule impact must be defined for the matrix to perform a qualitative assessment on project risks. An unlimited number of user-defined impact thresholds can be assigned to the matrix. From this detail window you can add or delete impacts to the matrix; however, you cannot modify the threshold values. To change anything related to the threshold, navigate to the Risk Thresholds page.</p> <p>Tolerance: The details for the tolerance threshold assigned to the matrix. This detail window is read-only. To change anything related to the threshold, navigate to the Risk Thresholds page.</p>

Configuring Risk Enterprise Data

You can configure enterprise data to include risk categories and risk UDFs, and to define the criteria for performing qualitative risk analysis using a risk scoring matrix.

To define the criteria for performing qualitative risk analysis, perform the following tasks:

- 1) **Creating Risk Thresholds** (on page 212)
- 2) **Creating Risk Scoring Matrices** (on page 213)
- 3) **Assigning a Risk Scoring Matrix to a Project** (on page 214)



To configure risk categories or risk UDFs, see:

- ▶ **Creating Risk Categories** (on page 215)
- ▶ **Creating Risk UDFs** (on page 99)

Creating Risk Thresholds

You create risk thresholds, which you then use as inputs when creating a risk scoring matrix. When creating risk thresholds, you must define the probability threshold, cost impact threshold, schedule impact threshold, and tolerance threshold. You can also define as many user-defined impacts as necessary.

To create risk thresholds:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) Risks and click **Risk Thresholds**.
- 3) Repeat the following for each threshold you want to create:
 - a. On the **Risk Thresholds** page:
 1. Click  **Add** (Insert).
 2. In the **Name** field, double-click and type a threshold name.
 3. In the **Type** field, double-click and select a type of risk from the list.
 4. In the **Levels** field, double-click and select a level number from the list.
 - b. In the **Levels** detail window, a default value is assigned for the **Code**, **Name**, and **Range** values. You can use the default values provided, or double-click any field to customize that field.



You can define a color for each threshold level to visually represent the values when working the risk register on the Project Risks page. However, you should define colors for the tolerance threshold. The colors for the tolerance threshold are used to color the Score field on the risk register on the Projects Risks page. This enables you to easily identify where in the risk scoring matrix this risk falls in terms of severity.

- 4) On the **Risk Thresholds** page, click  **Save** (Ctrl+S).

Modifying Risk Thresholds

If you are going to change the type or level of a threshold that is currently assigned to a scoring matrix, you must first remove the threshold from the risk scoring matrix and assign a new threshold.

To delete a threshold from a risk scoring matrix:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and click **Risk Scoring Matrices**.
- 3) Repeat the following for each risk scoring matrix that includes the threshold you are modifying.
 - a. On the **Risk Scoring Matrices** page:
 1. Locate the risk scoring matrix that includes the threshold you are modifying.
 2. Double-click in the appropriate threshold field.
 - b. In the **Select Threshold** dialog box, choose a different threshold and click **Assign**, and then click **Close**.
- 4) On the **Risk Scoring Matrices** page, click  **Save** (Ctrl+S).

To modify a risk threshold:

- 1) Click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and click **Risk Thresholds**.
- 3) On the **Risk Thresholds** page:
 - a. Locate the threshold you are modifying.
 - b. Double-click in the field you are modifying and update the value.

Note: If you are modifying the number of levels assigned to a threshold, all data for existing levels are overwritten and replaced with the default values for that level.



- c. Click  **Save** (Ctrl+S).






Creating Risk Scoring Matrices

Create a risk scoring matrix to perform qualitative analysis on project risks. Project risk is assessed based on the thresholds defined in the risk scoring matrix.

Before creating a risk scoring matrix, you need to first define risk thresholds.

To create a risk scoring matrix:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and choose **Risk Scoring Matrices**.
- 3) On the **Risk Scoring Matrices** page:
 - a. Click  **Add** (Insert).

- b. In the **Name** field, click and type a unique name.
 - c. In the **Matrix Size** field, double-click and click .
- 4) In the **Select Matrix Size** dialog box:
- a. Choose a threshold level for the **Probability** and **Impact** fields.
- Note:** You must have already defined thresholds with the number of levels you are assigning to the matrix (see **Creating Risk Thresholds** (on page 212)). If you do not have a threshold with the same number of levels, you will be able to select the matrix size, but you will not be able to add a threshold.
- b. Click **OK**.
- 5) On the **Risk Scoring Matrices** page, double-click in the **Probability Threshold** field and click .
- 6) In the **Select Probability Threshold** dialog box, choose a probability and click **OK**.
- 7) On the **Risk Scoring Matrices** page, double-click in the **Impact Thresholds** field and click .
- 8) In the **Select Impact Thresholds** dialog box:
- a. Select a **Cost Impact** and click **Assign**.
 - b. Select a **Schedule Impact** and click **Assign**.
 - c. Select any additional impacts and click **Assign**.
 - d. Click **Close**.
- 9) On the **Risk Scoring Matrices** page, double-click in the **Tolerance Threshold** field and click .
- 10) In the **Select Tolerance Threshold** dialog box, choose a tolerance and click **OK**.
- 11) On the **Risk Scoring Matrices** page, double-click in the **Risk Scoring Method** field and select a risk scoring method from the list.
- 12) In the **Description** detail window, type a description of the risk scoring matrix.
- 13) On the **Risk Scoring Matrices** page, click  **Save** (Ctrl+S).

Assigning a Risk Scoring Matrix to a Project

You need to assign a scoring matrix to a project before it can be used to prioritize risks. Once you assign a scoring matrix to a project, it is available for use from the risk register on the Projects Risks page.

You can assign a risk scoring matrix to a project from different areas in the application, depending on the tasks you are working on at the time.




- ▶ When setting up a project, see **Assigning a Risk Scoring Matrix to a Project from the EPS Page** in P6 Help.
- ▶ When defining a risk scoring matrix and applying the matrix to multiple projects, see **Assigning a Risk Scoring Matrix to a Project from the Enterprise Data Pane** in P6 Help.

- ▶ When managing a portfolio, see **Assigning a Risk Scoring Matrix to a Project from the Portfolios Section** in P6 Help.

Creating Risk Categories

Create a risk category to categorize and organize project risks.

To create a risk category:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and click **Risk Categories**.
- 3) On the **Risk Categories** page:
 - a. Click  **Add** (Insert).
 - b. In the **Category** field, double-click and type a unique name.
 - c. Click  **Save** (Ctrl+S).

Tips




To display the **Category** field on the Projects Risks page, click **Select Columns** on the Risks toolbar and select **Category**.

Creating Risk UDFs

Create risk user-defined fields (UDFs) to store additional project risk data on the Projects Risks page that is pertinent to your project or business and is not available from the default fields. For example, you might need to include a location field to identify where the risk might occur, or a ranking field to determine the order in which the risks will be handled.

User-defined fields can be of many types: text, start date, finish date, cost, number, integer, or indicator. Data from UDFs is not used in scoring calculations.

To create a risk UDF:

- 1) Click the  **Projects** ▼ menu and select **Enterprise Project Data**, or click the **Administer** ▼ menu and select **Enterprise Data**.
- 2) In the **Enterprise Data** pane, expand **Risks** and click **Risk UDFs**.
- 3) On the **Risk UDFs** page:
 - a. Click  **Add** (Insert).
 - b. In the **User Defined Field**, double-click and type a name.
 - c. In the **Data Type** field, double-click and choose a data type from the list.
 - d. Click  **Save** (Ctrl+S).

Working with Project Risks

The risk register on the **Risks** page is the main area of the application where you identify and manage risks for a project. Additionally, you can add risks to a project from the Projects EPS page, and add risks to a project and assign the risks to activities from the **Activities** page.

Once you add a risk to the risk register, you can perform further analysis on the risk and create one or more risk response plans which include activities to reduce the negative impact of the risk. See **About Risk Response Plans** (on page 221).

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EPS | Activities | Workspace | Team Usage | Details | Issues | Documents | **Risks**

Risks of Baytown, TX - Offline Maintenance Work, Harbour Pointe Assisted Living Center

1

ID	Name	Type	Status	Owner	Probability	Schedule	Cost	Score	Category
Project Name: Harbour Pointe Assisted Living Center									
R001	Concrete supply constrained	Threat	Active	Concrete Foundation Subcontractor	H (50% to 70%)	H (20 to 40)	L (\$45,000.00 to ...	28	Subcontractors & Suppliers
R006	Weather delay due to unusually wet wea...	Threat	Active	Project Managers	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	Weather
R003	New roof coating cuts roof install time	Opportunity	Open	Roofing Subcontractor	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	Subcontractors & Suppliers
R011	Window manufacturing delay	Threat	Proposed	Glass & Glazing Subcontractor	L (10% to 25%)	H (20 to 40)	L (\$45,000.00 to ...	12	Subcontractors & Suppliers
R004	Poor ground conditions	Threat	Open	Project Managers	L (10% to 25%)	L (5 to 10)	L (\$45,000.00 to ...	6	Weather
R010	Interior design changes	Threat	Proposed	Project Managers	L (10% to 25%)	M (10 to 20)	M (\$90,000.00 t...	6	Planning

2

Activities

Risk: R001

Project Name	Activity ID	Activity Name	Early Start	Early Finish
Harbour Pointe Assisted Living Center	EC1090	Building Pad Including UG Units	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1140	First Floor Masonry Structure	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1170	Second Floor Slab & Collar Beam	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1190	Second Floor Masonry Structure	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1210	Third Floor Slab & Collar Beam	01-May-11	01-May-11
Harbour Pointe Assisted Living Center	EC1240	Third Floor Masonry Structure	02-May-11	05-May-11
Harbour Pointe Assisted Living Center	EC1250	Fourth Floor Slab & Collar Beam	05-May-11	17-Jun-11
Harbour Pointe Assisted Living Center	EC1300	Fourth Floor Masonry Structure	17-Jun-11	11-Jul-11
Harbour Pointe Assisted Living Center	EC1310	Roof Slab	11-Jul-11	22-Aug-11

3

Response Plans | **Activities** | Description | Cause | Effect | Notes | Probability and Impact Diagram

Table of Project Risks Elements

Item Description

- 1 **Risks** toolbar.

Item	Description
2	<p>Risks work area: Risks for all the projects you have open display in the risk register. You can group by field name, such as project name to view all risks organized by project, or create a filter to view only the risks that interest you.</p> <p>When adding a risk to the risk register, you supply a name for the risk, identify the risk as a threat or an opportunity, identify the current status of the risk, identify the owner of the risk, and then assign the values for probability, schedule, cost, and any other applicable user-defined impacts. The values for probability, schedule, cost, and additional user-defined impacts are used to calculate the risk score.</p> <hr/> <p>Note: If the Probability, Cost, and Schedule fields are disabled, a risk scoring matrix has not been assigned to the project. You can still use the risk register to track your risks; however, you cannot use the qualitative risk analysis features in the application until you create a risk scoring matrix and assign it to the project.</p> <hr/> <p>3 Risks detail windows:</p> <p>Response Plans: The area where you add response plans and response plan action items. See Working with Risk Response Plans (on page 222).</p> <p>Activities: The area where you associate scheduled activities in your project to an identified risk. Refer to the example above to see a list of the project activities impacted by risk R001: Concrete supply constrained.</p> <p>Description: The area used to provide a detailed explanation of the risk.</p> <p>Cause: The area used to explain why this risk is occurring.</p> <p>Effect: The area used to describe the impact this risk has on this project.</p> <p>Notes: The area used to capture any additional information regarding the risk.</p> <p>Probability and Impact Diagram: The Probability and Impact Diagram (PID) is a graphical representation of the probability and impact thresholds assigned to the risk scoring matrix associated with the project.</p>

Managing Project Risks

You can perform qualitative analysis on your project risks. Using the tasks listed below, you can identify a risk for your project and assign probability and impact values to this risk to calculate a risk score. Additionally, you can assign activities to the risk and create a risk response plan, which can include actions to mitigate the risk.

- 1) **Creating Project Risks** (on page 218)
- 2) **Assigning an Activity to a Risk** (on page 172)
- 3) **Developing a Risk Response Plan** (on page 223)

Creating Project Risks

Add project risks to capture potential threats or opportunities that might impact your project.

For convenience, you can add risks to projects from different areas in the application, depending on the tasks you are performing at the time.

You can capture risks in the Projects section from the Risks, Activities, or EPS page.





- ▶ Adding Detailed Project-Level Risks - The Risks page is the risk register where all risk data for the projects you are working on is stored. You can customize the page using filters or grouping to view a specific list of project risks. From this page, you can assign probability and impact values to obtain a risk score, and create risk response plans that include response plan action items to reduce or eliminate the negative impact of the risk. If you previously added risks to a project from the Activities page or the EPS page, you can use this page to add more detailed information about the risk and perform qualitative analysis.
- ▶ Adding Risks to Activities - Use the Activities page when you are working in the detailed activity level to quickly add a risk or assign an existing risk to activity. When you plan to perform a more detailed analysis on your project risks, use the Risks page.
- ▶ Adding High-Level Project Risks - Use the EPS page when you are working at the project level to quickly add a risk to a project. You can enter basic risk information from this page, including ID, Name, Owner, Category, Type, and Status. When you plan to enter more detailed information about the risk and perform an analysis on your project risks, use the Risks page.


Adding Detailed Project-Level Risks


Add project risks to capture potential threats or opportunities that might impact your project, and to perform qualitative analysis to reduce or eliminate negative impact on the project.

Note: If a risk scoring matrix is not assigned to the project, you can add general risk information to the Risks page, but you will not be able to enter values for probability, schedule and cost, which are values used to generate the risk score. See **Assigning a Risk Scoring Matrix to a Project** (on page 214).

To add detailed project-level risks:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) On the **Risks** page, click  **Add a Risk** (Insert).
- 4) If multiple projects are open, select a project from the **Select Project** dialog box and click **OK**.
- 5) On the **Risks** page:
 - a. In the **ID** field, click and type an ID for the risk.
 - b. In the **Name** field, click and type the risk name.
 - c. In the **Type** field, double-click and select the type of risk from the list.
 - d. In the **Status** field, double-click and select the current status for the risk.
 - e. In the **Owner** field, double-click then click .
- 6) In the **Select Owner** dialog box, select an owner for the risk and click **Assign**.
- 7) On the **Risks** page:
 - a. In the **Probability** field, double-click and select a probability from the list.
 - b. In the **Schedule** field, double-click and select a schedule impact from the list.
 - c. In the **Cost** field, double-click and select a cost impact from the list.
 - d. Complete any addition fields on the table that are relevant for this risk, including any user-defined fields.

Note: To display additional columns, click  **Select Columns** and select the column to add to the table.

- 8) You can provide more information using the **Cause**, **Description**, **Effect**, and **Notes** detail windows.
- 9) On the **Risks** page, click  **Save** (Ctrl+S).

Tip







Click the **Probability and Impact Diagram** detail window to view the risk scoring matrix assigned to the project.

Adding Project Risks to Activities

Add project risk to activities to capture potential threats or opportunities that might impact your project. Use this method if you want to quickly associate a risk to an activity. You can add a new project risk to an activity, or assign an existing project risk to an activity.

To add a new or assign an existing project risk to an activity:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.




- ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
 - 3) On the **Activities** page, select an activity and click the **Risks** detail window.
 - 4) To add a new risk to an activity, in the **Risks** detail window:
 - a. Click  **Add a Risk** (Insert).
 - b. Enter a value in the **ID** field.
 - c. Enter a value in the **Name** field.
 - d. Select a type from the **Type** list.
 - e. Select a status from the **Status** list.
 - 5) To assign an existing risk to the activity, in the **Risks** detail window:
 - a. Click  **Assign Risk**.
 - b. In the **Select Risk** dialog box:
 1. Click on a risk.
 2. Click **Assign**.
 3. Assign any additional risks, and then click **Close**.
 - 6) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).



Adding High-Level Project Risks

Add project risks to capture potential threats or opportunities that might impact your project.

Use this method to quickly add a risk to a project. You can enter basic risk information from this page, including ID, Name, Owner, Category, Type, and Status.

To add a high-level project risk:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **EPS**.
- 3) On the **EPS** page, click on a project, and then click the **Risks** detail window.
- 4) On the **Risks** detail window:
 - a. Click  **Add a Risk** (Insert).
 - b. In the **ID** field, double-click and type an ID for the risk.
 - c. In the **Name** field, double-click and type the risk name.
 - d. In the **Type** field, double-click and select the type of risk from the list.
 - e. In the **Status** field, double-click and select the current status for the risk.
 - f. In the **Category** field, double-click and select a category from the list, if applicable.





- g. In the **Owner** field, double-click then click .
- 5) In the **Select Resource** dialog box, select an owner for the risk and click **OK**.
- 6) On the **EPS** page, click  **Save** (Ctrl+S).

Assigning a Risk to an Activity





Assign a risk to an activity to explicitly identify the activity impacted by the risk.

You can assign a risk to an activity while you are adding project risks on the Risks page or while managing your activities on the Activities page.

To assign a risk to an activity from the Risks page:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) , click on a risk.
- 4) Click on the **Activities** detail window and click  **Assign Activities** .
- 5) On the **Select Activity** dialog box:
 - a. Select an activity and click **Assign**.
 - b. Select any additional activities impacted by the risk and click **Assign**.
 - c. Click **Close**.
- 6) On the **Risks** page, click  **Save** (Ctrl+S).

To assign a risk to an activity from the Activities page:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select the activity you want to assign a risk.
- 4) On the **Risks** detail window, click  **Assign Risk**.
- 5) On the **Select Risk** dialog box, select a risk and click **OK**.
- 6) On the **Activities** page, click  **Save** (Ctrl+S).

About Risk Response Plans

Response planning allows you to identify and document methods you might use to manage project risks. When you identify an area with a risk, create a risk response plan to determine what actions could be taken to promote the most favorable outcome.

Working with Risk Response Plans

The **Response Plans** detail window is the area in the risk register where you create plans for handling the identified risks. Once you have identified which project risks need further action, create a response plan and assign response plan action items for each risk to reduce the negative impact on the project.

The screenshot displays the Oracle Primavera P6 interface. The top navigation bar includes 'Dashboards', 'Portfolios', 'Projects', 'Resources', and 'Reports'. Below this is a toolbar with icons for 'EPS', 'Activities', 'Workspace', 'Team Usage', 'Details', 'Issues', 'Documents', and 'Risks'. The main window is titled 'Risks of Harbour Pointe Assisted Living Center' and contains a table of risks. Below the risk table, the 'Response Plans' detail window is open, showing a table of response plans for risk R001.

ID	Name	Type	Status	Owner	Probability	Schedule	Cost	Score	Score (Text)	Category
Project Name: Harbour Pointe Assisted Living Center										
R001	Concrete supply constrained	Threat	Active	Concrete Foundation Subcontractor	H (50% to 70%)	H (20 to 40)	L (\$45,000.00 to...	28	H - H	Subcontractors & Suppliers
R006	Weather delay due to unusually wet wea...	Threat	Active	Project Managers	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	H - M	Weather
R003	New roof coating cuts roof install time	Opportunity	Open	Roofing Subcontractor	H (50% to 70%)	M (10 to 20)	VL (Up to \$45,00...	14	H - M	Subcontractors & Suppliers
R011	Window manufacturing delay	Threat	Proposed	Glass & Glazing Subcontractor	L (10% to 25%)	H (20 to 40)	L (\$45,000.00 to...	12	L - H	Subcontractors & Suppliers
R004	Poor ground conditions	Threat	Open	Project Managers	L (10% to 25%)	L (5 to 10)	L (\$45,000.00 to...	3	L - L	Weather
R010	Interior design changes	Threat	Proposed	Project Managers	L (10% to 25%)	M (10 to 20)	M (\$90,000.00 t...	6	L - M	Planning

Active ID	Name	Response Type	Owner	Status	Start Date	Finish Date	Probability	Schedule	Cost	Score	Activity
<input type="checkbox"/> R001-RP01	Spend contingency funds to cover higher rates	Accept									
<input checked="" type="checkbox"/> R001-RP02	Contract with alternative suppliers	Reduce			03-Jan-11	11-Feb-11	L (10% to 25%)	L (5 to 10)	L (\$45,000.00 to...	3	
<input type="checkbox"/> R001-RP02-RA01	Identify alternative suppliers			Sanctioned	03-Jan-11	07-Jan-11	M (25% to 50%)	H (20 to 40)	L (\$45,000.00 to...	20	
<input type="checkbox"/> R001-RP02-RA02	Post RFP			Sanctioned	10-Jan-11	28-Jan-11	M (25% to 50%)	H (20 to 40)	L (\$45,000.00 to...	20	
<input type="checkbox"/> R001-RP02-RA03	Select and issue contract			Sanctioned	31-Jan-11	11-Feb-11	L (10% to 25%)	L (5 to 10)	L (\$45,000.00 to...	3	

Table of Risk Response Plan Elements

Item	Description
------	-------------

- | | |
|---|---|
| 1 | Response Plans toolbar. |
| 2 | Response Plan row: Create one or more response plans while you are in the planning phase and indicate the response type. When you have analyzed your response options, choose one response plan by selecting the Active option next to the appropriate response plan. |

In the example above, two response plans have been created for the Concrete supply constrained risk. The first plan is to accept the risk and take no action; the second plan is to reduce the impact of the risk by contracting with alternative suppliers. You can see this second plan was selected as the plan of choice.

Item	Description
3	<p>Response Action Item rows: Each risk response plan can have multiple response plan action items. Response action items are additional activities you perform to reduce the impact of the risk.</p> <p>For each response action item, assign the probability, schedule impact, cost impact, and any additional user-defined impacts, which is based on the outcome of the action item, to obtain a post-mitigated score.</p> <p>In the example above, three activities are assigned to the risk plan. The risk score will not significantly decrease until all three response items are complete. By taking action on this risk and creating a response plan, we can see that the impact of this risk can be significantly reduced.</p>

Developing a Risk Response Plan





Once you have identified a risk for your project, you can then create a risk response plan to help manage the project risk. A risk response plan includes a name for the plan and response plan action items. You can create multiple risk response plans for a risk each with multiple response action items. When you determine which plan will best meet the project needs, you select the Active option next to the appropriate response plan. One response plan must always be active.

To develop a risk response plan complete the following tasks:

- 1) **Adding Risk Response Plans** (on page 223)
- 2) **Adding Risk Response Plan Action Items** (on page 224)
- 3) **Assigning Activities to Risk Response Plan Action Items** (on page 225)

Adding Risk Response Plans

Add one or more response plans to a risk to plan alternative activities that might reduce the probability of a risk occurring, or to reduce the impact of the risk.






- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) On the **Risks** page, click on a risk, and then click the **Response Plans** detail window.
- 4) On the **Response Plans** detail window:
 - a. Click  **Add** (Insert).
 - b. In the **ID** field, double-click and type a response plan ID.
 - c. In the **Name** field, double-click and type a name for the new response plan.
 - d. In the **Response Type** field, double-click and select a response type from the list.
- 5) On the **Risks** page, click  **Save** (Ctrl+S).

Note: After you decide which response plan you are implementing, select the **Active** option next to the appropriate response plan.

Adding Risk Response Plan Action Items

Each risk response plan can include multiple response plan action items.

To add a risk response plan action item:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) On the **Risks** page, click on a risk, and then click the **Response Plans** detail window.
- 4) Repeat the following for each response action you want to add to a risk response plan:
 - a. On the **Response Plans** detail window:
 1. Click on the response plan for which you are adding a response action and click  **Add a Response Action**.
 2. In the **ID** field, double-click and type an ID for the response action item.
 3. In the **Name** field, double-click and type a name for the response action item.
 4. In the **Owner** field, double-click and click .
 - b. On the **Select Owner** dialog box, select a name and click **OK**.
 - c. On the **Response Plans** detail window:
 1. In the **Status** field, double-click and select a status from the list.
 2. In the **Start Date** field, double-click and select a start date from the calendar.
This is an optional field. If you assign an activity to the response action, the activity date and total cost for the activity will override the values you just entered.
 3. In the **Probability** field, double-click and select a probability based on the response action.
- 5) On the **Risks** page, click  **Save** (Ctrl+S).

Note: If a risk scoring matrix is not assigned to your project, the **Probability**, **Schedule**, and **Cost** fields are disabled.




Note: After you decide which response plan you are implementing, select the **Active** option next to the appropriate response plan.

Assigning Activities to Risk Response Plan Action Items


Existing activities can be assigned to a response plan action item to identify the activities necessary to respond to the risk. If you need a new activity for the response action, first create that activity, then assign it to a response plan action item.

The cost values for the assigned activity are used in the cost calculations for the response plan, and the activity start and finish dates are displayed in the response plan.

To assign an activity to a risk response plan action item:

- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) On the **Risks** page, click on a risk and then click the **Response Plans** detail window.
- 4) Repeat the following for each response plan action item:
 - a. On the **Response Plans** detail window:
 1. Expand the appropriate risk response plan and click on the response plan action item for which you are adding an activity.
 2. In the **Activity** field, double-click and click .
 - b. On the **Select Activity** dialog box, click the activity and click **Assign**.

Note: If the **Activity** field is not displayed, click  **Select Columns** and click **Activity**.

- 5) On the **Risks** page, click  **Save** (Ctrl+S).

About Documents

A document is a file or work product that you create and add to your Primavera work environment. The application provides document management capabilities that enable you to store, organize, manage, and access documents in a secure environment. The available document management functionality depends on your configuration. When the content repository is configured, the complete set of advanced document management capabilities is available, including check in, check out, and document reviews. When the content repository is not configured, a limited set of document management features is available, such as adding, deleting, and relating items to documents.





When a configured content repository is installed, P6 supports up to three general classes of documents: project, private, and workgroup. Project documents are documents that you relate to a project via P6. Only users with the necessary securities can edit project documents. Private documents are documents that you add to P6 for your own use. Private documents are not associated with any project and are available only to you. Workgroup documents are documents that are added to a specific project workgroup. These documents are available only to members of the workgroup.

When the content repository is not configured for use with P6, you can perform limited actions on project documents only, and private and workgroup documents are not available.

Assigning Documents to Activities

You can assign relevant documents to activities, projects, and WBSs.

To assign documents:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, select an activity and click the **Documents** detail window.

Note: To assign a document to a project or WBS, select a project or WBS in place of an activity.

- 4) In the **Documents** detail window, click  **Assign** (Insert).
- 5) In the **Select Document** dialog box, assign documents and click **Close**.
- 6) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).

About Workflows

A workflow is an automated business process that routes information and tasks between participants according to a defined set of procedures or rules designed to coordinate a specific business goal. Workflows are primarily characterized by their level of procedural automation involving one or more dynamic related series of processes, and their combination of human and machine-based tasks involving interaction with software and systems.

The following industry segments, marked by relatively high office labor costs and transaction volume, have demonstrated successful workflow implementations:

- ▶ insurance
- ▶ banking
- ▶ legal
- ▶ general & administrative
- ▶ design
- ▶ engineering

► manufacturing

Business process modeling and workflow automation allow transactions to be conducted electronically without the need for manual intervention such as conducting certain validations or re-keying data. When workflow IT systems are processing repetitive, mundane, and often error-prone work, talented staff resources become available to handle activities that add real value to the enterprise.

P6 includes a sample *project initiation and review* workflow used to evaluate proposed work. It automates the process of reviewing and approving new project requests. You can also create your own workflows implemented through the use of templates typically created by your P6 administrator using BPM. Each workflow template defines the data, business processes, review phases, and approval requirements for the varying types of workflows specific to your organization. The necessary security privileges must be in place for you to create, initiate, or participate in workflows.

Working with Workflows

Use workflows to route business processes such as project initiation requests through your organization to gather information and visibility before a go/no go decision is made. Template data, routing designators, and approval rules can be set for each stage of a workflow. To illustrate these options, pretend we have a workflow involving five key approval managers. You can define the workflow such that all five must approve and in what sequence, if any. A much more relaxed approval rule would require only one out of the five to approve.

Workflows begin in BPM where your administrator defines the human tasks involved and assigns them to specific users, a role, or a group. An actual business need kicks off a separate instance of the workflow and its human tasks are automatically routed to their users, roles, or groups.

When a specific user or any user assigned to a role or group logs into P6, the **Workflow** portlet on their dashboard will display their relevant tasks at this stage of the workflow, as authenticated by BPM. As a workflow participant, you can select a task in the workflow instance and claim ownership for it. This means you will be responsible for performing the task. The application refreshes itself to show only the actions permitted for this particular stage of the workflow for you (the currently logged in user).

