# Oracle® Agile Product Lifecycle Management

Product Portfolio Management User Guide

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# Preface

Agile PLM is a comprehensive enterprise PLM solution for managing your product value chain.

## Audience

This document is intended for administrators and users of the Agile PLM products.

## Documentation Accessibility

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## Related Documents

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The Oracle Technology Network (OTN) website http://www.oracle.com/technetwork/documentation/agile-085940.html contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the website, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

## Conventions

The following text conventions are used in this document:

| Convention | Meaning |
|---|---|
| **boldface** | Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary. |
| *italic* | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |

| Convention | Meaning |
| --- | --- |
| `monospace` | Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter. |

# 1

# Introduction

This user guide provides detailed descriptions of all Agile Product Portfolio Management (PPM) features and explains how you can use PPM to record, monitor, and track progress of projects and programs.

## Agile Product Portfolio Management Overview

Agile Product Portfolio Management is a web-based application that enables users to manage all aspects of a project or program. PPM is fully integrated with the complete Agile PLM suite of products to maintain a centralized view of project records and associated product information within the organization.

Executives use the PPM Dashboards to view portfolio data pertaining to all projects or programs. Portfolio data includes risks such as schedule slips, lack of resources, and project costs that directly contribute to the overall status of the project.

### What's New in PPM 9.3.5

Agile PPM 9.3.5 introduces the following features and enhancements:

- **Gantt Chart improvements**:
  - Multi-project Gantt - You can now open multiple projects in one Gantt session. For more information, see "Working with Multi-Project Gantt" on page 2-45.
  - Navigator - A new tool is available to allow you to easily add, remove, and lock/unlock projects in Gantt. For more information, see "Gantt Navigator" on page 2-48.
  - Filtering capability - Filter functionality is now available in Gantt. For more information, see "Filtering in Gantt" on page 2-44.
  - Privilege checking for editing in Gantt is now fully enforced. See "Privilege Checks in Gantt" on page 2-30 for more information.
  - In the Gantt Task Assignment view, the following changes have been made:
    * Two read-only columns, Days Effort and Actual Hours, have been added to the Manage Resources table.
    * A threshold line is displayed in the Resource Utilization chart to show the capacity of a resource/resource pool. It marks the 100% level.
    * Detailed Utilization is displayed per project in the tooltip.
    * Calculation of Resource Utilization logic has changed.

    For more information, see "Task Assignment" on page 2-32.

- Additional changes were made to improve the management of programs and resource balancing. These changes include:
  * A view option in Comparative Gantt view that shows the variance between the latest loaded data from the server and real time data.
  * New insertion behavior from inline editing to a pop-up window in File menu/toolbar. This behavior is more consistent with the context menu. These changes have been applied to all project data-related views, including Gantt, Task Assignments, Calendar, Critical Path, and Comparative Gantt views.
  * The root project is now displayed in the tooltip of the assignment in Resource View.
  * Added Root Parent column in the Resource Utilization View.

For documentation on the common features and enhancements introduced across Agile PLM in this release, see the *Getting Started with Agile PLM* guide.

## Upgrade Considerations

During an upgrade from a previous version of PPM, data migration is necessary to ensure that the existing data complies with new or changed business rules.

To facilitate the data migration, a post upgrade utility is available. For information on using this utility, see the *Agile PLM Database Upgrade Guide*.

**Note:** The PPM post upgrade utility is not supported on WebSphere Application Server.

Workday settings can be configured in the *aut.properties* file before upgrade. For details of parameters to be defined, see the *Agile PLM Database Upgrade Guide*.

## Configuration Notes

- For Japanese and Chinese operating systems, an Agile PPM database instance can only be configured to use UTF-8 language encoding. Agile PPM sets the browser's character encoding to UTF-8, and it is not recommended to change the character encoding setting in the browser.
- For information on all Agile PLM software specifications, including supported Java Runtime Environment, see the *Agile PLM Capacity Planning Guide*.

## Related Documentation

Common Agile PLM functionality is not described in the PPM User Guide. The following manuals provide comprehensive information on all common Agile PLM features and administrative requirements.

- *Agile PLM Getting Started Guide*
- *Agile PLM Administrator Guide*

## Features Summary

PPM provides visibility into all levels of project activity, and enables you to track and control all aspects of a project. You can use PPM features to do the following:

- **Project Planning**
  - Create projects based on existing project templates
  - Create a project
  - Create baselines for projects
  - Convert Microsoft® Project files to PPM projects to associate project information with related product records in Agile PLM
  - Import and export root-level information about the projects
  - Import project details from file formats such as XLS and CSV into PPM
  - Manage project schedules
  - Manage project milestones and gates
- **Resource Management**
  - Assign projects and tasks to resources
  - Manage resource pools
  - Track time and effort spent on projects
- **Project Collaboration**
  - Initiate and respond to project-related discussions
  - Post news and action items related to the project
  - View notifications on assignments and action items
  - Maintain a project dashboard
- **Project Tracking**
  - View project summary to track overall status of a project
  - Track project costs
  - Monitor overall status of the project
  - Generate project reports for analysis
  - View notifications on assignments and action items

## When to Use Web Client

Web Client is recommended for project team members who need to view information and add or edit data that is specific to the activities they own.

Use Web Client to:

- View notifications and assignments
- Manage assignments
- Use timesheets
- View a personalized dashboard
- View project summary and status
- Change workflow status
- View reports
- Manage subscriptions

- Manage content
- Participate in discussions

Project participants use Web Client for all their activities.

## When to Use Gantt Chart

Gantt chart is recommended for program and project managers, whose primary responsibility is to monitor and manage programs and projects.

Use Gantt chart to:

- Assign and manage tasks and resources
- Monitor resource utilization
- Quickly add and edit activities, gates, and dependencies
- View progress and modify project schedule

## Project Management Objects

Project Management process involves management of schedules, tasks, statuses, discussions, documents, phases, gates, and resources.

At a minimum, a typical Agile PPM project consists of:

- A root-level project
- A series of child objects such as phases, programs, tasks, gates, or other projects.

The following table describes the various objects in the Agile PPM solution.

| Icon | Object | Description |
|---|---|---|
|  | **Project** | A Project is a unique set of related projects, phases, tasks, sub-programs, milestones, and gates that is driven by a time schedule with target start and end dates, and dependencies. A Project is the top-level object, but can also be a child of another project.<br>If the organizational practice uses Programs as the top-level object, to enable program creation in PPM, contact your site's Agile Administrator. |
|  | **Program** | A Program is a unique set of related programs, phases, tasks, sub-programs, milestones and gates. Programs are driven by a time schedule. A Program can be the top-level object or a child object of another project or program. |
|  | **Phase** | A Phase, sometimes called a stage, is a segment of a project.<br>Phases define the activities required to create a set of deliverables. When phases end, Project Managers may hold a phase exit or gate review to examine the completion status of each phase.<br>A Phase comprises activities such as tasks and gates. It derives the date and status information from the project elements. |
|  | **Task** | A Task is a segment of work that one or more resources can complete over a period. Progress or status of a task rolls up to higher levels of the program. Phases, projects, programs, or other tasks can contain tasks. |

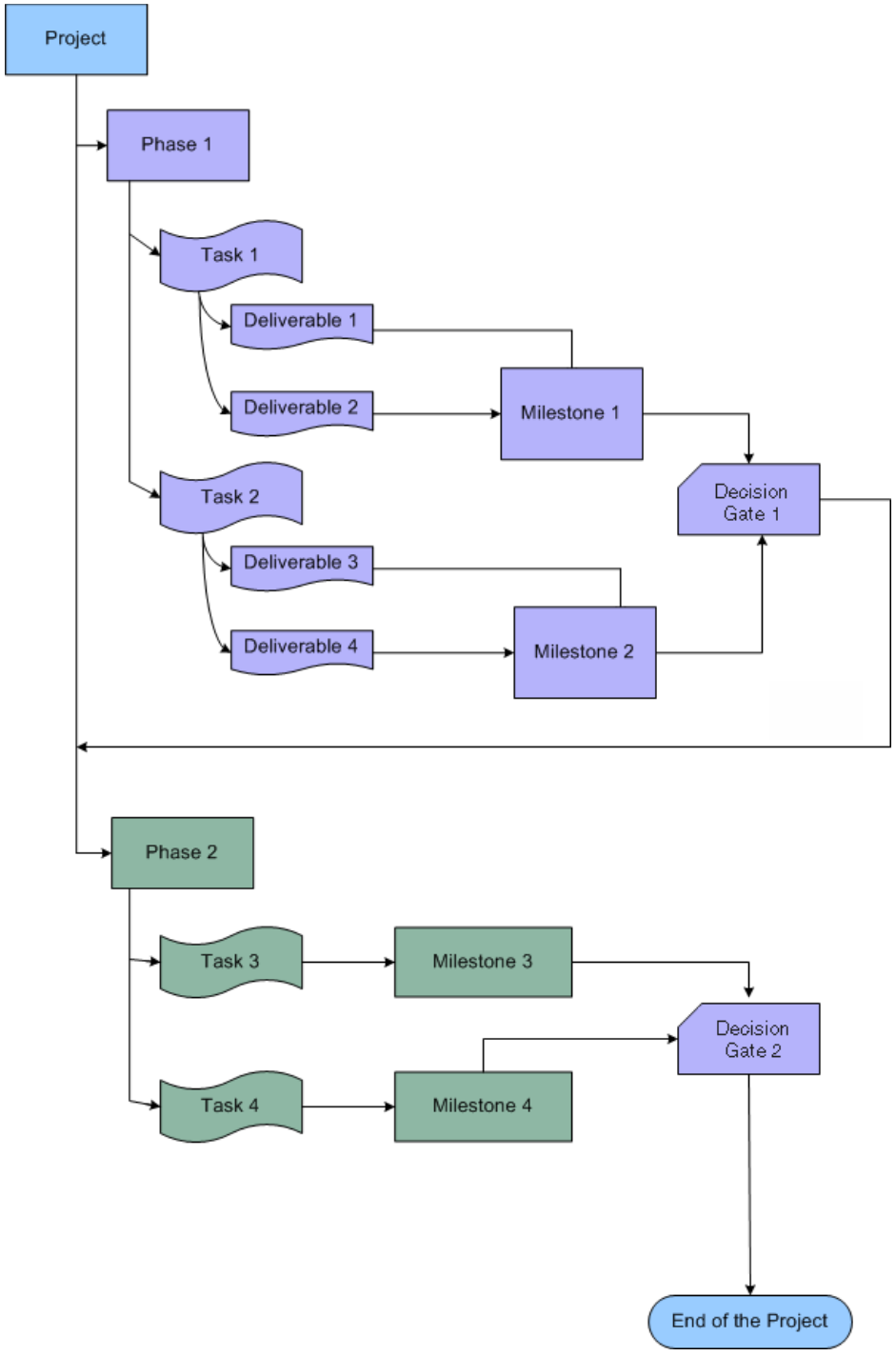
| Icon | Object | Description |
|---|---|---|
|  | **Gate** | A gate marks a point in the project timeline that typically requires a review of a group of project tasks, activities, or deliverables.<br><br>Gate status is 'Closed' by default. Gate status can be set to 'Review' or 'Open' based on work performed in the project. The work performed is typically defined in the form of deliverables. If a gate is set to 'Review', the project can be on hold until it is opened. When a gate is 'opened', directly or after a review, project progress can resume.<br><br>**Decision Gate:** A decision gate is a special gate type used in phase-gate project methodologies. Decision gates mark a point in the project timeline when tactical and strategic decisions about a project need to be executed. Each phase of a project in a phase-gate model has a corresponding decision gate. Standard projects for New Product Development are typically five or six phases, each with a decision gate.<br><br>**Stationary Gate:** A stationary gate is a gate type used to restrict users from modifying critical dates on the project schedule. A gate is usually moved forward automatically if tasks preceding the gate are moved forward. If you define a gate as 'stationary', only users with explicit privileges to move the gate can move the preceding tasks forward. To learn how to define a stationary gate, see "Defining Stationary Gates" on page 3-4.<br><br>**Note**: A Gate cannot have any Activities/Gates/Milestones as its children, therefore a Gate cannot be imported into PPM if it has children. |
|  | **Milestone** | Milestones are points in the project timeline that indicate the need for additional or secondary activities. Milestones can mark billing cycles, sub-project launch points, project metrics, or project team notifications. Milestones may or may not be dependent on deliverables.<br><br>**Note**: A Milestone cannot have any Activities/Gates/Milestones as its children, therefore a Milestone cannot be imported into PPM if it has children. |
| | **Deliverable** | A Deliverable represents a unit of work required for a project's success, usually fulfilled by generating a digital file. (Word processing documents, spreadsheet documents, PDFs, presentation documents, and so on.) Deliverables can also be Agile PLM objects and processes.<br><br>Deliverables are managed in the **Content** tab of a project and often used to control the status of tasks and gates. |
|  | **Discussion** | Discussions are informal conversations specific to a project or program, found in the **Discussions** tab within the **Collaboration** tab of the project object. Discussions are frequently sub-classed into Risks and Issues sub-classes to capture and store all risks and issues related to projects. |
| | **News** | Information or announcements that need to be communicated to everyone who has access to the project object. **News** is a tab within the **Collaboration** tab of the project object. |
|  | **Action Item** | Action items are created in the **Collaboration** tab of a project and used to track non-essential activities that do not impact the project timeline. Action items can be assigned at any level of the project hierarchy. Action items are tracked and available to users in the project's **Summary** page and the **My Assignments** page. |

Programs, projects, phases, tasks and gates can be fully customized. For further information, see your site's Agile administrator.

### Project Tree Structure

The following figure illustrates the various PPM objects in a project.