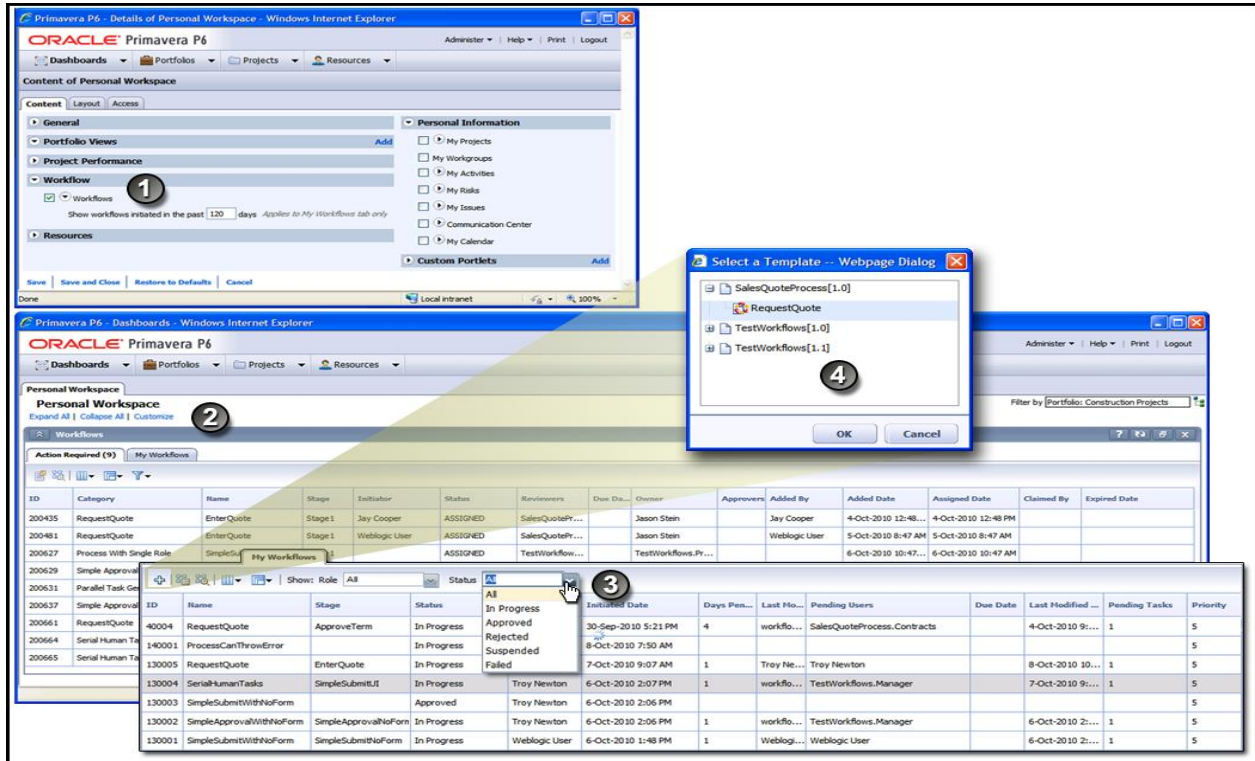


Table 1 of 2: Key Workflow Screen Elements

Item	Description
1	Setup and Configuration: After your administrator sets up BPM, configure a dashboard to display the Workflows portlet.
2	Action Required Tab: This tab shows the tasks important to you (the currently logged in user).
3	My Workflows Tab: This tab enables you to view all workflows according to role and status filters you can set.
4	Initiate a Workflow: Click + Initiate a Workflow to start a new instance of a workflow based on a predesigned template.

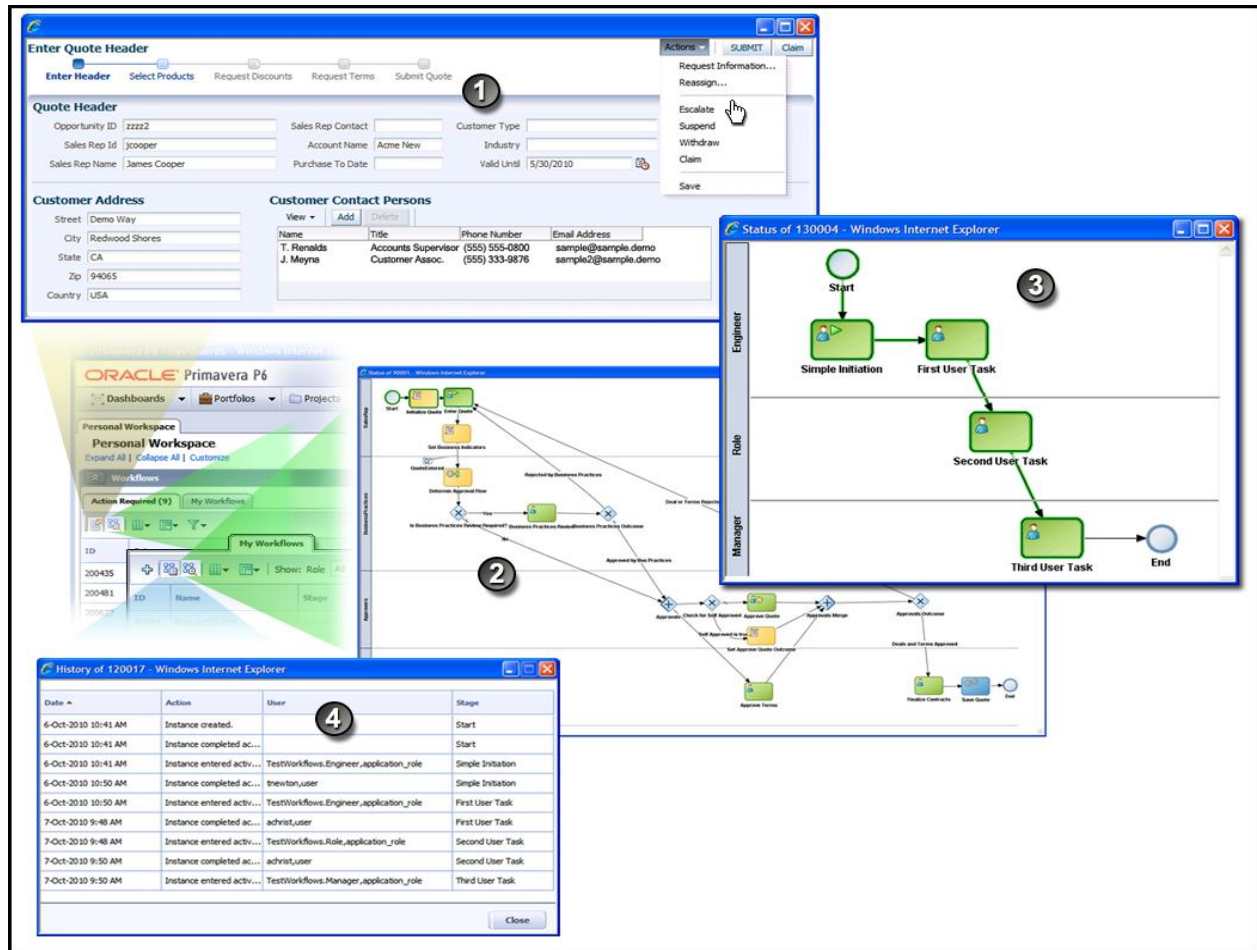


Table 2 of 2: Key Workflow Screen Elements

Item	Description
------	-------------

1

Workflow Form: Most workflows include forms which enable you to update the progress of each task. In general, possible actions you can perform on a human task during the routing of a workflow include: Escalate, Suspend, Purge, Delete, Withdraw, Submit, Reassign, Claim, Approve, and Reject.

Note: For tasks with no associated form, this icon is disabled. To perform an action on a workflow task with no associated form, log into BPM and use its **Actions** menu. It is also possible to design a solution using the P6 Integration API.

Item	Description
2	Workflow Status: The Workflow Status image is accessible from either tab in the Workflows portlet. It shows the sequence of events in the workflow. Items shown with a green border indicate the furthest level of progress within the workflow. The current status of the workflow corresponds with the last item to "go green".
3	Sample Workflow: A basic workflow image with tasks for an engineer, a second task for an assigned role, and a third task for a manager to complete the workflow. The current workflow task is Third User Task because it is the last item in the sequence that has a green outline.
4	Workflow History: View a chronological sequence of all the previous activities, users, and stages in the current workflow.



Participating in Workflows

All workflow tasks requiring your participation are listed in the **Action Required** tab of the **Workflows** portlet on a dashboard. For example, you might be asked to evaluate new project initiatives as part of a new project evaluation workflow.

The process form that accompanies each workflow task is based on the workflow type and stage, so the information displayed might vary each time you perform this task.

Note: The **Workflows** portlet requires installation of BPM. See your administrator.

To review a workflow task:

- 1) Click  **Dashboards**.
- 2) On the **Dashboards** page, select a dashboard.
- 3) On the dashboard, expand the **Workflows** portlet.
- 4) In the **Workflows** portlet, click the **Action Required** tab.
- 5) On the **Action Required** tab, select a task and click  **View Form**.
- 6) On the **BPM Workflow Form** dialog box, select an action to perform. The title and available screen elements of this form vary depending on the selected workflow task and stage.
- 7) Click **Submit**.

Customizing the P6 User Experience

P6 includes sophisticated layers of security, view, and customization features designed to control access and structure the collaborative experience of your entire team while also allowing users to individually customize views and format their data. Periodically perform the sequence of steps below for each user to optimize their experience.

When customizing your user experience, consider the following questions. These checks may be performed in whole or in part, and in any sequence. The order shown here is not mandatory. These items simply provide a basic checklist when examining your interaction with the application.

- ▶ **Do I have the right module access settings?** This determines which main components of the solution you can access, such as Portfolios, Reports, P6 Professional, and P6 Web Services.
- ▶ **Do I have the right user interface view?** This determines which main pages in the application you can access. Your administrator may assign you to an optional role-specific *user interface* view that corresponds to your assignments and work processes. A group of users with similar roles will often be assigned the same user interface view. You can edit your own personal view settings on the **My Preferences** page.
- ▶ **Do I have the right security profiles?** This determines what functions you can perform. Your administrator will likely assign you to a role-specific *global security profile* and *project security profile* that corresponds to your assignments and work processes. A group of users with similar roles will often be assigned the same security profile.
- ▶ **Do I have the right OBS (project) access settings?** This determines which projects are available to you based on your assigned responsible manager.
- ▶ **Do I have the right global preferences?** This determines the general formatting and preferred settings of data across the application. For example, you can specify the currency and date format you want to use. Even though you can customize these preferences, it is recommended that teams make choices aligned with team goals.
- ▶ **Do I have the right application settings?** This determines how P6 information is handled and appears for all users. For example, the default hours per time period, ID string lengths, integration links, and other default settings.
- ▶ **Do I have the current page customized to fit my needs?** There are two main ways to customize a page, detailed below.
 - ▶ **Customizable Page-Specific Views:** Certain pages of the application provide a standard mechanism for configuring shared views and customizing individual views. These include Activity, EPS, Resource Assignment, and portfolio views in portlets or on the Portfolio Analysis page. They provide common ways to view and work with data on their respective pages of application. Instead of manually adjusting the current page, you can simply switch the applied view.

- ▶ **On-Screen Controls:** Manually invoke the customization features provided on each page. Throughout the application, these features are available through **Customize** links or other context-specific toolbars and options displayed on the page. Examples of screen customization follow:
 - Generally speaking, within all pages, you can hide, show, expand and collapse elements as needed.
 - The **Activities** page and **Portfolio Capacity Planning** page, for example, offer extensive options that enable you to retrieve, organize, and chart data according to your specific requirements.
 - In the **Issues** portlet, you can filter, group, and chart issues as well as choose the data details to display.
 - You can customize dashboards to display the portlets you want and to specify how you want to organize them within the workspace. The dashboard filtering feature lets you focus on information related to a single project or all projects associated with a specific portfolio or project code. If you have the required privileges, you can customize the workspace and workgroups associated with a project.

About the User Interface

The application's user interface consists of familiar screen controls such as pages, tabs, and dialog boxes, data entry controls, buttons, and links appearing in a standard web browser.

Note: Your access to data and ability to interact with the user interface are controlled by various security features. See **About Security** in P6 Help.

Working with the P6 User Interface

The user interface presents familiar screen elements you manipulate in your web browser. They include all of the following common types of user interface objects and several more special objects not listed:

- ▶ pages
- ▶ tabs
- ▶ dialog boxes
- ▶ detail windows
- ▶ portlets
- ▶ fields
- ▶ lists
- ▶ buttons
- ▶ links

- ▶ tables
- ▶ charts
- ▶ calendars

Refer to the sample images below to orient yourself with the P6 graphical user interface inside your web browser.

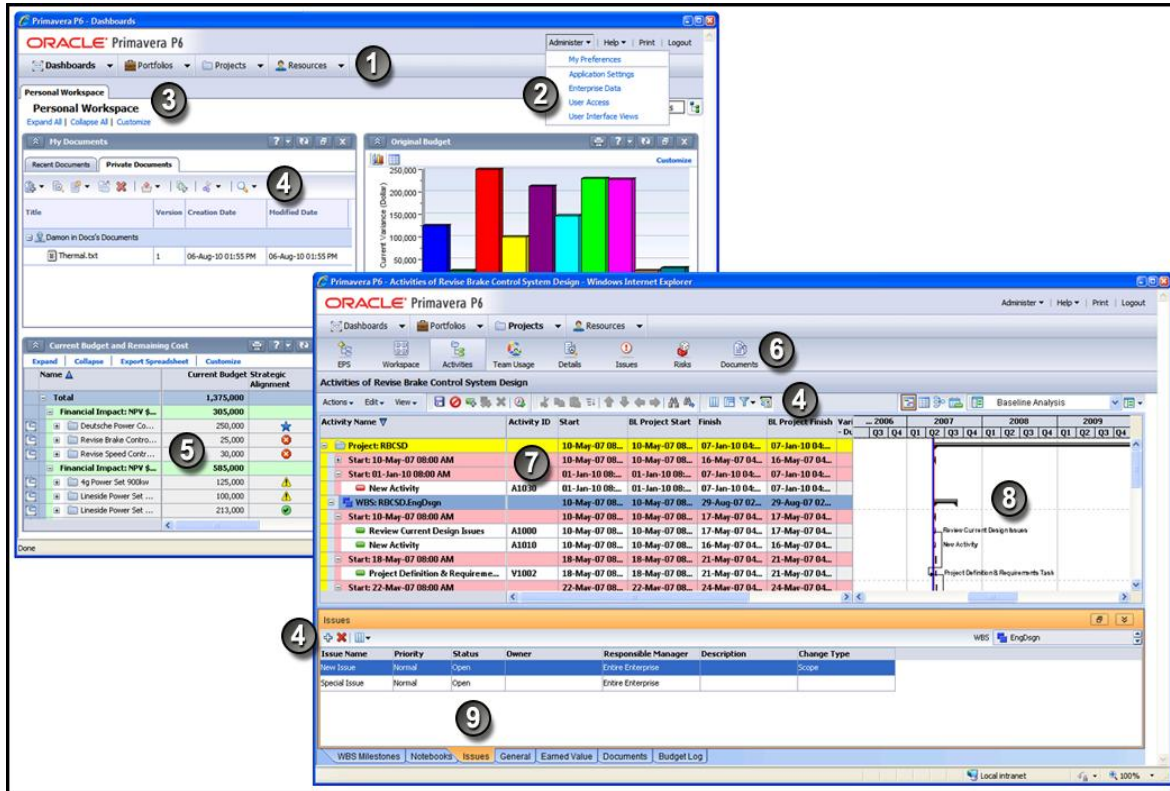


Table of Common User Interface Elements

Item Description

- P6 navigation bar:** This bar is always visible and shows buttons representing your access to dashboards and any of the main modules of the application. Use it to navigate to the pages and menus in the dashboards, portfolios, projects, resources, or reports sections of the application.
- Administer menu:** This menu offers access to **My Preferences** for all users and can include access to **My Calendar** for users with an associated resource. Application administrators will also have access to one or more of the following menu items: application settings, enterprise data, user access, or user interface views.

Item	Description
3	Personal Workspace dashboard: This default dashboard displays the portlets you have selected that are important to your work goals. In this example, notice the familiar hyperlinks including Customize which you can click to configure the dashboard for use by you or multiple users. Notice too that Personal Workspace is also the name for the tab you would click to open this dashboard if more than one dashboard appeared on this page.
4	Toolbars: From top to bottom, the Private Documents toolbar, the Activities toolbar, and the Issues toolbar. There are hundreds of toolbars throughout the application made up of over 400 icons. The Activities , EPS , and Resource Assignments toolbars in the application also feature their own Actions , Edit , and View menus.
5	Scorecard portfolio view portlet: In this example, the user has customized this dashboard by adding a portfolio view of type scorecard within its own portlet. The portlet also shows color-coded indicators in the Strategic Alignment column of the scorecard and can be further customized to suit work goals. The colors of a bar chart or histogram are also visible in the Original Budget portfolio view portlet.
6	Projects navigation bar: This bar shows buttons representing pages determined by your assigned user interface view and any custom preferences you made. Similar bars can be found under the Portfolios, Projects, and Resources sections.
7	Activity Table: One of the central work areas of the entire application, this table allows you to customize its columns (fields), color-coded grouping bands, and sort options, and of course apply filters.
8	Activity Gantt chart: Shown adjacent to the Activity Table, the Activity Gantt chart represents your schedule and offers robust customizable project management features including drag and drop editing, timescale, progress lines, relationship lines, spotlights, bar necking, and helpful mouseover tips.
9	Issues detail window: To gather the related details associated with a particular item in certain tables, the application often provides one or more detail windows in a series along the bottom. On pages supporting applied views, you can determine which detail windows are shown or hidden with your view.






About Screen Controls

As is typical with enterprise software, the application's main pages present more detail the further the user navigates within them. The following types of screen controls will appear:

- ▶ Pages
- ▶ Tabbed Pages or simply, Tabs
- ▶ Detail Windows
- ▶ Dialog Boxes
- ▶ Portlets

Working with the Main Menu

The seven main menus of P6 are located in the title bar and navigation bar. The menus are:

- ▶  **Dashboards** ▼
- ▶  **Portfolios** ▼
- ▶  **Projects** ▼
- ▶  **Resources** ▼
- ▶  **Reports**
- ▶ **Administer** ▼
- ▶ **Help** ▼

You can click each main menu directly on its icon or text to execute its default command; however, you must click only on the triangle portion (▼) of the menu for the additional Dashboard, Portfolio, Project, or Resource menu items to appear. If no triangle appears next to the menu, this indicates your user interface view settings do not include access to its menu items.

In all of the main menus except **Help** and **Reports**, your assigned user interface view and your view settings on the **My Preferences** page determine which menu items appear, if any. The portfolios and projects menus also display a list of your most recently used portfolios and projects.

Each menu item will take you to another page or dialog box. If the first page for projects or portfolios is already open, and you select one of the most recently used items in the menu, it will open the selected projects or portfolios and refresh the page.

The sample image below demonstrates what you might see in your main menus. For the most accurate details regarding your menus, see the help topic for the Content Tab of the User Interface View Details Page and check your actual settings in the application.

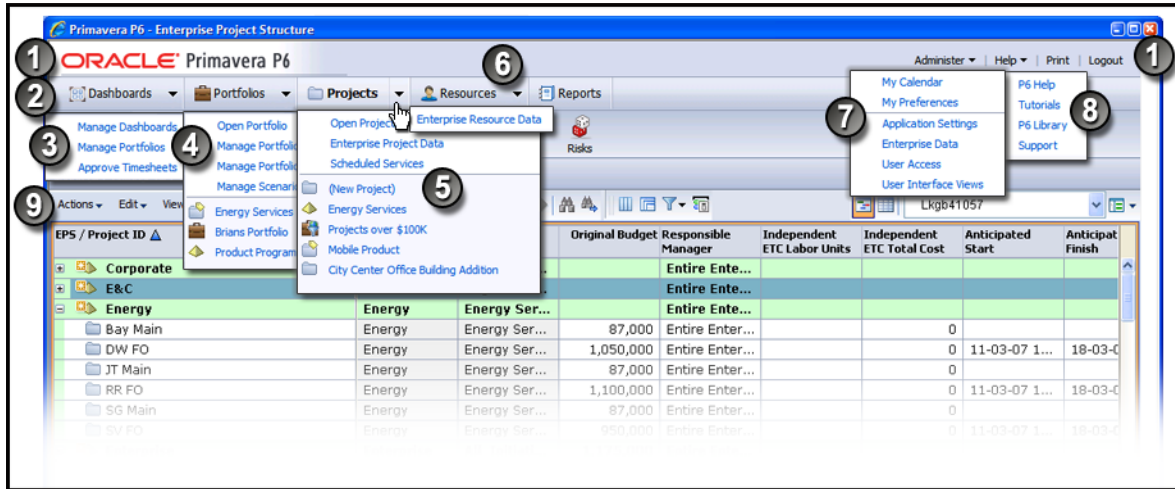




Table of P6 Main Menus

Item	Description
1	P6 title bar: Located in the P6 title bar, the Administer menu provides links to related pages based on your view settings and personal preferences. The Help menu items are standard and cannot be changed.
2	P6 navigation bar: Located in the P6 navigation bar, each menu opens up additional pages within the section it represents. The Dashboards, Portfolios, Projects, and Resources menus provide links to related pages based on your view settings and personal preferences. The menus for portfolios and projects also display links to your most recently used items.
3	Dashboards menu: Provides links to manage dashboards and timesheets.
4	Portfolios menu: Provides links to open and manage portfolios, views, and scenarios. This example also shows three recently used portfolios, opened by project code, manually-defined portfolio, and EPS element.
5	Projects menu: Provides links to open one or more projects, adjust specific enterprise data for projects, and schedule services. This example also shows five recently used projects or project groups, including two individual projects, and all projects within the Energy Services EPS element, Projects over \$100K global filtered portfolio, and Mobile Product project code group.

Item	Description
6	Resources menu: Contains a single link to adjust resource-specific enterprise data without navigating away from the current page.
7	Administer menu: Assuming all its menu items are configured, this menu provides links to adjust your own calendar and personal preferences. In addition, it can also display links to the Application Settings, Enterprise Data, User Access, and User Interface Views pages.
8	Help menu: A fixed menu providing links to the Online Help, P6 Library of documents available online, and the Oracle Primavera Customer Support website. If so configured, the Help menu can also provide links to multimedia tutorials powered by Oracle UPK technology.

About the Most Recently Used List

As you work, when you click the  **Portfolios** ▼ or  **Projects** ▼ menu, by default P6 displays the five most recently used items, with the item you most recently opened listed first.

Note: Your administrator can increase the list of most recently used items to a maximum of ten.

The most recently used projects include individual projects or project groups (EPS nodes, portfolios, or project code values). The most recently used portfolios include project groups.

Projects are not added to the most recently used projects list when you create a project, initiate a project request, or open a random set of projects (for example, projects from multiple portfolios, but not the full portfolio itself). Projects you access from portlets are added to the list, unless you access only activity detail information (such as activity notebooks or documents) directly from a portlet.


Working with Tables

Tables appear throughout the application to not only display information, but also to allow you to modify it, as permitted. The following general features are common to most tables.

The screenshot shows the Primavera P6 application window with a table of activities. The table has columns for Activity Name, Start, Finish, Variance BL, Project - Duration, At Completion Total Cost, and Planned Labor Units. The table is filtered by Activity Status: Not Started. The table is sorted by Activity Name. The table is expanded to show details for the 'Test Security System' activity. The table is expanded to show details for the 'Implement Security System' activity. The table is expanded to show details for the 'Go Online' activity. The table is expanded to show details for the 'Design Security System' activity. The table is expanded to show details for the 'Create Graphics' activity. The table is expanded to show details for the 'Security Testing' activity. The table is expanded to show details for the 'Performance Testing' activity. The table is expanded to show details for the 'Implement Site' activity. The table is expanded to show details for the 'Implement Database' activity. The table is expanded to show details for the 'Usability Study' activity. The table is expanded to show details for the 'Test Integration' activity. The table is expanded to show details for the 'Purchase Hardware' activity. The table is expanded to show details for the 'Preliminary Layout of Site' activity. The table is expanded to show details for the 'Design Database' activity. The table is expanded to show details for the 'Design Data Structures' activity. The table is expanded to show details for the 'Assess Hardware Requirements' activity.

Table of Common Table Features

Item	Description
1	Sort Order Indicators: Indicates the column you have selected to sort the rows. Each time you click a column header, the sort order toggles from ▲ ascending order, to ▼ descending order, and, for some tables, it cycles back to unsorted order (the original order in which the entries were created).
2	Grouping Levels: Many tables group related rows into hierarchical levels you can click through to expand or collapse. Some tables use colored bands to help you view these levels.
3	Selection Highlighting: The currently selected row is highlighted for you. You can directly click and drag to select one or more entries. Hold down the Ctrl key as you mouse click rows to select more than one. Hold down Shift as you click two entries to select all contiguous rows.
4	Changed Data Icons: When rows change in a table, three color-coded icons are used to signal the type of change that has occurred. A 🟡 gold icon indicates a pending change, a 🟢 green icon indicates a new entry, and a 🟠 red icon indicates an error.
5	Data Entry Features: Tables allow you to directly edit data with convenient controls to assist you in entering the right type of data. For example, a date field will display a calendar.

- 6 **Column Resizing:** You can directly drag to resize column widths.
- 7 **Column Configuration:** On most pages, a convenient  **Select Columns** icon allows you to select which columns are shown or hidden in the table.
- 8 **Column Order:** You can directly drag and drop column headings to customize your tables.

About Columns (Fields)


Fields hold data. They generally either allow you to enter values or just display the field's current value (called a *read-only field*).

Pages with tables often permit you to configure the fields that make up the columns of the table. See **Showing or Hiding Columns in a Table** (on page 239).

Showing or Hiding Columns in a Table

When the list of available fields or columns for a table is relatively short, indicated by the presence of the Select Columns icon and field list in the toolbar, use it to show and hide the columns that appear.

To show and hide columns:

- 1) On the toolbar, click  **Select Columns**.
- 2) From the resulting list of fields or columns:
 - a. Select an available column (not checked) to immediately display it in the table.
 - b. Select a currently visible column (checked) to immediately hide it in the table.


Note: You might have to scroll to the right end of a table to see all the columns.





Configuring Columns or Values

When the list of available fields, columns, or values for a list, table, view, scorecard, or other entity is relatively long, follow these common steps to configure the fields or values you want. Essentially, you move the items you want from the *available* side to the *selected* side.

For example, these steps apply when selecting projects or templates in the Open Projects dialog box, when configuring the fields to display as columns in a table, and when assigning individual users to a user interview view.

To configure fields, columns, or values:

- 1) In the **Available Items** list, select one or more items. If arranged in a hierarchy, click  to expand a group and view its items. Hold down the **Ctrl** key as you click to select individual items or press the **Shift** key to extend your selection to an entire block of items including the first and last items you clicked.

- 2) Click  or double-click each item to add them to the **Selected Items** list. This is the list of selected fields or values you want to appear in your customized list, table, view, scorecard, or other entity.
- 3) To remove items, select them in the **Selected Items** list and click  or double-click them. If you need them again, the items are available in the list of available items.
- 4) In the **Selected Items** list, if applicable, adjust the order of appearance of your items:
 - a. Click  to advance the item up or to the left in a table.
 - b. Click  to advance the item down or to the right in a table.

Note: You can also directly click and drag columns in tables to configure their order of appearance.

Working with Toolbars

Throughout the application, pages, tabs, portlets, detail windows, and dialog boxes provide access to essential commands in toolbars. Most toolbars are static, however, the ones on the Activities, EPS, and Resource Assignment pages can be moved and customized.

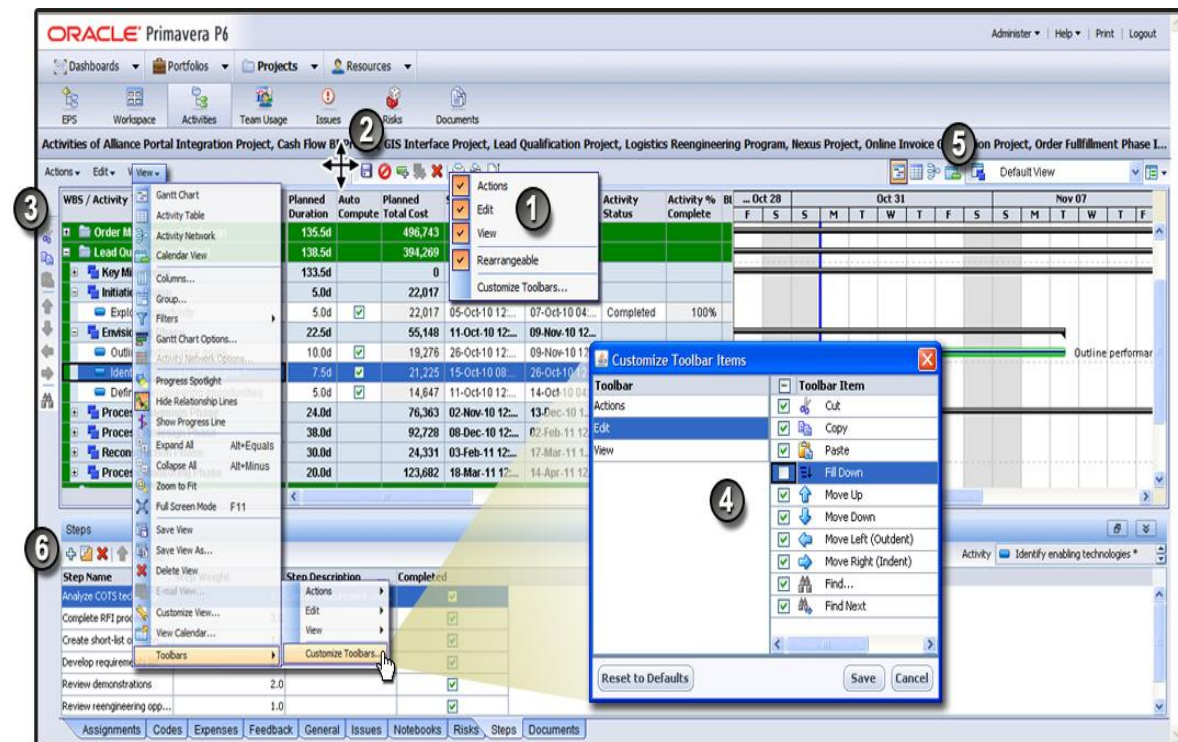


Table of Toolbar Elements

Item	Description
1	Toolbar shortcut menu: Right-click within blank space on this panel to select the toolbars you want in your customized view. You can also select Rearrangeable or Customize Toolbars , both described below.
2	Rearrangeable toolbar: Click and hold the mouse button down on the toolbar's edge until you see the move cursor. Then, drag to position the toolbar wherever it is needed.
3	Docked toolbar: In this example, the user has dragged the Edit toolbar from its typical location on top to the page's left edge until it snaps into a vertically-oriented position.
4	Customize Toolbar Items dialog box: In this example, the user has selected Customize Toolbars from the Toolbars submenu of the View menu. On this dialog box, the user has elected to hide the Fill Down command icon from their Edit toolbar.
5	Activity View toolbar: This toolbar represents an example where a subset of the commands found under the View menu are presented here in a static or fixed toolbar for convenient access.
6	Toolbar in a detail window: The Steps detail window, like many other detail windows, has its own fixed toolbar.

Customizing Toolbars

Toolbars are made up of icons that represent the commands you can invoke. You can customize the appearance of icons on toolbars and move the toolbars on the following pages only:

- ▶ **EPS** page
- ▶ **Activities** page
- ▶ **Resource Assignments** page

P6 saves any custom settings you make with toolbars. When you return to one of these pages with customizable toolbars, the settings you specified last will be reapplied to the toolbars.

To customize a toolbar:

- 1) Navigate to one of the pages that support toolbar customization.
- 2) From the **View** menu, select **Toolbars** and then select **Customize Toolbars...**
- 3) On the **Customize Toolbar Items** dialog box:
 - a. In the **Toolbar** pane, select a toolbar.

- b. In the **Toolbar Item** check box list, select the check box for the icons you want to include. Clear the check box for the items you want to hide.
 - c. Click **Save**.
- 4) To reposition a toolbar:
- a. On the page you selected for step 1, right-click in the blank space between toolbars and select **Rearrangeable**.
 - b. Click the grab handle for the toolbar you want to move and drag it to a new position. Supported positions include the left, right, top, or bottom margins of the main work area of the page.

Working with "Select a Value" Dialog Boxes

Throughout the application, certain types of fields require specific types of values. To assist you in selecting from only a constrained list of available choices, the interface will display Select a Value dialog boxes for you to search for and select a specific value appropriate for the current field.

Note: Field lists of values are used when the available choices are manageable (usually, less than 10 values). However, when the number of available choices is large (for example, there might be hundreds of projects), the application will offer Select a Value dialog boxes.

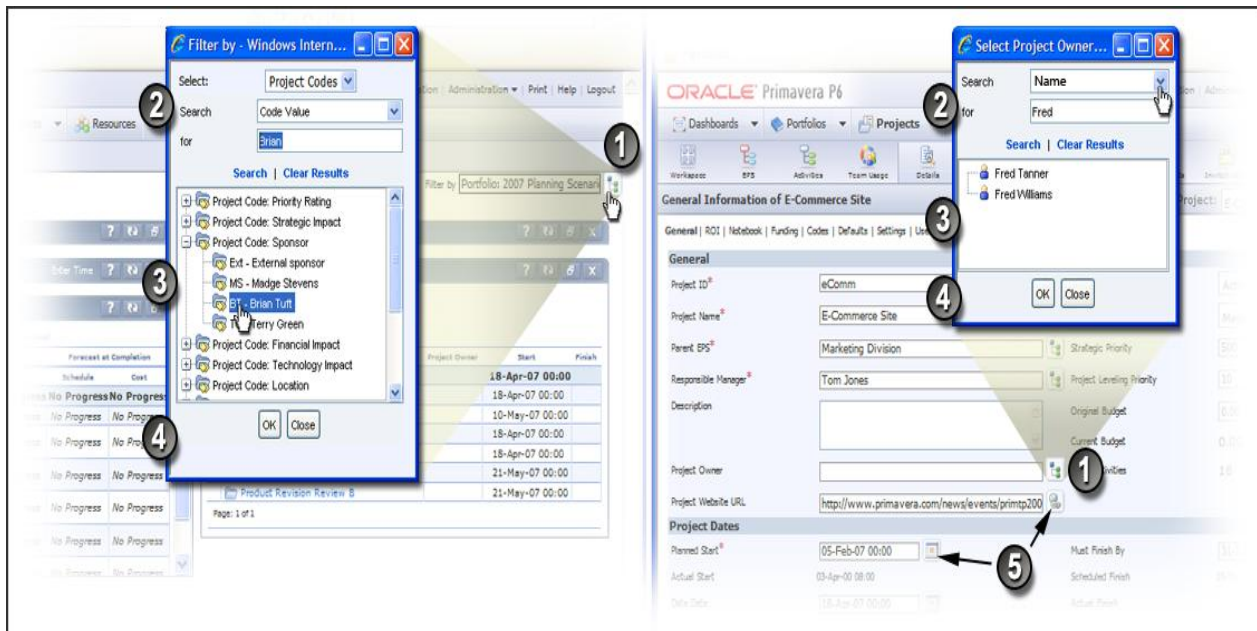



Table 1 of 2: Select a Value Dialog Boxes

Item	Description
1	Select a Value Button: Throughout the application, click  Select a Value to open a selection dialog box.
2	Search Area: The top part of the dialog box contains search controls to help you constrain the values based on your criteria.
3	Results area: The middle part of the dialog box displays the available values based on your search criteria, if any. Make your selection here.
4	Command buttons: The bottom part of the dialog box contains command buttons. Standard buttons include OK or Assign to accept the value you selected, and Close to cancel the operation, close the dialog box, and return to the previous screen.
5	Similar selection buttons: The Select a Date and Select a URL dialog boxes function in a similar manner to the selection dialog boxes. Click these buttons, when present in the interface, to select a constrained value for the specific field.

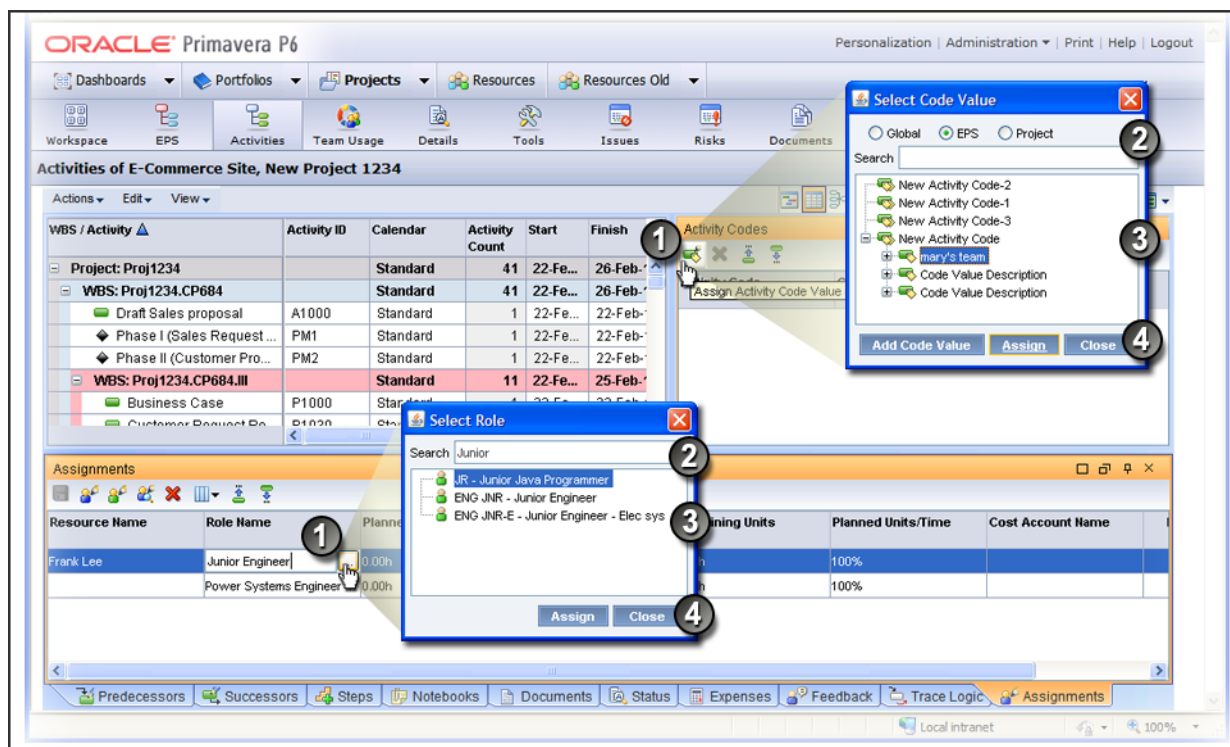





Table 2 of 2: Select a Value Dialog Boxes

Item	Description
1	Selection Buttons: Similar to the  button, in these examples, click  or  to choose a particular item.
2	Search Area: The top part of the dialog box contains custom search controls to help you constrain the values based on your criteria. In one example, option buttons are used to constrain Global, EPS, or Project code values.
3	Results Area: The middle part of the dialog box displays the available values based on your search criteria, if any. Make your selection here.
4	Command Buttons: The bottom part of the dialog box contains command buttons. Standard buttons include Assign or OK to accept the value you selected, and Close to cancel the operation, close the dialog box, and return to the previous screen. Other buttons can also appear in this area.

Selecting Values from "Select a Value" Dialog Boxes

To assist you in selecting from a constrained list of available values, the application will often display *Select a Value* dialog boxes. Use these special dialog boxes to search for potential matching values and select one or more specific values appropriate for the current field.

Note: Although commonly used throughout the application, each dialog box can contain unique options.

To select a value from a **Select a Value** dialog box:

- 1) Enter any search criteria to reduce the number of values shown.
- 2) Select a value in the list. If grouped in a hierarchy, expand a group to view the values.
- 3) Click **OK** or **Assign**.
- 4) Repeat these steps to select additional values if necessary.
- 5) When finished, click **Close**.

Working with Data in P6

The application's data entry controls are convenient and easy to use.

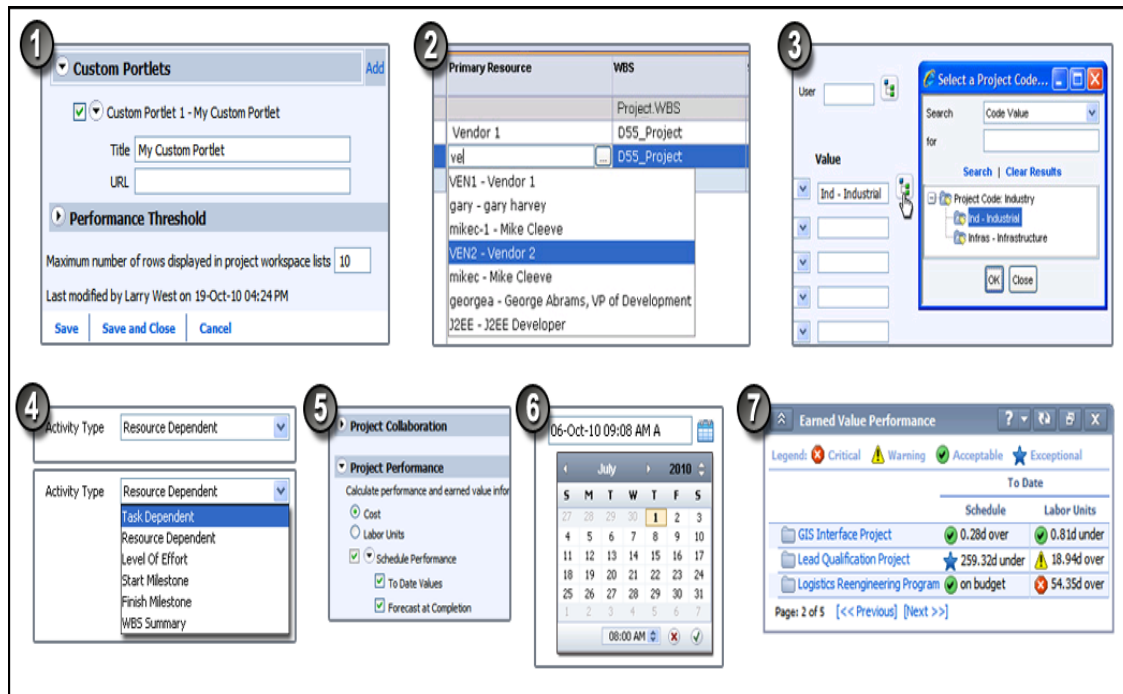



Table of Common Data Entry Controls

Item	Description
1	<p>Expandable sections: Often times a screen will reduce visual clutter by hiding its fields and other controls. Expand these regions to show its fields. In the sample image, we say that the Custom Portlets section is <i>expanded</i> or <i>opened</i>, and the Performance Threshold section is <i>collapsed</i> or <i>closed</i>. Also of note, you can directly modify the Title field but the Last modified by field information is <i>read-only</i>.</p> <p>Note: Data you enter can later become read-only for you or other users.</p>
2	<p>Auto-Complete: Also known as <i>type-ahead</i>. As you type in a field that must be assigned a value from a pre-defined list of acceptable values, the closest single matching value is automatically selected for you. If multiple values match your typed input, they appear in a list. To select a value, click one or press the up or down arrow keys on your keyboard and then press Enter.</p>

Item	Description
3	Select a Value from an Extended List: Click  to select a field value from a <i>Select a Value</i> dialog box listing only valid values. You cannot type in your own entry in fields where the Select from Value List icon appears. This convention is used whenever a field's value must be logically constrained and validated against a pre-defined set of values. To illustrate this point, consider the following example. You can type whatever you want in a Name field for a new item you are creating; however, in a User field, you <i>must</i> enter a valid user.
4	Select a Value from a Short List: In this example, the Activity Type field is shown at rest. Below that, after the user has selected the field's list, its values appear. For these kinds of fields, you will see references in the documentation to selecting a value from the Activity Type <i>list</i> .
5	Options: For simplicity's sake, both radio buttons and check boxes are referred to as <i>options</i> .
6	Dates: You can type a date in a valid format directly into a date field. Or, you can select a date, including the time, from a small pop-up calendar.
7	Indicators: To help you readily identify the meaning of a given metric, these color-coded graphics appear. You can also define your own custom user-defined indicators.

Working with Detail Windows

When additional details about an item are necessary, rather than clutter the main work area, the application will often use subordinate tabbed panels called detail windows. Detail windows supplement their parent pages with related data and often include their own toolbars. These special windows allow you to:

- ▶ minimize them to a series of tabs
- ▶ float, drag and drop, and freely resize them
- ▶ tile them, or align them as overlapping tabs
- ▶ dock or pin them (when docked, allowable placement includes bottom, left, and right of the current work area)

When you customize the detail windows on the EPS, Activities, or Assignments pages, P6 prompts you to save the settings with the current view.

Note: Visual clues guide you when docking floating panels. As you click the titlebar and drag it within the work area, a gray rectangular outline indicates the panel will "snap to" this available location.

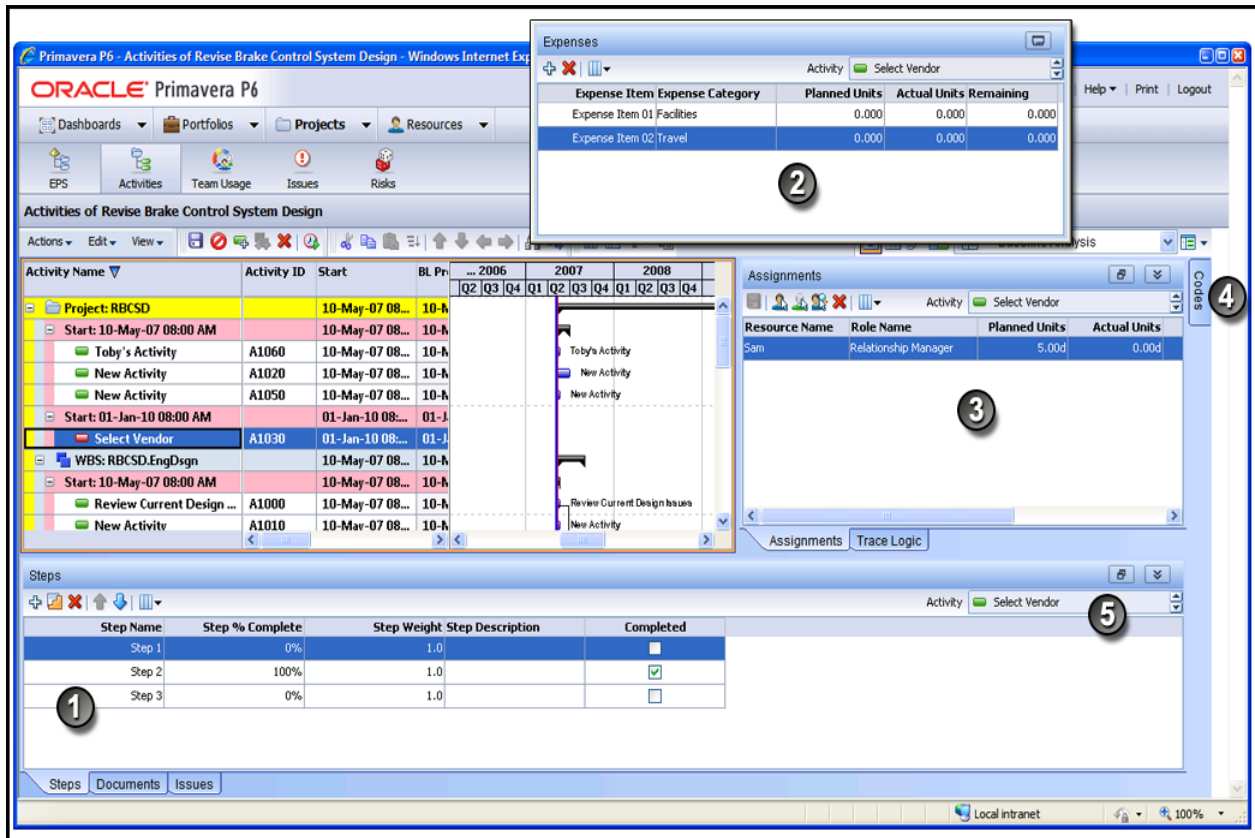


Table of Key Detail Window Elements

- | Item | Description |
|------|---|
| 1 | A series of detail windows: In this example, the three detail windows for Steps, Documents, and Issues appear in a series aligned at the bottom of the page with their titles shown in tabs. |
| 2 | Floating detail window: The user has dragged and dropped the Expenses detail window to a position where it appears to be floating above the rest. Click the Restore button in the titlebar to make the window go back with its siblings. |
| 3 | Docked detail windows: The Assignments and Trace Logic detail windows have been docked or pinned by the user to the space immediately to the right of the main work area. |

Item	Description
4	Minimized detail window: The Codes detail window has been minimized. In this particular example, it also happens to be minimized to a position along the right edge of the page. Typically, detail windows are minimized along the bottom.
5	Detail window titlebar icons: Click these icons to Float, Restore, and Minimize detail windows individually or collectively as a series.

About Portlets

Portlets are small expandable windows representing a specific theme or particular subject matter. They are only available on dashboards, project workspaces, or workgroup pages. Portlets provide a concise way to organize, present, and assess project data within a single page and also offer tools for adding, modifying, and personalizing portfolio, project, and resource data. Portlets on shared dashboards or workspaces provide a centralized place for collaborating with other users.

The same portlet might display information differently depending on the page on which it appears. On a dashboard, portlets display data based on association, ownership, or applied filters. On a project workspace, portlets reflect data for the open project. On a workgroup workspace, portlets show information belonging to that workgroup.



About Data Entry Controls


Data Entry Controls: P6 provides easy-to-use controls for entering data. To assist you in choosing the right types of values, fields will sometimes present dialog boxes or calendars for selecting from a pre-defined list of values or dates. Familiar value lists help narrow choices and enforce consistency. You'll also recognize standard options (a term used for both check boxes and option buttons or radio buttons), tables, spreadsheets, Gantt charts, calendars, and other on-screen controls.

Printing Pages Using P6 Printing Tools

Available on most pages within the application, the printing tools and options provided with the user interface offer the best options and output. It is recommended that you use the Print Preview feature before generating actual output.

To print application pages:

- 1) Navigate to the specific page or tab and customize the view to meet your data requirements.
- 2) In the toolbar, if available, click  **Print Preview** to preview the printed output.
- 3) (Optional) In the Print Preview toolbar, adjust the preview using the commands provided. For example, click  **Portrait** to orient output to a standard tall page, or click  **Landscape** to orient output to a wide page.

- 4) In the toolbar, click  **Print** to send the output to your default printer.
- 5) (Optional) In the Print dialog box, adjust the printer, page range, number of copies, PDF settings, and other printing options. Click **OK** to print the output.

Tips

If the application printing tools are not available for the specific page or view you want to print, you might be able to print the page using your web browser; however, this method can never be guaranteed and might produce substandard results. See **Printing Pages Using Your Web Browser** (on page 249).

Printing Pages Using Your Web Browser



Because P6 runs inside your web browser, you can print any data from any page at any time using your browser's **Print** command. For example, in Microsoft Internet Explorer, choose **Print** from the **File** menu. P6 application pages also feature a **Print** link you can click. In addition, many pages also include separate Print toolbuttons in a toolbar.


Note: Whenever they are available, the printing commands provided by the application offer the best options and output. It is also recommended that you always use the Print Preview feature before generating actual output.

To print data:

- 1) On any page that supports printing, click the **Print** link in the top right corner.
- 2) In the resulting **Print** dialog box for your operating system, choose a printer and click **OK** to print.

Note: You have completed this task. Continue with the following steps only if necessary to improve or customize the output.

- 3) In the **Print** dialog box, if available, click  **Print Preview**. Refer to Print Preview Toolbar to learn more about the Print Preview toolbar. If not available, use your browser's **Print Preview** command. For example, in Internet Explorer choose **Print Preview** from the **File** menu.
- 4) In the **Print Preview** dialog box, to customize the output, click  **Page Setup** or click your browser's **Page Setup** button.
- 5) In the **Page Setup** dialog box, apply the following optional settings on separate tabs if available:
 - a. Click the **Page** or **Page Layout** tab to set the paper size and margins.
 - b. Click the **Header/Footer** tab, or separate tabs if available, to select pre-defined headers or footers, or define your own.
 - c. Click the **Sheet** tab, if available, to set the range and tiled page order.
- 6) Click **OK** to close the Page Setup dialog box.

- 7) In the **Print Preview** dialog box, click  **Print** or **Print** (Alt+P) to make any final adjustments in the Print dialog box. For example, click the Pages option and enter a 1 in both the **from** and **to** fields if you only want to print the first page of a lengthy report.
- 8) Click **OK** or **Print**.

Tips

- ▶ When printing a spreadsheet or histogram on the **Team Usage** page, right-click in the work area and choose **Print**.
- ▶ The **Print Preview** dialog box for the **Portfolio Analysis** page includes special options.

Managing Project Portfolios

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About Portfolios

A portfolio is a collection of projects. Group projects into portfolios so you can easily view data from more than one project at a time. For example, you might filter a dashboard by a portfolio to view a wide range of information for multiple related projects at one time.

In a more strategic sense, you should group projects and programs together to facilitate the effective new product development and management of those projects to optimize your organization's success at meeting business objectives.

Using portfolios, you can review summary data and status information for the group as a whole or for individual projects in a portfolio.

You can create portfolios for your own use or for sharing with other users. You can also create global portfolios, which are available to all users.

Portfolio views, such as pie charts, enable you to visually compare portfolios. For example, compare costs for all projects in region A (one portfolio) vs. region B (another portfolio).

Historical snapshots of grouped project data, called scenarios, aid in your analysis of project groups on the Portfolio Analysis and Capacity Planning pages.

Working with Portfolios

To begin using the analysis features in the portfolios section, you must already have created and updated multiple projects. Begin your work in the portfolios section by creating and configuring at least one portfolio. It's also possible for another user to create one and share it with you. Over time, your team will create additional portfolios, views, and scenarios in order to perform comparative analysis, obtain status and ROI, and perform other operations.


When creating a portfolio, decide whether you want to hand pick the projects that it will comprise, or if you want the application to create and periodically update the set of projects in your portfolio based on your filter criteria. Either way, you can change these settings at any time.

Note: An administrative option is available to increase or decrease the refresh interval for filtered portfolios. Refer to *Filter Portfolio Stale Period* in the P6 Administrator's Guide.

Creating Portfolios

Perform these steps to create a new group of projects called a portfolio. When creating a portfolio, decide whether you want to hand pick the projects that it will comprise (manual), or if you want the application to create the set of projects in your portfolio based on your filter criteria (automatic). Either way, you can change these settings at any time.

To create a portfolio:

- 1) From the  **Portfolios** ▼ menu, select **Manage Portfolios**.
- 2) On the **Manage Portfolios** page, click **Create Project Portfolio**.
- 3) On the **Create Portfolio** page:
 - a. In the **Project Portfolio Name** field, enter a unique portfolio name.
 - b. In the **Manage this portfolio** area, decide if you want to add projects to the portfolio manually or automatically using a filter. The fields on the Create Portfolio page will adjust based on your selections.
 - If you selected **Manually**, add the projects you want to include from the **Available Projects** list to the **Selected Projects** list.
 - If you selected **By Filter**, enter your filter criteria.
 - c. Configure access to the portfolio by making a selection from the **This portfolio is available to** options.
 - To restrict access to the new portfolio to only you, select **Current User**.
 - To designate a global portfolio, select **All Users**.
 - To restrict access to only another user, select **Another User**, and make a selection from the **Select a User** dialog box.
 - d. Click **Save**.

Tips

- ▶ To edit a portfolio, including its projects or filter criteria, click **Details**.
- ▶ There are two alternate ways to create a portfolio:
 - ▶ Click **Portfolios**, click **Portfolio Analysis**, and then select a scorecard in the **View** field. From the toolbar, click **Create Portfolio from Selected Projects**.

- ▶ Click **Portfolios**, click **Capacity Planning**, and then click **Create Portfolio from Selected Projects**.

Creating Projects While Working with Portfolios



Generally, you create projects while working in the Projects section of the application. However, you can also create a project while viewing a portlet in the Dashboards section or analyzing a portfolio in the Portfolios section. Refer to the tasks below:

- ▶ **Creating Projects in a Portfolio Portlet** (on page 253)
- ▶ **Creating Projects on the Portfolio Analysis Page** (on page 254)

Creating Projects in a Portfolio View Scorecard Portlet

Generally, you create projects while working on the **EPS** page in the Projects section of the application. However, it is also possible to create what-if projects while viewing a portfolio view scorecard portlet on a dashboard.

To create a project in a portfolio view scorecard portlet:

- 1) Click  **Dashboards**.
- 2) On the **Dashboards** page, click a dashboard.
- 3) On the dashboard, locate your portfolio view scorecard portlet's titlebar and click  **Click here to maximize or minimize this section** to expand and maximize it.
- 4) In the expanded and maximized portfolio view scorecard portlet:
 - a. Select a project row.
 - b. Click **Add**.
- 5) For the first project you create, if defaults are not already set, the **Add Project** dialog box appears:
 - a. Select a default **Parent EPS** element.
 - b. Select a default **Responsible Manager**.
 - c. Click **Select**.
- 6) In the portfolio view scorecard portlet:
 - a. Select your new project row by clicking on it in the **Name** column.
 - b. Enter a name for your new project to replace the default name.
 - c. Click **Save**.

Tips





- ▶ When you create a project from a scorecard on a dashboard, the project is automatically added to the filter currently associated with the dashboard. However, if the dashboard is filtered by a global portfolio and you do not have the required security privilege to edit global portfolios, the new project is removed from the scorecard when you click **Save**.

- ▶ You can change the **Project Status** field on the **General** detail window of the **EPS** page. For example, you may later want to change a project from *What If* to *Planned* status.

Creating Projects on the Portfolio Analysis Page

Generally, you create projects while working on the **EPS** page in the Projects section of the application. However, it is also possible to create what-if projects while analyzing portfolios. During the process of evaluating a portfolio, you will often want to capture a new project idea.

To create a project on the portfolio analysis page:

- 1) Click  **Portfolios**.
- 2) On the **Portfolios** navigation bar, click  **Portfolio Analysis**.
- 3) On the **Portfolio Analysis** page:
 - a. Make sure you are working with the primary portfolio (at top or left) and not the comparison set for the next steps.
 - b. In the **Scenario** list, select a scenario for your analysis.
 - c. In the **View** list, select a portfolio view scorecard.
 - d. In the scorecard, select a row where you want to add a new project.
 - e. Click  **Add Project**.
- 4) For the first project you create, if defaults are not already set, the **Add Project** dialog box appears:
 - a. Select a default **Parent EPS** element.
 - b. Select a default **Responsible Manager**.
 - c. Click **Select**.
- 5) On the **Portfolio Analysis** page, click  **Save**.


Tip





You can change the what-if project's **Project Status** field value on the **General** detail window of the **EPS** page. For example, you may later want to change a project from *What If* to *Planned* status.

Assigning Projects to a Portfolio

When comparing portfolios on the Portfolio Analysis page, you can assign a project to the selected portfolio in either half of the page.

To assign a project to the selected portfolio:

- 1) Open a portfolio in the Portfolios section using one of the following methods:
 - ▶ Click  **Portfolios** to open the last portfolio you were working with.





- ▶ Click the  **Portfolios** ▼ menu and choose one of the most-recently used portfolios.
 - ▶ Click the  **Portfolios** ▼ menu and choose **Open Portfolio** to select a group of projects by portfolio type, EPS node, or project code.
- 2) On the **Portfolios** navigation bar, click  **Portfolio Analysis**.
 - 3) On the **Portfolio Analysis** page:
 - a. In either work area, choose a scorecard view in from the **View** list.
 - b. In the same work area, select **<Latest Data>** from the **Scenario** field list.
 - c. In the same work area, click  **Assign a Project to this Portfolio**
 - 4) In the **Select Project** dialog select a project, then click **Assign**.