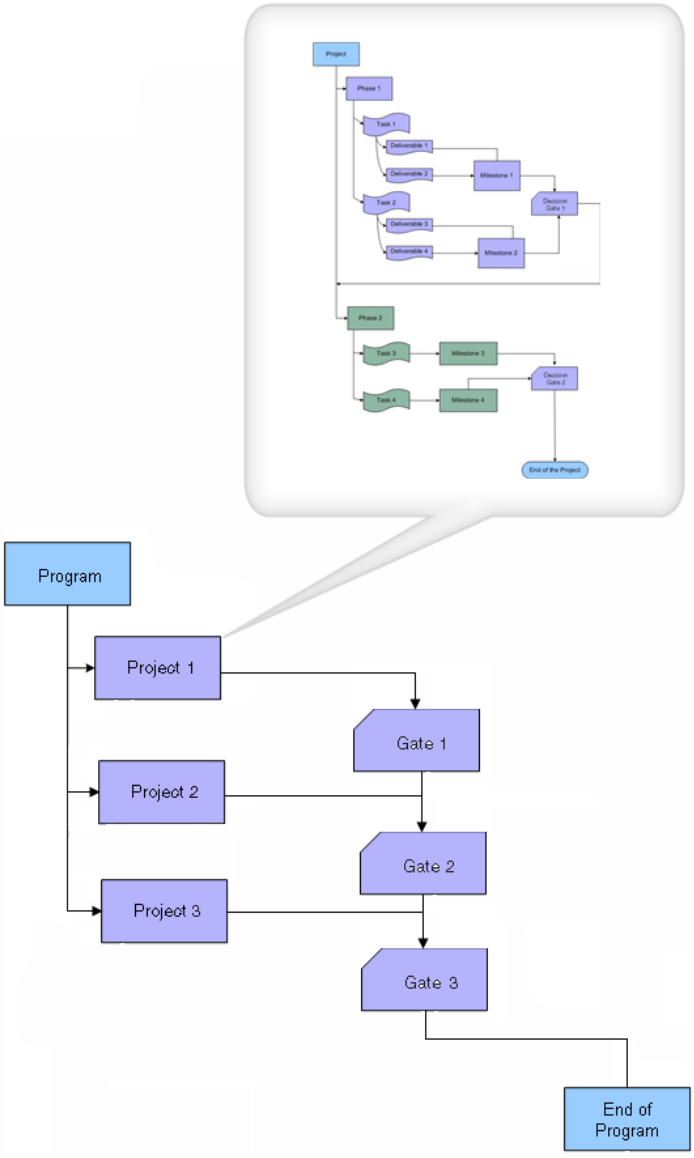
***Figure 1–1 Project Tree Structure***




Projects, programs, phases, tasks and gates can be customized. A 'Program' with multiple projects is 'Complete' only if all the projects within it are 'Complete'. Each of

these projects has its own set of phases and gates. The following figure illustrates 'Projects' within a 'Program':

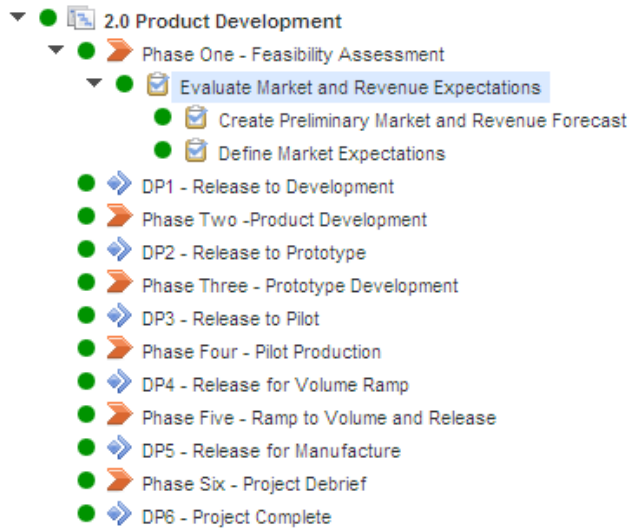
***Figure 1–2 Projects within a Program***




If your organization uses 'Programs' instead of 'Projects', contact your site's Agile Administrator to modify settings in Java Client.

An example of a project tree structure as seen in the navigation pane:

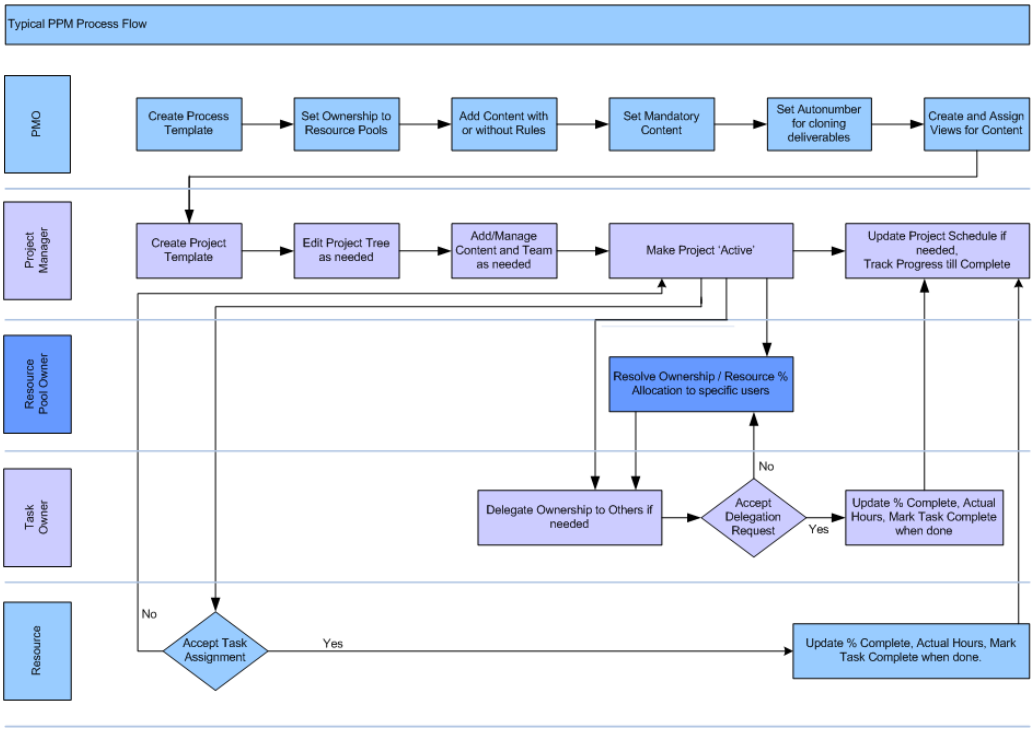
***Figure 1–3 Project Tree View in Navigator***




## PPM Process Flow

The following flowchart shows typical PPM processes and workflow participants.

***Figure 1–4 PPM Process Flow***



## Where to Find Information

| Your role... | Where to find information… |
|---|---|
| Project or Program Management Office | "Setting Up Project Management Processes" on page 3-1.<br>"Best Practices" on page A-1. |
| Project Manager | "Creating and Managing Projects" on page 4-1.<br>"Working with Microsoft Project" on page 7-1.<br>"Import and Export" on page 9-1.<br>"Tracking Projects" on page 6-1. |
| Resource Pool Owner | "Creating and Managing Projects" on page 4-1. |
| Task Owner, Resource | "Participating in Projects" on page 5-1. |
| Administrator | "Configuring Product Portfolio Management" on page 10-1. |
| Any PPM User | "Understanding the Interface" on page 2-1.<br>"Best Practices" on page A-1. |

# 2

# Understanding the Interface

As a PPM user, you need to be familiar with the following:

- Using PPM-specific tabs in the Dashboard
- Working with PPM Notifications
- Working with My Assignments
- Working with Timesheets
- Accessing project information
- Using the Navigator
- Working with Gantt Chart

## Home Page

The Agile Home page provides access to Dashboard, Notifications, Workflow Routings, and My Assignments. You can configure the application to view timesheets. You can set the **Home** page to display one of these tab pages as your preferred start page. For more information, refer to the *Getting Started with Agile PLM* guide.

If you choose one of the dashboard tabs as your preferred start page, that dashboard tab page displays when you click the Home page icon in the top pane.

To view the **Home** page while you are working on a project page, click the Home icon.

### Quick Links

Quick Links, at the top of the Home page, is a list of up to ten links that you use frequently. You can define and edit your own Quick Links list. Your Quick Links list can include predefined Agile PLM system links, saved searches in your Personal Searches folder, or bookmarks in your **My Bookmarks** folder.

### Home Page Inbox Tabs

As information passes through the Agile system, users receive news of status changes, requests, and other notifications through email. Users with different roles and privileges receive different notifications. As soon as you log in to the Web Client, it is a good practice to view the information available for your perusal on the Home Page Inbox tabs.

- **Dashboard Tab** -Enables you to view and manage information across all your projects. For more details on dashboard features, see "Dashboard" on page 2-2.

- **Notifications Tab** -Lists notifications that inform you of some action or process that has taken place, or requests that you can accept from the My Assignments tab. In addition, this tab lists the action items or activities for which you can accept or decline ownership from the My Assignments tab. It is a recommended practice to delete the notifications after you have read them.
- **Workflow Routings Tab** -Lists the routable objects that require your review or action. Click the object number in the table to open a routable object.
- **My Assignments Tab** -My Assignments Tab lists project leaf node objects or action items assigned to you which are not yet complete. You can accept or decline a request or ownership. Click the Quick View callout that appears when you position your mouse cursor over an object, to view the details of the object.
- **Timesheet Tab** -Enables timesheet entry by assigned resources on a project. It enables you to track reported time data to ascertain resource utilization and related costs. This tab is visible only if enabled by your Agile administrator.

### Dashboard

The Dashboard is a highly configurable set of views that enables users to track and manage the information available in the Agile PLM system.

You can create an unlimited number of dashboard tabs to categorize and display the content you want. Access to these tabs can be restricted through roles and privileges. The data that you want to view can be retrieved from different sources, and rendered in charts, tables, and other forms.

Dashboard tabs must be created and configured in Agile Java Client by an administrator. You can view and personalize the tabs that are made visible in Agile PLM Web Client for your use.

For details on configuring Dashboard views, see the *Agile PLM Administrator Guide*.

The dashboard enables PPM users to view and manage information across all projects. You can use the dashboard to obtain:

- Executive-level view of key information for all your projects based on your roles and privileges
- User-level information about your own activities and tasks
- Resource utilization reports

All users can use the dashboard to access reports and view consolidated information. See also "Reports" on page 6-5.

### Dashboard Tabs

The dashboard comprises:

- **Default Tabs** that enable you to select the view: **Executive**, **Projects**, **Resources, Financial, My Stuff, Optional Tab 1,** and **Optional Tab 2.**
- **User-configured tabs** that display customized information in tabular or chart formats, based on preferences set up by an administrator.

To view user-configured tabs, you must have the Dashboard Tab View privilege assigned to you, and this privilege must be applied to these tabs within the Agile Java Client.

- **Widgets** within each tab that present information relevant to that view. For example, in the **My Stuff** tab, the widgets represent the current user's project activities: **My Discussions, My Documents, My Action Items.**

- The Dashboard Filter icon in every table enables you to filter data within the widgets to create customized views.

The information you can view in the **Executive, Projects**, and **Financial** tabs is from root projects for which you have the Read and Discover privilege.

If you are an Executive, you have global privileges. You can view all root-level projects that contain matching values for the dashboard category fields. By default, these fields are labeled Project Type, Region, Division, Customer, Launch Year, Product Line, Category 7 to Category 24, and Program. These are multi-select list fields that can be relabeled and configured within the **Administration > General Info** tab in the Agile Java Client.

For information on how to configure optional dashboard tabs, see the *Agile PLM Administrator Guide*.

#### Accessing Gantt from the Dashboard

You can launch Gantt from Dashboard from the following tables:

- Executive tab >Project Status and Financial
- Project tab > Project Status
- Financial tab >Financial

To launch Gantt, select one or more project rows, click the list drop-down arrow > Gantt Chart, and select the launch mode. Root projects related to the selected projects via the PLM Reference field are launched. See "Gantt Chart" on page 2-27 for more details about single and multi-project Gantt.

### Configuring Dashboard Tab Widgets

The Dashboard Filter icon at the top of each widget enables you to filter the data in the widget to show only the information that is most relevant to you.

You can filter the dashboard category fields that display within each tab widget according to your business requirement.

For example, a functional manager who owns several resource pools might want to view only off-track tasks assigned to people in certain pools. An executive might set the dashboard to show all the projects, programs, issues, gates, financial summaries, and resources that apply to a division and region, or view a specified subset. Once the dashboard settings are entered, you only see information that satisfies the specified settings.

You can use the dashboard category fields to rapidly classify tasks and to slice data for reporting purposes. The default Dashboard category fields are Project Type, Region, Product Line, Division, Region, Launch year, Program, Category 7 to Category 24.

The values that you set at the root project level are applied down the hierarchy. For example, if you set a particular value for **Division** at the root project level, all the tasks within the hierarchy are also set to the same value. These fields are ideally used for Customer, Market and other attributes that are relevant at the top level of the project.

If a root project has a value set to "All," then, by design, it will appear in all views no matter what value is selected in the configuration view for that field.

### Executive Tab

The **Executive** tab provides portfolio data for the executive who needs to monitor projects and see information rollups by type of project. It provides a cross-section of

information on projects where you can see the major risks in terms of schedule, resources, and cost.

The **Executive** tab contains data only if you have **Executive** role, or have Read privilege for root-level projects.

The widgets in the **Executive** tab are:

- **Project Status -** Provides a graph of all active projects the user has configured to view, showing the overall status of each (that is, On Track, Needs Attention, Off Track). For each type of status displayed, the widget shows the percentage of projects with the specific status.

  To display the number of projects that comprise a segment, place the mouse cursor over that segment of the chart.

  To display the **Projects** tab with a particular segment of projects selected in all windows, click that segment.

  The data in this window does not include projects that are in the **Completed** or **Canceled** states, projects with a **Project State** field setting of **Proposed** or **Template**, or projects that are archived or soft-deleted.

  You can also open projects in Gantt from within the table view in Project Status.

- **Resource Pool Allocation -** Displays a table showing the names of available resource pools and associated data, filtered by the settings in the dashboard filter.

  The table displays the following information for each resource pool:

  – **Pool Name**- The name of the resource pool.

  – **Overdue** - The number of Off Track projects which have a resource pool or pool members assigned.

  – **Allocation** - Displays a red square if the pool or any of its members are over-allocated for a project.

Pool members who do not have current assignments are not counted. Resources who are not assigned to any resource pool do not appear on the dashboard.

To view the Resource Pool Utilization Report, click the icon in the last column of the Resource Pool Allocation widget in the dashboard.

The data in this window does not include projects that are in the **Completed** or **Canceled** states, projects with a **Project State** field setting of **Proposed** or **Template**, or projects that are archived or soft-deleted.

- **Financial** - Displays a table showing cost rollups for the root projects that you have access to view. The **Financial** tab in the **Executive** view also shows the same table that is presented in the Financial View. See "Financial Tab" on page 2-6.

### Projects Tab

The **Projects** tab displays gate progress, status, and discussions specific to the projects for which you have access as the owner, resource, or team member. The various widgets in the **Projects** tab are:

- **Project Status -** Displays all projects to which you have access (subject to the table filters). It includes the root project name, status, start date and end date.

  To change the sort order, click a column heading.

  To open a Project object, click its name. The icon adjacent to the project name indicates the status of the project, such as On Track or Needs Attention.

- **Gate Status -** Displays the gates for each active project, their status and scheduled due date. (The number required is derived from the number of deliverables listed on the **Content** tab plus the number of dependencies to the gate.)

  To open a project or gate, click its name.

- **Project Discussions -** Lists the open discussions, specific to the projects for which you have access rights. The **Open Date** denotes the date on which the discussion was initiated. Use the **Priority** drop-down list to filter the discussions by priority.

### Resources Tab

The **Resources** tab provides resource pool owners and executives with information about the resources they manage. Pool managers can see the status of activities assigned to their resources, the priority issues related to their resources and the list of off-track activities assigned to their pools. They can also see the current resource loads across the enterprise.

The various widgets in the **Resources** tab are:

- **Resource Allocation -** Shows each resource pool's projects and status, noting items that are in Pending, Assigned, or Overdue statuses. It also notes resources that are over-allocated.

  A pending activity or gate is one that has been delegated to a resource pool, but has not yet been assigned to a user in that pool.

  The number of overdue items is a count of all activities or gates that are past the due date, regardless of whether they are assigned to users.

  To edit status for a resource pool (add or remove resources, or create a report), click its name.

  The data in this window does not include projects that are in the **Completed** or **Canceled** states, projects with a **Project State** field setting of **Proposed** or **Template**, or projects that are archived or soft-deleted.

- **Open Discussions by Resource Pool** - Shows the discussions for each resource pool. You can select priorities to display from the **Priority** list. Click the name of a project to open it. Once the project object is open you can go to its **Discussions** tab, and view associated issues. (For further information on the Discussions tab, see "Discussions Table" on page 4-29.

  If there is a discussion thread, only the top level issue is displayed.

  The data in this window does not include projects that are in the Completed or Canceled states, projects with a **Project State** field setting of Proposed or Template, or projects that are archived or soft-deleted.