Tips

- ▶ You cannot assign a project to a portfolio when displaying a scenario; you must select **<Latest Data>**.
- ▶ The selected portfolio must be manually-administered; you cannot assign a project to a filtered portfolio.


Defining Performance Thresholds




To help you assess the relative performance, earned value, index calculations, and other metrics for a WBS, project, or portfolio, you can set performance thresholds. These thresholds capture the current calculations, variances, and metrics and re-route them into one of four ranges or "buckets" as follows:

- ▶  **Exceptional:** Indicates that a WBS, project, or portfolio is exceeding expectations.
- ▶  **Acceptable:** Indicates that a WBS, project, or portfolio is performing within an expected range.
- ▶  **Warning:** Indicates that a WBS, project, or portfolio needs attention and is performing below expectations.
- ▶  **Critical:** Indicates that a WBS, project, or portfolio requires significant corrective action.




The threshold values you set for a project apply to all users viewing metrics for that project from the Workspace page and Portfolios pages. You have the option of overriding these thresholds for your own use on a personal dashboard. Both sets of steps are detailed below.

To define performance thresholds for a project:

- 1) Click  **Projects** ▼ and select **Open Projects**.
- 2) In the **Open Projects** dialog box, select one or more projects by name, code, EPS, or portfolio. Click **OK**.

- 3) On the Projects navigation bar, click  **Workspace**.
- 4) On the Workspace page, click Customize.
- 5) On the Workspace Details page:
 - a. Click  to collapse all the sections except **Performance Threshold**.
 - b. Click  to expand the **Performance Threshold** section and then expand **Performance, Earned Value, and Index**.
 - c. For each parameter, shown with its color-coded visual indicator, enter a threshold value. For lists, select a value from the list.
 - d. Click **Save and Close**.
- 6) If you opened more than one project, select the next project in the Select Project list and repeat these steps after clicking Customize.

To define your own performance thresholds:

- 1) Click the **Administer**  menu and select **My Preferences**.
- 2) On the **My Preferences** page, click Global tab.
- 3) On the Global tab:
 - a. Click  to collapse all the sections except Performance Threshold.
 - b. Click  to expand the Performance Threshold section and then expand **Performance, Earned Value, and Index**.
 - c. For each parameter, shown with its color-coded visual indicator, enter a threshold value. For lists, select a value from the list.
 - d. Click **Save and Close**.

Tips

If any logical constraints are not satisfied by your selections, a message appears at the top of the page. For example, if you set a warning to 25 days late, a critical threshold cannot be set to 10 days late; logical constraints require that critical thresholds be greater than warning thresholds. Correct the thresholds and try saving again.

Portfolio Views

About Portfolio Views

A portfolio view is a scorecard or chart providing high-level information spanning an entire group of projects. Portfolio views can appear in an individual user's personal dashboard or shared among users in shared dashboards. They are also used when comparing portfolios on the Portfolio Analysis page.

Working with Portfolio Views

Each user's personal portfolio views and any global portfolio views appear on the **Portfolio Views** page. From this page, you can manage the following types of portfolio views:

- ▶ **Scorecard:** Similar to tables or spreadsheets, you can display the columns you want in scorecards on the Portfolio Analysis page, the Capacity Planning page, or the Portfolio View portlet. To assist with more sophisticated analysis on a set of projects, you can also use a scorecard to conduct a waterline analysis. A waterline is a visual modeling tool that ranks projects into two separate groups by sorting and applying a constraining limit. Scorecards also permit you to edit some of their fields.

Bubble Chart: A bubble chart displays four project data fields. The X-axis represents the values from one data field, the Y-axis represents a second field, the size of the bubble represents a third, and the field selected for grouping the data represents a fourth field. A bubble chart is useful when you want to analyze three independent project variables at one time, grouped by a fourth set of values.

Pie Chart: A pie chart is a circular chart divided into proportional slices, where each slice represents its contribution to the whole. The size of the slice represents the value of the selected data field. A pie chart is useful for analyzing relative parts of a whole.


- ▶ **Histogram:** There are three types of bar charts, or histograms.
 - ▶ **Basic Histogram:** A basic histogram lets you analyze project data in a vertical bar chart format. You can select a project data field to display on the X-axis and another field to display on the Y-axis of the chart; typically, the X-axis represents categorical data, and the Y-axis represents individual data values.
 - ▶ **Side-by-Side Histogram:** A histogram where categorized data can be grouped, side-by-side, to assist with comparisons. A side-by-side histogram chart is useful when analyzing relative parts of a whole. For example, use a side-by-side histogram to analyze original budget based on project status.

- ▶ **Stacked Histogram:** A more sophisticated version of the histogram, where categorized data is grouped, or stacked, to assist with comparisons. A stacked histogram is useful when analyzing relative parts of a whole.

Creating Portfolio Views

When creating portfolio views, specify the scorecard or chart type, the project information you want to appear, and the users who will have access to the view. Portfolio view types include scorecard, bubble chart, pie chart, and three types of histograms (basic, side-by-side, and stacked).

To create a portfolio view:

- 1) Click the  **Portfolios** ▼ menu and choose **Manage Portfolio Views**.
- 2) On the **Portfolio Views** page, click **Create View**.
- 3) On the **Create View** dialog, decide if your new view should be entirely new or based on an existing view.
 - ▶ To create an entirely new view, expand **New Portfolio View**, select a chart type, and click **OK**.
 - ▶ To create a new view based on an existing view, expand **Existing View**, select one from the expanded user and global views shown and click **OK**.
- 4) On the **Create Portfolio View** page, expand any collapsed groupings, complete the required fields, and specify any additional details about the view. The fields on the Create Portfolio View page automatically adjust based on the value you select for the **Type** field.
- 5) Click **Save**.

Tips

- ▶ You can save a portfolio view as a scenario and save a scenario as a portfolio view.
- ▶ You can use any of these alternate methods to create a portfolio view:
 - ▶ Click **Portfolios**, click **Portfolio Analysis**, and then click **Create Portfolio View**.
 - ▶ Click **Portfolios**, click **Portfolio Analysis**, configure a particular view or scenario, and then click **Save As**.
 - ▶ Click **Dashboards**, select a dashboard, and then click **Customize**. In the Portfolio Views group, click **Add**. Using this method, your new view appears in the Portfolio View portlet with the title you assigned to it.

Working with Portfolio View Scorecards

A scorecard is a type of portfolio view you can use to analyze project data in a table with projects in rows and up to 30 data fields in columns. You can display scorecards on the Portfolio Analysis page, the Capacity Planning page, and the Portfolio View portlet, and choose the columns of information you want to display. A scorecard is beneficial when you want to analyze data in a spreadsheet-type format.

To assist with more sophisticated analysis of a set of projects, you can also use a scorecard to conduct a waterline analysis. A waterline is a visual modeling tool that ranks projects into two separate groups by sorting and applying a constraining limit.

It is also possible to edit some global and project data in a scorecard, such as project codes, user-defined fields, and responsible manager. Additionally, you can add projects with default data and delete projects directly from a scorecard.

Portfolio Analysis of Internal IT Projects vs External IT Projects

Compare: ☐ Vertically ☒ Horizontally

Filter by: Internal IT Projects Scenario: <Latest Data> View: Project Score Group By: <Not Available for Wat...> Customize Basic ▲

Name	Priority Code	At Completion Total Cost	Project Score	Actual Labor Units
Total		\$1,321,360.42	34	1,878h
System Upgrades		\$1,073,508.00	27	74h
New Systems		\$167,542.75	56	1,020h
IT Maintenance Projects		\$80,309.67	18	784h

Filter by: External IT Projects Scenario: <Latest Data> View: Project Score Group By: <Not Available for Wat...> Customize Basic ▲

Name	Priority Code	At Completion Total Cost	Project Score	Start	Actual Labor Units
Total		\$889,929.00	71		2,215h
Global eLearning Initiative		\$889,929.00	71		2,215h
HR System Upgrade - Advanced R...			0	04-Jan-10	
HR System Upgrade - Auto Compu...			0	04-Jan-10	
HR System Upgrade - Calendars	High Priority		40	04-Jan-10	
HR System Upgrade - Coding	High Priority		40	04-Jan-10	
HR System Upgrade - Cost Accounts	High Priority		40	04-Jan-10	

Table of Key Scorecard Elements

Item	Description
1	Portfolio Analysis toolbar.
2	Portfolio Analysis settings area.
3	More/Basic buttons: Click More ▼ to display more options in the Portfolio Analysis settings area. Click Basic ▲ to hide the additional settings.
4	Scorecard work area: The first scorecard will appear in this upper work area.


Note: To support comparative analysis, the Portfolio Analysis work area is divided into two parts. The elements above generally appear within both parts.

You can save the same scorecard view used on the Portfolio Analysis page and display it in private or share it later in a portlet on a dashboard.

Note: The application also makes use of general tables of data also referred to sometimes as scorecards; however, they are not the same as your individually named portfolio view scorecards.



Table of Related Scorecards

Item	Description
1	Dashboard: The John's Projects dashboard. You can show portfolio views on private, multi-user, or global dashboards.
2	Scorecard in a portlet: The Budget View scorecard in a portlet on a dashboard. This example demonstrates a named portfolio view of type scorecard.
3	Click here to maximize or minimize this section button: Click  to maximize and expand the scorecard. Additional command links will appear at the top of this portlet when it is maximized.
4	Scorecard on the Capacity Planning page: This example demonstrates a general table format also referred to as a scorecard; however, this is not a named portfolio view of type scorecard.

Working with Portfolio View Bubble Charts

In addition to plotting data along the X axis and Y axis, bubble charts also adjust the relative size of each entity's bubble or circle to depict a third value, and they group the data by still a fourth value.

Example: A user wants to analyze original budget, cost variance, and at completion total cost for each project in a portfolio. The user also wants to compare this data to another portfolio grouping projects by division/office and showing risk level, actual total cost, and at completion total cost. The user navigates to the Portfolio Analysis page and customizes the portfolio views, filters, scenarios, and bubble chart options shown below. The user sets Original Budget to display on the X-axis and Cost Variance on the Y-axis. Next, the user selects At Completion Total Cost as the bubble size and sets the Group by to Project. When the chart appears, each bubble represents a single project; the size of the bubble represents the At Completion Total Cost value for the project; the bubble's position on the X-axis represents the original budget value for the project; and the bubble's position on the Y-axis represents the cost variance value for the project. The user configures a second bubble chart to display Risk Level on the X-axis, Actual Total Cost on the Y-axis, and At Completion Total Cost for the bubble size. This time, the projects in the portfolio are grouped into bubbles by division/office.

Note: To support comparative analysis, the Portfolio Analysis work area is divided into two identical parts with the only difference being the data that appears in each part. The elements below appear within each part.

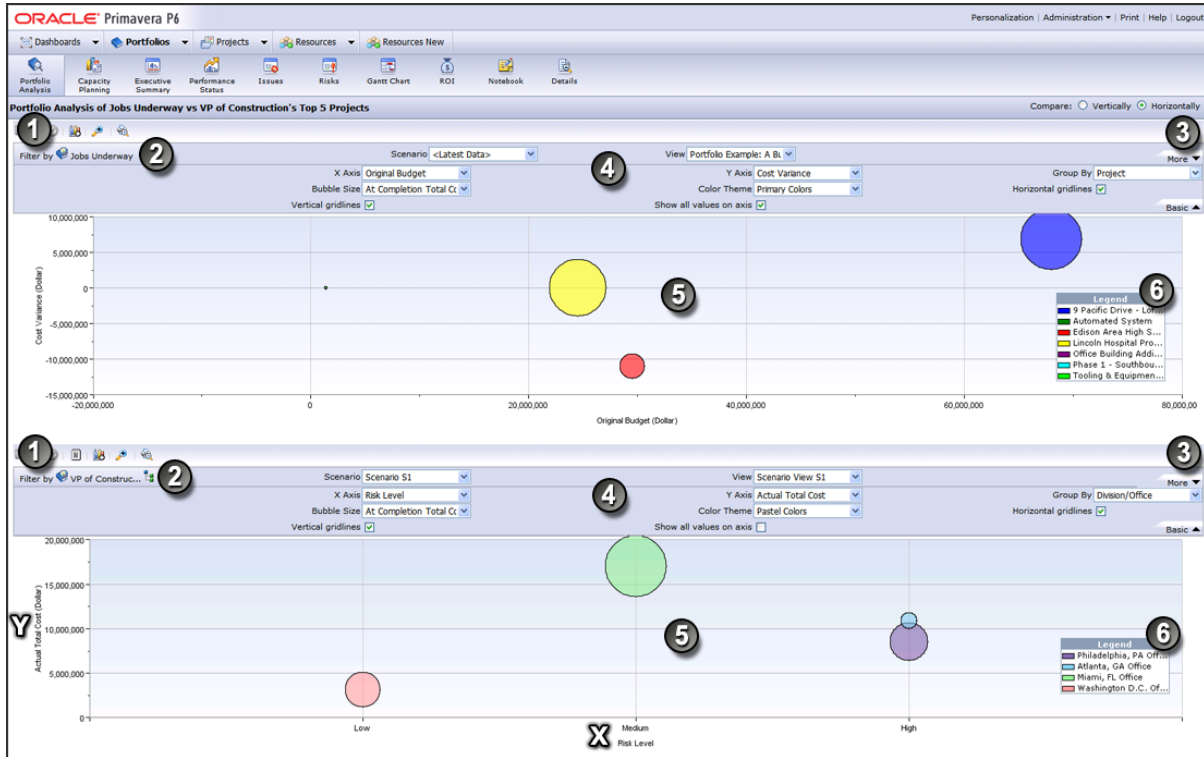



Table of Key Bubble Chart Elements

Item	Description
1	Portfolio Analysis toolbar.
2	Filter: The currently applied filter appears. The top chart's filter is determined by the currently selected portfolio. You can set the bottom chart's filter by clicking  .
3	More/Basic buttons: Click More ▾ to display more options in the Portfolio Analysis Settings area. Click Basic ▲ to hide the additional settings.
4	Portfolio Analysis settings area.
5	Bubble Chart work area: Your chart will appear in this main work area.
6	Legend: Based on the Group By field, each item in the legend is given a color based on the selected color theme.

Working with Portfolio View Pie Charts

A pie chart is a circular chart divided into slices, where each slice represents a particular group. The size of the slice represents the value of the selected data field, relative to the group's total value. A pie chart is useful for analyzing relative parts of a whole.

Example 1: You can create a pie chart to analyze current budget for projects, based on project status. To do this, customize the chart and select Current Budget as the data field, then choose to group by Project Status. When the chart displays, each slice represents a single project status (e.g., Planned, Active, Inactive, What If); the size of the slice represents the current budget value for all projects assigned the project status.

Example 2: The pie chart below shows **At Completion Total Costs** in slices representing **Location**.



Table of Common Pie Chart Elements

Item	Description
1	Portfolio Analysis toolbar.
2	Portfolio Analysis settings area.
3	More and Basic buttons: Click More ▼ to display more options in the Portfolio Analysis Settings area. Click Basic ▲ to hide the additional settings.
4	Legend: Based on the Group By field, each item in the legend is given a color based on the selected color theme.

Item	Description
5	Slice: Each data group's proportionate contribution to the total is represented by a color-coded wedge or piece of the pie. In the example, this slice represents Mainland Europe's cost of 163,385 which equates to 13% of the At Completion Total Cost by Location .

Working with Portfolio View Histograms

Histograms provide bars to help you compare data. Three similar types of histograms are available: basic, side-by-side, and stacked.

Example: Todd wants to analyze original budget values for each responsible manager (OBS) in the organization. He also wants to compare this data to another portfolio showing original budget for each risk level. He navigates to the **Portfolio Analysis** page and customizes the portfolio views, filters, scenarios, and histogram chart options shown below. He sets **Responsible Manager** to appear on the X-axis and **Original Budget** on the Y-axis. When the chart appears, each bar represents a responsible manager (OBS) element; the size of the bar represents the Original Budget. He configures a second histogram to display Risk Level on the X-axis and Original Budget on the Y-axis.

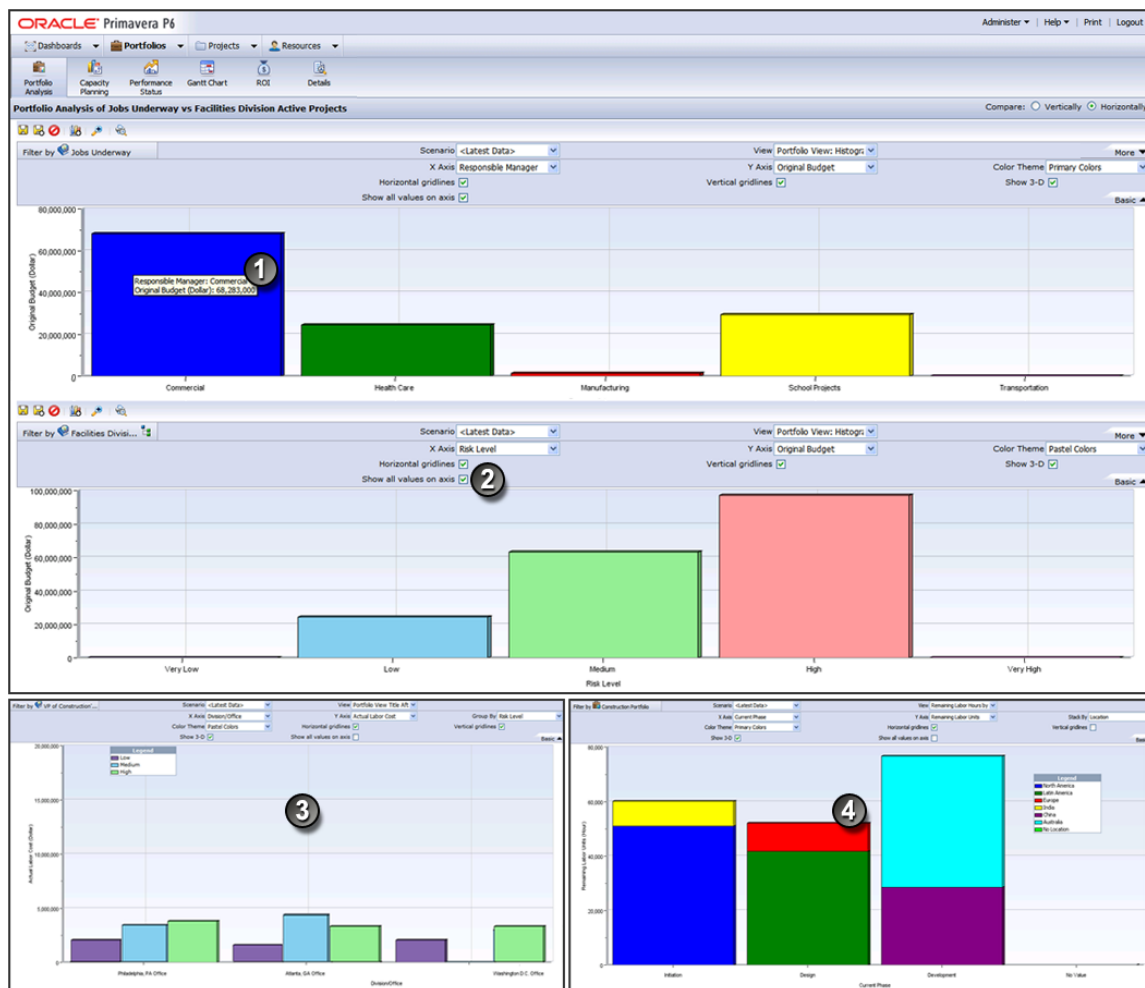


Table of Key Histogram Elements

Item	Description
1	Tooltip: Mouse over a bar to view a summary.

Item	Description
2	Show all values on axis: Select this option to include all values on the X-axis and not just values with data. The histogram includes Very Low and Very High risk level values even though there is no data to display.
3	Side-by-Side Histogram: The Group By field is added. In this example, Actual Labor Cost is tracked along the Y-axis for each Division/Office grouped by low, medium, and high Risk Level along the X-axis.
4	Stacked Histogram: The Stack By field is added instead of the Group By field. In this example, remaining labor costs expressed in units of time (hours) are graphed for each phase. The data is stacked by location.

About Portfolio Scenarios

Scenarios are snapshots of historical project data at a given point in time. You can use them to compare against the latest summarized data, or to compare to other scenarios.

About What-if Analysis

Rooted in business management principles of sound decision theory (*which option should we pursue?*) is the what-if analysis technique aimed at assessing the results and impacts of potential scenarios. Its name stems from the question, "What if the scenario actually came to fruition?"

Use what-if scenarios and what-if projects to determine the impact different costs or investments have on business goals. Unanticipated adversities can make a business or project unstable and proactive handling of these uncertainties is required. With what-if scenario analysis, your organization can evaluate the feasibility of completing the project under unfavorable conditions, prepare contingency and response plans to avoid or overcome the worst scenario, and mitigate the impact of uncertain or unexpected situations.

P6 portfolio scenarios help you calculate multiple project costs or durations and compare different sets of assumptions about project activities. Sample scenarios might include the following:

- ▶ What if we extend the duration of a particular project phase?
- ▶ What if regulatory changes require us to invest more in certain areas?
- ▶ What if the price of a critical component increases to unsustainable levels?
- ▶ What if a crucial part is delayed?








Working with Portfolio Scenarios

Use scenarios to compare against the latest summarized data, or to compare to other scenarios. The list of available scenarios includes scenarios you have access rights to view that are associated with the open project group. As you modify the data displayed on the tab (for example, you change the type of Capacity Planning chart you want to view or change the list of selected projects and roles), you can create new scenarios or save changes to the view to further assist you in role planning.

Creating Portfolio Scenarios

Create portfolio scenarios to capture a specific state you can later use for what-if analysis.

To create a portfolio scenario:

- 1) Open a portfolio in the Portfolios section using one of the following methods:
 - ▶ Click  **Portfolios** to open the last portfolio you were working with.
 - ▶ Click the  **Portfolios** ▼ menu and choose one of the most-recently used portfolios.
 - ▶ Click the  **Portfolios** ▼ menu and choose **Open Portfolio** to select a group of projects by portfolio type, EPS node, or project code.
- 2) On the **Portfolios** navigation bar, click  **Portfolio Analysis**.
- 3) On the **Portfolio Analysis** page:
 - a. In the **View** list, select a portfolio view. If you need to create a view, click  **Create Portfolio View**.
 - b. Configure the current view in the lower work area by performing any of the following optional steps.
 1. Click  **Filter by** to filter the current view by EPS, portfolio, or project code.
 2. In the **Scenario** list, select an existing scenario.
 3. Click **More** and make your selections on the settings area.
 4. Click  **Save As**.
- 4) In the **Save As** dialog box, enter a **Title**, choose the **New Scenario** option, and click **Save**.

Tips

Another way to create a scenario is to click **Capacity Planning**, configure the options on that page, and then click **Save As**.

Capacity Planning

About Capacity Planning

Executives, managers, and planners tasked with managing a portfolio of existing projects and new opportunities in the pipeline need a way to evaluate both active and proposed projects to answer one essential question: *Do we have the resource capacity to successfully complete all the work?* The Capacity Planning process helps answer this question. It reveals when your organization is over or under allocated. Decisions to proceed, delay, freeze, or terminate projects can then be made.

Working with the Capacity Planning Page

Use the Capacity Planning page to perform *What-if* analysis, graphically change project forecast dates, and apply waterline analysis techniques to assist with critical, executive-level decision making. Before assessing capacity or demand on resources, create resource and role estimates for each project. During your analysis, you can create and update scenarios that provide varying snapshots of project and role allocation data. After conducting your analysis, you can create new portfolios containing only the projects that meet your planning criteria.

When you choose to display a stacked histogram, area chart, or spreadsheet, the Capacity Planning chart displays the total at completion units or costs over time for the combination of selected roles and projects. Each of these charts contains the same information in different formats with a data stacking option for the projects and roles you select.

When you choose to display a net availability chart, the chart displays each selected role's under- or over-allocated units over time for the currently selected projects. The limit line is always placed at zero. If the total units for a role equals the limit, no bar is displayed for that role. Bars placed above the limit line indicate net under-allocation for the associated role during the displayed time period; bars placed below the limit line indicate net over-allocation for the associated role during the displayed time period.

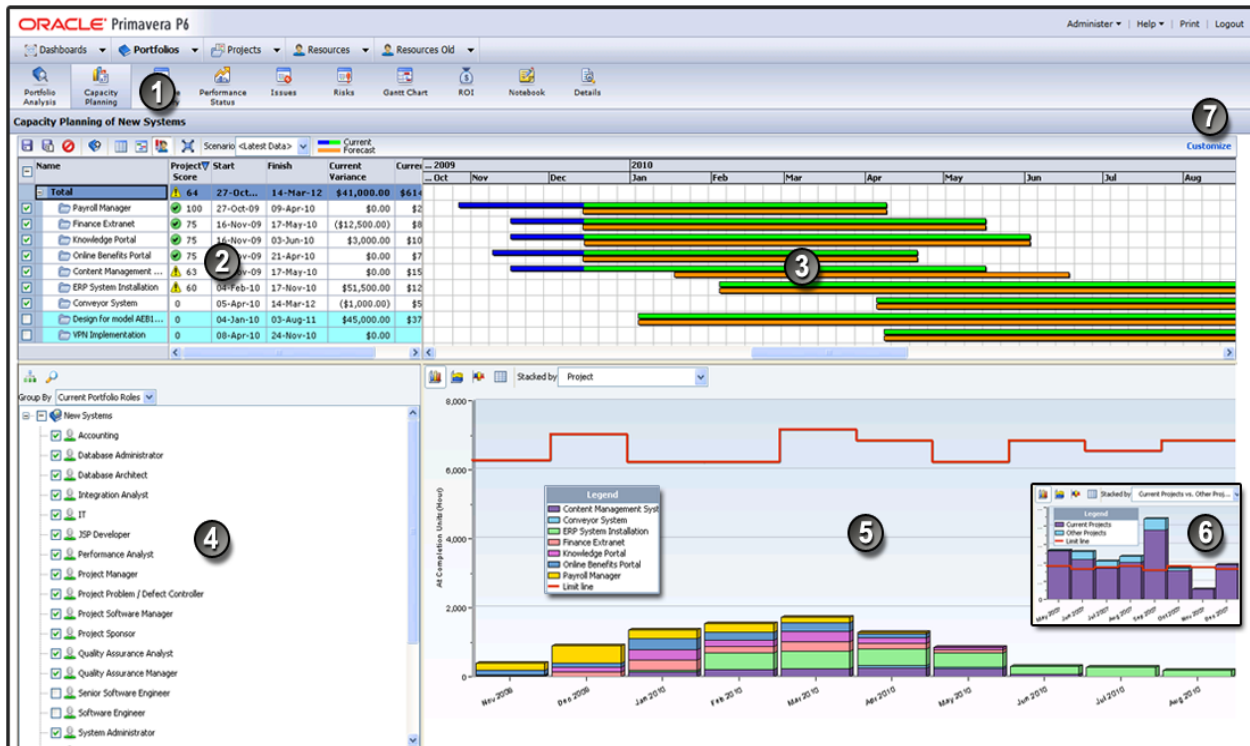


Table of Key Capacity Planning Page Elements

Item	Description
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1	Navigation: Before you begin, first open the portfolio you want to work with. After clicking  Capacity Planning , remember to click  Show Capacity Planning Chart in the toolbar. This displays the four (4) main screen areas used in capacity planning.
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2	Scorecard: Use this table to analyze, sort, and select projects. Only the projects you mark in the check box column appear in the Capacity Planning chart.
---	---

Note: The scorecard on this page is not related to the set of defined portfolio view scorecards.

3	Gantt chart: View current and forecast schedules. Drag the bars to adjust the Capacity Planning chart data.
---	--

Item	Description
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- | | |
|---|---|
| 4 | Role Selection Area: Mark the check boxes for the roles you want to include in the Capacity Planning chart. |
| 5 | Capacity Planning Chart (Under-Allocated): View role allocation as a stacked histogram, area chart, net availability chart, or spreadsheet. |
| 6 | Capacity Planning Chart (Over-Allocated): Customize the chart to show a limit line representing the maximum capacity of all resources for the currently selected roles by timescale period. |
| 7 | Customize Capacity Planning Chart: Customize the columns, grouping, waterline, or chart options. You can customize the chart to display units or costs, a limit line, and an allocation limit line. You can also choose to show data for all projects in the database (except what-if projects), rather than for the projects you select in the scorecard. |





If you elect to view costs, but do not have the required security privileges to view costs for any project in the selected project group, the Capacity Planning chart does not display any data. This option is not available for the net availability chart because the chart displays only units.


Note: The net availability charts are often the best place to begin a resource capacity or demand analysis since they represent a streamlined birds-eye view. These charts include all related projects and roles in a single view allowing you to expand or drill down into only the roles with perceived problems.

Analyzing Role Allocation (Capacity Planning)



You can analyze role allocation over time for one or more projects on the Capacity Planning page. Using multiple chart formats and role groupings, you can identify areas of under-allocation or over-allocation. Using scenarios, you can also perform what-if analysis.

To analyze role allocation:

- 1) Open a portfolio in the Portfolios section using one of the following methods:
 - ▶ Click  **Portfolios** to open the last portfolio you were working with.
 - ▶ Click the  **Portfolios** ▼ menu and choose one of the most-recently used portfolios.
 - ▶ Click the  **Portfolios** ▼ menu and choose **Open Portfolio** to select a group of projects by portfolio type, EPS node, or project code.
- 2) On the **Portfolios** navigation bar, click  **Capacity Planning**.