- **Resource Pool Activity Status -** Shows Off-Track items assigned to pool members of pools that you own, noting Scheduled due date, Project name, and Scheduled End date. To view and update off-track resource pool activities, click the Resource pool name.

  The data in this window does not include projects that are in the **Completed** or **Canceled** states, projects with a **Project State** field setting of **Proposed**, or projects that are archived or soft-deleted.

- **Resource Pool Utilization** - Shows a graph of resource pool utilization by project, enabling a pool manager to see where resources are allocated or over-allocated.

  To view project name and percent utilization of resources, place the mouse pointer over each chart segment.

To view team data, click the chart segment of interest. This opens the corresponding project object in the **Team** tab.

The data in this window does not include projects that are in the Completed or Canceled states, projects with a **Project State** field setting of Proposed, or projects that are archived or soft-deleted.

### Financial Tab

The **Financial** tab shows charts of capital expense, labor cost, and fixed cost for each root project available. The **Financial** tab also shows the same table that is presented in the 'Financial' widget in the Executive tab.

To configure which reports appear in the Financial tab, use **Tools and Settings > Administration > Dashboard Configuration.**

To select the projects to be considered for each chart, use the **Dashboard filter** in the chart.

You can minimize, maximize, or close charts in the tab view. When a chart is closed, the **Add Content** list appears. Use this list to re-open any chart that you have closed.

### My Stuff Tab

The **My Stuff** tab displays the Documents, Discussions, and Action Items assigned to the logged in user. The widgets in this tab are:

- **My Action Items** - Displays all your Action Items by **Status**, **Creator**, and **Due Date**. The name of the project or discussion to which the Action Item is associated appears as a link in the **Belongs To** column. Click the link to view the associated object. To view the Action Item, click the corresponding link in the **Subject** column.
- **My Documents** - Lists all the project-related documents that you own with the name of the **Root Project, Project Name**, **Folder Number**, and the **File Name**. To open a file, click the folder number and then click the **Files** tab. Alternatively, you can click the file name to view the document.
- **My Discussions** - Lists all the discussions you have created for the selected set of projects, showing the Subject, Most Recent Message, and the Date for each. You can click the **Subject** link to view and reply to a discussion.

### Optional Tabs

You can configure Optional Tab1 and Optional Tab2 to display reports based on your customized queries in each table. If you have the privilege to configure these tabs, a **Configure** button appears in the middle of each table in the **Optional Tabs** page.

The fields that are available for display are configured in Java Client by an administrator. For more information on configuring Optional tabs in Java Client, see the *Agile PLM Administrator Guide*.

### PPM Notifications

Within Product Portfolio Management, default notifications are triggered and sent to appropriate recipients when you perform various actions on a project object. For example, a notification can inform you of schedule or status changes, an activity assigned to you, or a project that needs your approval, based on your role.

Event-based notifications can also be configured in Java Client according to your requirement. Such notifications can be triggered by event-based subscriptions.

For detailed information on event-based notifications, configuring notifications, and creating custom notifications, see the *Agile PLM Administrator Guide*.

**Note:** Notifications are generated only when enabled in Java Client.

Default PPM notifications are related to any of the following:

- Ownership, Assignment or Delegation
- Schedule Change
- Cost
- Workflow
- Discussions
- Subscriptions
- Setup

**Cost Impact Notifications**

| Notification | Received By | When... |
|---|---|---|
| Task Overbudget Notification | Task Owner | The cost of executing a task exceeds the budget allocation for it. |
| Actual Time exceeds Budgeted time to Object Owner Notification | Project owner | Resource(s) allocated to a task have exceeded the budgeted time to complete the task. |
| Actual Time exceeds Budgeted time to Pool Owner Notification | Resource Pool Owner | Resource(s) from the recipient's resource pool have exceeded the budgeted time to complete the allocated task. |

**Discussion-related Notifications**

| Notification | Received By | When... |
|---|---|---|
| Discussion Action Item Assignment Notification | Discussion participant/program resource | An action item associated with a discussion is assigned to the recipient. |
| Discussion Create Notification | Any user added to the Notify list during discussion creation. | A new discussion object is created successfully. |
| Discussion Send | Discussion participant/program resource | A discussion is sent to the recipient. |
| Reply Create Notification | Discussion participants | A user replies to a message within a discussion thread. |
| Reply Update Notification | Discussion participants | A user updates a reply message within a discussion thread. |

**Other Notifications**

| Notification | Received By | When... |
|---|---|---|
| Relationship Promotion Failure Notification | Program Owner | Automatic promotion of a project status fails for any reason, for example, the non-completion of a required field. |
| Relationship Notifications > Subscription Notification | Notification subscriber | Field tags within a subscription notification is changed or updated. |

#### Ownership, Assignment, or Delegation Notifications

The following notifications are related to ownership, assignment, or delegation of a project object.

| Notification | Received By | When... |
|---|---|---|
| Project Object Delegation Notification | Delegated user | A Project activity is delegated to the recipient. |
| Action Item Assignment Notification | Assigned user | An action item is assigned to the recipient. |
| Project Owner Assignment Notification | Project owner | The recipient creates a project from a template or is assigned ownership of a project during project creation from a template. |
| Assignment of an activity to a resource. | Assigned user | An activity is assigned to the recipient. |
| Accept activity assignment | Project Owner | The assigned resource accepts the activity assignment. |
| Reject activity assignment | Project Owner | The assigned resource rejects the activity assignment |
| Project Object Delegation Accept Notification | Project Owner | A resource accepts an activity delegation. |
| Project Object Delegation Reject Notification | Project Owner | A resource declines an activity delegation. |
| Notification for Project Object Delegation | Delegated user | A project activity is delegated to the recipient and must be accepted or rejected from the My Assignments tab. |
| Notification for Activity Object Owner Change | New Activity Owner | Ownership of an activity is changed on the General Info tab. |
| Pool Owner Project Delegation Notification | Resource Pool Owner | An activity (with or without child activities) is delegated to a resource pool. |
| Notification for Activity Assignment to a Resource | Resource Pool Member | An activity is assigned to the recipient. |
| Pool Owner Project Delegation Request | Resource Pool Owner | A child activity of a template project is delegated to the recipient's resource pool and must be accepted or rejected from the My Assignments tab. |

| Notification | Received By | When... |
|---|---|---|
| Pool Owner Project Delegation Accept Notification | Project Owner | A resource pool owner accepts an activity assignment. |
| Pool Owner Project Delegation Reject Notification | Project Owner | A resource pool owner rejects an activity assignment. |
| Notification to Resource pool owner- Assignment of Activity | Resource Pool Owner | An activity is assigned to a resource in the recipient's resource pool. For proposed projects, this can be controlled using a SmartRule. |
| Gate Action Item Assignment Notification | Assigned user | An action item associated with a project gate is assigned to the recipient. |
| Gate Object Delegation | Delegated user | A project gate is delegated to the recipient. |
| Gate Object Delegation Accept Notification | Gate Owner | A user accepts a gate object delegation. |
| Gate Object Delegation Reject Notification | Gate Owner | A user rejects a gate object delegation. |
| Notification for Gate Object Delegation | Delegated user | A program gate is delegated to the recipient and must be accepted or rejected from the My Assignments tab. |
| Notification for Gate Object Owner Change | New Gate Owner | Ownership of a Gate is changed on the General Info tab. |

**Schedule Change Notifications**

| Notification | Received By | When... |
|---|---|---|
| Parent Project Schedule Change Notification | Parent Program Owner | The scheduled date of a parent activity is changed. Applies only when one or more baselines are created for the tree. |
| Predecessor Project Schedule Change Notification | Successor Program Owner | The scheduled dates of a predecessor activity is changed, resulting in changes to the scheduled dates of the successor activity. |
| Microsoft Project Sync Change Notification | Program Owner | Changes made to a PPM project from Microsoft Project are synchronized, resulting in schedule date changes. Applies only when one or more baselines are created for the tree. |
| Child Activity Reschedule Notification | Activity Owner | The scheduled date of a child activity is changed because of changes to the scheduled date of the parent activity. Applies only when one or more baselines are created for the tree. |

| Notification | Received By | When... |
|---|---|---|
| Notification to Activity Owner for Project Schedule Date Change due to addition of Predecessor | Activity Owner | The Schedule Date of an activity has changed because it is now dependent upon a preceding activity. |
| Project Schedule Change Notification - addition of gate predecessor | Activity Owner | The Schedule Date of an activity has changed because it is now dependent upon a preceding gate. |
| Notifications for Calendar Update | Activity or Gate Owners | A calendar used in the project is updated, affecting the project schedule. |

**Setup-related Notifications**

| Notification | Received By | When... |
|---|---|---|
| Project Creation Notification | Project Creator | Project creation is run as a background process and a new project is created successfully. |
| Activity Send | Any user. | An activity is sent to the recipient. |
| User Disabled Notification | Resource Pool Owner | A user who was assigned as a resource to an activity from the recipient's resource pool has been disabled by the system. |

**Workflow-related Notifications**

| Notification | Received By | When... |
|---|---|---|
| Project Status Promotion, Observers/Notifiers | Designated observers or users on the Notify list. | There is a change in activity status. |
| Project Status Promotion, Approvers | Designated approvers. | There is a change in activity status that requires approval. |
| Approve Project, Notifiers | All users on the Notify list for the activity. | The activity has been approved to move forward in the workflow. |
| Project Approve Activity, Add Approver | Designated approver. | The recipient is added as an approver for a project or activity. |
| Project Approve Activity, Add Observer | Designated observer. | The recipient is added as an observer for a project or activity. |
| Project Approve Activity, Remove Approver | Designated Project Approver | The recipient is removed from the list of approvers for a project or activity. |
| Project Activity Comment | Program Owner | A user has added a comment to an activity. |
| Project Activity Promotion Failure, Reject | Program Owner | A required approver rejects a project status promotion request. |

| Notification | Received By | When... |
|---|---|---|
| Project Activity Promotion, Approve | Program Owner | A required approver approves a project status promotion request. |
| Gate Status Promotion Observers/Notifiers | Designated Gate Observers | There is a change in gate status. |
| Gate Status Promotion; Approvers | Project /Gate Approvers | There is a change in gate status that requires approval. |
| Project Approve Gate; Add Approver | Designated Gate Approver | The recipient is added as an approver for a gate. |
| Project Approve Gate; Add Observer | Designated Gate Observer | The recipient is added as an observer for a gate. |
| Project Approver Gate; Remove Approver | Designated Gate Approver | The recipient is removed from the list of approvers for a gate. |
| Project Gate Comment | Program Owner | A user adds a comment to a project gate. |
| Project Gate Promotion Failure Reject | Program Owner | A required approver rejects a gate status promotion request. |
| Project Gate Promotion; Approve | Program Owner | A required approver approves a gate status promotion request. |

### Workflow Routings Tab

The Home page **Workflow Routings** tab lists routable objects that require your attention. For example, your Workflow Routings table may contain tasks that you can choose to accept.

The workflow routings are a combination of base classes and actions that define the kind of attention on the routed object. In PPM, the routable objects are Activities or Gates in the Project Class.

The workflow routings tab consists of routable objects that require your:

- Approval
- Acknowledgment
- Acceptance or Rejection
- Review
- Action

This tab includes features that allow you to review your routing objects quickly and efficiently. For detailed information on Workflow Routing tab, see the *Getting Started with Agile PLM* guide.

### My Assignments

The Home page **My Assignments** tab lists Activities and Action Items for which you are responsible. The **My Assignments** tab provides a set of tools that allow you to efficiently work with your assignments. You can sort the assignments table rows, or select one or more assignment rows in the table, and then perform an action on the selected assignments. For example, you can accept or decline a project activity assignment, or flag an assignment for easier tracking.

The Home page **My Assignments** tab table includes:

- Activity objects where:
  - The activity is In Process. The workflow status type is *not* Complete or Canceled.
  - The activity's **Project State** attribute is set to Active. Proposed or Template activities are not included.
  - You are the owner of the activity and the **Delegated Owner** field is blank. If you have delegated ownership, the **Delegated Owner** field contains the name of the delegated owner until the activity is accepted or declined.
  - You are the delegated owner of the activity.
  - You are a resource on the Team tab of the activity and your allocation is greater than 0%.
- Action Items where:
  - The action item is assigned to you and it is *not* Complete or Canceled.
  - The action item is assigned to you and it has been accepted.
  - The action item is assigned to you and it has *not* been declined.
  - You are the creator of the action item and it has been declined by the assignee.

#### Project Assignments

Projects that display in your **My Assignments** tab are:

- Active root-level projects that have no child objects, for which you are the owner.
- Leaf-level projects for which you are the owner.
- Projects that you have delegated to a resource from the **Actions> Delegate** menu.

The project is displayed until the assigned resource accepts the action item. Once the resource accepts the action item, it disappears from your **My Assignments** list and you receive a notification in the **Notifications** tab.

#### My Assignments Table

Your Agile administrator determines which columns appear in the **My Assignments** table. The displayed attributes can be enabled or disabled only through the **Admin > System Settings > My Assignments** node in Agile Java Client Administrator. You can, however, rearrange or filter the defined columns as you want, using the **Personalize** option. For detailed information on how to manage assignments, see the *Getting Started with Agile PLM* guide.

#### Creating Personalized Views

The **Personalize** button enables you to create customized views of the content that is displayed in page tables. Once you create views, these are listed as options for your selection in the **Views** drop-down list. For details on using the Personalize options, see the *Getting Started with Agile PLM* guide.

### Timesheet

The Timesheet feature helps Agile PPM customers address critical business needs, such as the accurate calculation of resource time and associated labor costs for a project. This feature helps authorized users to do the following:

- Record the number of hours worked against each assigned task, on a daily or weekly basis.

- View and administer all timesheets recorded in the system.
- Derive resource time data for reports and analysis.

> **Note:** The timesheet reflects the working or non-working days as defined in the project or activity calendar in use. Non-working days set as exceptions and regular weekends are shown in gray. Users can enter time for all days regardless of whether they are defined as working or non-working days.

Timesheet entry and management is restricted by certain role, privilege, and SmartRule settings in Java Client. For details, see the *Agile PLM Administrator Guide*.

### Timesheet Tab Tools

| Tool | Description |
|---|---|
| **More >Print** | Prints the selected timesheets. Click **More > Print** to print the timesheet. |
| **More >Timesheet Search** | Enables users with appropriate privileges to search and view all timesheets recorded in the system. Click **More > Timesheet Search** to search for time sheets. For more information, see "Searching for Timesheets" on page 4-20. |
| **More > Fill-down** | Copy the value from a cell to the corresponding cells in all rows following the selection. |
| **More > Fill-down (selected cells)** | Copy the value from a cell to all the selected cells. The value of the first cell in the selection is copied into all the selected cells. |
| **More > Fill-up** | Copy the value from a cell to the corresponding cells in all rows preceding the selection. |
| **More > Fill-up (selected cells)** | Copy the value from a cell to all the selected cells. The value of the last cell in the selection is copied into all the selected cells. |
| **Views** | Enables you to select from a list of defined timesheet views. You can create views using the **Personalize** options. |
| **Personalize** | Click **Personalize** to set the Table filters. You can configure the timesheet display to show selected attributes such as the associated activity's Name, Number (manually created or auto-generated activity number), Description, Parent, Parent Number, or Root Parent.<br>If you have privilege to view timesheets of other users, you can create a **View** to configure and view other users' time sheets.<br>This filter works the same as in My Assignments. For detailed information about using the filter, see the *Getting Started with Agile PLM* guide. |

# Project Page

The project page opens when you click any project object. From this page, you can record and update information such as schedule, cost, status, resources, content, and discussions about the project.

From the project page, you can:

- View details of a project - see "Viewing Project Details" on page 2-14.
- View project summary - see "Viewing Project Summary" on page 2-15.
- View the project as a Gantt Chart - see "Launching Gantt" on page 2-29.
- Lock or unlock projects - see "Multiple Users Editing the Same Task" on page 4-5.
- Change the status of a project-see "Changing Workflow Status" on page 5-4.
- View the project tree - Click the **Navigator** button to show the project tree instead of the folder structure, in the left pane.
- Perform various actions on a project - see "Actions Menu" on page 2-25.
- Personalize table views - see "Creating Personalized Views" on page 2-12, and "Personalizing Views for Content" on page 3-11.

## Viewing Project Details

The Details View is displayed by default if you click a project object that is at the lowest level in the hierarchy (no sub-activities). If you click an object that has sub-activities, it opens in the Summary view. The Summary view is not available for objects without sub-activities. While viewing a project, you can click the **Details View** or **Summary** buttons to toggle between the two views.

You can view and manage project-related objects from the following tabs or pages within the Details View.

| Tab | Tasks |
|---|---|
| **General Info** | View and edit general information about the project, including activities, status, and other attributes configured in Administration. See "Viewing General Information" on page 2-19. |
| **Schedule** | Manage the schedule of individual activities within the project, create baselines, and analyze the impact of changes. See "Managing Schedules" on page 4-21. |
| **Dependencies** | Create and manage dependencies between various project-related activities. See "Creating and Editing Dependencies in Web Client" on page 4-23. |
| **Team** | Manage resources for a project. See "Managing Resources" on page 4-10. |
| **Content** | View and manage all project-related content, including deliverables. See "Managing Content" on page 3-7. |
| **Workflow** | View workflows and sign off, and assign approvers, observers, and notifiers as necessary. |

| Tab | Tasks |
|---|---|
| **Collaboration** | Create or join project-related discussions, view action items, share news and information. See "Managing Discussions" on page 4-29. |
| **Attachments** | View, edit, and manage attachments that are required for project execution. See "Working with Attachments" on page 2-24. |
| **History** | View project history. See "Viewing History" on page 2-25.. |

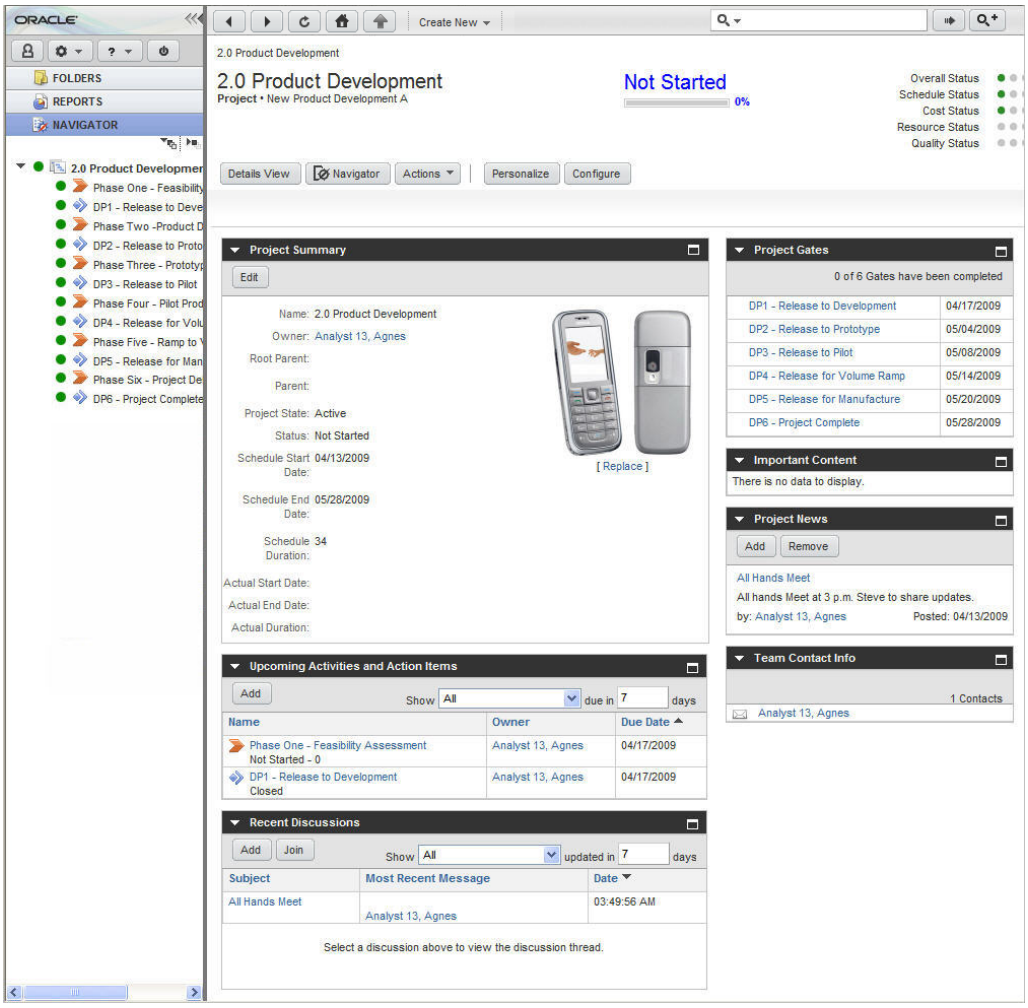
## Viewing Project Summary

When you first open a project which has sub-activities the **Summary** view displays. (If the project you open does not have sub-activities, then the **Details** view appears.) The **Summary** view is a consolidated view of project information. Executives, task owners and project managers can use this page to quickly review current information, status, and health of a project. This view can comprise all parent-level objects (projects, phases, and tasks) that have child activities. This view is not available on leaf-level activities and gates.

The **Summary** page contains several 'widgets'. Each widget provides users with customized information and action buttons for a specific aspect of the project, as configured by an administrator. For example, a **Project Gates** widget may provide users visibility into the status of the project gates (milestones) for that project and deliverables associated with those gates. An **Upcoming Activities and Action Items** widget may list upcoming activities and provide an **Add** button that you can use to add an action item to be performed for an activity.

To configure the **Summary** view, you need appropriate privileges. For details on privileges and summary page configuration steps, see the *Agile PLM Administrator Guide.*

***Figure 2–1 Project Summary Page***




## Summary Page Actions

You can perform the primary actions required on the project directly from the **Summary** view.

Most widgets contain links to the listed objects. You can use these links to navigate to the appropriate tab of the object and perform necessary actions. For example, in the Project Gates widget, you can click the name of the Gate to modify the details.

The contents of each widget and the actions that you can perform within each are explained in the table below.

| Widget | Description | Actions Available |
|---|---|---|
| **Project Summary** | A quick overview of the project. Displays data for attributes associated to project activities, as configured by an administrator. Examples of the attributes are Name, Description, Status, Scheduled Start date, and Scheduled End date | **Add image** - Insert an image file from your local drive. Click Add Image to browse and select an image file from your local drive. The image file is automatically resized if it exceeds the allotted space and resolution.<br><br>**Replace Image** - Replace the current image file with another.<br><br>Image editing options are available only to root project managers, and only on the root project.<br><br>**Edit** - Edit the attribute values displayed within the widget. You must have Modify privilege to edit these values. For details, see the *Agile PLM Administrator Guide*. |
| **Upcoming Activities and Action Items** | Helps you keep track of immediate requirements. Lists project activities and action items that are either overdue, or will be due within a specified time frame. You can view leaf-level project objects (including gate sub-classes) that are in Not Started or In Progress states, and **Open** Action Items associated to the Activity being viewed and its child activities. Table columns are sortable; by default these are sorted by Due Date. | **Add Action Item** - Create a Action Item for the activity being viewed currently. Click Add Action Item to open a dialog where you can create the new action item.<br><br>**Show** -Filter the list using the options within the **Show** drop-down list to display upcoming action items and activities, or items that need your immediate attention. For example, you can use the My Activities and Action Items list item to filter the list by items for which you are the assigned owner. After selecting an option, you can additionally narrow down the results by entering a number in the **due in - days** field. The default value in this field is 7 (days). |

| Widget | Description | Actions Available |
|---|---|---|
| **Recent Discussions** | Displays a list of recent, open discussions that occurred within a specified time frame. When you click a row to select a discussion, the discussion thread displays in the bottom pane of the window as a preview. | **Add** - Create a discussion to be associated with the current Activity. Click Add to open the Add Discussion wizard and enter discussion details. You can select the list of users you want to include in the discussion and notify them.<br><br>**Join** - Join an existing discussion. Select the row of the discussion you want to join and click **Join** to join the discussion.<br><br>**Reply** - Reply to a discussion message. Click **Reply** on the right-hand side of the selected discussion row to open a dialog where you can enter your response. You can edit the subject of the message if you want. By default, the response will be sent to all users currently included in the discussion. You can edit the **Notify List** field in the dialog to change the list of users who will receive the response. |
| **Project Gates** | Displays the list of Gates and their due dates.<br><br>If you have created multiple Gate subclasses to establish milestones, you can configure this widget to display the Gate subclasses you want to view. For details, see the *Agile PLM Administrator Guide*. | **Quick Navigation** - Click the name of a listed gate to navigate directly to the **General Info** tab view of that gate. |
| **Important Content** | Displays a list of content objects that were added to the Important Content view from the Content tab. See "Working with Project Content" on page 4-7. | **Quick Navigation** - Click the content object name to navigate directly to that **General Info** tab for that object. |
| **Project News** | Displays project-related news to keep team members and resources informed about project information. | **Add** - Click Add to open a dialog where you can create a news item related to the activity currently being viewed. You can add a subject and news text.<br><br>**Remove** - Select a news item and click Remove to remove it from the widget. You can multi-select items in the list to remove them. |

| Widget | Description | Actions Available |
|---|---|---|
| **Team Contact Info.** | Displays the team members associated with the selected activity and provides contact information for those team members. | Click the name of the team member to navigate directly to the Team tab of the current activity.<br>**Send Email** - Send a notification to a team member whose name appears as an attribute within the widget. Click the Email icon next to the username to open a comments dialog box, where you can enter comments and then send these as a notification to the team member. |

To toggle between the summary view and a detailed view of the project, click **Summary** or **Details View** as appropriate.

## Viewing General Information

The **General Info** tab contains Activity and Status information, and displays information for the fields listed in the table. Fields which contain information that is compiled or rolled up from other fields are not editable.To edit fields, click the **Edit** button. You can make changes in the editable fields, and click **Save** to save the changes, or click **Cancel** to exit without saving.

| Field | Contains... |
|---|---|
| **Schedule** | Information that enables you to quickly track program progress. Displays the targeted start and finish dates. Also displays the total duration between the targeted start and finish dates.<br>The default Start time stamp is 08:00:00 A.M and default End time stamp is 05:00:00 P.M. However, you can manually edit the End time stamp, if required.<br>You cannot edit the Start time stamp to a value lesser than 08:00:00.If you create the project at 07:00:00 A.M, the Start time stamp displays 08:00:00A.M.<br>The value of the default time stamp is based on the value set for **Working hours configuration** in the configuration file (*agile.properties*) during Agile PLM installation. |
| **Estimated** | Information that enables you to track when overdue items will be delivered. |
| **Actual** | Actual varies from schedule if you are ahead of or behind targeted project dates. |

| Field | Contains... |
|---|---|
| **Variance in Work Days** | Start Variance, Finish Variance, and Duration Variance are displayed for Estimated, and Actual dates, compared with Scheduled dates. Variances are displayed in either Work Days or Calendar Days, or both Work and Calendar days.<br><br>Your Agile administrator determines which information is displayed in the summary table on the **General Info** tab. |
| **Number** | The Autonumber assigned to the project object. |
| **Activities Type** | Displays whether the activity is a project, program, phase, or task. |
| **Owner** | The project owner. |
| **Name** | The name of the activity. |
| **Description** | Text that describes the project. The maximum length is set by the Agile administrator. |
| **Root Parent** | A link to the root parent object. |
| **Parent** | A link to the parent object. |
| **Project State** | Indicates the type: **Active**, **Proposed**, **Template**. Only an active project can undergo changes in workflow status. |
| **Audit Score** | The audit score for the activity. See "Audit Values" on page 2-23. |
| **Weight** | Weight assigned to the activity. |
| **Weighted Score** | A calculated score based on the audit score times the weight. |
| **Status** | Indicates the workflow status of the project. |
| **Rollup Health Status** | Indicates whether the health status rollup is selected or not. |
| **Cost Status** | Denotes the cost status for the activity. This value is a selected value for the leaf object and a rolled-up value for a parent object. |
| **Resource Status** | Denotes the resource status for the activity. This value is a selected value for the leaf object and a rolled-up value for a parent object. |
| **Quality Status** | Denotes the quality status for the activity. This value is a selected value for the leaf object and a rolled-up value for a parent object. |
| **Lock User** | Name of the user who is currently using Gantt Chart or Microsoft® Project to modify the project. When a user launches either Gantt Chart or Microsoft Project, the activity is automatically locked to prevent any other user from editing the project in PPM. |
| **Workflow** | Identifies the object's assigned workflow. |
| **Schedule Status** | The schedule status of the activity. |

| Field | Contains... |
|---|---|
| **Overall Status** | An overall status of the activity. This value is calculated based on either selected or rolled up-values for cost, resource, quality, and schedule. It denotes the worst of these status values (cost, resource, quality, and schedule). |
| **Project Type** | Dashboard field. May be renamed during implementation. |
| **Region** | Dashboard field. May be renamed during implementation. |
| **Division** | Dashboard field. May be renamed during implementation. |
| **Product Line** | Dashboard field. May be renamed during implementation. |
| **Customer** | Dashboard field. May be renamed during implementation. |
| **Launch Year** | Dashboard field. May be renamed during implementation. |
| **Global** | Controls whether the project is available to all executives or not. |
| **Actual Labor Cost** | The Labor cost incurred on the project as on date, based on the actual work done on the project. |
| **Budgeted Labor Cost** | The intended Labor cost for the project. |
| **Estimated Labor Cost to Completion** | The cost of Labor for the entire project which is calculated based on the change in Project cost or plan, as the project progresses. |
| **Actual Fixed Cost** | The Fixed Cost incurred on the project as on date, based on the actual work done on the project. |
| **Budgeted Fixed Cost** | The intended Fixed cost for the project. |
| **Estimated Fixed Cost to Completion** | The fixed cost for the project which is calculated based on the change in the project costing or plan as the project progresses. |
| **Actual Capital Expenses** | The capital expenses incurred on the project as on date. |
| **Budgeted Capital Expenses** | The intended capital expense limit on the project. |
| **Estimated Capital Expenses to Completion** | The estimated capital expenses for the project which varies based on any change in the fixed assets of the project. |
| **Actual Time (In Days)** | Days Effort is calculated at the rate of 8 hours per day and displayed as Actual Time (In Days). Each day is calculated as a bucket of 8 hours. For example, if actual hours worked is 24, Actual Time (In Days) is calculated as 3 days. If actual hours worked is 25, it is calculated as 4 days. |
| **Budgeted Time (In Days)** | The preallocated time in days for a project to reach completion. |