- 3) On the **Capacity Planning** page:
- a. Click  **Show Capacity Planning Chart** to display the scorecard (top left), Gantt chart (top right), role selector (bottom left), and Capacity Planning chart (bottom right).
 - b. (Optional) Choose to complete any number of the following optional sub-steps:
 1. Click **Customize** to set column, grouping, sorting, waterline, and other chart options.
 2. Click the **Scenario** list to apply a scenario. Select **<Latest Data>** to display the latest summarized data for the project group.

Note: If you customize the Capacity Planning page to display allocation data for all projects in the database (rather than for selected projects only), you cannot apply a scenario.

3. In the **scorecard** (top left), mark or clear the check box next to each project to include or exclude the project's data in the Capacity Planning chart. Data in the Capacity Planning chart is updated to reflect your changes.
4. In the **role selector** (bottom left), click  **Group Roles By** or  **Search** to pinpoint the roles you want to analyze in the chart. Mark or clear the check box next to each role to include or exclude the role's allocation data in the Capacity Planning chart. Role data is immediately updated in the chart.

Note: When grouped by *Current Portfolio Roles* or *Role Team*, all child roles are automatically selected when you select a parent role.

5. In the **Capacity Planning chart** (bottom right) toolbar, select a chart or spreadsheet format, and then choose how you want to stack the chart (by project, role, project code, or staffed versus unstaffed units or costs).
6. Drag your mouse over a color-coded section of the chart to view the capacity data for that section.

Using Reports

About Reports

Reports are collections of meaningful data saved in a common file format, designed according to a particular template, and delivered to the right recipients. As permitted, you can use the set of pre-defined BI Publisher reports or additional reports created by your administrator. See **Pre-defined BI Publisher Reports** (on page 277).

Note: Data for reports is accurate up to the last time the reporting database was updated.

You can elect to run a report in one of two basic ways:

- 1) **On-demand:** This type of report generation has many other names, including ASAP, instant, ad-hoc, and "on the fly". As these names imply, the application accepts various input criteria from you in real time and then instantly generates and delivers the selected report to an e-mail address, or prompts you to save or open the file depending on output type.
- 2) **Scheduled:** This type of report generation requires that you first configure the options and other details necessary to generate the report, but doesn't actually generate the report output until the scheduled day and time. You can also generate previously scheduled reports on-demand.

Note: Your ability to run and schedule reports comes from security settings managed in BI Publisher. Contact your administrator for more information.

Working with Reports

The reports section of the application hosts an array of reports integrated with BI Publisher. The role assigned to you determines the extent of your permissions when using reports in P6.

The screenshot displays the Oracle Primavera P6 Reports screen. At the top, the navigation bar includes 'Dashboards', 'Portfolios', 'Projects', 'Resources', and 'Reports'. The 'Reports' section is active, showing a list of reports with columns: Report Name, Default Format, Default Template, Available Formats, and Available Templates. A 'View' dropdown menu is located at the top right of the Reports section. Below the Reports list is a 'Schedule' section with a table of scheduled runs. The table has columns: Schedule Name, Enabled, Report Recipients, Status, Run Type, Delivery Type, Finish Date, Start Date, Schedule ID, Report Name, and Schedule Description. A 'Description' and 'Schedule' tab is at the bottom of the Schedule section.

Report Name	Default Format	Default Template	Available Formats	Available Templates
P6 Reports				
Activity				
Sample				
Project				
Portfolio				
Administrative				
Timesheets				
Calendar Use	pdf	Calendar Use	[pdf, rtf, xml]	[Calendar Use]
Profile Privileges	pdf	Profile Privileges	[pdf, rtf, xml]	[Profile Privileges]
Project Governance Non-Compliance Report	pdf	Project Governance Non-Compliance Report	[pdf, rtf, xml]	[Project Governance Non-Compliance Report]
Project Template Management	pdf	Project Template Management	[pdf, rtf, xml]	[Project Template Management]
Users OBS Assignments	pdf	Users OBS Assignment	[pdf, rtf, xml]	[Users OBS Assignment]
Users Project Assignments	pdf	Users Project Assignments	[pdf, rtf, xml]	[Users Project Assignments]

Schedule Name	Enabled	Report Recipients	Status	Run Type	Delivery Type	Finish Date	Start Date	Schedule ID	Report Name	Schedule Description
Team A - Assignments	<input checked="" type="checkbox"/>	jname@example.com	Pending	Once	E-mail		22-09-10 03:15 PM	207	Users Project Assignments	

Reports Screen Elements

Item	Description
------	-------------

1

View menu: Use the view menu to switch between the Reports view and the Schedules view.

Reports view: The Reports view displays the list of reports you have access to run. Run a report on-demand, or use the Schedule detail window to schedule a report run. The remaining screen element descriptions in this table provide more details on the Reports view.

Schedules view: The Schedules view displays the list of all reports you have scheduled to run, organized by run frequency (Once, Daily, Weekly, Monthly). You can suspend or activate the report run by deselecting or selecting the Enabled option. Click on a report schedule name and view an explanation of the report in the Description detail window.

Item	Description
2	<p>Reports view work area: Reports are listed by name and grouped by folder. The report list, group names, and hierarchical structure are defined in BI Publisher. See Pre-defined BI Publisher Reports (on page 277) for a list of all reports that accompany P6. Your P6 administrator can remove pre-defined reports and create additional reports for your use.</p> <p>From this page, you can view report details including the file formats available for each report. You can also run a report on-demand or print a list of reports in your view.</p>
3	<p>Reports view detail windows:</p> <p>Schedules detail window: This detail window lists all the scheduled report runs for the selected report. Use this detail window to add a new scheduled report run, suspend or activate a report run by selecting or clearing the Enabled option, and view the history of report runs. You can also run a scheduled report on-demand from this window.</p> <p>Description detail window: This detail window provides an explanation of the report.</p>


Scheduling Reports

Use this task to schedule reports and configure report delivery settings.

To schedule a report:

- 1) Click  **Reports**.
- 2) On the **Reports** page:
 - a. Click **View** and select **Reports**.
- 3) Select a report, and then click the **Schedule** detail window., click  **Add** (Insert).

Note: You can also schedule a new report using an existing report schedule. To do this, click  **Replicate Schedule** instead of  **Add** (Insert), and then continue to follow the steps below.

- 4) In the **Report Settings** dialog box, click the **Options** tab.
- 5) On the **Options** tab:
 - a. In the **Schedule Name** field, enter a name that identifies the report schedule.
 - b. In the **Template** list, choose a template to apply to the report.
 - c. In the **Format** list, choose a file format for the delivery of the report.
 - d. Next to the **Delivery Type** field, click  and enter or select e-mail addresses for the intended report recipients.
 - e. In the **Notification** section, choose to send yourself status notification of the report run.

- f. In the **Report Parameters** section, enter or choose values for the parameters specified in the **Field Name** column.




Caution: To avoid system performance issues, be as specific as possible when entering values for reports. Narrow down your choices to include only what is absolutely necessary.

- 6) In the **Report Settings** dialog box, click the **Schedule** tab.
- 7) On the **Schedule tab**:
 - a. Select a recurrence pattern from the **Run** list.
 - b. In the **Schedule Options** section, complete the fields shown. The screen elements in this section are dynamically updated based on your selection in the **Run** list.
For example, for Daily scheduled jobs, enter the Start Date, Finish Date, Run Time, and select one or more days for the report to run.
- 8) In the **Report Settings** dialog box, click **Save**.

Running Reports On-Demand

Use this task to configure report settings and immediately run a report.

To run a report on-demand:

- 1) Click  **Reports**.
- 2) On the **Report** page:
 - a. Click **View** and select **Reports**.
 - b. Select a report.
 - c. Click  **Run Report**.
- 3) In the **Report Settings** dialog box:
 - a. In the **File Name** field, enter a file name for the report.
 - b. In the **Template** list, choose a template to apply to the report.
 - c. In the **Format** list, choose a file format for the delivery of the report.
 - d. In the **Delivery Type** list, choose to have the report sent through e-mail or display the file immediately.
 - If you chose **E-mail**, click  and enter or select e-mail addresses for the intended report recipients.
 - If you chose **File**, the report will display after you click **Run**.
 - e. If you chose **E-mail**, in the **Notification** section, choose to send yourself a status notification of the report run.
 - f. In the **Report Parameters** section, enter or choose values for the parameters specified in the **Field Name** column.

Caution: To avoid system performance issues, be as specific as possible when entering values for reports. Narrow down your choices to include only what is absolutely necessary.



g. Click **Run**.

Viewing the Report Run History

Use this task to view the list of all runs for the selected report schedule since the last history deletion.

Note: The run history is only captured for scheduled reports, or on-demand reports delivered by e-mail.

To view the report run history:

- 1) Click  **Reports**.
- 2) On the **Reports** page:
 - a. Click **View** and select **Reports**.
- 3) Select a report, and then click the **Schedule** detail window., select a schedule name and click  **History**.
- 4) On the **History** dialog box, review the recent report runs.
 - ▶ To clear the history, click **Delete All History**.
 - ▶ Click **Save** or **Cancel** to close the **History** dialog box.

Pre-defined BI Publisher Reports

This section lists and describes the pre-defined BI Publisher reports that are supplied with P6. You can use these reports to display various types of project and portfolio data you need. Your administrator can modify the list of reports available for your use, including removing pre-defined reports or adding additional reports to your view.

Report Name	Description	Parameters
Activity Reports		
Activity Look Ahead	Displays activities, along with dates and status, occurring within specified weeks for the selected projects.	Project ID, Number of Weeks
Schedule Report with Notebooks	Provides a list of activities for the selected projects along with all associated notebook topics.	Project ID

Cross Project Relationships	Lists the projects and associated activities that are predecessors or successors to the selected project, providing visibility into cross project impacts.	Project ID
Duration Analysis	Compares planned and actual duration of the activities for the selected projects along with upper and lower thresholds to analyze duration estimates.	Project ID
Activity Relationships	Lists the activities for the selected projects along with their predecessors and successors. Report includes relationship type and lag along with dates and float of the related activities.	Project ID
Project Reports		
High Level Planning Assignments	A 9 month look ahead of high level resources and roles assigned to the selected projects through the resource planning spreadsheet. Information includes effort, commitment status and dates.	Project ID
Qualitative Risk Report	Reports on all risks for the select projects. Includes risk information, risk impact assessment, impacted activities, and risk response plans.	Project ID
Issues	Lists all issues identified for the selected projects, grouped by status. The issue details include priority, criticality, and issue description, if provided.	Project ID

Document Assignments	Provides a list of all documents assigned to activities and WBSs within the specified project, grouped by document category.	Project ID
Project Earned Value	Displays monthly actual cost, earned value, and planned value in both a bar chart along with a table for the selected projects.	Project ID
Project Status Report	Provides a project overview that includes project code values, project costs, issues, risks, status of the milestones, and a list of notebook topics.	Project ID, Project Status
Project Governance Non-Compliance Report	Lists all projects and their critical project-level settings. Settings that deviate from the standard are highlighted in the report.	Project ID
Weekly Schedule Performance	Compares the activity actual finish date to the baseline finish date. Activities are grouped by week and project. The report will display information starting 4 weeks prior to the date set in the report parameters.	Project ID, 4 Weeks Prior To: <date>
Risk Scoring	Report of the project risk scoring matrix. Includes threshold definitions grouped by type (Probability, Schedule, Cost, User-defined, and Tolerance) and numeric and alphanumeric probability and impact diagrams (PIDs).	Project ID

Project Plan Hierarchy	Displays the project plan which lists all WBSs and activities for the selected project. The activity details include the status, start and finish dates, and the associated activity steps.	Project ID
Portfolio Reports		
Investment Alignment Chart	Displays a bubble chart that plots selected projects against their strategic and financial rating with the bubble size representing the At Completion Cost.	Project ID
Code Assignments	Provides a list of projects for the specified portfolio along with the code values assigned for the selected project code.	Project Code, Portfolio Name
Project Portfolio Review	Identifies issues and risks within the selected portfolio and groups them by project. Includes status and priority of the issue or risk along with project-level information.	Portfolio Name
Portfolio Counts	Provides a count of all projects and activities within the selected portfolio. In addition, two pie charts display representing the number of open and closed issues and risks.	Portfolio Name
Administrative Reports		
Timesheets		
Timesheets Status without Notes	Lists timesheets for resources along with the status, submitted and reviewed dates, and name of the last reviewer.	NA

Timesheets Status with Notes	Lists timesheets for resources along with the status, submitted and reviewed dates, name of the last reviewer, and associated timesheet notes.	Number of Weeks
Timesheets with Detailed Hours	Lists timesheets for the specified date range. For each timesheet, the activities and detailed hours per day are provided.	Start Date, End Date
Timesheet Compliance	Displays a bar chart of timesheets status by resource team for a given period. Includes a tabular view with total number of approved hours as well as percentage completed versus those either not started, in progress, or rejected.	Timesheet Period Start, Timesheet Period Finish
Project Template Management	Lists all project templates along with status, division, and added by person and date.	NA
Calendar Use	Lists all Global, Project, and Resource calendars, including identification of the projects and resources using each calendar.	NA
Project Governance Non-Compliance Report	Lists core project-level settings for each project, highlighting setting values that are not compliant.	Project ID
Users	Lists all users and their personal name along with their associated resource and global security profile.	NA
Profile Privileges	Lists the privileges that are enabled for each global and project-level security profile.	NA

Users Project Assignments	Displays OBS elements along with the corresponding security profile, EPSs, and Projects assigned to selected users.	User Name
Users OBS Assignments	Displays all OBS elements along with the corresponding security profile assigned to selected users.	User Name
Resource Reports		
Resource Allocation by Project	Displays a stacked histogram that shows effort (in hours) for selected resources, stacking bars by project within the start and end date ranges.	Project ID, Start Date, End Date, Resource ID
Resource Role Skill Sets	Lists all resources along with their assigned roles. The primary role and proficiency level is identified for each role.	NA
Activity Resource Assignments	Lists resources assigned to each activity in the selected projects. Information includes start and finish dates along with duration.	Project ID
Resource Stacked Histogram	Displays a stacked histogram that shows effort (in hours) for selected resources, stacking bars by resource within the start and end date ranges.	Project ID, Start Date, End Date, Resource ID
FTE (headcount) report	Displays a list of roles assigned to the selected project(s) along with the amount of time-phased effort for each role, in full time equivalents, for the specified date range.	Project ID, Start Date, End Date
Resource Code Assignments	Displays a list all resource codes and resource code values along with the resources assigned to each code value.	NA

Resource Role Associations	Displays a list of all roles in the system and the resources assigned to each role. The primary role and proficiency level is identified for each resource.	NA
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Introducing P6 Progress Reporter

P6 Progress Reporter provides real-time communication capabilities between resources who perform project tasks and project managers or team leaders who use P6 EPPM to plan and manage projects.

Team members working at diverse locations can connect directly to the project database via local or wide area networks to report time on their activities and send related information. Project managers can incorporate this data from resources into the project update cycle, relying on reported actuals and activity status information to update the project and make informed decisions. Activity feedback features and timesheet notes facilitate communication.

Tips

To refresh data at any time, choose File, Refresh Data, or press F5.

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What Can I Do with P6 Progress Reporter?

Project team members can use P6 Progress Reporter to

- ▶ report work time for assigned activities
- ▶ view and update activity assignments and activity details
- ▶ view activity notebooks and work products and documents
- ▶ send and receive notes about activities and timesheets

Working in Timesheet View

Overview of Timesheet View


You can open and view a timesheet and report actual work time if an administrator or project manager has designated you as a timesheet user.

If you have not been designated as a timesheet user, the Timesheet view is not available to you. Depending on the way your organization tracks actual work, you might be required to report actual work time on the Activity Details Resources tab.

To display the Timesheet view, choose View, Timesheets (F12) or in the toolbar, click .

The administrator or project manager can set preferences that determine

- ▶ Whether you record time on a daily basis or by reporting period, for example, report actual total hours for a two-week period
- ▶ The number of future timesheets you can access
- ▶ If you have permission to record hours in unusual circumstances, for example, on a timesheet with a future date, or for Not Started or Completed activities
- ▶ If you are required to submit timesheets for approval
- ▶ Whether you have view-only access to activities that are inactive


If an activity belongs to an inactive project or WBS, its status icon is slightly shaded. For example, if you are the primary resource for an inactive Not Started activity, the icon appears as . If you do have the capability to view inactive activities, you will be able to view only those inactive activities that were added to a timesheet when they were active. All timesheet total values (column, row, and grand total) include inactive activities.

To customize the Timesheet view, you can

- ▶ Choose the activity data columns you want to see.
- ▶ Resize and sort the columns.
- ▶ Adjust the width of the activity data and time reporting sections.
- ▶ Choose the timesheet cell colors.
- ▶ Choose to display tool tips for time reporting cells, these tips are useful for identifying cell labels when using a screen magnifier.

For details about customizing the Timesheet view, see **Customizing Timesheets and Activities Views** in Progress Reporter Help.

Opening a Timesheet

- 1) In Timesheet view, choose File, Open Timesheet (Alt+F+O) or in the toolbar, click .
- 2) Select the timesheet you want to open. By default, the timesheet for the current period is selected.

Note: If no timesheets are listed, none have been generated for you. Contact your P6 administrator or project manager for assistance.

- 3) If you are opening a timesheet for the first time, select one of the following options:

Automatically add current activities to timesheet

This option adds all activities you are scheduled to work on during the timesheet date range.

If you want to add activities scheduled during the timesheet period, but for which you have completed your work (an Actual Finish exists for your assignment), choose the Add completed resource assignments option.

Manually add activities to timesheet

Use this option to select from a list of your activity assignments.

Copy activities from previous timesheet

This option automatically copies all activities included in the previous timesheet listed. This option is not available if the previous timesheet is Not Started.

If you want to copy activities scheduled during the timesheet period, but for which you have completed your work (an Actual Finish exists for your assignment), choose the Copy completed resource assignments option. An administrative setting determines whether you are allowed to report actual hours for completed assignments or activities.

To add your currently scheduled activities to the new timesheet, mark the Add current activities checkbox.

Note: If a project's status has changed from active since the last timesheet, activities for that project will not be copied from the previous timesheet.

- 4) If you chose the Manually add activities option, the Add Activity window opens. Select one or more activities, choose Add (Alt+A), then Close (Alt+C).

Navigating in a Timesheet

To move across table cells, press Tab or the Arrow keys.

To move up or down in a table, press the up or down arrow keys.

To clear data in a cell, press the spacebar.

To navigate out of a table to other elements in the window, press Ctrl+Tab.

To sort a table, based on a specific column, Tab or Arrow to the column, then press Ctrl+Alt+A for ascending order or Ctrl+Alt+D for descending order.

To move focus to the first activity data cell of the first row, press Ctrl+1.

To move focus to the activity detail tabs, if displayed, press Ctrl+2.


To select the next activity in the timesheet, press Ctrl+J. To select the previous activity, press Ctrl+K. These shortcuts are particularly useful when the current focus is in the Activity Details, since it enables you to scroll through activities in the timesheet as you review detail information across various tabs.

To move focus to the title bar, or timesheet header, press Ctrl+H. This shortcut is particularly useful when your current focus is on details for a specific activity and you want to navigate to the time reporting cells to record actuals for that activity. Using Ctrl+1 would change your activity selection to the first activity, while using Ctrl+H maintains your selection and you can then use Ctrl+Tab to place focus in the time reporting cells..


Accessibility Tip: To display tool tips for timesheet reporting cells, choose File, User Preferences (Alt+F+U). On the Accessibility tab, mark the Display tool tips checkbox and choose OK. When using a screen magnifier, these tool tips aid table cell identification.

To change the size of the activity data or time reporting sections of the spreadsheet, press F8, then press arrow keys to resize. Press F6 to exit sizing.

Adding Activities to a Timesheet

- 1) To add a **work activity**, choose Action, Add Activity (Alt+A+A) or in the toolbar, click .

Note: You can also press the Insert key to add an activity. However, if you are using a screen reader, Insert is not supported for this action.

To add an **overhead activity**, choose Action, Add Overhead Activity (Alt+A+O) or in the toolbar, click .


- 2) Select one or more activities, then choose Add (Alt+A).

Note: Before selecting activities, choose View, Refresh Data (F5) to be certain the activity list you choose from is up to date

- 3) When finished, Close (Alt+C) the window.

The Add Activity window lists all of your In Progress activities. For Not Started and Completed activities, the list includes activities that fall within the time range specified in your user preferences. For additional information about the Timeframe user preference, see **Timeframe Tab** in Progress Reporter Help.

Assigning Yourself to an Activity

- 1) On the toolbar choose  (Alt+A+N).
- 2) Select the project you want to assign yourself to.

To quickly find a project, you can search for it based on any of the listed fields: ID, name, or responsible manager. See **Searching for Data** (on page 291).

Note: A project-level setting determines whether a project is listed so you can assign yourself to its activities. If you need to assign yourself to a project that is not listed, contact your project manager or P6 administrator.

- 3) In the Search for Activities section, choose one of the following options, then specify your search criteria and choose Search (Alt+S).

Activities Assigned to Parent Resource - for the project you selected, lists all activities of the resource hierarchy element to which you are assigned in the project management database. The parent resource is generally the larger department or organization for which you work. For example, a salesperson might be assigned to an element of the resource hierarchy called Region 1 Sales. In this case, search would return all activities assigned to Region 1 Sales.

Activity ID - returns the list of activities that meet the criteria you enter in the Search entry field.


Note: You can use the asterisk (*) and percent symbol (%) wildcard characters in the search criteria. For example, to find all activities that begin with AB, type AB* or AB%. If you type only a wildcard character, the search finds all activities in the project.

- 4) From the search results, select the activities you want to assign, using Ctrl+Click or Shift+Click to select multiple activities.

To quickly find an activity, you can search for it based on any of the listed fields: ID, name, or primary resource.

- 5) Choose Assign (Alt+A). Or, if you currently have a timesheet open, you can assign yourself to the activity and automatically add it to the open timesheet by choosing Assign and Add.
- 6) Click Close (Alt+C).

Removing Activities from a Timesheet

- 1) To remove an activity, select it in the timesheet, then choose Action, Remove Activity (Alt+A+R) or in the toolbar, click .

Note: You can also press the Delete key to remove the currently selected activity.

- 2) To confirm, choose Yes.

Recording Actual Work Time on a Timesheet

Accessibility Tip: To display tool tips for timesheet reporting cells, choose File, User Preferences (Alt+F+U). On the Accessibility tab, mark the Display tool tips checkbox and choose OK. When using a screen magnifier, these tool tips aid table cell identification.

- 1) **If your timesheet uses daily reporting format**, select the cell that corresponds to the activity and date for which you want to enter time.

If your timesheet uses period reporting format, select the Actual Hours cell that corresponds to the activity for which you want to enter time.

- 2) Type the number of regular hours you worked on the activity. The maximum allowable value is 100,000 hours.


To record overtime for an activity, type a slash after the number of regular hours, then type the number of overtime hours. For example, to enter eight regular and three overtime hours, type 8/3.

Note: An administrative setting determines whether you have the capability to log overtime hours.

To clear a cell value, press the spacebar or Delete.

If you finish an assignment, you can report your work as completed on the Activity Details Resources tab. For more information, see **Reporting a Completed Assignment** (on page 297).

Adding or Viewing Timesheet Notes

- 1) Choose View, Timesheet Notes (Alt+V+N) or in the toolbar, click .


Note: When there are existing Notes for a timesheet, the icon is yellow; it is white when there are no notes associated with the timesheet.

- 2) Type in the New Notes section, then choose Add (Alt+A). The most recently added notes display at the top of the Notes History section.
- 3) When finished, choose Close (Alt+C).

Submitting a Timesheet

A P6 administrator or project manager specifies settings that determine whether you are required to submit timesheets for approval. If your timesheets are set for auto-submission, the Submit current timesheet feature will be unavailable.

Once you submit a timesheet, you will not be able to change it unless it is rejected by your time approval manager. If a timesheet is rejected, you will receive a notification in P6 Progress Reporter to correct and resubmit the timesheet.

- ▶ To submit a timesheet, choose File, Submit Timesheet (Alt+F+S) or on the toolbar, click . Choose Yes to confirm.

Saving or Printing a Timesheet

You can export the contents of an open timesheet to an HTML file that you can save or print using the features of your browser.

To save or print a timesheet, choose Action, Generate Report (Alt+A+G).


If a timesheet includes a large number of activity data columns, before the report file displays, you are prompted to include only the first three columns in the report to ensure that it fits within the margins of a printed page. All time reporting columns are always included in a timesheet report.

Closing a Timesheet

Choose File, Close Timesheet (Alt+F+C).

Viewing Your Project List and Project Web Sites

In the Activities and the Timesheet views, you can display a list of the projects you are currently assigned to work on.

- 1) On the toolbar, click  (Alt+V+P).
To quickly find a specific project, you can search (Ctrl+F) based on the field, or column, that currently has focus in the Projects window. See **Searching for Data** (on page 291).
- 2) To launch a project's Web site, if available, select the project, then choose Launch (Alt+L).

To sort the projects list

mouse - Click the title of the column you want to sort by. Click again to change the sort order.

keyboard - Tab or arrow to a cell in the sort column. To sort in ascending order, Press Ctrl+Alt+A, or for descending sort, press Ctrl+Alt+D.

Searching for Data

Within any P6 Progress Reporter pages or windows that present data in a row and column format, you can search for specific items, based on a data field you select. For example, in the Open Timesheet window, you can search for a timesheet based on Start Date or Status.

- 1) In any row, place focus in the column that corresponds to the field you want to search on.
- 2) Press Ctrl+F.
- 3) Specify the search criteria, then choose Find Next (Alt+N).

The first result is highlighted in the list. Pressing Find Next (Alt+N) cycles through the results, returning to the beginning after you have reached the last result.

Working with Activities

Displaying a List of Your Activities

In the Activities view, you can list the activities you are assigned to work on, along with basic details in a table format. You can filter and sort the list and customize the data columns that appear. You can also search for activities based on any of the detail fields currently displayed in the columns. For additional information, see **Searching for Data** (on page 291).

To display the Activities view, choose View, Activities (F11) or in the toolbar, click .

Note: If you are not designated as a timesheet user, the Activities view is the only view available to you, so it is displayed when you log in. In this case, the option is not available in the View menu or on the toolbar

In the Activities view, you can also assign yourself to activities and display additional details for any activity you select. If you are the primary resource on an activity, you can edit certain details.

Filtering and Sorting the Activity List

Unless you apply a filter, the Activities view lists all activities assigned to you. You can filter the view based on activity status.


To filter the activity list, select an activity. Right-click and choose Filter By (Alt+V+F) and one of the following options.

- ▶ All Activities (Alt+V+F+A)
- ▶ Completed Activities (Alt+V+F+C)
- ▶ In Progress/Not Started Activities (Alt+V+F+P)
Display of these activities is also filtered based on a timeframe you specify in User Preferences.
- ▶ Milestones (Alt+V+F+M)
- ▶ In Review/Rejected Activities (Alt+V+F+R)

There are two circumstances in which an activity's status can be In Review.

An activity's status is In Review when the primary resource applies an Actual Finish to the activity, but the Finish has not yet been confirmed by the person responsible for approving status. An activity's status is also In Review if the project is set up to allow resources to change the status of their assignments to Completed, but status review is required before an Actual Finish is applied to the activity. In this case, once all resources assigned to the activity have changed their assignment status to Completed and Apply Actuals is run, the activity is placed In Review.

A Rejected activity is one that had been In Review, but the Finish status has been rejected by the person responsible for approving it.

Note: A project-level preference determines whether you have view-only access to inactive activities. If an activity belongs to an inactive project or WBS, its status icon is slightly shaded. For example, if you are the primary resource for an inactive Not Started activity, the icon appears as .

Beneath the toolbar, a title bar identifies the current filter. This title bar also displays the timeframe used to filter the display of Not Started and Completed activities, which you can specify as a user preference.

To filter Not Started and Completed activities

- 1) Choose File, User Preferences (Alt+F+U).
- 2) Choose the Timeframe tab.
- 3) For each activity status type, specify a number that defines the boundaries of the timeframe relative to the current date. For example, 90 defines a timeframe 90 days before and 90 days after today.

Not Started activities with a planned start or planned finish within the timeframe and Completed activities with an actual finish in the timeframe will be displayed.








To sort the activity list

Mouse - Click the title of the column you want to sort by. Click again to change the sort order.

Keyboard - Tab or arrow to a cell in the sort column. To sort in ascending order, Press Ctrl+Alt+ Up Arrow, or for descending sort, press Ctrl+Alt+Down Arrow.

Selecting Activity Data Columns

To select activity data columns:

- 1) With focus in an activity data cell, in the toolbar, click  (Shift+F10+L).
- 2) To add one or more columns, choose them in the Available Columns list, then choose  (F6). To add all available columns, choose .
- To remove one or more columns, choose them in the Selected Columns list, then choose  (F6). To remove all selected columns, choose .
- Keyboard Tip:** To add all columns, place focus in the Available Columns list or, to remove all columns, place focus in the Selected Columns list. Then, press Alt+F6.
- 3) To specify the position in which a column appears, choose it in the Selected Columns list, then choose  (F7) or  (Alt+F7) to change its position.
- 4) To preview your column selections without closing the Columns window, choose Apply (Alt+A).
- 5) To return to the standard column selections, choose Default (Alt+D).


- 6) When finished, choose OK (Alt+O).

Saving or Printing Your Activity List

You can export the contents of your activity list to an HTML file that you can save or print using the features of your browser.

To save or print an activity list, choose Action, Generate Report (Alt+A+G).

Assigning Yourself to an Activity

- 1) On the toolbar choose  (Alt+A+N).
- 2) Select the project you want to assign yourself to.
To quickly find a project, you can search for it based on any of the listed fields: ID, name, or responsible manager. See **Searching for Data** (on page 291).

Note: A project-level setting determines whether a project is listed so you can assign yourself to its activities. If you need to assign yourself to a project that is not listed, contact your project manager or P6 administrator.

- 3) In the Search for Activities section, choose one of the following options, then specify your search criteria and choose Search (Alt+S).

Activities Assigned to Parent Resource - for the project you selected, lists all activities of the resource hierarchy element to which you are assigned in the project management database. The parent resource is generally the larger department or organization for which you work. For example, a salesperson might be assigned to an element of the resource hierarchy called Region 1 Sales. In this case, search would return all activities assigned to Region 1 Sales.

Activity ID - returns the list of activities that meet the criteria you enter in the Search entry field.

Note: You can use the asterisk (*) and percent symbol (%) wildcard characters in the search criteria. For example, to find all activities that begin with AB, type AB* or AB%. If you type only a wildcard character, the search finds all activities in the project.

- 4) From the search results, select the activities you want to assign, using Ctrl+Click or Shift+Click to select multiple activities.
To quickly find an activity, you can search for it based on any of the listed fields: ID, name, or primary resource.
- 5) Choose Assign (Alt+A). Or, if you currently have a timesheet open, you can assign yourself to the activity and automatically add it to the open timesheet by choosing Assign and Add.
- 6) Click Close (Alt+C).

Viewing Activity Details

You can display details for any activity you select in the Activities view.

To show or hide Activity Details, on the toolbar choose  (Shift+F10+Down Arrow+ Enter or space).

Activity Details are displayed on six tabs that include information such as start and finish dates, feedback from the project manager, resource information, notebooks, step details, predecessor/successor information, and work product and document details.

Keyboard Tips: To navigate among the Activity Detail tabs, place focus on the tab name, then press the right or left arrow. To navigate among elements within a tab, press Tab. To activate an element, such as a button, or choose a radio button or checkbox option, press the spacebar. OK = Alt+O. Cancel = Alt+C.

With focus in the detail tabs, you can press Ctrl+J and Ctrl+K to scroll through the activities in your activity list so you can more easily review details for a number of activities. Ctrl+J selects the previous activity; Ctrl+K selects the next activity.


For more information about each detail tab, see **Activity Details Tabs** in Progress Reporter Help.

Reporting Actual Work Time without a Timesheet

If you are not required to use timesheets to report actual work time for your activities, you can report work time on the Activity Details Resources tab. Whether you are or are not required to use a timesheet to report actual work time, you can use the Activity Details Resources tab to indicate that you have completed an activity assignment.

If you are the primary resource for an activity, you can also report actuals for nonlabor and material resources on this tab.

Note: You can also report estimates of remaining work on the Activity Details Resources tab. For additional information, see **Reporting Remaining Work Estimates** (on page 296).

- 1) Select the activity in the Activities view or open timesheet.
- 2) On the toolbar choose  (Shift+F10+Down Arrow+ Enter or space) to display Activity Details.
- 3) Choose the Resource tab.
- 4) In the Assigned Resources list, choose your name, or the nonlabor/material resource name.
- 5) In the Prior Actual Units field, type the hours worked on the activity. To enter hourly overtime, for example, eight regular and three overtime hours, type 8/3.

The actual units you record are pending for the activity and can be modified by the project manager. Depending on your organization's processes, the progress you report on this tab can be used to update the project when actuals are applied.

- 6) To report that you have completed an assignment, mark the Completed checkbox. A project-level option determines if you can record your assignments as completed. If this feature is not turned on, the completed checkbox is disabled.

Tips


- ▶ A P6 Progress Reporter user preference lets you choose to hide your completed assignments on the Resources details tab and in your timesheets. If this preference is set to not display completed assignments, "Filtering Completed Assignments" appears above the column headings on the Resources tab and, when you mark the Completed checkbox, the assignment is immediately removed from the list on the Resources tab.
- ▶ To quickly locate a specific activity or resource, use the search capability, which enables you to find items based on a displayed data field you select. See **Searching for Data** (on page 291).

Reporting Dates for an Activity

The Activity Details General tab displays the start and finish dates calculated for the activity. If you are the primary resource, you can use this tab to report actual start and finish dates for an activity and to report the date you expect work for the activity to be completed.

Note: You can report your estimate of remaining work on the Activity Details Resources tab.

To report dates

- 1) Select the activity in the Activities view or open timesheet.
- 2) On the toolbar choose  (Shift+F10+Down Arrow+ Enter or space) to display Activity Details.
- 3) Select the General tab.
- 4) **For start and finish dates**

Mark the Started or Finished checkbox, as appropriate. Then either type in the corresponding date field, or choose the calendar button to select a date.

For expected finish date

In the Expected Finish Date field, type the date you expect work for the activity to be completed, or choose the calendar button to select a date.


Reporting Remaining Work Estimates

The Activity Details Resources tab displays the number of remaining units calculated for an activity. For your in progress activities, you can use this tab to report your estimate of remaining work. If you are the primary resource for an activity, you can also report remaining work estimates for nonlabor and material resources.

The estimates you enter are pending and can be modified by the project manager before actuals are applied to the project.

A project-level administrative setting determines whether you estimate progress on started activities in terms of New Remaining Units or Percent Complete.

To report estimates

- 1) Select the activity in the Activities view or open timesheet.
- 2) On the toolbar choose  (Shift+F10+Down Arrow+ Enter or space) to display Activity Details.
- 3) Choose the Resources tab.
- 4) In the Assigned Resources list, choose your name, or the nonlabor/material resource name.
- 5) Record estimates in the format required by the project, either New Remaining Units or Percent Complete. The field that displays reflects this setting.

In the New Remaining Units field, type the number of work periods you will need to complete the activity.

In the Percent Complete field, type the percentage of work you have already completed for the activity.

The estimated values you record are pending for the activity and can be modified by the project manager before actuals are applied to update the project.


Tip

To quickly locate a specific activity or resource, use the search capability, which enables you to find items based on a displayed data field you select. See **Searching for Data** (on page 291).

Reporting a Completed Assignment

The Activity Details Resources tab lists all resource assignments for an activity, along with details such as remaining units. When you finish a work assignment, if your project allows, you can mark the assignment as completed on the Resources tab.

To report a completed activity assignment

- 1) Select the activity in the Activities view or open timesheet.
- 2) On the toolbar choose  (Shift+F10+Down Arrow+ Enter or space) to display Activity Details.
- 3) Choose the Resources tab.
- 4) In the Assigned Resources list, choose your name, then mark the Completed checkbox.

A project-level option determines if you are permitted to record your assignments as completed. If this option is not turned on, the completed checkbox is disabled.


Note: A P6 Progress Reporter user preference lets you choose to hide your completed assignments on the Resources details tab and in your timesheets. If this preference is set to not display completed assignments, "Filtering Completed Assignments" appears above the column headings on the Resources tab and, when you mark the Completed checkbox, the assignment is immediately removed from the list on the Resources tab.

Tip

To quickly locate a specific activity, use the search capability, which enables you to find items based on a displayed data field you select. See **Search for data** (on page 291).

Viewing and Reporting Progress for Activity Steps

The Activity Details Steps tab lists existing activity steps and their status.

- 1) Select the activity in the Activities view or open timesheet.
- 2) To display Activity Details, on the toolbar choose  (Shift+F10+Down Arrow+ Enter or space).
- 3) Choose the Steps tab.

If you are the primary resource, you can identify steps that are completed by marking the checkbox on this tab.

You can customize the data columns on the Steps tab to display percent complete and user defined fields. If you are a primary resource with the appropriate administrative and security settings, you can edit user defined fields associated with steps.

- ▶ To customize the Steps data columns, select a step row or the Steps tab name and press Shift F10+Enter.
- ▶ To edit a user defined field, select the field and type new data.

Keyboard Tips: To clear all data in a selected field, press F2+Delete. For a date UDF, to display the calendar window, press Ctrl+F2.

Tip


To quickly locate a specific activity or step, use the search capability, which enables you to find items based on a displayed data field you select. See **Searching for Data** (on page 291).

Viewing and Sending Activity Feedback

On the Activity Details General tab, all resources assigned to an activity can view notes sent by the project manager.


If you are the primary resource, you can also send notes to the project manager. All resources assigned to the activity can read notes recorded by the primary resource.

To view or send notes related to an activity

- 1) Select the activity in the Activities view or open timesheet.
- 2) On the toolbar choose  (Shift+F10+Down Arrow+ Enter or space) to display Activity Details.
- 3) Select the General tab.
- 4) To send notes, choose Feedback to PM.
- 5) To view notes, choose Notes from PM.

Viewing Your Project List and Project Web Sites

In the Activities and the Timesheet views, you can display a list of the projects you are currently assigned to work on.

- 1) On the toolbar, click  (Alt+V+P).
To quickly find a specific project, you can search (Ctrl+F) based on the field, or column, that currently has focus in the Projects window. See **Searching for Data** (on page 291).
- 2) To launch a project's Web site, if available, select the project, then choose Launch (Alt+L).

To sort the projects list

mouse - Click the title of the column you want to sort by. Click again to change the sort order.

keyboard - Tab or arrow to a cell in the sort column. To sort in ascending order, Press Ctrl+Alt+A, or for descending sort, press Ctrl+Alt+D.

Searching for Data

Within any P6 Progress Reporter pages or windows that present data in a row and column format, you can search for specific items, based on a data field you select. For example, in the Open Timesheet window, you can search for a timesheet based on Start Date or Status.

- 1) In any row, place focus in the column that corresponds to the field you want to search on.
- 2) Press Ctrl+F.
- 3) Specify the search criteria, then choose Find Next (Alt+N).

The first result is highlighted in the list. Pressing Find Next (Alt+N) cycles through the results, returning to the beginning after you have reached the last result.

About Importing and Exporting Data

Import/Export features allow you to bring data into P6 as well as export data to other tools when needed.

Available Import Options:

- ▶ Import Projects from other Oracle Primavera users or Microsoft Project
- ▶ Import Activities
- ▶ Import Resources
- ▶ Import Appointments as personal non-work exception time from Microsoft Outlook and other applications that support the iCalendar format








Available Export Options:

- ▶ Export Projects
- ▶ Export Activities
- ▶ Export Resources
- ▶ Export Resource Allocation and Cost
- ▶ Export Project Data to an ERP System

Importing Activities from Excel

You can import new activities into a P6 project from a Microsoft® Excel® (.xls) file.

To import activities:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page, click the **Actions** ▼ menu and select **Import/Export** ▶  **Import from Excel**.
- 4) In the **Import Activities** dialog box:
 - a. Click **Import File**  and select a file from the dialog box.
 - b. Click **Select Project**  and select a project from the dialog box.
 - c. Click **Import**.

5) On the **Activities** page, click the **Actions** ▼ menu and select  **Save** (Ctrl+S).






Tips

The import file must be in Microsoft® Excel® (.xls) format.

Exporting Activities to Excel

You can export activity data to a Microsoft® Excel® (.xls) file.

To export activities:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.
 - ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select a view from the **Activity View** list.
 - b. Configure the activity view to determine what data are exported. See **Configuring Activity Views** (on page 135).
 - c. Click the **Actions** ▼ menu and select **Import/Export** ▶  **Export to Excel**.
- 4) In the **File Download** dialog box, click **Open** to open the Excel spreadsheet or **Save** to save the file to your computer.



Tips




All data, except grouping row information, are exported as they appear in the current activity view.

Creating Import Templates

Create a Microsoft® Excel® template to use when importing new activities into a P6 project.

To create import templates:

- 1) Open one or more projects in the **Projects** section using one of the following methods:
 - ▶ Click  **Projects** to open the last project or group of projects you were working with.
 - ▶ Click the  **Projects** ▼ menu and choose one of the most-recently used projects or group of projects.

- ▶ Click the  **Projects** ▼ menu and choose **Open Projects** to select a project or group of projects by portfolio type, EPS node, or project code.
- 2) On the **Projects** navigation bar, click  **Activities**.
- 3) On the **Activities** page:
 - a. Select an activity view from the **Activity View** list and configure it to include the columns you want in the import template. See **Configuring Activity View Columns** (on page 137).
 - b. Click the **Actions** ▼ menu and select **Import/Export** ▶  **Create Import Template**.
- 4) In the **File Download** dialog box, click **Open** to modify the template or click **Save** to save and close it.






Tips

- ▶ The import template is created as a Microsoft Excel file with the default file name, *ExportDataToSpreadsheet*.
- ▶ When you select columns for your activity view, include **Activity ID** or **Activity Name** to ensure that these fields are added to the import file spreadsheet. These fields are required in the spreadsheet to ensure that activities added during import are uniquely identified in your project when the import has completed.

Exporting Risk Data

Risks data can be saved to an Excel spreadsheet (*.xls). All data is exported as it appears in the current view. Customize the rows to display only the data you want to export.

To export risk data:




- 1) Click  **Projects**.
- 2) On the **Projects** navigation bar, click  **Risks**.
- 3) On the **Risks** page, customize the table using the customize features. The fields that are visible on the page are the fields that are exported to the Excel spreadsheet.
 - ▶ Click  **Select Columns** to select the columns you want displayed in the spreadsheet.
 - ▶ Click  **Customize Filter** to filter the data by an existing filter, or create a new filter to customize your view.
- 4) Click  **Export to Excel**.
If prompted, select whether you want to open or save the export file.

Exporting a List of Reports

Use this task to save a customized list of available reports to a Microsoft® Excel spreadsheet (*.xls).

All data is exported as it appears in the current view.

To export a list of reports:

- 1) Click  **Reports**.
- 2) On the **Reports** page:
 - a. Click **View** and select **Schedules** or **Reports**.
 - b. Modify the table to view only the list of reports you want to export.
 - Expand or collapse group headings.
 - Click  **Columns**. Choose any additional columns you would like to display in the spreadsheet. A check mark indicates the column is selected. You can also remove columns by clicking on a column name with a check mark.
 - c. Click  **Export to Excel**.

If prompted, choose whether you want to open or save the export file.

P6 Professional

This section highlights some functions that are available only in P6 Professional.

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Reflection Projects

What is a reflection

A reflection is a copy of a project that has the following characteristics:

- 1) Has the same name as the original source project with reflection appended to it.
- 2) Internally, contains a link to the source project that allows the application to merge changes to the reflection into the source project.
- 3) Has a what-if status.

After creating a reflection, you can make changes to it. You can then merge selected changes back into the source project keeping active data in the source project intact. Creating a reflection facilitates the following work flows and processes:

- ▶ Creating a sandbox area to test different project scenarios.
- ▶ Reviewing changes made by team members to activities they own in a reflection. Using the reflection as an intermediary project lets you review and accept changes before merging the reflection back into the source project.
- ▶ Reviewing changes to a project by exporting a reflection as an .XER file. You can send the .XER file to outside users who can import the file into their database. After making changes to the project, the outside users can export the file and send the resulting .XER file back to you. By importing the .XER file back into your reflection, you can decide which changes to keep when you merge the reflection back into the source project.

Creating and using reflections

Follow this procedure to create and use reflections.

- 1) **Create a reflection.** (see "**Create a Reflection**" on page 306)
- 2) Make changes to the reflection.
- 3) **Preview the changes to the project.** (see "**Merging a Reflection with the Source project**" on page 307)
- 4) Optionally, **print a report** (see "**Printing a reflection difference report**" on page 307) of the changes to the project.
- 5) **Merge** (see "**Merging a Reflection with the Source project**" on page 307) selected changes into the source project.

Create a Reflection

Follow this procedure to create a reflection of a source project. The reflection you create will have the same name as the source project with an incremental number appended to it.

Notes:

- ▶ The Create Reflection context menu will only be available when selecting a project under an EPS node in which you have the privilege to create projects. Generally this means that the Responsible Manager assigned to the EPS node in which the project resides must be assigned to your user name with a profile that includes the "Create Project within EPS" project privilege. The Create Reflection context menu will only be available when selecting a project under an EPS node in which you have the privilege to create projects. Generally this means that the Responsible Manager assigned to the EPS node in which the project resides must be assigned to your user name with a profile that includes the appropriate project privilege as defined in P6.
- ▶ Project Managers can use the Reflection project and Activity Owner features together to collect and review activity status information reported by users with Team Member module access assigned in P6.

Create a reflection



- 1) In the Projects view, right click on the project for which you want to create a reflection.
- 2) In the context menu, click Create Reflection. If the project does not contain any baselines, the system responds by creating a reflection. Otherwise, the system responds by displaying the Copy Baselines dialog box. For any baselines you want to copy, mark checkbox(s) in the Copy column of the Copy Baselines dialog box and click OK. The system responds by creating a reflection.

Make changes in the reflection

Once a reflection has been created, you can make changes to the reflection as needed to explore alternative project scenarios.

Printing a reflection difference report

The Preview Changes to Project dialog box provides a print function that allows you to print a report that lists the differences between the reflection and the source project.

- 1) In the Projects view, right click on the reflection that you want to print a difference report.
- 2) In the context menu, click Merge Reflection into Source Project. If there are any changes to merge, the system responds by displaying the Preview changes to project dialog box.
- 3) In the Group Changes By, choose how you would like group the changes.
- 4) Expand or collapse the nodes as you would like the information to be displayed in the printout.
- 5) Right click anywhere inside the grid and choose Print Preview from the context menu.
- 6) To set the default printer, paper size, and page orientation, click 
- 7) Click  to print the difference report.

Merging a Reflection with the Source project

Creating a reflection allows you to make a copy of a project known as a reflection. Once a reflection has been created, you can make changes to the reflection as needed to explore alternative project scenarios. Then, you can merge these updates to the original project, allowing you to keep active project data intact. This topic assumes that you have already **created a reflection** (see "**Create a Reflection**" on page 306), you have made changes to the reflection and are ready to either preview and/or merge selected changes into the source project.

Notes:

- ▶ The Merge Reflection into Source Project context menu will only be available when selecting a reflection to which you have superuser access. You will also need superuser access to the source project associated with the reflection. Additionally, the source project cannot be opened exclusively by another user nor can it be checked out.

- ▶ Changes you make to the following fields in a reflection project will result in new entries being added to the source project when you merge a reflection into the source project: Project ID, Activity ID, Resource ID, Role ID, Cost Account, and Price/Unit. For example, assume that the source project contains an activity with an Activity ID of A1000. After creating a reflection, you change the Activity ID from A1000 to A1005 in the reflection project. Then, when you merge the reflection project into the source project, the source project now contains two activities, A1000 and A1005, which are identical except for the Activity ID.

Preview changes to be merged

Begin by previewing the changes.

- 1) In the Projects view, right click on the reflection that you want to merge with the source project.
- 2) In the context menu, click Merge Reflection into Source Project. If there are any changes to merge, the system responds by displaying the Preview Changes to Project dialog box.

Choose changes to merge

Next, choose changes from the reflection to merge into the source project. There are two ways the changes can be viewed, or grouped, in the Preview Changes to Project dialog box: by subject area or by activity. The default is by activity. When you view the changes by activity, check boxes appear in the Merge column for activity rows. This allows you to select which activities to merge into the source project.

Notes:

- ▶ By default, if there are any activities with changes, all activity check boxes will be marked.
- ▶ Marking or clearing an activity check box in the Activity grouping has a corresponding affect in the Subject Area grouping even though the check boxes are not available. Ensure the Activity radio button is marked if you need to understand or change which activities are to be merged.
 1. In the Group Changes By, choose how you would like group the changes.
 2. If you choose Activity in step 1, select activities to be merged by marking the appropriate Merge checkbox in the Merge column.

Tip:

- ▶ If the application has detected activities that have changed, two buttons will be enabled: Select All and Clear All. You can use these buttons to save time if you have a lot of activities to consider. For example, suppose you knew that there were only two activities that should be merged out of a large number of changed activities. In this example, you could save time by clicking the Clear All and then marking only the two that should be merged.

Determine actions the application should take prior to merging

Under Prior to merging, mark the appropriate check box.

- 1) Mark the Create a copy of the source project as a baseline if you would like to create a baseline in the source project with the name of the project with - Bx appended to it, where x is an incremented number.
- 2) Mark the Create a backup file of source project if you would like export the project to an .xer file. You could use this file to rollback the source project after the merge.

Determine actions the application should take after merging

Under After merging, mark the appropriate check box.

- 1) Mark the Keep reflection check box if you would like the application to keep the reflection in the EPS after the reflection is successfully merged.
- 2) Mark the Delete reflection check box if you would like the application to delete the reflection from the EPS after the reflection is successfully merged.
- 3) Mark the Replace reflection checkbox if you would like to replace the reflection with an updated reflection based on the current data in the source project after the merge.

Note

- ▶ If you choose the Replace reflection option, the new reflection will be created with the same baselines that were in the original reflection.

Merge the changes

If for whatever reason, you decide not to merge the changes in the Reflection into the Source project, click Cancel and no changes will be made to the source project.

Otherwise, click Merge Changes to merge the changes into the source project.

Notes

- ▶ We suggest opening and scheduling the source project after merging changes into it.
- ▶ When you export resource assignments to an XLS file, only the lowest level of cost accounts associated with resource assignments is exported to the XLS file. For example, assume your cost account hierarchy has a cost account named CA, with a subordinate level named CA.A. If you assign the cost account CA.A to a resource assignment, when you export resource assignments to an XLS file, the XLS file displays "A" as the cost account, not "CA.A." If you then import this XLS file to the same project in P6 Professional, in some cases, a duplicate resource assignment will be created that lists "A" as the assigned cost account for the duplicate resource assignment.

Using Reflection projects and Activity Owner features to collect and review activity status

The Reflection project and Activity Owner features can be used together to collect and review activity progress information from project team members who are not assigned as activity resources.

A Reflection project is a copy of an active project that can be used for what-if analysis. However, unlike a standard what-if project, a Reflection offers the capability to review all changes and specify which, if any, should be merged into the active source project.

An Activity Owner who has Team Member module access (defined in P6) and the required security privileges can update the activity's status and other details in P6. By offering an Activity Owner OBS access to a Reflection project, rather than its associated active source project, Project Managers can collect the data they require and have the ability, through a review process, to ensure data integrity for the active project.

To implement these activity status reporting and review capabilities, do the following:

- ▶ For the appropriate users, grant the required Team Member module access (assigned using P6), OBS access, and security privileges.

Ensure that these users have access only to the OBS associated with the Reflection project. If an activity owner is granted OBS access to the source project, their changes will be incorporated into the active project without the review opportunity that a Reflection project provides.

So that they can edit activities for which they are designated as Owner, Team Members must be granted the required project privileges.

- ▶ Designate owners for activities.
- ▶ **Create the Reflection project** (on page 306), assigning it to the appropriate OBS.
- ▶ **Review and merge changes from the Reflection project to the source project** (on page 307).

Note




- ▶ Regardless of security privilege settings, users with Team Member module access (assigned using P6) can not add, delete, or edit WBS elements and they can not add or delete activities or delete resource assignments.

Frequently asked questions about reflections

Q. Can I view the link in the reflection to the source project?

A. Yes. Use the following procedure to view the link

- 1) From the Enterprise menu, select Projects.
- 2) From the View menu, select Columns, then select Customize.

- 3) In the General section of the Available Options column, select Source Project and click  to move the Source Project field into the Selected Options column.
- 4) Use the  and  buttons to move the field's position.
- 5) Click OK. The system responds by displaying the name of the Project ID in the Source Project field of reflection projects. Note that this field is read-only.

Q. Can I have multiple reflections pointing to the same source project?

A. Yes.

Q. What happens to the reflection when I delete the source project?

A. The link is deleted from the source project field in the reflection.

Q. Why don't I see the Create Reflection menu option when I right click on a project?

A. The right click option is hidden when any of the following is true:

- ▶ A group band node is selected
- ▶ More than one project is selected

Q. Why is the Create Reflection menu option disabled when I right click on a project?

A. The Create Reflection menu option is disabled when you do not have access to create projects within the EPS node.

Q. Why don't I see the Merge Reflection into Source Project menu option when I right click on a reflection project?

A. The right click option is hidden when any of the following is true:

- ▶ A group band node is selected
- ▶ More than one project is selected
- ▶ A non-reflection project is selected (i.e. the project does not contain a source project field value)
- ▶ The selected project contains a source project field value, but it does not have a what-if status
- ▶ The selected project has a what-if status but it does not contain a source project field value

Q. Why is the Merge Reflection into Source Project disabled?

A. The right click option is disabled when any of the following is true:

- ▶ The source project has been checked out
- ▶ The source project and/or the reflection has been opened exclusively by another user
- ▶ You do not have super user privileges to both the source project and the reflection

Q. What happens when there are duplicate records for resources?

A. The resources will not be updated. You will have to update the resources in the source project manually.

Q. What happens if the merge fails?

A. The system responds with a message that the merge process failed, creating the prmrReflectionMerge.log file in the temporary directory, and notifying of log file's location.

Q. How are changes to dates handled?

A. Scheduling related date fields are not shown in the preview but may be updated upon merging changes.

Q. How are baselines handled when the "Replace reflection" option is used?

A. The new reflection will be created with the same baselines that were in the original reflection.

Future Period Bucket Planning

Future period bucket planning

When you specify an activity's total budgeted or planned units, the budgeted or planned units for an assignment to that activity are spread evenly across the duration of the activity, in the timescale increment you choose. For example, a four-week activity with 80 budgeted or planned units is spread as follows, assuming a weekly timescale:

Week 1	Week 2	Week 3	Week 4
20h	20h	20h	20h

However, your projects may contain activities for which you know work will be performed sporadically and at varying levels of effort. For these activities, you can do either of the following to more accurately capture when you plan for work to be performed on an activity:

- ▶ assign a resource curve to the resource/role assignment
- ▶ **manually enter the assignment's budgeted or planned units or remaining units** (see "**Manually enter future period assignment values**" on page 339) in future period buckets (timeperiods)

While assigning a resource curve to the resource/role assignment will yield more accurate results than spreading units evenly across the duration of an activity, the work you plan to perform per period on an activity may not be fully reflected by the curve. As a result, performance against the project plan cannot be accurately measured.

To achieve the most precise resource/role distribution plan, you can manually enter the budgeted or planned resource/role allocation per assignment in the timescale unit you choose (days, weeks, months, quarters, years, or financial periods). For example, assume an activity has an original or planned duration of 28 days and budgeted or planned units of 80 hours. For this activity, you know that the actual work will not be spread evenly across the duration of the activity; rather, the budgeted or planned units will be spread as follows:

Week 1	Week 2	Week 3	Week 4
10h	30h	15h	25h

By manually entering the planned resource/role distribution in future period assignment buckets, you can create an accurate baseline plan to measure against current project progress. As the current project schedule progresses and you apply actuals, you can track how the project is performing against plan by comparing the project's budgeted or planned future periods to the current project's actuals.

If work on an activity is not proceeding according to plan, you can manually update the remaining units for an assignment's future periods, enabling you to measure the remaining work for an assignment without changing the original plan. Alternatively, if you choose to re-estimate future work based on changes to the project schedule, you can edit an assignment's future period budgeted or planned units while the activity is in progress; if many assignment's require re-estimation, you can establish a new baseline plan based on your changes.

Tips

- ▶ You can compare the planned future period resource distribution to actual units and costs in the Resource Usage Profile, Resource Usage Spreadsheet, Activity Usage Profile, Activity Usage Spreadsheet, time-distributed reports, and the Tracking window. If you plan your project work in defined financial periods, after you store period performance, you can compare the resource distribution you planned to the project's past period actuals.
- ▶ Activity costs, including earned value and planned value, are calculated using the planned future period resource distribution you define for activity assignments.

Note

- ▶ You must have the 'Edit Future Periods' project privilege to manually enter future period data.

Future period bucket planning FAQ

Refer to the following questions and answers for important information to consider when manually planning future period resource allocation. Questions and answers are divided into the following categories:

- ▶ General questions
- ▶ Troubleshooting
- ▶ Getting started
- ▶ Application settings
- ▶ Entering and editing data in future period buckets
- ▶ Deleting, copying, and pasting future period bucket data
- ▶ Updating projects
- ▶ Adding, deleting, or replacing assignments
- ▶ Importing and exporting data
- ▶ Miscellaneous

General questions

What is a bucket?

The term "bucket" refers to the timeperiod (or timescale interval) in which you enter data in a spreadsheet. For example, if the Resource Usage Spreadsheet is configured to display a Week/Day timescale, the daily timescale intervals in which you can enter data are referred to as "daily buckets."

In the Help related to **future period bucket planning** (on page 312), buckets are also referred to as timeperiods or timescale intervals, where appropriate.

What is the difference between a future period bucket and a manual future period value?

A "future period bucket" refers to the future timeperiod (or timescale interval) displayed in a spreadsheet. For example, "Enter values in the assignment's future period buckets."

The phrase "manual future period values" refers to the values that exist within future period buckets. For example, "Changing an activity's start or finish dates may change an assignment's manual future period values."

How do I know that an assignment has manual future period values?

When an assignment has manual future period values, the module automatically identifies the future period values as a Manual resource curve. To determine the assignments that have a manual resource curve, display the Curve column in the Resource Assignments window. The Curve column displays a value of 'Manual' for manually-planned resource/role assignments.

Are manual future period values stored in the baseline?