| Field | Contains... |
|---|---|
| **Estimated Time to Completion** | The approximate time that is required for the project to reach completion, by the progress in project. |
| **Category fields** | Fields that are configured by the administrator. There are 25 Category fields. The last category field is assigned to the criteria called 'All Programs', by default. The user can create a project and link it to a specific program. This linking helps to consolidate information from multiple projects associated with the same program.<br>These Category fields are not available for Users and User Group objects. |
| **Schedule Editor** | Indicates the source of schedule editing for this project: PPM or MSP (Microsoft® Project). This is automatically set to MSP when you launch a project into Microsoft Project. When set to MSP, the PPM project does not change dates and duration programmatically. This ensures that when the project is published in PPM from Microsoft® Project, the project dates are correct in PPM. |
| **Actual Flex Cost** | A cost field that is configured by the administrator. Actual cost reflects the cost incurred on the project as on date. |
| **Budgeted Flex Cost** | A cost field that is configured by the administrator. Budgeted cost reflects the intended cost for the project. |
| **Estimated Flex Cost to Completion** | A cost field that is configured by the administrator. Estimated cost reflects the cost that keeps varying based on any change in the project cost or plan as the project progresses. |
| **Critical** | Indicates whether the activity is on the critical path. |
| **Total Actual Cost** | Sum of all the actual costs. |
| **Total Budgeted Cost** | Sum of all the budgeted costs. |
| **Total Estimated Cost to Completion** | Sum of all the estimated costs to completion. |
| **Created from Template** | Name of the template from which this project is created. |
| **PLM Reference** | Any object that you want to add as a reference to the project. This object also appears in the **Content** tab of the project. |
| **Project Keywords** | Keywords that are associated to the project. You can configure the project summary page to display important content by these project keywords. |
| **Functional Team(s)** | Lists any functional teams you have associated with the activity for workflow routings. |
| **Integration details** | (Appears only if RMW is installed.) |
| **Scale Factor** | Indicates the number by which the BOM quantity should be multiplied for commercial production. |

| Field | Contains... |
|---|---|
| **Operating Mode** | Defaults to Clinical Supply. |
| **Integration Message** | Provides information about the integration, or reason for failure. |
| **Integration Status** | Indicates whether the PPM object was successfully synced to RMW. |
| **Internal ID** | ID of the synced object in the RMW database. |
| **Calendar** | Calendar assigned to this activity. Calendars that are enabled by an administrator are visible for selection. |

**To edit the information in the General Info tab:**

1. Click **Edit** on the **General Info** tab of a project object.
2. Modify the editable fields.
3. Click **Save**.

### Dates

Within Agile PPM, dates are displayed in your preferred date format, but there is no time zone conversion applied for dates such as Schedule Start Date, Schedule End Date, Actual Start Date, Actual End Date, Estimated Start Date and Estimated End Date.

Date values that you enter are stored in Greenwich Mean Time (GMT) and displayed without the time zone. For example, if you enter a date value of 10/10/2009, the system stores the date in the database as 10/10/2009 00:00:00 GMT.

Page Two, Page Three, Workflow, and History dates are displayed in user-preferred time zones.

### Duration

Objects within a project can have different duration types such as:

- **Fixed duration** - The object takes a defined period, for example, five days. For Fixed duration, the **Days Effort** is calculated as the **Scheduled Duration** times the sum of the **% Allocation** of all resources. You can also create a zero duration activity by selecting **Fixed Duration** and setting Zero as the **Days Effort**.
- **Effort driven** - The **Days Effort** of the object is fixed, but the number of resources assigned affects the Scheduled Duration. For Effort Driven Duration Type, the **Scheduled Duration** is calculated as the **Days Effort** divided by the sum of **% Allocation** of all resources.

If a parent changes to a leaf node object (an activity with no children) then the Duration type changes from 'Calculated' to 'Fixed'. The Duration remains the same as it was when it was the parent. If the parent object had resources, Days Effort is calculated based on the percentage allocation of the Resource/Groups assigned to the **Team** tab. If there are no resources, the **Days Effort** is the same as the **Scheduled Duration**.

### Audit Values

The **General Info** tab of activities contains the following audit values:

- **Audit Score** - The value assigned to each object in a project by an auditor during an audit, based on performance indicators.
- **Weight** - A value that reflects the importance of the individual object compared to other objects in the entire project.
- **Weighted Score** - A value calculated by multiplying the values in the **Weight** and **Audit Score** fields.

## Working with Attachments

Attachments to Agile business objects contain pertinent information about the object in addition to the information recorded on the object tabs. Examples of attachment files are:

- Drawing files such as CAD drawings or scanned image files in viewable formats
- Web-based information in the form of URLs
- Project specifications and other documents
- Non-viewable files, compressed files, and so on

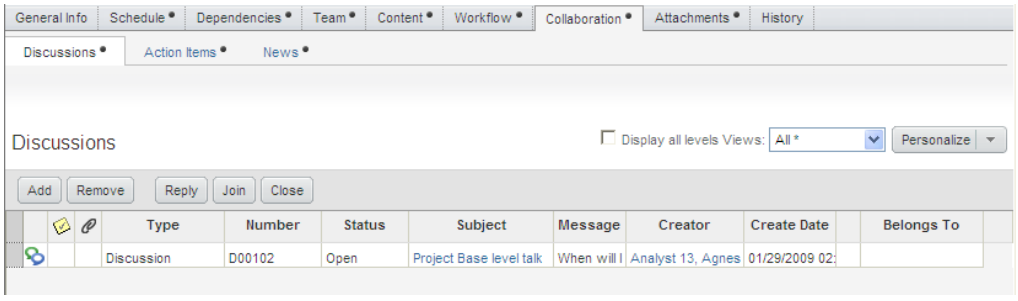
> **Important:** As a best practice, it is recommended that the attachments tab in Agile PPM activities and gates be disabled. Agile PPM provides a unique tab, the Content Tab, that you can use for all project content, including attachments.

For more information on working with attachments, refer the *Getting Started with Agile PLM* guide.

## Collaborating on Project Activities

The Collaboration tab enables you to manage project-related discussions, action items that result from the discussions, and news items. You can also add and view these objects in the Project Summary page.

***Figure 2–2 Collaboration Tab***




The Collaboration tab has the following views:

- **Discussions -** Enables you to initiate, join, reply to, or remove a discussion. The **Notifications** tab in your Home page displays all the discussions notified to you. For further information on managing discussions, see "Managing Discussions" on page 4-29.
- **Action Items -** Enables you to manage the action items. You can add, remove, accept, or decline an action item. In addition, you can mark the action item

'Complete'. The Action Items which you add in this tab appear in the **My Assignments** tab of the assignee's Home page. You can view these action items in the **Upcoming Activities and Action Items** widget of the **Project Summary** page.

For further information on working with Action items, see "Viewing Action Items" on page 4-31.

- **News -** Enables you to add and remove news or announcements specific to the project. You can also add and remove news items on the **Project Summary** page.

## Viewing History

The **History** tab records all actions taken, such as editing the **General Info** tab or changing activities or team members.

If you do not have the appropriate read privileges, you cannot view the fields on the **History** tab. If you have questions about your privileges, see your Agile administrator.

## Actions Menu

The Actions Menu consists of the following options in addition to the standard PLM menu commands such as Bookmark, Subscribe, Save As and Delete.

| Menu | Description |
|---|---|
| **Gantt Chart** | Click **Gantt Chart** to view the Gantt Chart view of the project. For more information on working with Gantt, see "Gantt Chart" on page 2-27. |
| **Delegate** | Click **Delegate** to delegate the project to a different owner. For more information on delegating ownership, see "Delegating Ownership" on page 4-18. |
| **Substitute Resource** | Click **Substitute Resource** to replace a resource in the project team. For more information on substituting resources, see "Substituting Resources" on page 4-20. |
| **Change Parent** | Click **Change Parent** to modify the root parent of the project. |
| **Make This a Root Activity** | In the project or phase within a project, select **Make this a root activity** to start a new project. This change modifies the existing dependencies. |
| **Compare Baselines** | Click **Compare Baselines** to view a comparison between two project baselines. For more information, see "Comparing Baselines" on page 4-28. |
| **Microsoft® Project** | The entries in this menu enable you to launch the existing PPM project in Microsoft Project. In addition, you can save the existing PPM project as an XML file. For more information, see "Working with Microsoft Project" on page 7-1. |
| **Complete** | Click **Complete** to modify the status of the project to 'Complete'. |
| **Change to Canceled** | Click **Change to Canceled** to modify the status of the Project to 'Canceled'. |

| | |
|---|---|
| **Accept Calendar Change** | Click **Accept Calendar Change** to manually accept changes to the calendar. You must have privileges to modify schedule dates and duration to perform this action. See also "Using Calendars" on page 4-22. |
| **Reports and Analytics** | The entries in this menu enable you to obtain reports on **Project Resource Utilization** and **Schedule**. For more information, see "Reports" on page 6-5. |
| **PPM Sync to RMW** (appears if RMW is installed) | Click **PPM Sync to RMW** to update the RMW database with projects and work requests created in PPM. |

## Address Book Palette

**To search for a user group:**

1. Click to open the address book palette.
2. Choose **s** in the address book palette dropdown list.
3. Type the user group object search criteria that you want to use.
4. Click the **Execute a Quick Search** button.
5. In the palette search results table, double-click the user group row you want. You can also select one or more rows and drag them to the field that you are modifying.
6. Press the Escape key to close the address book palette.

**To search for a user within a user group:**

The **Search within a User Group** option becomes available when the number of user groups in the Agile PLM system exceeds 200.

1. Click to open the address book palette.
2. Choose **Search within a user group** in the address book palette dropdown list.
3. In the **Select a user group to search within** dialog, type the name of the user group you want, or click the Search button to search for a group.
4. When you have selected a user group, click **OK**.

Agile PLM adds the group name to the address book palette dropdown list. Agile PLM continues to add group names to the palette dropdown list until the number of groups equals twenty. As additional groups are added to the list, Agile PLM removes the oldest entries from the dropdown list. A maximum of twenty groups that you recently selected for the **Search within a user group** option remain on the dropdown list.

Alternatively, you can use the address book palette dropdown list to select one of the user groups that you have selected recently.

1. Type the user object search criteria that you want to use.
2. Click the **Execute a Quick Search** button. The search is restricted to the members of the selected group.
3. In the palette search results table, double-click the user group row you want. You can also select one or more rows and drag them to the field that you are modifying.

4. Press the Escape key to close the address book palette.

**To search for users:**

1. Click to open the address book palette.
2. Choose **Users** in the address book palette dropdown list.
3. Type the user object search criteria that you want to use.
4. Click the **Execute a Quick Search** button.
5. In the palette search results table, double-click the user group row you want. You can also select one or more rows and drag them to the field that you are modifying.
6. Press the Escape key to close the address book palette.

## Gantt Chart

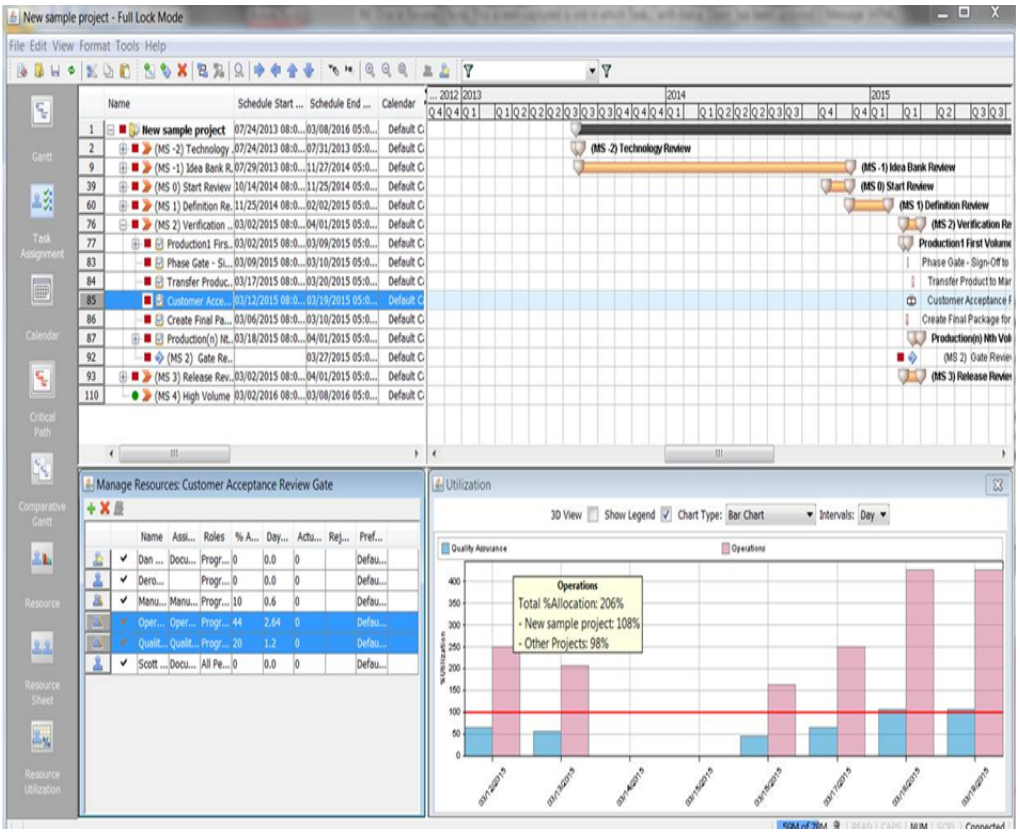
The Gantt chart feature is a powerful project management tool that helps project managers plan, administer, and track projects from start to finish. With Gantt, you can create a project and then plan the work breakdown structure for this project, which includes defining activities and tasks, creating dependencies between tasks, and performing resource management.

The Gantt Chart offers rich user-friendly features (such as Excel-like data editing) to manipulate and view data in graphical or tabular formats. Multiple view options enable you to focus on discrete project aspects, and right-click menus help you to quickly take actions on selected project objects.

The default Gantt view consists of a menu bar, standard toolbar, a tabular activity pane and a graphical activity pane. The tabular activity pane provides a hierarchical tree structure representation of all activities and the graphical pane provides a graphical representation of activities with color and iconic indicators.

Additional features are available in Gantt as a result of the multi-project Gantt feature. These features, as well as differences between single-project and multi-project Gantt, are documented in subsequent sub-sections.

***Figure 2–3 Gantt Chart***




## Prerequisites

Ensure that you have the appropriate privileges to perform project management activities within the Gantt Chart. You can create, modify, and delete activities in Gantt only if you have been assigned the privileges to do so. If you have questions about your assigned roles and privileges, contact your Agile administrator.

The Gantt chart uses Java Web Start technology and requires Java Runtime Environment (JRE) to be installed on your computer. If the recommended JRE does not exist on your system or if you have a lower version installed, you are prompted to install the latest JRE version. For information on the recommended JRE, see *Agile PLM Capacity Planning Guide*.

If certain firewalls prevent this automatic download, you can download and install the appropriate JRE version.

## Modes of Operation

The Gantt chart operates in three modes:

- Connected - Requested data is obtained directly from the server.
- Disconnected - Requested data is obtained from the installation folder. If the server is not available, Gantt switches to this mode. Once the server becomes available, it switches back to Connected mode.
- Offline - Requested data is retrieved from the installation folder. The server is assumed to be unavailable.