Yes, manual future period values are always stored in the baseline when you save a copy of the current project as a new baseline. When you restore a baseline, manual future period values are also restored. Additionally, baselines that contain assignments with manually-created future period buckets are updated automatically.

Can all users manually enter future period values?

No. You must have the 'Edit Future Periods' project privilege to manually enter or edit data in future period buckets.

Troubleshooting**Why are some future period buckets gray/uneditable?**

When a future period bucket is not eligible for editing, the spreadsheet cell is gray.

Spreadsheet cells are gray/uneditable when any of the following are true:

- ▶ The activity associated with the assignment has a duration type of Fixed Units or Fixed Units/Time. You can only manually enter future period values for activities with a duration type of Fixed Duration & Units and Fixed Duration & Units/Time.
- ▶ The resource or role assigned to the activity does not have any valid worktime for the time period. For resource assignments to task-dependent activities, and for all role assignments to activities, the module determines if there is valid worktime based on the activity calendar. For resource assignments to resource-dependent activities, the module determines if there is valid worktime based on the resource calendar.
- ▶ The displayed timescale intervals in the spreadsheet are smaller than the minimum timescale interval used for time-distributed resource calculations. You can change this setting in the 'Interval for time-distributed resource calculations' field (User Preferences, Resource Analysis tab). For example, if this option is set to Week, you can only enter or edit data in weekly, monthly, quarterly, or yearly future period buckets.
- ▶ For activities that have not started yet, the date of the timescale interval is prior to the Planned Start date (for the Budgeted or Planned Units field) or the Remaining Early Start date (for the Remaining Units field) of the activity.
- ▶ The activity associated with the assignment has an Actual Finish date (for Remaining Early Unit buckets only).
- ▶ For activities that are in progress, the date of the timescale interval is prior to the Data Date (for Remaining Early Unit buckets only).
- ▶ The activity associated with the assignment is a milestone activity.
- ▶ The timescale is set to Day/Shift or Day/Hour.

- ▶ The timescale is set to display only ordinal dates. You must display primary dates (with or without ordinal dates) to edit data in future period buckets.
- ▶ When the timescale is set to display financial period intervals, no financial period is defined for the timeperiod or the first timeperiod is not within the range of defined financial period dates.
- ▶ You choose to display time-distributed Remaining Early units and costs according to forecast dates rather than remaining early dates in the User Preferences, Resource Analysis tab. This only applies to the Remaining Units field.
- ▶ You choose to calculate average values for the spreadsheet in the Spreadsheet Options dialog box.
- ▶ You have not been assigned the Edit Future Periods project privilege.
- ▶ In the Resource Usage Spreadsheet of the Activities window, you display assignment data for all projects rather than for open projects. If you display data for all projects, the title of the Display Options bar in the Resource Usage Spreadsheet is "Display: All Projects." To display data for open projects only, click the Display Options bar, then choose Show All Projects to remove the checkmark; the title of the Display Options bar changes to "Display: Open Projects Only."

Why can't I enter different values for the Budgeted or Planned and Remaining Units fields?

For activities that have not started, if the project-level setting 'Link Budgeted or Planned and At Completion for not started activities' is marked (Project Details, Calculations tab), the total planned values of the Budgeted or Planned Units and Remaining (Early) Units for the assignment will always be equal. For example, when you enter a value for a future period in the Budgeted or Planned Units field, the Remaining (Early) Units field is automatically populated with the same value; the reverse is also true. If this setting is not marked, you can enter different values for the same future period in the Budgeted or Planned Units and Remaining (Early) Units fields; in this case, the total values for each field are calculated independently for the assignment.

For activities that are in progress, you can always enter different future period values in the Budgeted or Planned Units and Remaining (Early) Units fields.

Why did the manual future period values I entered change?

There are many reasons why the future period values you entered for an assignment might change to different values or be placed in a different timeperiod. For example, remaining unit data for an assignment might change when you apply actuals, or if you entered values in daily increments and changed the timescale to a larger increment (for example, days to weeks), the data you see is a roll-up of the daily values you entered.

More specifically, changes to some activity or assignment data can cause the manual future period values to be respread and, in some cases, recalculated. When you manually enter data in future period buckets, the bucket values are stored in the database. When you modify activity or assignment information that causes the values to respread across future period buckets, the values stored in the database do not change; only the spread of those values across future period buckets changes. When you modify activity or assignment data that causes the values to be recalculated, the values you originally entered are recalculated according to the manual distribution and stored in the database; the original values are lost.

The sections below detail the activity and assignment fields that may cause manual future period values to be respread or recalculated.

Changing values in the following ASSIGNMENT-related fields may RESPREAD manual future period values across buckets:

- ▶ Planned Start or Finish (Fixed Duration & Units activities only)
- ▶ Remaining Early Start or Finish (Fixed Duration & Units activities only)
- ▶ Original or Planned Remaining Duration (Fixed Duration & Units activities only)
- ▶ Actual, Budgeted or Planned, or Remaining Units
- ▶ Budgeted or Planned Units/Time
- ▶ Planned or Remaining Lag
- ▶ Budgeted or Planned Remaining Cost (see note below)
- ▶ Drive Activity Dates - You change the driving resource on the assignment.
- ▶ Rate Source (see note below)
- ▶ Rate Type (see note below)
- ▶ Price/Unit (see note below)
- ▶ Curve - You assign a resource curve to an assignment with manual future period values.

Note:

- ▶ When you modify the budgeted or planned and Remaining Cost, Rate Source, Rate Type, and Price/Unit fields, costs will be recalculated. Manual future period unit values may be respread only if the 'Calculate costs from units' resource/role option (or the equivalent 'Calculate costs from units' assignment option) and the project setting 'Update units when costs change on resource assignments' (Project Details, Calculations tab) are both selected. For more information, see the next question below.

Do application settings for linking costs and units affect manual future period values?.

- ▶ Yes. At the project level, the 'Update units when costs change on resource assignments' setting (Project Details, Calculations tab) determines if the application updates units when costs change on assignments to activities throughout the project. At the assignment level, the 'Calculate costs from units' field (Activity Details, Resources tab) determines if costs are updated when you change units for that particular assignment. The 'Update units when costs change on resource assignments' project-level setting only applies when the 'Calculate costs from units' assignment-level option is selected.

Note

- ▶ When you add a resource or add a role, you can choose the option to 'Calculate costs from units' for that resource's (Resource Details, Details tab) or role's (Roles dictionary, Prices tab) assignments. The 'Calculate costs from units' assignment-level option is automatically turned on or off based on this resource/role setting when you assign a resource/role to an activity. You can change this setting per assignment by displaying the Calculate Costs From Units column on the Resources tab of Activity Details, then marking or clearing the checkbox.

When you manually edit future period units and costs for an assignment (for example, you change the Remaining Cost of the assignment), the following will occur depending on the values of these settings:

- ▶ When 'Calculate costs from units' is selected for an assignment, costs are recalculated when you change the planned or budgeted or remaining units, regardless of the 'Update units when costs change on resource assignments' project-level setting. If the project-level setting is also selected, the planned or budgeted or remaining units are respread when the planned or budgeted or remaining costs change for the assignment.
- ▶ When the 'Calculate costs from units' setting is not selected for an assignment, costs and units are handled independently, regardless of the 'Update units when costs change on resource assignments' project-level setting.

Changing values in the following ACTIVITY-related fields may RESPREAD manual future period values across buckets:

- ▶ Actual, Budgeted or Planned, or Remaining Units
- ▶ Start Date
- ▶ Planned or Remaining Lag
- ▶ Suspend and Resume Date
- ▶ Activity Type - Manual future period values will only be respread if the activity Finish Date changes when you change the activity type from Task Dependent to Resource Dependent, or from Resource Dependent to Task Dependent.
- ▶ Activity Calendar (editing or changing)

- ▶ Duration % (Fixed Duration & Units activities only. For more information on the impact of modifying the Duration % field, refer below to How are actuals applied when I manually update progress for assignments with manual future period values?)
- ▶ 'Update units when costs change on resource assignments' setting (Project Details, Calculations tab. For more information on the impact of modifying this setting, refer below to Do application settings for linking costs and units affect manual future period values?)
- ▶ Adding a new assignment - When you add a new assignment to an activity that already has a resource assignment with manual future period values, the module may change values for the existing assignment based on your user preference setting for assignment staffing (User Preferences, Calculations tab). For more information, refer to below to Can I assign a new resource to an activity that already has a resource assignment with manual future period values?.
- ▶ How are actuals applied when I manually update progress for assignments with manual future period values?)
Actuals are applied to manually-planned assignments according to the following rules, depending on the way you manually update activity progress:
- ▶ If you use Progress Spotlight to update activity progress, actuals are applied using the specified manual planned or budgeted unit distribution; the manual remaining unit distribution is not considered, even if no manual planned or budgeted unit data exists for an assignment. When the planned or budgeted and remaining unit values are different for an assignment, the planned or budgeted unit values overwrite the existing remaining unit values when you apply actuals.
- ▶ If you update activity progress by modifying Duration % Complete or Remaining Duration on the activity, the activity's actual units are updated when you apply actuals using the manual remaining unit distribution, as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.
- ▶ If you update activity progress by modifying the Remaining Units or Remaining Early Finish on the assignment, the activity's actual units are updated when you apply actuals using the manual planned or budgeted unit distribution as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.
- ▶ If you update activity progress by modifying the Actual Units on the activity or assignment, manual future period planned or budgeted and remaining unit values are not updated when you apply actuals.
- ▶ Do application settings for linking costs and units affect manual future period values?)

- ▶ Yes. At the project level, the 'Update units when costs change on resource assignments' setting (Project Details, Calculations tab) determines if the application updates units when costs change on assignments to activities throughout the project. At the assignment level, the 'Calculate costs from units' field (Activity Details, Resources tab) determines if costs are updated when you change units for that particular assignment. The 'Update units when costs change on resource assignments' project-level setting only applies when the 'Calculate costs from units' assignment-level option is selected.

Notes

- ▶ When you add a resource or add a role, you can choose the option to 'Calculate costs from units' for that resource's (Resource Details, Details tab) or role's (Roles dictionary, Prices tab) assignments. The 'Calculate costs from units' assignment-level option is automatically turned on or off based on this resource/role setting when you assign a resource/role to an activity. You can change this setting per assignment by displaying the Calculate Costs From Units column on the Resources tab of Activity Details, then marking or clearing the checkbox.
- ▶ When you manually edit future period units and costs for an assignment (for example, you change the Remaining Cost of the assignment), the following will occur depending on the values of these settings:
- ▶ When 'Calculate costs from units' is selected for an assignment, costs are recalculated when you change the planned or budgeted or remaining units, regardless of the 'Update units when costs change on resource assignments' project-level setting. If the project-level setting is also selected, the planned or budgeted or remaining units are respread when the planned or budgeted or remaining costs change for the assignment.
- ▶ When the 'Calculate costs from units' setting is not selected for an assignment, costs and units are handled independently, regardless of the 'Update units when costs change on resource assignments' project-level setting.
- ▶ Can I assign a new resource to an activity that already has a resource assignment with manual future period values?
Yes. When you add an assignment to an activity that already has an existing assignment, the module adheres to your User Preference settings for assignment staffing, as described below. For information on setting these preferences, refer to Select calculation options for resource and role assignments.

Adding a resource assignment to an activity that has an existing resource assignment

- ▶ When you add a resource assignment to an activity that already has an existing resource assignment with manual future period values, the module adheres to your setting in the 'When assigning a resource to an existing activity assignment' field (User Preferences, Calculations tab, Assignment Staffing section). If you choose to 'Always use the new resource's Units/Time and Overtime factor,' the manual future period values of the existing resource assignment may be respread across future period buckets based on the new resource's values. If you choose to 'Always use current assignment's Units/Time and Overtime factor,' unit values for the new resource are spread evenly over future period buckets and the manual future period values for the existing resource assignment are not changed.

Adding a resource assignment to an activity that has an existing role assignment, or vice versa

- ▶ When you add a resource assignment to an activity that already has an existing role assignment with manual future period values (or vice versa), the module adheres to your setting in the 'When a resource and role share an activity assignment' field (User Preferences, Calculations tab, Assignment Staffing section). If you choose to 'Always use resource's Price per Unit,' the manual future period values for the existing role assignment may be respread across future period buckets based on the new resource's values. Likewise, if you choose to 'Always use role's Price per Unit,' the manual future period values for the existing resource assignment may be respread across future period buckets based on the new role's values.

Changing values in the following ASSIGNMENT-related fields may RECALCULATE manual future period values:

- ▶ Budgeted or Planned or Remaining Finish (Fixed Duration & Units/Time activities only)
- ▶ Original or Planned or Remaining Duration (Fixed Duration & Units/Time activities only)

Changing values in the following ACTIVITY-related fields may RECALCULATE manual future period values:

- ▶ Budgeted or Planned or Remaining Finish (Fixed Duration & Units/Time activities only)
- ▶ Original or Planned or Remaining Duration (Fixed Duration & Units/Time activities only)
- ▶ Activity Status
- ▶ Duration Type
- ▶ Duration % (Fixed Duration & Units/Time activities only. For more information on the impact of modifying the Duration % field, refer below to How are actuals applied when I manually update progress for assignments with manual future period values?)

How are actuals applied when I manually update progress for assignments with manual future period values?)

Actuals are applied to manually-planned assignments according to the following rules, depending on the way you manually update activity progress:

- ▶ If you use Progress Spotlight to update activity progress, actuals are applied using the specified manual planned or budgeted unit distribution; the manual remaining unit distribution is not considered, even if no manual planned or budgeted unit data exists for an assignment. When the planned or budgeted and remaining unit values are different for an assignment, the planned or budgeted unit values overwrite the existing remaining unit values when you apply actuals.
- ▶ If you update activity progress by modifying Duration % Complete or Remaining Duration on the activity, the activity's actual units are updated when you apply actuals using the manual remaining unit distribution, as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.
- ▶ If you update activity progress by modifying the Remaining Units or Remaining Early Finish on the assignment, the activity's actual units are updated when you apply actuals using the manual planned or budgeted unit distribution as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.
- ▶ If you update activity progress by modifying the Actual Units on the activity or assignment, manual future period planned or budgeted and remaining unit values are not updated when you apply actuals.
- ▶ Removing an assignment (For more information, refer to below to Can I remove or replace a resource assignment with manual future period values?)

Can I remove or replace a resource assignment with manual future period values?

Yes. When you replace the resource or role assigned to an activity, any manual future period values entered for that assignment are preserved with the new assignment.

- ▶ When you remove a resource or role assignment that has manual future period values, the manual future period values are deleted. If other assignments with manual future period values exist on the same activity, those assignments' manual future period values may change based on the activity type and your user preference settings for assignment staffing (User Preferences, Calculations tab). For more information on setting assignment staffing preferences, refer to Select calculation options for resource and role assignments.

Getting started

Where can I manually enter future period values?

You can manually enter future period values for an assignment in the Budgeted Units or Planned Units and Remaining (Early) Units fields in the Resource Usage Spreadsheet in the Resource Assignments and Activities windows.

Note

- ▶ To manually enter future period values in the Resource Usage Spreadsheet in the Activities window, you must choose to display resource assignment data for open projects only. If you are displaying data for all projects, the title of the Display Options bar in the Resource Usage Spreadsheet is "Display: All Projects." To display data for open projects only, click the Display Options bar, then choose Show All Projects to remove the checkmark; the title of the Display Options bar changes to "Display: Open Projects Only."

Can I enter future period values for all assignments to activities?

No. You can manually enter future period values for assignments when:

- ▶ The activity associated with the assignment has a duration type of Fixed Duration & Units or Fixed Duration and Units/Time. You cannot enter future period values for assignments to activities with a duration type of Fixed Units or Fixed Units/Time.
- ▶ The activity associated with the assignment is not a milestone activity.

For more information on these and other future period bucket planning restrictions, see the next question below.

Why are some future period buckets gray/uneditable?

When a future period bucket is not eligible for manual future period bucket planning, the spreadsheet cell is gray.

Spreadsheet cells are gray/uneditable when:

- ▶ The activity associated with the assignment has a duration type of Fixed Units or Fixed Units/Time (you can only enter manual future period values for activities with a duration type of Fixed Duration & Units and Fixed Duration & Units/Time).
- ▶ The resource or role assigned to the activity does not have any valid worktime for the timeperiod. For resource assignments to task-dependent activities, and for all role assignments to activities, the module determines if there is valid worktime based on the activity calendar. For resource assignments to resource-dependent activities, the module determines if there is valid worktime based on the resource calendar.
- ▶ The displayed timescale unit in the spreadsheet is smaller than the minimum timescale unit used for time-distributed resource calculations. You can change this setting in the 'Interval for time-distributed resource calculations' field (User Preferences, Resource Analysis tab). For example, if this option is set to Week, you can only enter or edit data in weekly, monthly, or quarterly timescale buckets.

Can I enter values in any time unit?

The values you enter in the Budgeted or Planned Units and Remaining (Early) Units fields are converted to the Unit/Time specified in the User Preferences, Time Units tab. For example, if the Unit/Time user preference is set to Hour and you enter 1d, the value is converted to 8h. To avoid planning mistakes, you should set the Unit/Time user preference to the same time unit you use to plan your work. For example, if you plan your work in hours, set the Unit/Time to Hours.

Can I manually enter or edit values for Remaining Late Units?

No, you can only enter or edit values for budgeted or planned Units and Remaining (Early) Units.

Application settings

Can I enter future period values in any timescale interval?

No. You can enter values in future period buckets of all timescale intervals EXCEPT Day/Hour and Day/Shift.

Your user preference setting for 'Interval for time-distributed resource calculations' (User Preferences, Resource Analysis tab) determines the minimum timescale interval in which you can enter or edit data. For example, if this option is set to Week, you can only enter or edit data in weekly, monthly, quarterly, yearly, or financial period buckets. When you display timescale intervals smaller than the interval specified as your user preference, the buckets are not editable. Using this case as an example, if you display daily timescale intervals, the buckets are not editable.

Does it matter which date format I choose, primary dates or ordinal dates?

Yes. You can enter future period values if you choose to display primary dates or a combination of primary and ordinal dates. You cannot enter future period values when you choose to display only ordinal dates.

To select timescale settings, click the Display Options bar in the Resource Usage Spreadsheet, then choose Timescale. For more information on selecting timescale settings, refer to Change a layout's timescale format.

Can I change timescale settings after I enter values in future period buckets?

Yes. When you select a smaller timescale interval, the values you originally entered in the larger buckets are spread linearly over the smaller buckets. When you enlarge the timescale interval, the values you originally entered in the smaller buckets are rolled up into the larger buckets.

If you subsequently change the timescale back to the setting you used when you manually entered values in future period buckets, the values appear as you originally entered them.

Do application settings for linking costs and units affect manual future period values?

Yes. At the project level, the 'Update units when costs change on resource assignments' setting (Project Details, Calculations tab) determines if the application updates units when costs change on assignments to activities throughout the project. At the assignment level, the 'Calculate costs from units' field (Activity Details, Resources tab) determines if costs are updated when you change units for that particular assignment. The 'Update units when costs change on resource assignments' project-level setting only applies when the 'Calculate costs from units' assignment-level option is selected.

Note

- ▶ When you add a resource or add a role, you can choose the option to 'Calculate costs from units' for that resource's (Resource Details, Details tab) or role's (Roles dictionary, Prices tab) assignments. The 'Calculate costs from units' assignment-level option is automatically turned on or off based on this resource/role setting when you assign a resource/role to an activity. You can change this setting per assignment by displaying the Calculate Costs From Units column on the Resources tab of Activity Details, then marking or clearing the checkbox.

When you manually edit future period units and costs for an assignment (for example, you change the Remaining Cost of the assignment), the following will occur depending on the values of these settings:

- ▶ When 'Calculate costs from units' is selected for an assignment, costs are recalculated when you change the planned or budgeted or remaining units, regardless of the 'Update units when costs change on resource assignments' project-level setting. If the project-level setting is also selected, the planned or budgeted or remaining units are respread when the planned or budgeted or remaining costs change for the assignment.
- ▶ When the 'Calculate costs from units' setting is not selected for an assignment, costs and units are handled independently, regardless of the 'Update units when costs change on resource assignments' project-level setting.

Entering and editing data in future period buckets

Can I enter different values for Budgeted or Planned Units and Remaining (Early) Units?

Yes. **For not started activities**, if the project-level setting 'Link Budgeted or Planned and At Completion for not started activities' is marked (Project Details, Calculations tab), the total planned values of the Budgeted or Planned Units and Remaining (Early) Units for the assignment will always be equal. For example, when you enter a value for a future period in the Budgeted or Planned Units field, the Remaining (Early) Units field is automatically populated with the same value; the reverse is also true. If this setting is not marked, you can enter different values for the same future period in the Budgeted or Planned Units and Remaining (Early) Units fields; in this case, the total values for each field are calculated independently for the assignment.

For activities that are in progress, you can always enter different future period values in the Budgeted or Planned Units and Remaining (Early) Units fields

Can I enter data in financial period buckets?

Yes, you can enter data in financial period buckets for the range of financial period dates defined in the Financial Periods dictionary. For example, if you have defined weekly financial periods from January 1st, 2007, through December 31st, 2007, you can enter data in weekly financial period buckets beginning on or after January 1st, 2007, and ending on or before December 31st, 2007.

Note:

- ▶ The setting for 'Interval for time-distributed resource calculations' (User Preferences, Resource Analysis tab) should not be larger than your defined financial periods. For example, if you have defined weekly financial periods, the setting for 'Interval for time-distributed resource calculations' should be Hour, Day, or Week, but not Month. If this setting is larger than your defined financial periods, you will not be able to edit most financial period buckets. For example, if the user preference is set to Month but you have defined weekly financial periods, you will only be able to edit data for financial period buckets that contain the first day of the month.

Can I overallocate a resource or role when I manually enter future period values?

Yes. If the resource or role on the assignment has valid worktime for a timeperiod, you can enter an unlimited number of units for the timeperiod, even if the value you enter overallocates the resource or role.

If no work is planned to be performed on an activity for a timeperiod, do I have to enter a value?

No. Assume, for example, that you plan your work in weekly planning periods. You have a four-week task in which work is planned to be performed during weeks 1, 2, and 4, but no work will be performed during week 3. Given this example, when you enter future period values, simply do not enter a value for the period in which work will not be performed, such as:

Week 1	Week 2	Week 3	Week 4
20	15		30

The module treats a blank value the same as a zero value; therefore, you could also enter a 0 (zero) as the Week 3 value.

Can I manually enter future period values for an assignment that already has an assigned resource curve?

Yes. In fact, to simplify the process of manually planning future period assignments, you can apply a resource curve to the assignment that has a similar resource distribution to the distribution you intend to manually plan, then manually make any necessary modifications to the future period values.

Note

- ▶ When you apply a resource curve to an assignment and then manually modify future period values for that assignment, the resource curve is removed from the assignment and the assignment is designated as a 'Manual' curve.

Can I enter a zero in a future period bucket?

Yes; however, the module considers the zero value differently depending on where the value lies in the planned resource distribution.

When you replace an assignment's first future period bucket value with a zero:

When an assignment's first future period bucket contains a non-zero value and you replace it with a zero (or you delete the value), the duration of the assignment is shortened and the zero value is converted to start date lag.

For example, assume you've manually planned a five-day assignment with the following daily bucket values: 8 | 4 | 2 | 6 | 2. If you change the 8 to a zero (or delete the value), the planned duration of the assignment is changed to four days with a start date lag of one day.

Notes

- ▶ When you enter a leading zero for an assignment and then refresh the window, the leading zero disappears.
- ▶ For assignments to not started activities, if the 'Link Budgeted or Planned and At Completion for not started activities' project option (Project Details, Calculations tab) is NOT selected and you enter a leading zero for an assignment, one day of lag is added to both the Planned Start and Remaining Start dates. This occurs regardless of the field in which you enter the leading zero (budgeted or planned Units or Remaining Units) because the Planned Start and Remaining Start dates must be the same for activities that are not started.

When you enter a zero value in between non-zero values:

If you enter a zero value in between non-zero values for an assignment, the module considers the zero bucket part of the planned resource distribution. In the following examples of five-day tasks, the zeros are included in the resource distribution:

2 | 8 | 0 | 4 | 4

2 | 0 | 8 | 0 | 4

8 | 0 | 0 | 8 | 4

When you enter a zero as the last future period bucket value for an assignment:

When you enter a zero after an assignment's last future period bucket value (i.e., there are no subsequent non-zero values), the module ignores the zero. In the following example, the zero is ignored:

2 | 8 | 4 | 8 | 0

Note

- ▶ When you enter a trailing zero for an assignment and then refresh the window, the trailing zero disappears.

Can I enter a negative value in a future period bucket?

Yes, if the total units (budgeted or planned or remaining, exclusive) value for the assignment is negative. For example, if the total Budgeted or Planned Units for an assignment is negative, you can enter a negative value in a Budgeted or Planned Units future period bucket for that assignment.

If the total units (budgeted or planned or remaining) value for an assignment is negative and you enter a positive value, the value is automatically converted to a negative value. Likewise, if the total units (budgeted or planned or remaining) value for an assignment is positive and you enter a negative value, the value is automatically converted to a positive value.

If an activity's progress is planned to be suspended, can I enter or edit values for the activity's assignments in future periods during which progress on the activity will be suspended?

Yes, you can enter or edit values in future period buckets that are planned to be suspended, as long as the suspend time has not been scheduled (in other words, the project has not been scheduled since the suspend and resume dates were added to the activity).

When the project is scheduled, the suspend and resume dates for the activity are scheduled accordingly and you can no longer enter or edit data in buckets which are scheduled to be suspended.

If you enter future period data in a bucket that is planned to be suspended, when you schedule the project, any work that is planned to occur during the suspend time is pushed out to the resume date.

Deleting, copying, and pasting future period bucket data

When I copy/paste a project, WBS, or activity, are manual future period values included?

Yes, manual future period values are copied when you copy a project, WBS, or activity, provided that, when prompted, you choose to copy Resource and Role Assignments in the Copy Activity Options dialog box.

What happens when I delete a manual future period value?

When you delete a manual future period value, the module considers the value to be a zero. Depending on where the zero lies during the duration of the assignment (first bucket, middle bucket, last bucket), the zero may or may not be considered part of the future period resource distribution.

Refer below to Can I enter a zero in a future period bucket? to learn more about how the module considers zero values.

Can I enter a zero in a future period bucket?

Yes; however, the module considers the zero value differently depending on where the value lies in the planned resource distribution.

When you replace an assignment's first future period bucket value with a zero:

When the first future period assignment bucket contains a non-zero value and you replace it with a zero (or you delete the value), the duration of the assignment is shortened and the zero value is converted to start date lag.

For example, assume you've manually planned a five-day assignment with the following daily bucket values: 8 | 4 | 2 | 6 | 2. If you change the 8 to a zero (or delete the value), the planned duration of the assignment is changed to four days with a start date lag of one day.

Notes

- ▶ When you enter a leading zero for an assignment and then refresh the window, the leading zero disappears.
- ▶ For assignments to not started activities, if the 'Link Budget or Planned and At Completion for not started activities' project option (Project Details, Calculations tab) is NOT selected and you enter a leading zero for an assignment, one day of lag is added to both the Planned Start and Remaining Start dates. This occurs regardless of the field in which you enter the leading zero (Budgeted or Planned Units or Remaining Units) because the Planned Start and Remaining Start dates must be the same for not started activities.

When you enter a zero value in between non-zero values:

If you enter a zero value in between non-zero values for an assignment, the module considers the zero bucket part of the planned resource distribution. In the following examples of five-day tasks, the zeros are included in the resource distribution:

2 | 8 | 0 | 4 | 4

2 | 0 | 8 | 0 | 4

8 | 0 | 0 | 8 | 4

When you enter a zero as the last future period bucket value for an assignment:

When you enter a zero at the end of an assignment (i.e., there are no subsequent non-zero values), the module ignores the zero. In the following example, the zero is ignored:

2 | 8 | 4 | 8 | 0

Note

- ▶ When you enter a trailing zero for an assignment and then refresh the window, the trailing zero disappears.

Are manual future period values deleted when I delete a project, WBS, activity, or assignment?

Yes, manual future period values are automatically deleted when you delete a project, WBS, activity, or assignment.

If I delete a resource or role with manual future period values, can I merge the assignment data with another existing resource or role?

Yes. When you delete a resource or role, you can choose to preserve the associated assignment data by merging the data with another resource.

Refer to [Delete a resource](#) and [Delete a role](#) for more detailed information.

Updating projects

If work on an activity is in progress or complete, can I edit the previously defined manual assignment values?

For Budgeted or Planned units, you can edit manual values for an assignment at any time (before or after the data date), even if the activity associated with the assignment is in progress or has an Actual Finish date.

For Remaining (Early) Units, you can edit manual values for an assignment's future period buckets only (buckets after the data date); you cannot edit an assignment's past period buckets (buckets before the data date) when an activity is in progress, even if you manually entered the values before work began on the activity. Once an activity has an Actual Finish date, you can not edit remaining unit values.

Tip

- ▶ When work on an activity is not proceeding according to plan, you can re-estimate the remaining work on the assignment and update the assignment's remaining without changing the original plan, enabling you to compare the original baseline plan to when the work actually occurred. If the project schedule has deviated significantly from the original plan and several activities require re-estimation, you may want to update the budgeted or planned units for those assignments and re-baseline the project.

Can I automatically apply actuals for assignments with manual future period values?

Yes. **The Auto Compute Actuals option MUST BE SELECTED** on the activity or the resource assigned to the activity for the module to consider manual future period values when applying actuals.

To set Auto Compute Actuals at the activity level, display the Auto Compute Actuals column in the Activity Table (Activities window), then mark the checkbox for the appropriate activities.