**Note:** The Gantt chart opens in the mode it was set to when you last worked on it. If the Gantt Chart was set to Offline mode in your last session, it opens in Offline mode when you next try to launch a project from Web Client. The requested project cannot be opened as the system assumes server unavailability. Instead, a new default project is launched. To open the project you wanted, change the mode from Offline to Connected, and then launch the project again from Web Client.

## Launching Gantt

You can launch Gantt Chart from the Dashboard or from a program/project.

To launch the Gantt Chart from the Projects tab of the Dashboard, select the project(s), click the list drop-down arrow > Gantt Chart and select your launch mode. See "Launch Options" for launch mode options.

Alternatively, to launch the Gantt Chart from a project, open the project and select **Details View > Gantt Chart.**

If your project has sub-activities, you can also select **Actions > Gantt Chart** from the **Summary** view**.**

When you start the Gantt Chart, Java JAR files are downloaded into your computer's temporary files folder. Once these are loaded, the Gantt Chart appears.

You can also launch multiple related projects in Gantt. For information about launching multi-project Gantt, see "Working with Multi-Project Gantt" on page 2-45.

### Launch Options

You can launch the Gantt Chart from Web Client using any of the following project lock options:

- **Full Lock Mode** - Locks the current activity and all its lower-level activities, including dependent activities in other projects. Open in this mode to make overall schedule changes that should overwrite information in related projects.
- **Internal Lock Mode** - Locks the current activity and all its lower-level activities within the project. Dependant activities in other projects remain unlocked and can be edited. Be aware that scheduling changes that you make may affect the schedule of dependent activities in other projects. Open in this mode to perform changes that are not related to schedule.
- **Read Only mode** - Enables you to view but not edit data. Open in this mode to view or monitor projects without making changes.

If you launch Gantt in Full Lock Mode or Internal Lock Mode successfully from the Web Client, the loaded project(s) in Gantt will be locked accordingly. Note, however, that when you try to add additional projects using Navigator from within Gantt, the newly added projects are always Read Only by default, even if the current projects are all locked. You need to lock the newly added projects manually through Navigator. See "Gantt Navigator" on page 2-48 for more about the Navigator.

### Launching Gantt Using Shortcuts

During Gantt download, you are prompted to confirm whether you want shortcuts to the Gantt application to be installed on your Desktop and Start menu. Click **Yes** to confirm. These shortcuts are especially useful when you want to work on Gantt offline.

To launch Gantt from the Desktop, double-click the Gantt icon. To launch Gantt from the **Start** menu, choose **Programs > Oracle | Agile PLM** and select the Gantt application. Once you have saved a Gantt Chart Exchange (.gcx) file on your system, you can simply double-click the file to launch the Gantt Chart.

## Privilege Checks in Gantt

The following privileges checks are enforced in Gantt:

- Create
- Delete
- Modify

Only authorized changes for objects and object data are allowed.

The Modify privilege controls differ between Web Client and Gantt. See Chapter 10, "Configuring Product Portfolio Management" for more details.

## Gantt Toolbar

Most actions on the Gantt Chart can be performed using the icons on the toolbar or corresponding keyboard shortcuts. When you place your mouse pointer over an icon, the shortcut key appears next to the name of the icon.

| Function | Shortcut Keys | Description |
|---|---|---|
| **Navigator** | **Ctrl+Shift+N** | Opens Navigator tool. |
| **Open** | **Ctrl+O** | Opens Activities or Gates. |
| **Save** | **Ctrl+S** | Saves changed information in the Gantt. |
| **Refresh from Server** | **Ctrl+L** | Overwrites current data with the latest data from the server. All unsaved changes are lost. |
| **Cut** | **Ctrl+X** | Cuts a selected cell value, activity or gate. |
| **Copy** | **Ctrl+C** | Copies a selected cell value, activity or gate. |
| **Paste** | **Ctrl+V** | Pastes the cut or copied cell value, activity or gate. If you copy a task that is in Completed status, the status changes to Pending when you paste it. |
| **Activity** | **Insert** | Inserts an activity below the selected activity, at the same indent level. |
| **Gate** | **Alt+G** | Inserts a gate below the selected activity, at the same indent level. |
| **Delete** | **Delete** | Deletes the selected item from the Gantt Chart.<br>To select an activity for deletion, highlight or select the whole row. |
| **Create Dependency** | **Alt+C** | Adds a dependency. |
| **Edit Dependency** | **Alt+D** | Opens the **Edit Dependency** dialog for the selected dependency. |
| **Go To Selected Task** | **Ctrl+G** | Brings the corresponding graphic into view. |
| **Indent or Move Right** | **Alt+Shift+Right** | Indents an item, making a project element report to another item.<br>Moves the selected item or items to the right. |

| Function | Shortcut Keys | Description |
|---|---|---|
| **Outdent or Move Left** | **Alt+Shift+Left** | Outdents an item, so that a project element no longer reports to the higher-level element.<br>Moves the selected item or items to the left. |
| **Move Up** | **Alt+Shift+Up** | Moves an item up to change the order of the listed items at the same level. If project elements report to that item, these move along with it. |
| **Move Down** | **Alt+Shift+Down** | Moves an item down to change the order of the listed items at the same level. If project elements report to the item, these move along with it. |
| **Expand All** | **Ctrl+E** | Expands the Project tree structure to view all the activities within. |
| **Collapse All** | **Ctrl+Q** | Collapses the Project tree structure to hide all the activities in the tree. |
| **Zoom In** | **Ctrl+Plus (NumPad)** | Enlarges the graphical pane view. |
| **Zoom Out** | **Ctrl+Minus** | Reduces the graphical pane view. |
| **Zoom To Fit** | **Ctrl+0** | Changes the size of the graphical pane to show the entire project within the visible area. |
| **Manage Resources** | **Alt+F10** | Enables you to select and manage resources for the selected activities. |
| **Delegate Owner** | **Alt+F12** | Enables you to delegate the ownership of the selected activities. |
| **Predefined Filter** | N/A | Predefined filters to be used in Gantt. |
| **Custom Filter** | **Ctrl + Shift + F** | Custom filtering for filtering project data in Gantt. |

## Views in Gantt

Gantt supports the following views:

- Gantt
- Task Assignment
- Calendar
- Critical Path
- Comparative Gantt
- Resource
- Resource Sheet
- Resource Utilization

### Gantt

The Gantt view is the default view. This view displays the project activities and schedules in a combination pane. One pane displays a tabular view of activities in a hierarchical tree structure. The other displays a graphical view of activities in a bar graph format.

In all project data-related views, the graphical view is displayed as follows:

- The root (top) level of the loaded project is always be black (even it is not the real top level in the original project).

- The leaf (bottom) level is always displayed in pink, unless it is the only level loaded in Gantt.
- Other levels between the root and leaf levels are displayed in orange.

### Task Assignment

The Task Assignment view is a combination view of the Gantt Chart in the top pane and the Manage Resources sheet and Resource Utilization chart in the bottom pane. When you select an activity in this Gantt view, resource information about the task appears in the Manage Resource view. You can simultaneously view the resource utilization of each resource in a graph format in the Resource Utilization pane.

For a resource, the utilization is equal to the summarized value of allocation percentage. For instance, if you assigned a resource to 2 tasks with 100% allocations on the same day, then the utilization of the resource is 200%.

For a resource pool, the utilization is the summarized value of allocation percentage divided by the resource amount. For instance, if you assign a resource pool to two tasks at the same day with 100% allocation, and the resource pool has 2 resources, then the utilization of this resource pool is 100% instead of 200% though the Allocation% may display 200%.

Resource utilization calculations in the Task Assignment and Resource Utilization views are provided as follows:

- Allocations in active projects are calculated, whether the projects are loaded in Gantt or only on the server. Projects that are not loaded into Gantt are displayed in the sub-total in Others in the tooltip.
- Allocations in Proposed Projects are only calculated when the projects are loaded into Gantt. Projects that are have not been loaded are not displayed in Others in the tooltip.
- Allocations in Template Projects are never calculated even if the projects are loaded in Gantt.

See the "Resource Utilization" on page 2-34 for more information about this view.

> **Tip:** You can access the Manage Resources table and Resource Utilization chart as a popup windows. Go to **Tools > Manage Resources** to open the Manage Resources window. Click the Utilization button in the upper right hand corner to open the Resource Utilization chart.

### Calendar

The Calendar view enables you to create, edit, and review your project tasks in a calendar format. The Calendar view consists of two tabs, **Month** and **Day**. The Month tab displays a monthly view with all the days in the month. The Day tab displays a day view with all the hours in the day.

The Calendar view is helpful to view tasks that are scheduled on a particular day, week or month. It shows tasks schedules for a specific week or range of weeks. You can create a project by entering a task and the duration of a project using the calendar format.

### Critical Path

Critical path view helps you plan all activities that directly affect the completion date of a project. Critical Path is determined by identifying all the activities that have slack, below a pre-determined number of days.

Critical path activities act as the basis for creating a schedule and planning resource allocation. It helps you analyze where a remedial action is required to get a project back on track. Critical path can be viewed at activity and sub-activity level. The critical task is the current activity on the critical path.

If a schedule is on a critical path, the schedule bar on the graphical pane appears red.

### Comparative Gantt

The Comparative Gantt view helps you compare the current project schedule against other views, including the following:

- Estimated - shows the difference between the current schedule and estimated schedule.
- Actual - shows the difference between the current schedule and actual schedule.
- Latest Loaded From Server - shows the difference between the current schedule and the latest loaded schedule from the serve.
- Baselines - shows the variance between the current schedule and the selected baseline.

To view a comparison, select an option from the drop-down list in the main toolbar. All saved baselines are included in this list for selection. The default comparison value is Estimated.

> **Note:** The ability to view baselines is only available in single-project Gantt.

When this Latest Loaded from Server option is selected, the comparative view is between the current project schedule and the latest loaded schedule. This option is added to provide you with a view that can simulate some changes to the project schedule without really implementing the changes. Until you save your latest change or click Refresh from server, the data will not be updated.

In the graphical view:

- The Current schedule of a parent displays in black.
- The Current schedule of a child activity displays in orange.
- The Current schedule of a leaf activity displays in pink.
- The Estimated, Actual, or Latest schedule of the parent activity displays in white.
- The Estimated, Actual, or Latest schedule of selected child activities displays in gray.

In the tabular view, you can view baseline schedule information (start and end dates) in columns alongside current schedule information.

### Resource

The Resource view displays a list of all users for a particular project and their task allocation according to the schedule, in a calendar format. If you have assigned an allocation to a user, in this view, in the bar graph in the top pane you can view the

activity name, and its root parent information by hovering over the bar. The percentage of allocation is displayed in the bottom pane. You can also select the topmost row - All Users - to view a bar graph of all resources simultaneously.

In this view, you can also update task assignments to balance resource workload. For instance, if a user has been assigned two tasks in the same time period, causing overloading, one of the tasks can be postponed or reassigned. The Project Manager or Resource Pool Manager can move the task to another time period or to another user using a simple drag-and-drop action. The Gantt data is updated immediately, and synchronized to the server when saved.

### Resource Sheet

The Resource Sheet enables you to view available resources and add selected resources to your project. The Resource Sheet contains a set of users who are associated with the activities within a project. Adding resources to a Resource Sheet reduces duplication and maintenance of resources. You can access the Resource Sheet from **View > Resource Sheet.**

The Resource Sheet view contains fields with relevant user information such as Title, Business Phone, Email, Status, Assigned from Pool, and so on. You can review, add, or edit information on each resource. You can quickly create a resource list for your project by adding the name of each resource and their related information. A resource can be an individual, a company or department, a piece of equipment, a room, or any other resource that you are using for your project.

> **Note:** Simultaneous updates to the Resource Sheet by different users are not supported. Updates to the resource sheet are saved independently of Gantt chart updates.

If you load multiple projects in Gantt, all of the involved team members, that is all of the users listed in the projects' Team tabs, are aggregated and displayed in Resource Sheet. Any of the users can be selected in the drop-down list in the Manage Resource table in the pop-up in the Task Assignment view of any of the loaded project's activities.

### Resource Utilization

The Resource Utilization view displays all the resources and the tasks assigned to each resource. It displays the tasks and task allocations from other projects in PPM as well. You can view the following information for each resource or resource group in this table:

- Name
- Pool Name
- Root Parent
- % Allocation
- Schedule Start
- Schedule End

The Resource Utilization logic functions the same in this view as it does in the Task Assignment View. See "Task Assignment" on page 2-32 for more.

**To format columns in the report:**

1. Choose **Format>Preferences**.
2. Within the **Preferences** dialog that opens, in the **Columns** tab, select the columns you want to display.
3. Use the arrow buttons to move selected column names from the **Available Columns** list to the **Selected Columns** list.
4. To rearrange the order in which the columns display, move them up or down in the list using the up and down arrows.
5. To hide or show gridlines, select the appropriate check boxes for **Horizontal** and **Vertical**.
6. Click **OK** to apply your changes.

## Customizing the Gantt Chart

The graphical and tabular display of data within the Gantt Chart can be customized based on your preferences. You can configure the display of columns, grids, bar labels, appearance, and styles using the options in the **Format** menu.

You can configure the columns to display Page One attributes - the options that are made available in these fields are configured in the Java Client General Info attribute settings.

### Setting Preferences

You can customize column display and set other preferences such as preferred file download location, as described further.

**To customize column display:**

1. Choose **Format** > **Preferences**.
2. Within the Preferences dialog that opens, in the **Columns** tab, select the columns you want to display.
3. Use the arrow buttons to move selected column names from the **Available** columns list to the **Frozen** or **Non-Frozen** columns list as desired. The Non-Frozen column displays all the visible columns in the tabular activity pane.
4. Click **OK.**

**To freeze, unfreeze, or hide one or more columns:**

1. Within the tabular view pane, select the column or columns.
2. In the right-click menu, select **Freeze Column**, **Unfreeze Column** or **Hide** as appropriate.

Within the **Columns** tab of the **Preferences** dialog, you can use the and arrow buttons to sort the order of the displayed columns. Alternatively, you can click and drag a column in the tabular view pane to change its location.

**To set preferences for offline mode:**

1. Choose **Format** > **Preferences**.
2. Within the Preferences dialog, select the **Advanced** tab.
3. In the **File Location** field, browse and select the folder to which you want your files downloaded for offline access. The default location for file downloads is your My Documents folder.

4. In the **Project Name** field, you can enter a default value for activity names. For example, if several of your projects start with the same name, say 'ABC Project V.1', 'ABC Project V.2', 'ABC Project V.3' and so on, you can enter 'ABC Project' in this field so that you only need to change the rest of the name.
5. Select other options as appropriate:
   - If you select **Yes** for the **Download Page Two and Page Three** field, this information gets downloaded when you are in Online mode, and can be saved for offline activity. If you select **No,** this information is loaded only if you choose to view the properties of a selected activity.
   - If you select **Yes** in the **Display Locked Projects on Exit** field, a dialog appears when you exit Gantt, where you can view the list of projects that are locked by you. You can then choose to unlock activities that other users may need to access.
6. Click **OK** to exit the Preferences dialog.
7. In the **Format** menu, click **Save Settings** to save your preferences. The next time you log in, these settings are maintained.

### Appearance and Style

To customize the appearance of your Gantt Chart, choose **Format** > **Appearance** and choose a theme.

To change the graphical view style, choose **Format > Styles** and choose a style.

### Bar Labels

You can select the text to be displayed on the bar graphs on the graphical view pane. The information is displayed in relation to the task, project or phase corresponding to the bar graph. Choose **Format >Bar Labels** and select labels.

### Grids

You can also customize the display of grids and rows in your graphical view.

Once you have made changes to any of the format settings, select **Format>Save Settings** from the menu bar to save changes.

The Save Settings command does not save changes to the Grid.

### View Bar

The View Bar is a pane that is displayed on the left of the Gantt Chart and enables you easy access to view the different type of Gantt views. The Gantt view types are displayed as icons and you can click the icon to display the view. The default setting for the View Bar is Enabled. To disable it for a particular session, click **View** and select **View Bar**.

A check mark next to the View Bar option indicates that the view bar is enabled.

## Gantt Menu Options

This section details the various Gantt menu options for File.

The **File** menu in the Gantt Chart offers the following options:

| Menu Command | Action |
|---|---|
| **New** | Creates a new root project with default project data.<br>This option is disabled in multi-project Gantt. |
| **Open** | Opens a search window where you can locate and open projects from the server. You can search by Root Project, Root Template, Activities, Gates, or All Project. Available only in online mode. The search criteria you last used appears by default in the **Find From** field.<br>When you search by Activities or Gates, parametric search options become available if corresponding attributes have been enabled in Java Client. Click **Options** to view parametric search fields and specify criteria.<br>This option is disabled in multi-project Gantt. |
| **Save** | Saves the project to the server. Saved data includes: Page One, Page Two, Page Three, Schedule, Dependencies, Team, and Resources.. |
| **Save As** | Saves the project to the server under a different name. Saved data includes: Page One, Page Two, Page Three, Schedule, Team, and Resource Sheet. Content (from the Content tab) is not saved.<br>This option is disabled in multi-project Gantt. |
| **Navigator** | Opens Gantt Navigator tool. See"Gantt Navigator" on page 2-48. |
| **Open File** | Helps you search and locate a saved GCX (Gantt Chart Exchange) file on your hard drive. If you saved a folder location as a preference in the Advanced tab of the Format > Preferences dialog, this folder is opened. If the current project was opened using a GCX file stored in a particular folder, that folder is opened.<br>This option is disabled in multi-project Gantt. |
| **Save File** | Saves the project to your hard drive. Saved data includes all activities, dependencies, resource sheet, activity states, and any modifications made after you last saved the project.<br>This option is disabled in multi-project Gantt. |
| **Save As File** | Saves the project to your hard drive under a different name. Make sure you change the name of the root project so that you do not update an existing project on the server inadvertently.<br>This option is disabled in multi-project Gantt. |
| **Refresh from Server** | Reloads the project with the latest data from the server. Use this feature to update resource information without having to close the project and open it again. Save your changes first, as all unsaved changes are overwritten. If you have configured any views, these are retained. If the project is newly created and not yet saved to the server, you are prompted to save the project. |
| **Recent Files** | Displays a list of up to 10 files that were recently opened from the hard drive.<br>This option is disabled in multi-project Gantt. |
| **Work Offline** | When selected, switches the Gantt to offline mode, regardless of server availability. To return to online mode, select this option again. Connection status is displayed at the bottom right corner of the window.<br>This option is disabled in multi-project Gantt. |

The **Edit** menu in the Gantt Chart offers the following options:

| Menu Command | Action | Notes |
|---|---|---|
| **Undo** | Undo the action made in Gantt (the latest action only). | |
| **Cut** | Cut the selected record. | |
| **Copy** | Copy the selected record. | The Copy menu option is available in all views, except the Resource Sheet and Resource Utilization views.<br>The Copy menu option is one of only three options available in the Resource view. |
| **Paste** | Paste the copied record. | |
| **Fill > Down** | Fill down values among the selected rows from top to bottom. | |
| **Fill > Up** | Fill up values among the selected rows from bottom to top. | |
| **Find** | Open the Find window to find a target task. | The Resource view only has the Copy, Find and Find Selected Value options.<br>The Resource Sheet view only has the Find, Find Selected Value, and Delete options.<br>The Resource Utilization view only has the Find and Find Selected Value options. |
| **Find Selected Value** | Find the next cell that is the same as the selected cell. | The Resource view only has the Copy, Find and Find Selected Value options.<br>The Resource Sheet view only has the Find, Find Selected Value, and Delete options.<br>The Resource Utilization view only has the Find and Find Selected Value options. |
| **Go To Selected Task** | Locate the selected task in Gantt Bar. | |
| **Custom Filter** | Open Custom Filter. | |
| **Insert > Activity** | Insert a new activity.<br>Action cannot be performed on a root project. | |
| **Insert > Gate** | Insert a new gate.<br>Action cannot be performed on a root project. | |
| **Create Dependency** | Switch to dependency-creation mode. | |
| **Edit Dependency** | Edit the selected dependency. | |
| **Delete** | Delete the selected activity/gate/dependency. | |

| Menu Command | Action | Notes |
|---|---|---|
| **Move Activity > Indent** | Indent an activity/gate one level.<br>Action cannot be performed on a root project. | |
| **Move Activity > Outdent** | Outdent an activity/gate one level.<br>Action cannot be performed on a root project. | |
| **Move Activity > Move Up** | Move an activity/gate up one row.<br>Action cannot be performed on a root project. | |
| **Move Activity > Move Down** | Move an activity/gate down one row.<br>Action cannot be performed on a root project. | |
| **Reschedule > Move Back/Forward** | Open the Move Back/Forward window to reschedule the project. | |
| **Reschedule > Remove Slack** | Remove all the slack in the project(s) and adjust project dates to give you a 'best fit' schedule. | |

The **View** menu in the Gantt Chart offers the following options:

| Menu Command | Action | Notes |
|---|---|---|
| **Gantt** | Switch to Gantt View. | |
| **Task Assignment View** | Switch to Task Assignment View. | |
| **Calendar** | Switch to Calendar View. | |
| **Critical Path** | Switch to Critical Path View. | |
| **Comparative View** | Switch to Comparative Gantt View. | |
| **Resource** | Switch to Resource View. | |
| **Resource Sheet** | Switch to Resource Sheet View. | |
| **Resource Utilization** | Switch to Resource Utilization View. | |
| **Expand All** | Expand all projects to leaf level. | Not available in Resource Sheet view. |
| **Collapse All** | Collapse all projects to root level. | Not available in Resource Sheet view. |
| **View Bar** | Hide/unhide View Bar in the left. | |
| **Zoom In** | Zoom in Gantt Bar. | Not available in Resource Sheet view. |
| **Zoom Out** | Zoom out Gantt Bar. | Not available in Resource Sheet view. |

| Menu Command | Action | Notes |
|---|---|---|
| **Zoom to Fit** | Zoom the Gantt Bar to fit the window size to display the whole project. | Not available in Resource Sheet view. |

The **Format** menu in the Gantt Chart offers the following options:

| Menu Command | Action | Notes |
|---|---|---|
| **Preference** | Open the preference window to configure displayed attributes, etc. | The Resource Sheet view and Resource Utilization view only have the Preference and Save Settings Format menu options<br>. In the Resource Utilization view, the user can add the Root Parent column. |
| **Grid > Show Vertical Grid** | Control to show vertical grid or not. | |
| **Grid > Vertical Grid Color** | Configure vertical grid color. | |
| **Grid > Show Weekends** | Control to show weekend color or not. | |
| **Grid > Weekend Color** | Configure weekend color. | |
| **Grid . Show Non Working Hours** | Control to show non-working hours or not. | |
| **Grid > Show Non Working Hours Color** | Configure non-working hours color. | |
| **Grid > Show Horizontal Grid** | Control to show horizontal grid or not. | |
| **Grid > Horizontal Grid Color** | Configure horizontal grid color. | |
| **Grid > Color Rows** | Control to show colorful rows or not. | |
| **Grid > Even Row Color** | Configure even row color. | |
| **Grid > Odd Row Color** | Configure odd row color. | |
| **Bar Labels > Name** | Show activity name of the activity/gate in the Gantt bar. | |
| **Bar Labels > Start Date** | Show scheduled start date of the activity in Gantt bar. | |
| **Bar Labels > End Date** | Show scheduled end date of the activity in Gantt bar. | |
| **Bar Labels > Status** | Show complete percentage of the activity/gate in the Gantt bar. | |
| **Bar Labels > % Complete** | Show status of status of the activity/gate in the Gantt bar. | |
| **Bar Labels > None** | Show nothing in the Gantt bar. | |
| **Appearances > Metal** | Change the appearance to Metal. | |
| **Appearances > Nimbus** | Change the appearance to Nimbus. | |

| Menu Command | Action | Notes |
|---|---|---|
| **Appearances > CDE/Motif** | Change the appearance to CDE/Motif. | |
| **Appearances > Windows** | Change the appearance to Windows. | |
| **Appearances > Windows Classic** | Change the appearance to Windows Classic. | |
| **Appearances > Kunststoff** | Change the appearance to Kunststoff. | |
| **Appearances > Office** | Change the appearance to Office. | |
| **Styles > Agile** | Change the style to Agile. | |
| **Styles > Activity Completion** | Change the style to Activity Completion. | |
| **Styles > Critical Path** | Change the style to Critical Path. | |
| **Styles > Custom Time Scale** | Change the style to Custom Time Scale. | |
| **Styles > Level Coloring** | Change the style to Level Coloring. | |
| **Styles > Standard** | Change the style to Standard. | |
| **Save Settings** | Save all the format settings. | The Resource Sheet view and Resource Utilization view only have the Preference and Save Settings Format menu options. |

The **Tools** menu in the Gantt Chart offers the following options:

> **Note:** All options, unless otherwise noted, are unavailable in Resource-related views.

| Menu Command | Action | Notes |
|---|---|---|
| **Manage Resources** | Open the Manage Resources window. | |
| **Delegate Ownership** | Open the Delegation window. | |
| **Show Changes** | Open the comparison report in browser.<br>This option is disabled in multi-project Gantt. | |
| **Show in Browser** | Show the project in Web Client. | |
| **Unlock Projects** | Open the Unlock Projects window. | |
| **Add Resource** | Add a new resource to resource sheet | This is only available in the Resource Sheet view and it is the only Tools menu option available in this view. |

The **Help** menu in the Gantt Chart offers the following options:

| Menu Command | Action |
|---|---|
| **Manual** | Open the Manual link. |
| **About** | Show information about Gantt. |

The **Context** menu in the Gantt Chart offers the following options:

> **Note:** All options, unless otherwise noted, are unavailable in Resource-related views.

| Menu Command | Action | Notes |
|---|---|---|
| **Cut Activity** | See the Menu Options. | |
| **Copy Activity** | See the Menu Options. | |
| **Paste** | See the Menu Options. | |
| **Expand/Collapse** | See the Menu Options. | |
| **Fill Ups** | See the Menu Options. | |
| **Fill Down** | See the Menu Options. | |
| **Indent** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Outdent** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Move Up** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Move Down** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Insert Activity** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Insert Gate** | See the Menu Options.<br>Action cannot be performed on a root project. | |
| **Delete** | See the Menu Options. | |
| **Manage Resources** | See the Menu Options. | |
| **Move Back/Forward** | See the Menu Options. | |
| **Go to Selected Task** | See the Menu Options. | |
| **Show in Browser** | See the Menu Options. | |
| **Properties** | Open the property window to view/edit P2/P3 attributes of the selected activity/gate | |

| Menu Command | Action | Notes |
|---|---|---|
| **Copy** | Copy the selected resource/resource pool. | This menu option is only available in the Resource View.<br>The Resource View context menu has the following options: Copy, Expand/Collapse, Move Resource (Up/Down). |
| **Expand/Collapse** | Expand/Collapse the selected resource pool. | This menu option is only available in the Resource View.<br>The Resource View context menu has the following options: Copy, Expand/Collapse, Move Resource (Up/Down). |
| **Move Resource Up** | Move the selected resource up for one row. | This menu option is only available in the Resource View.<br>The Resource View context menu has the following options: Copy, Expand/Collapse, Move Resource (Up/Down). |
| **Move Resource Down** | Move the selected resource down for one row. | This menu option is only available in the Resource View.<br>The Resource View context menu has the following options: Copy, Expand/Collapse, Move Resource (Up/Down). |

## Working Offline on Single-Project Gantt

In single-project Gantt, you can use the Gantt client as a standalone application on your computer and continue working on the Gantt Chart even when you are not logged into Agile PLM. This feature enables you to do the following:

- Continue working on a project while traveling or during server downtime.
- Create a preliminary draft of a project and make it available online only when you want other users to see it.
- Email a saved project to others for opinions and updates.

The first time you launch a Gantt chart from Web Client, you are provided the option to save a shortcut to the Gantt chart on your desktop. Once you save the shortcut, you can use it to launch Gantt and work on it offline.

## Unlocking Projects before Exiting

When you close the Gantt Chart after working on it in Offline or Disconnected mode, the projects that you opened from Gantt remain locked. To ensure that projects used by others are unlocked for their use, you are prompted to unlock projects before you exit. Within the **Unlock Projects** dialog that appears, select the projects that you want to unlock for the use of others and click **OK**.

## Filtering in Gantt

You can use filter functionality to filter activities and gates by any visible attribute on the General Info tab. Filtering in Gantt is supported in the following views:

- Gantt
- Task Assignment
- Calendar
- Critical Path
- Comparative Gantt

**To apply a custom filter:**

1. Click the Custom Filter button or click **Edit** > **Custom Filter**.
2. Click in the Attribute dropdown, select an attribute and click OK.
3. Select a value in the **Match** If field.
4. Enter a value in the **Value** field.
5. To enter additional criteria, click the **Add** button (Plus button) and repeat the steps above.
6. Click **Apply** to apply the changes. The custom filter window remains open. Note that no actions can be executed in the main Gantt window while the custom filter window is open.

   Alternatively, click **Exit** to apply the filter and close the custom filter window.

Once the filter is applied, the project data in the Gantt table only displays the activities/gates that match the filter criteria. Additionally, the Custom Filter button is modified to indicate that a filter has been applied.

**To unapply a custom filter:**

1. Click the Custom Filter button or click **Edit** > **Custom Filter**.
2. Select all of the criteria that you want to remove.
3. Click **Remove** (Minus button).
4. Click **Exit** or **Apply**.

### Using Predefined Filters

There are five predefined filters you can use to filter tasks on all project data-related views. These filters are available to show risky activities and so on.The predefined filters are as follows:

- Unassigned Resources - There are predefined three filters that allow you to narrow down tasks that have resource pools that are assigned, yet no individual is assigned. The three filters check for unassigned tasks within 30 days, 90 days, and 180 days of the start date.
- Allocation Overload - Any activity with utilization greater than 100%, that is an overloaded resource/resource pool, is displayed.
- Resource Budget Overload - Any activity with over-budgeted (Actual Hours/8 > Days Efforts) resources is displayed.

## Toggling the View Between Gantt and Web Client

While you are working on the Gantt Chart, you can switch to the Web Client view if required. This option is available in all modes of the Gantt Chart and is highlighted only when at least one row from the project Tree is selected.

**To switch to the Web Client view of the current project:**

1. Select one or more activity rows in the Gantt chart.
2. In the **Tools** menu, or in the right-click menu, select **Show In Browser**. If you are not connected to the server, the Agile PLM login screen appears.
3. Log in to Agile. A new browser window opens for each activity row that you selected.

## Printing a Gantt Chart

You can print any view of the Gantt Chart using the **Print** option in the **File** menu.

Within the Print window, or the Print Preview window, you can manually change Page Setup options if necessary. By default, the page margins are set to **0.5** inches, and the page orientation is set to **Landscape**.

## Working with Multi-Project Gantt

You can load multiple objects into a single Gantt window.