You can set Auto Compute Actuals per resource on the Details tab of Resource Details. Choose Enterprise, Resources, then display Resource Details.

How are actuals applied when I manually update progress for assignments with manual future period values?

Actuals are applied to manually-planned assignments according to the following rules, depending on the way you manually update activity progress:

If you use Progress Spotlight to update activity progress, actuals are applied using the specified manual planned or budgeted unit distribution; the manual remaining unit distribution is not considered, even if no manual planned or budgeted unit data exists for an assignment. When the planned or budgeted and remaining unit values are different for an assignment, the planned or budgeted unit values overwrite the existing remaining unit values when you apply actuals.

If you update activity progress by modifying Duration % Complete or Remaining Duration on the activity, the activity's actual units are updated using the manual remaining unit distribution when you apply actuals, as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.

If you update activity progress by modifying the Remaining Units or Remaining Early Finish on the assignment, the activity's actual units are updated using the manual planned or budgeted unit distribution when you apply actuals, as long as the project option 'Recalculate Actual Units and Cost when duration percent complete changes' (Project Details, Calculations tab) is marked.

If you update activity progress by modifying the Actual Units on the activity or assignment, manual future period planned or budgeted and remaining unit values are not updated when you apply actuals.

How does removing progress from an activity affect manual future period values?

When you remove progress from an activity that has manual future period values on its associated assignment, the module adheres to the setting for removing progress from activities on the Project Details, Calculations tab.

If you choose to 'Reset Planned or Original Duration and Units to Remaining,' the assignment's manual future period planned or budgeted unit values are respread to match the manual remaining unit values.

If you choose to 'Reset Remaining Duration and Units to Planned or Original,' the assignment's manual future period remaining unit values are respread to match the manual planned or budgeted unit values.

For more information on these settings, refer to Project Details, then click the Calculations tab link.

Does the module use manual future period values when calculating earned value?

Yes. For more information on calculating earned value using manual future period buckets, refer to Calculating earned value using resource curves or manual future period buckets.

Can I update a baseline with revised manual future period values?

Yes, in the Update Baseline dialog box, you can update a baseline for a project that contains assignments with manual future period values.

Adding, deleting, or replacing assignments

Can I assign a new resource to an activity that already has a resource assignment with manual future period values?

Yes. When you add an assignment to an activity that already has an existing assignment, the module adheres to your User Preference settings for assignment staffing, as described below. For information on setting these preferences, refer to Select calculation options for resource and role assignments.

Adding a resource assignment to an activity that has an existing resource assignment

When you add a resource assignment to an activity that already has an existing resource assignment with manual future period values, the module adheres to your setting in the 'When assigning a resource to an existing activity assignment' field (User Preferences, Calculations tab, Assignment Staffing section). If you choose to 'Always use the new resource's Units/Time and Overtime factor,' the manual future period values of the existing resource assignment may be respread across future period buckets based on the new resource's values. If you choose 'Always use current assignment's Units/Time and Overtime factor,' unit values for the new resource are spread evenly over future period buckets, and the manual future period values for the existing resource assignment are not changed.

Adding a resource assignment to an activity that has an existing role assignment, or vice versa

When you add a resource assignment to an activity that already has an existing role assignment with manual future period values (or vice versa), the module adheres to your setting in the 'When a resource and role share an activity assignment' field (User Preferences, Calculations tab, Assignment Staffing section). If you choose 'Always use resource's Price per Unit,' the manual future period values for the existing role assignment may be respread across future period buckets based on the values of the new resource. Likewise, if you choose 'Always use role's Price per Unit,' the manual future period values for the existing resource assignment may be respread across future period buckets based on the new role's values.

Can I remove or replace a resource assignment with manual future period values?

Yes. When you replace the resource or role assigned to an activity, any manual future period values entered for that assignment are preserved with the new assignment.

When you remove a resource or role assignment that has manual future period values, the manual future period values are deleted. If other assignments with manual future period values exist on the same activity, those assignments' manual future period values may change based on the activity type and your user preference settings for assignment staffing (User Preferences, Calculations tab). For more information on setting assignment staffing preferences, refer to [Select calculation options for resource and role assignments](#).

Importing and exporting data

Can I exchange manual bucket data with other P6 Professional users using P6 XER files?

Yes, you can import and export manual future period buckets using P6 XER files.

Import considerations

You will lose manual future period buckets in a project you are updating with imported data when all of the following are true:

- ▶ The XER file you are importing was created using P6.
- ▶ The XER file you are importing DOES NOT contain manual future period buckets.
- ▶ You choose the Update Existing import action.
- ▶ You choose to update activity resource assignments.
- ▶ The project you are updating DOES contain manual future period buckets.

In all other cases, manual future period buckets remain intact when you import an XER file.

Can I exchange manual bucket data with other P6 Professional users using P6 XML files?

Yes. When you export a project to a P6 XML file, manual future period buckets are exported to the file.

When you import a P6 XML file to a project, all manual future period buckets that exist in the project are retained.

Can I exchange manual bucket data with Oracle Contractor?

Oracle Contractor 6.1 and later users can exchange manual bucket data with P6 Professional using Contractor 6.1 XER files; however, manual future period buckets are not supported in Oracle Contractor 5.0 and earlier versions.

When you export a project with manual bucket data to a Contractor 5.0 XER, manual future period buckets are included in the XER file but are not imported to Contractor (version 5.0 or earlier). When you import a Contractor 5.0 XER to a P6 Professional project containing manual future period buckets, the manual future period buckets remain intact.

Can I exchange manual bucket data with Oracle Contract Management?

No. However, the following task information you can import from Contract Management may affect the spread of manual future period buckets:

- ▶ Remaining Early Finish
- ▶ Remaining Finish
- ▶ Original Duration
- ▶ Duration % Complete

If the duration of an activity with manual future period assignment buckets changes after importing data from Contract Management, one of the following will occur:

- ▶ For activities with a duration type of Fixed Duration & Units, the manual future period units are logically spread over the new duration of the activity.
- ▶ For activities with a duration type of Fixed Duration & Units/Time, the difference in units will be removed from, or added to, the last bucket.

Can I exchange manual bucket data with Microsoft Project?

Yes. You can import and export manual future period buckets to Microsoft Project (MSP) 2002 and 2003 using MSP XML or MPP formats, and to MSP 2007 using MSP XML format. Due to changes in Microsoft's supported import and export file formats, P6 Professional no longer supports MPD, MPT, MPX, and MDB files. P6 Professional does not support import and export using MSP 98 due to the manner in which time-phased data is stored in that version. You will achieve the most accurate import/export results using MSP 2003.

Export considerations

When you export a project to MSP:

- ▶ Manual future period buckets are imported to MSP as a contoured curve.
- ▶ If the Timescale Units setting in MSP is smaller than the setting in the P6 export file (as specified in the 'Interval for time-distributed resource calculations' field in User Preferences), the manual future period buckets are spread linearly across the smaller timescale in MSP. If you change the MSP timescale setting to match the P6 Professional timescale setting, the buckets will display the proper values.
- ▶ Since MSP does not use forecast dates, if the P6 export file displays time-distributed data using forecast dates (as specified in User Preferences, Resource Analysis tab), assignments with manual future period buckets are spread linearly in MSP.
- ▶ For manually-planned assignments to activities with suspend and resume dates, MSP honors the suspend and resume dates and spreads the budgeted or planned unit values accordingly in the Baseline Work field; however, because P6's Actual Units and Remaining (Early) Units are combined into MSP's Actual Work field, MSP only honors actual and remaining values up to the Suspend Date or the Data Date, depending on when the activity's suspend and resume dates fall. If the suspend and resume dates are both before the Data Date, MSP spreads the Actual Work up to the Data Date; if only the Suspend Date is before the Data Date, MSP spreads the Actual Work up to the Suspend Date.
- ▶ WBS Summary activities with manual future period assignment values are exported to MSP; however, the manual future period values are not exported. In MSP, the total budgeted or planned and remaining unit values for assignments to WBS Summary activities are spread linearly across the duration of the assignment.

Import considerations

When you import a project from MSP:

- ▶ Suspend and resume dates in MSP are not honored when imported to P6. When you import an MSP project that has an activity with suspend and resume dates, the suspend time is imported as a 0 (zero) bucket value for the assignment.
- ▶ The MPX file format does not support time-phased data and therefore does not support manual future period buckets. When you import an MPX file, if you choose the Replace Existing import action and the project you are replacing contains manual future period buckets, all manual buckets will be deleted.

Can I exchange manual bucket data with P3?

No. When you export a P6 Professional project that contains manual future period assignment buckets, the total units for assignments with manual future period buckets are spread evenly over the planned duration of the assignment in P3; the values you manually entered are not saved.

When you import a P3 project to a P6 Professional project that contains manual future period assignment buckets, the *manual values are deleted* if you choose the Update Existing or Replace Existing import option.

Miscellaneous

Can I update data globally for projects that have assignments with manual future period values?

Yes. However, changing some values globally may cause manual future period values to change or, in some cases, be deleted.

For activity resource assignments, globally changing the Planned Finish, Remaining Finish, and Actual Start may cause manual future period values to change. Manual future period values are deleted when you globally change the assigned Curve, specify an Actual Finish date, or set the budgeted or planned and Remaining Units or Units/Time (Labor, Non-Labor, or Material) to zero.

For activities, globally changing the Actual Start, Planned Finish, Planned or Original Duration, Remaining Finish, or Remaining Duration may cause manual future period values to change. Manual future period values are deleted when you globally change the Duration Type to Fixed Units or Fixed Units/Time, specify an Actual Finish date, or set the budgeted or planned Units/Time to zero.

Are manual future period values considered when I level resources?

Yes. When a project with manual future period buckets is leveled, assignments with manual future period values are leveled in the same manner as assignments without manual future period values.

Create a future period bucket planning layout

You can budget or plan future period resource/role assignments in any type of layout in the Resource Assignments and Activities windows. This topic contains some steps you may want to follow when you create a layout to use for future period bucket planning. When you create a future period bucket planning layout, you should save the layout for future use.

1. Display editable future period bucket planning fields

You can enter future period budgeted or planned and remaining values in the Budgeted or Planned Units and Remaining (Early) Units fields in the Resource Usage Spreadsheet. To display these fields, click the Display Options bar and choose Spreadsheet Fields, Customize. Move the Budgeted or Planned Units and Remaining Early Units fields to the Selected Options list; you can also remove all other fields from the Selected Options list. Click Apply, OK.

Tips

- ▶ You can display the Actual Units field as well to compare the work that was planned to be performed (Budgeted or Planned Units) for an assignment versus the work that has actually occurred (Actual Units). Once an assignment is in progress, if work is not being performed according to plan, you can adjust the Remaining (Early) Units as necessary; or, if you choose to re-estimate an assignment's remaining work, you can adjust the assignment's Budgeted or Planned Units instead.
- ▶ To see costs related to the assignments you are manually planning, display the Budgeted or Planned Cost and Actual Cost fields.

2. Display the Curve, Budgeted or Planned Units, and Remaining (Early) Units columns

When you manually enter a value in a future period bucket for an assignment, the module automatically enters a value of Manual in the assignment's associated Curve column. By displaying the Curve column, you can determine which assignments already have an assigned resource curve, or a defined manual curve.

For assignments that do not have a defined total Budgeted or Planned Units or Remaining (Early) Units value, it is useful to display the Budgeted or Planned Units and Remaining (Early) Units columns. When you display these columns, you can enter or edit an assignment's total Budgeted or Planned or remaining units to spread the units evenly over the original or planned duration of the assignment, then manually modify the future period distribution as necessary.

To display these columns, click the Layout Options bar and choose Columns, Customize. Move the Curve, Budgeted or Planned Units, and Remaining (Early) Units columns to the Selected Options list, then modify the remaining columns. Click Apply, OK.

3. Adjust the timescale to reflect your planning periods

Adjust the timescale in the Resource Usage Spreadsheet to reflect the planning periods in which you typically plan future resource distribution. For example, if you plan your work in daily buckets, adjust the timescale to Week/Day and enter hourly planning unit values. Refer to Change a layout's timescale format for details on adjusting the timescale.

Note

- ▶ If you track past period actuals per financial period and plan to report performance against manual budgeted or planned future period values, you should enter future period planning values in financial period timescale units. You can adjust the timescale to reflect your predefined financial periods. For example, if your organization has defined weekly financial periods, set the timescale to Week/Financial Period.

4. Logically group and sort data

Group and sort data in a way that enables you to easily identify resources/roles, the activities to which they are assigned, and the activities' associated projects (because the same activity name may appear in different projects). For example, you can group and sort the Resource Usage Spreadsheet by project and by resource. For detailed instructions about grouping and sorting data, refer to Group and sort resource assignments.

5. Filter out activities you don't want to manually plan

If you are planning future period resource distribution for a project that has already started, you may want to apply a filter to display only the activities you want to plan, such as activities that don't have an actual duration or that have a planned start after the current date or data date.

Alternatively, if a project has already started and you want to update the remaining units for activities that are in progress, you could apply a filter to display only activities that have an Actual Start date and do not have an Actual Finish date.

Refer to Filter a layout for detailed instructions.

Manually enter future period assignment values

You can manually enter or edit future period assignment values per bucket for labor, non-labor, and material resource assignments, as well as for role assignments. Before you complete the steps below, refer to **future period bucket planning FAQ** (on page 314) for important information to consider when you manually plan future period assignments.

- 1) In the Resource Assignments or Activities window, display the Resource Usage Spreadsheet.
- 2) **Create a future period bucket planning layout** (on page 337).

In the Activities window, you are required to display resource assignment data for open projects only. Showing data for all projects, causes the title of the Display Options bar in the Resource Usage Spreadsheet to change to "Display: All Projects." To display data for open projects only, click the Display Options bar, then choose Show All Projects to remove the checkmark; the title of the Display Options bar changes to "Display: Open Projects Only."

- 3) For each resource assignment you want to manually plan, enter or edit the Planned or Budgeted Units and/or the Remaining (Early) Units for each assignment bucket for the original or planned duration of the activity.

Tips

- ▶ If the total, budgeted or planned units or remaining units have not been defined for an assignment, you can display the Budgeted or Planned Units and Remaining (Early) Units columns, then enter the total budgeted or planned or remaining units for the assignment. When you enter the total budgeted or planned or remaining units for an assignment, the values are spread evenly over the budgeted or planned duration of the activity. Then, you can manually modify the values to define the planned resource distribution. If the total budgeted or planned or remaining units have already been defined for an assignment, you can edit the future period distribution as necessary.
- ▶ You can apply a resource curve to an assignment before you manually enter/edit future period values for the assignment. For example, if the assignment you want to manually plan has a planned resource distribution that is similar to a defined resource curve's distribution, you can apply the resource curve to the assignment. When you apply the resource curve, future period values are spread across the planned duration of the activity according to the resource curve distribution; you can then manually modify the future period values as necessary. Once you manually modify a resource curve's distribution, the curve is removed from the assignment.
- ▶ Assignment buckets that are available for editing display with a white background; buckets you can not edit display with a gray background. For information, see **Why are some spreadsheet cells gray?** in P6 Professional Help.
- ▶ The values you should enter in the future period buckets are dependent on the duration of your planning periods (buckets), the timescale you choose, and user preference settings. For information, see **How do user preference settings affect manual future period planning?** in P6 Professional Help.

See below for examples of manually-planned future period assignments.

Notes

- ▶ If the project option 'Link Budgeted or Planned and At Completion for not started activities' is selected (Project Details, Calculations tab) and you enter a value in the Planned or Budgeted Units field for a not started activity, the module automatically populates the Remaining Units field with the same value; the reverse is also true. If this setting is not marked, you can enter different values for the same future period in the Planned or Budgeted Units and Remaining Units fields; in this case, the total values for each field are calculated independently for the assignment. The examples below assume that this project option is selected and the activities have not started.
- ▶ You must have the 'Edit Future Periods' project privilege to manually enter or edit future period data.

Example 1: Daily planning periods, Week/Day timescale, and Unit/Time set to Hour

		Week 1						
		Sun	Mon	Tue	Wed	Thu	Fri	Sat
John Doe's assignment	Planned or Budgeted Units	0h	8h	4h	0h	2h	6h	0h
	Remaining Units	0h	8h	4h	0h	2h	6h	0h

Example 2: Weekly planning periods, Month/Week timescale, and Unit/Time set to Hour

		January 2007			
		Week 1	Week 2	Week 3	Week 4
John Doe's assignment	Planned or Budgeted Units	10h	30h	15h	25h
	Remaining Units	10h	30h	15h	25h

Example 3: Weekly planning periods, Month/Week timescale, and Unit/Time set to Day

		January 2007			
		Week 1	Week 2	Week 3	Week 4
John Doe's assignment	Planned or Budgeted Units	2d	3d	1d	4d
	Remaining Units	2d	3d	1d	4d

Example 4: Monthly planning periods, Quarter/Month timescale, and Unit/Time set to Day

		Q1 2007		
		Jan	Feb	Mar
John Doe's assignment	Planned or Budgeted Units	15d	20d	10d
	Remaining Units	15d	20d	10d

Example 5: Monthly planning periods, Quarter/Month timescale, and Unit/Time set to Week

		Q1 2007		
		Jan	Feb	Mar
John Doe's assignment	Planned or Budgeted Units	2w	3w	1w
	Remaining Units	2w	3w	1w

Editing Past Period Actual Spreads

Edit past period actual data

You can view and edit past period actual data for any financial period in the Activity Table and the Resources tab of Activity Details. The available financial period columns are listed in the Financial Period Value group of columns in the Columns dialog box.

You can display Activity Table columns for all of the following financial period fields:

- ▶ (Period Name): Actual Expense Cost
- ▶ (Period Name): Actual Labor Cost
- ▶ (Period Name): Actual Labor Units
- ▶ (Period Name): Actual Material Cost
- ▶ (Period Name): Actual Nonlabor Cost
- ▶ (Period Name): Actual Nonlabor Units
- ▶ (Period Name): Earned Value Cost
- ▶ (Period Name): Earned Value Labor Units
- ▶ (Period Name): Planned Value Cost
- ▶ (Period Name): Planned Value Labor Units

You can change the columns of the Activity Details, Resources tab, to display Actual Cost and Actual Units columns for any financial period.

After you expose the columns you want, you can edit any value by clicking in the field.

Tips

- ▶ There might be several financial periods defined in the Financial Periods dictionary. The Columns dialog box lists all the fields listed above for the range of financial periods you select in the User Preferences, Application tab. You must specify a range of financial periods to display; otherwise, financial period columns are not available.
- ▶ To edit past period actual data, the actual and actual this period units and cost must be linked in the project. Before editing past period actual data, verify that the Link actual to date and actual this period units and costs option is selected on the Project Details, Calculations tab.

Notes

- ▶ You cannot edit past period actual data for activities that do not have an actual start date. You can edit past period actual data for activities that have resource assignments in the Resource Assignments window or in the Resources tab of Activity Details.
- ▶ You cannot edit past period actual data if the project is read only or checked out.
- ▶ For milestone activities, you can only edit past period expense costs.

- ▶ You must be assigned the Edit Period Performance, View Project Cost/Financials, Edit Project WBS Financials, and Add/Edit Project Activities Except Relationships project privileges to edit past period actual data. You must be assigned the appropriate project privileges as defined in P6 to edit past period actual data.

Project Check Out and Check In

Managing remote projects

You can "check out" projects so that they can be worked on remotely. Once a project is checked out, it can no longer be modified until it has been checked in. In addition to checking in the project, you may replace the existing project with the remote copy of the project by using the Import wizard.

Check out a project

- 1) Open the projects you want to check out.
- 2) Choose File, Check Out.
- 3) Select the projects you want to check out.

To check out a project, it must be open. If the project you want to check out is not on the list, click Cancel, open the project, and restart the wizard.

- 4) Type the name of the file and the location where the file will be saved.
- 5) Click Finish.

An XER file is created that exports complete project information to other P6 applications.

Note

- ▶ To move between different wizard windows, click Prev or Next.

View the check-out status of a project

- 1) Choose Enterprise, Projects.

A red checkmark displays beside any project that is currently checked out.

- 2) Choose View, Show on Bottom, Project Details.

- 3) Click the General tab, and check the status of the project in the Check Out Status field. Privileged users can also change the status of a project in this field.

The Checked Out By field indicates the user that checked out the project.

The Date Checked Out field indicates the date and time the user checked out the project.

Notes

- ▶ Changing the status of a project to Checked Out or Checked In, in the General tab, does not export project information or import updated project information. To import or export information when checking in or out a project, select Check In or Check Out on the File menu.
- ▶ The Checked Out By and Date Checked Out fields are blank when the Check Out Status is Checked In.

Modify check in update options

- 1) Open the projects you want to check in.
- 2) Choose File, Check In, then select the project you want to check in.
- 3) In the Update Project Options dialog box, select the layout you want to modify and click Modify.
- 4) In the Modify Import Configuration dialog box, select the data you want to modify.
- 5) Select the action to perform during the check-in process.
- 6) Mark the Delete checkbox to remove unreferenced data, data in the project you are updating but not included in the check-out file, from the project.
- 7) Click OK.

Note

- ▶ The Delete field applies only to relationships to external projects, thresholds, activities, activity relationships, and activity resource assignments. Global data types are not affected by this setting.

Check in a project

- 1) Open the projects you want to check in.
- 2) Choose File, Check In.
- 3) Select the file you want to check in.
- 4) Double click the Import Action field to select how the project data is checked in.
- 5) Select the data to check in by modifying the layout configuration in the Update Project Options dialog box.
- 6) Select the currency for the projects in the Currency Type dialog box.
- 7) Click Finish.

Note

- ▶ To move between different wizard windows, click Prev or Next.

Import from Contract Management

Linking Contract Management data

You can import data from the Contract Management module to update schedule dates, cost information, the Activity Code dictionary, and the Cost Accounts dictionary. You can also link documents in Contract Management to your project's activities.

Linking to Contract Management and importing data is a three step process detailed in the following topics:

- 1) **Link P6 Professional to Contract Management** (on page 346)
- 2) **Link your project to a Contract Management project** (on page 347)
- 3) **Import Contract Management data** (on page 347)

Notes

- ▶ A project can link to only one Contract Management project.
- ▶ For information about the tables and fields that are converted, see the ExpMappings9xandlater.pdf file located in the \Documentation\<language> folder of the P6 EPPM physical media or download.

Link P6 Professional to Contract Management

Before you can **link your project to a Contract Management project** (on page 347), you must first set up access to Contract Management in Admin Preferences using the P6 Application Settings. Setting up access is generally a one time task that is completed by the Project Administrator to identify the Contract Management version to which you are connecting. You must also identify the Contract Management web server.

To set up access to Contract Management:


- 1) Choose Admin, Admin Preferences.
- 2) Click the Options tab. Then, in the Link to Contract Management section, mark the Enable Link to Contract Management checkbox. Next, choose the Contract Management product version to which you are connecting. Type the URL and port number to the Contract Management web server.
- 3) Click Close.
- 4) Once you set up access to Contract Management, with the required privilege you can **link your project to a Contract Management project** (on page 347) to enable users to **import and view Contract Management data** (on page 347).

Link your project to a Contract Management project

Linking your project to a Contract Management project enables you to import Contract Management data to update schedule dates, cost information, the Activity Codes dictionary, and the Cost Accounts dictionary.

Before you can link your project, you must first **Link P6 Professional to Contract Management** (on page 346) in Admin Preferences using the P6 Application Settings. Setting up access is generally a one time task that is completed by the Project Administrator to identify the Contract Management product version to which you are connecting. Once access to Contract Management is set up, if you have the required security privilege, you can then link your project to a project in Contract Management.

To link your project to a Contract Management project:

- 1) Choose Enterprise, Projects and display Project Details.
- 2) Select the project to which you want to link a Contract Management project.
- 3) Click the Contract Management tab, then mark the 'Allow this project to link with a Contract Management Project' checkbox. (If the Contract Management, right click on a tab at the bottom (for example, General) to display the Project Details dialog box, and move Contract Management tabs section.)
- 4) In the Group Name:Project Name field, click . Select the name of the Contract Management/Expedition project to link to your project, then click the Select button.

If you are using Expedition version 8.5, in the Group Name field, type the name of the Expedition database that contains the project you want to link to. In the Project Name field, type the name of the Expedition project to link to your project.

- 5) Choose whether you are prompted for your login and password when retrieving Contract Management/Expedition data. If you choose to log in without being prompted, type your login name and password.

Note: If an identical username and password do not already exist in both Contract Management and P6 Professional, you will be prompted to enter the Contract Management Name and Password. If an identical username and password already exist in both Contract Management and P6 Professional, the Select Project Manager Project popup menu will display for you to select the project.

- 6) Click Close.

See Also: *Linking Contract Management Data (on page 346)*

Import Contract Management data

Once you **Link P6 Professional to Contract Management** (on page 346) and **link your project to a Contract Management project** (on page 347), you can specify which schedule, cost, and dictionary information to import.

- 1) Choose File, Import from Contract Management.

This option is enabled when the project is linked to a Contract Management project on the Contract Management tab of Project Details.

- 2) Mark the checkbox next to each item that you want to import to your project.
- 3) Click Import, then click OK.
- 4) The Contract Management Import Report lists all the information that is imported to your project. Click Commit Changes, then click Yes or No to save the report to a log file. If you select Yes, specify a filename and location.
- 5) Click Close. Click Yes to save any changes you made to the import settings or No to discard changes.

See Also: *How data is imported from Contract Management* (on page 348)

How data is imported from Contract Management

You can import activity and cost information from Contract Management.

New Activities

Any document in Contract Management that is linked to an activity ID is imported. If the activity ID matches an ID in the project, the activity is updated. If activity IDs are assigned in Contract Management that do not match an activity ID in the project, a new activity is created.

All new activities are placed under the project's root EPS node. The activities are assigned the default duration for new activities; they do not contain any dependencies.

Activity Codes dictionary

Global Activity Code: The Spec Section code is available to all projects in the enterprise.

Project Activity Codes: The Responsibility, Contracts, Bid Package, and Submittal Activity codes are imported at the project level. They are not available to all projects in the enterprise.

The Responsibility code is imported from the Contacts subsection of the Project Information section. The Abbreviation and Company Name columns are used as the code value and description, respectively.

The Contracts code is imported from the Contracts and Purchase Orders subsections of the Contract Information section. The No. and Description columns are used as the code value and description, respectively.

When you import the Submittal Activity code, the activity is assigned the code value Yes to indicate that the item is a submittal.

How Activity Codes are imported

If the code or value does not exist, the imported code or value is added to the dictionary.

If the code exists but the value does not, the value is added to the dictionary.

If the code and value exist, but the value assigned to the activity does not match the imported value, the value on the activity is overwritten.

If the activity does not exist, it is created.

Cost Accounts dictionary

Cost codes in Contract Management are imported to the Cost Accounts dictionary. The Cost Accounts dictionary is available to all projects in the enterprise. All items in the Cost Worksheet are imported as cost accounts and placed under a root node having the same name as the imported Contract Management project. The Cost Code and Title columns are imported as the Cost Account ID and Cost Account Name, respectively.

Cost information

Cost information from Contract Management is imported as Expenses for activities.

Notes

- ▶ For information about the tables and fields that are converted, see the ExpMappings9xandlater.pdf file located in the \Documentation\<language> folder of the P6 EPPM physical media or download.
- ▶ Some data you import from Contract Management may impact manual future period assignment values.

How? The following task information you can import from Contract Management may affect the spread of manual future period buckets:

- Remaining Early Finish
- Remaining Finish
- Original Duration
- Duration % Complete

If the duration of an activity with manual future period assignment buckets changes after importing data from Contract Management, one of the following will occur:

- For activities with a duration type of Fixed Duration & Units, the manual future period units are logically spread over the new duration of the activity.
- For activities with a duration type of Fixed Duration & Units/Time, the difference in units will be removed from, or added to, the last bucket.

Viewing Contract Management documents

You can view the following types of Contract Management documents as long as the document is associated with an activity ID from your project schedule:

- ▶ Drawing Sets
- ▶ Daily Reports
- ▶ Materials
- ▶ Punch Lists
- ▶ Submittals
- ▶ Budgeted Contracts
- ▶ Committed Contracts
- ▶ Schedule of Values
- ▶ Change Orders
- ▶ Purchase Orders

You cannot add, delete, or modify Contract Management documents.

Notes

- ▶ To display the most current Contract Management documents associated with the selected project, choose File, Refresh Data.
- ▶ For information about the tables and fields that are converted, see the ExpMappings9xandlater.pdf file located in the \Documentation\<language> folder of the P6 EPPM physical media or download.

See Also: *View Contract Management documents (on page 350)*

View Contract Management documents

Once you **link your project to a Contract Management project** (on page 347), you can view Contract Management documents, such as submittals and contracts.

- 1) Choose File, Open, then select the project that is linked with Contract Management. Mark the Retrieve Contract Management documents checkbox at the bottom of the dialog box to retrieve Contract Management documents.

This checkbox is available only if your project is linked to a Contract Management project.

- 2) Click OK to open the project.
- 3) Choose Project, Activities, then choose View, Show on Bottom, Activity Details.
- 4) Right-click in Activity Details, then choose Customize Activity Details.
- 5) In the Available Tabs section, select Contract Management Docs, then click the right arrow to add it to the tabs displayed in Activity Details. Click OK.

- 6) Click the Contract Management tab. Select a document, then click View. Then type your Contract Management username and password. The document displays in your default web browser.

Tip

- ▶ Click the Refresh button to ensure you are viewing the most current Contract Management documents associated with the selected project.

See Also:*Viewing Contract Management documents* (on page 350)