### Launching Multiple-project Gantt

Multi-project Gantt can be launched in three main ways:

- **via PLM Reference attribute:** If Gantt is launched from a root project, with one or more root projects in its PLM Reference attribute, when the user launches the root project, the PLM Reference project(s) are also loaded into Gantt.

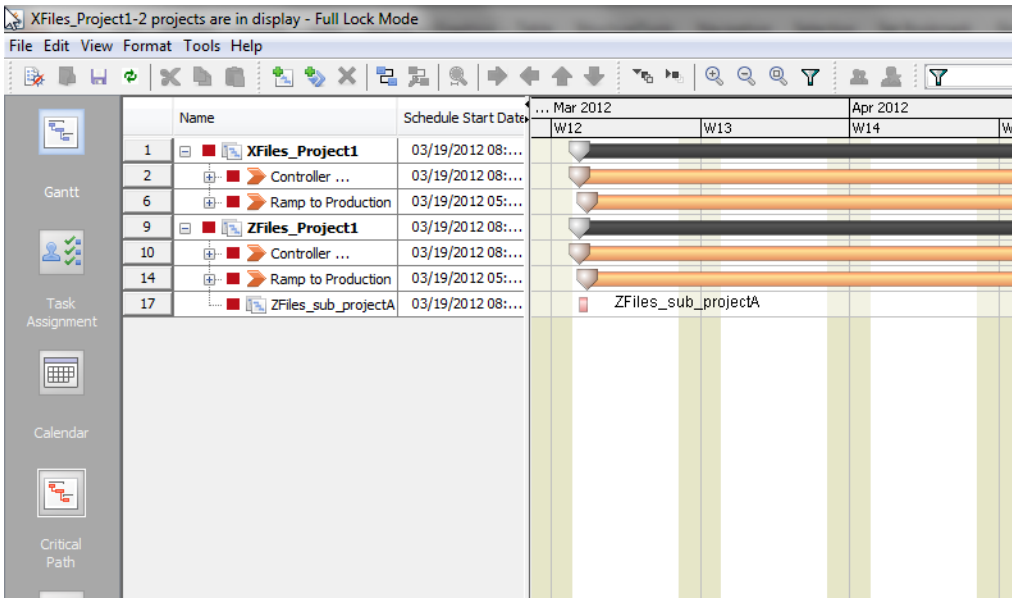
  In this case, the following conditions are pre-requisites:

  - The activity that is launched must be at the root level.
  - There must be at least one root project in the current project's PLM Reference field.
  - The current user must have sufficient privilege to view the PLM Reference projects:
- **via Dashboard:** Select multiple projects in Dashboard and then launch Gantt from the Gantt menu.
- **via Navigator:** Launch Gantt with a single project first and then add additional projects using the Gantt Navigator tool.

> **Note:** Projects that are not authorized for the user are filtered out before projects are loaded into Multi-Project Gantt.

In multi-project Gantt, by default, only root projects and their first child level are displayed. The user can expand/collapse the hierarchy manually.

***Figure 2–4 Multi-Project Gantt***




As shown in Figure 2–4, "Multi-Project Gantt", the Gantt window title displays the session name, as well as the number of projects that are being displayed. The format is as follows: Session Name + X Projects in display + Template (Optional) + Gantt Lock Mode (Read Only/Internal Lock/Full Lock/Mixed). Specifically, the title display is formed according to the following:

- *Session Name*:
  - If launching from a program with PLM Reference projects, the session name is the program name by default.
  - If launching from Dashboard by multiple selection, the session name is "New session" by default.
  - If launching a single project first and then adding another project, the session name is the original project name.
  - User can update the session name in Navigator.
- *X projects in display*:
  - Only displayed when more than 1 project is loaded in Gantt.
- *Template:*
  - Only displayed when all the loaded projects are Template state.
- *Lock Mode*:
  - When all loaded projects are Read Only, Read Only Mode is displayed.
  - When all loaded projects are Internal Locked, Internal Lock Mode is displayed.
  - When all loaded projects are Full Locked, Full Lock Mode is displayed.
  - Otherwise, Mixed mode is displayed.

Root projects are differentiated in multi-project Gantt view by their distinct black colored bars and bolded name.

Most Menu/View and toolbar options function as they do in single-project Gantt, except for the following exceptions:

- In Comparative View, in the comparative option list, no baselines are listed. Baseline comparisons are only available for single-project Gantt.
- In the multi-project Gantt File Menu, unlike in single-project Gantt, the following options are disabled:
  - New
  - Open
  - Save As
  - Open File
  - Save File
  - Save As File
  - Recent Files
  - Work Offline

#### Launch Mode

You can launch multiple-project Gantt view in Read Only, Internal Lock, and Lock modes. Read Only and Internal Lock launch modes in multiple-project Gantt function as they do in single-project Gantt, as described in "Launch Options" on page 29.

If the current user tries to launch Gantt in Full Lock Mode, however, if any of the selected projects is locked by another user, two options are given to the user:

- Continue:
  - First, whichever projects can be fully locked, the system does a Full Lock.
  - Second, whichever projects can be internally locked, the system uses Internal Lock on them.
  - The rest of the projects are opened in Gantt in Read Only mode.
- Cancel: Cancel this action.

### Editing in Multi-Project Gantt

Privilege checks in multi-project Gantt are conducted the same as in single-project Gantt. Create, modify, and delete privilege checks are enforced when editing in Gantt. For more information, see "Privilege Checks in Gantt" on page 2-30 and "About Privileges in Gantt" on page 10-13.

#### Inter-dependencies in Multi-Project Gantt

In multi-project Gantt, you can create dependencies between projects. Inter-project dependencies can only be created between internal locked projects. If a user wants to create a dependency against a full locked project, a pop-up message is triggered to inform the user that they need to switch the lock mode to internal lock first. The user can click Continue to open Navigator and decide if they want to unlock the full locked project and Internal Lock it again or cancel the dependency creation instead.

If both the predecessor project and successor project are loaded in Gantt, the inter-project dependency between them is displayed

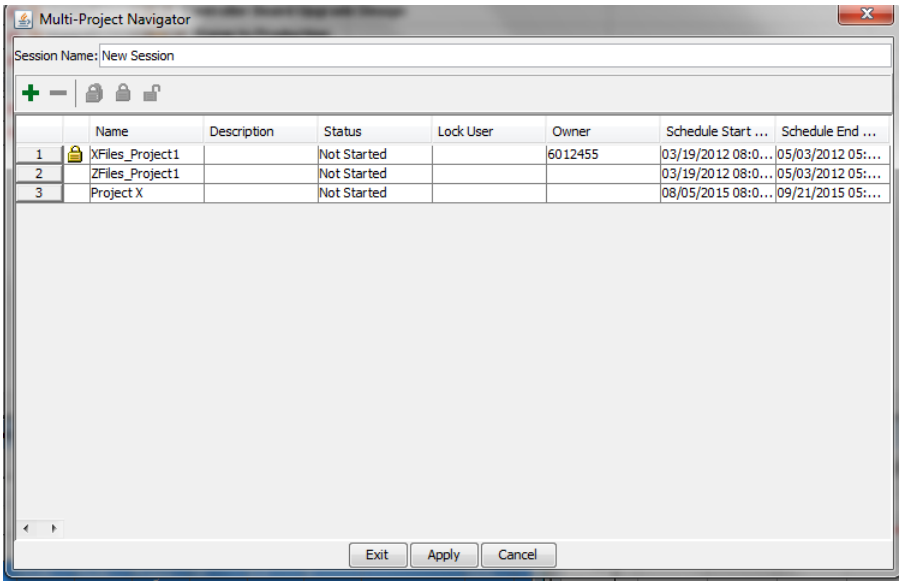
## Gantt Navigator

The Gantt Navigator is a tool that allows the user to navigate Gantt by providing information about how many projects are included in the current Gantt session, and allowing the user to add, remove, and lock projects in that session.The Navigator can be launched by clicking **File Menu > Navigator,** clicking on the Navigator toolbar button, or by using the hot key Ctrl + Shift + N.

When you launch the Navigator tool, the outcome depends on whether or not the current activity is a root project. If the current activity is a root project, the Navigator window pops up and all the current root projects are displayed. If the current activity is not a root project, a pop-up message displays asking if the user wants to load its root first in order to launch the navigator. If there are any pending changes in the current activity, the user can:

- save the change and load the root
- discard pending changes and load the root
- return to Gantt without any change

***Figure 2–5 Navigator window***




The Navigator opens with the default session name, which is editable by the user within the Navigator window. Current root projects are loaded with the following attributes:

- Lock Status
- Name
- Description
- Status
- Lock User
- Owner
- Schedule Start Date
- Schedule End Date

You can manipulate the current Gantt session by using the following buttons and field at the top of the Navigator window:

- Session Name field - This is an editable field that allows you to change the default session name.
- Add (plus) button and Remove (minus) button - See "Adding Projects or Deleting Projects From Gantt" on page 2-49 for more information.
- Full Lock, Internal Lock, and Unlock buttons - See "Locking and Unlocking Projects in Navigator" on page 2-50 for more information.

There are three buttons at the bottom of the Navigator window, including:

- Exit - Apply changes and exit Navigator.
- Apply - Apply changes and stay in Navigator.
- Cancel - Exit Navigator window.

### Adding Projects or Deleting Projects From Gantt

You can add projects to Gantt from within the Navigator. You can search for root projects by all attributes that are available in Advanced Search. Discovery and Read privileges of the user are considered.

**To add a project to Gantt from Navigator:**

1. Within Navigator, click the Add (plus) button. The Search window appears.
2. Enter a keyword in the Value field in the Search window.
3. Click Find to execute the search. Search results appear in the bottom panel of the search window.
4. Select the rows of projects to add.
5. Click **OK** to add the projects, or **Cancel** to exit the search window. The selected root projects are added to the main Navigator window.

> **Note:** If a project to be added has PLM Reference projects, the PLM Reference projects are also added to Navigator. A message indicating this is displayed in the bottom-left of the Navigator window. Hover over the message to view the tooltip which contains more information.

6. Click **Apply** to make changes effective in Gantt.

> **Note:** When you add additional projects to the Gantt session using Navigator, the newly added projects are always Read Only by default, even if the current projects are all locked. You need to lock the newly added projects manually through Navigator.

**To remove a project from Gantt using Navigator:**

1. Select the project(s).
2. Click the Remove (minus) button above the table to remove the project(s).
3. Click **Apply** or **Exit** to put changes into effect.

Note the following conditional situations:

- If a user removes all but one project from multi-project Gantt, then Gantt begins to function as single-project Gantt.
- If a user tries to remove all projects from Gantt, an error message is displayed in the bottom-left corner of the Navigator window. Hover over the message to view the tooltip which contains more information.
- If a user tries to remove a project that has unsaved/pending changes, a popup window appears to notify the user.

### Locking and Unlocking Projects in Navigator

Within the Navigator, you can use the lock/unlock buttons. The current status of a project's locked/unlocked state is shown in the Lock Status column in Navigator.

> **Note:** Unlike the Add/Remove functionality in Navigator that does not go into affect until the user applies them, all lock functionality in Navigator is applied once the lock or unlock button is clicked.

**To lock or unlock a project within Navigator:**

1. Select the project(s) that you want to unlock or lock.
2. Click the appropriate lock button to do a Full Lock, Internal Lock, or Unlock. Depending on the outcome, a success or failure message appears.

The following is the logic that is used when a user attempts to lock/unlock a project within Navigator:

- Full Lock: The user selects one or more projects and clicks the button to lock projects:
  - If the selected projects are unlocked, the system tries to lock these projects:
    * If this succeeds, a message is returned stating that Project XXX has been locked successfully.
    * If this fails, a message is returned stating that Project XXX cannot be locked because it is locked by user XXX.
  - If the selected projects are Internal Locked, the system tries to lock the dependent projects according to the external dependencies.
    * If this succeeds, a message is returned stating that Project XXX has been locked successfully.
    * If this fails, a message is returned stating that Project XXX cannot be locked because it is locked by user XXX.
- Internal Lock: The user selects one or more projects and clicks the button to internal lock these projects:
  - If the selected projects are unlocked, the system tries to lock these projects:
    * If this succeeds, a message is returned stating that Project XXX has been locked successfully.
    * If this fails, a message is returned stating that Project XXX cannot be locked because it is locked by user XXX.
  - If the selected projects are Full Locked, the system tries to unlock the dependent projects according to the external dependencies.

        * If this succeeds, a message is returned stating that Project XXX has been unlocked successfully.
        * If this fails, the error message is shown, along with the reason.

- Unlock: The user selects one or multiple projects and clicks the button to unlock projects.
  - If the selected projects are Full Locked, the system tries to unlock the projects and their dependent projects according to the external dependencies.
    * If this succeeds, a message is returned stating that Project XXX has been unlocked successfully.
    * If this fails, the error message is shown, along with the reason.
  - If the selected projects are Internal Locked, the system tries to unlock these projects.
    * If this succeeds, a message is returned stating that Project XXX has been unlocked successfully.
    * If this fails, the error message is shown, along with the reason.

# 3

# Setting Up Project Management Processes

This chapter describes how to set up processes necessary for the proper functioning of projects and programs, including the following:

- Defining Calendars
- Creating Project Templates
- Adding Activities and Gates
- Setting Ownership to Resource Pools
- Managing Content

## Defining Calendars

PPM provides the ability to create customized calendars to deliver better schedule accuracy. You can create country or region-specific calendars to ensure that national holidays and other non-working days are taken into consideration while scheduling tasks. To do this, you define which dates within a calendar year should be marked as working days by exception, or non-working days by exception. While scheduling or re-scheduling a project, the scheduling process skips non-working days and schedules project activity only on working days.

If a project has resources in three different locations, you can create a calendar for each location, specifying applicable working and non-working days. For example, you could create separate calendars for U.S.A, India, and China. Individual tasks within a project can be based on different calendars.

The scheduling algorithm performs calendar checks for leaf-level activities, and this may affect start and end dates, and also duration. For example, when you move the schedule forward, a Schedule End Date could be moved further than you expect, to accommodate an exception defined in a leaf-level activity calendar.

Calendar checks are not performed at the parent level as dates are rolled up from leaf-level activities.

Use the **Calendar** menu under **Tools and Settings** in Web Client to create and configure calendars for your project.

For more information, see "Configuring Calendars" on page 10-24 and "Using Calendars" on page 4-22.

## Setting up a Project Structure

When creating a new project, the easiest way to build the structure is to start at the top and work down. Typically, for a structured project, you need:

- Parent project object
- Child activity objects
- Designated project "gates"
- Pool of resources (project team members)

You can store project specifications and requirements documents with the parent project object, to make it easy for project members to locate them.

The general procedure is to create the root-level project first and then create the child objects.

Sequence of steps:

1. Create the root-level project object using the method described in "Creating a Project" on page 4-1. Be sure to specify **Project** as the object type.
2. Create the first child object. Go to the **Schedule** tab of the new Project object, and click **Add**. Create the first child object. All objects created from the **Schedule** tab are children of the current object.
3. Repeat the process to create additional child objects, as needed.
4. Open each child object and create its child objects, as needed.
5. Set Gates to delineate the completion of key project goals.
6. Set Milestones to define a target or trigger point for project metrics or communications.
7. Map existing dependencies between project objects.

Once you have the structure in place, you can use **Actions > Save As** to save it as a template for future projects.

You can also create project objects using the project Gantt Chart. For further information, see "Gantt Chart" on page 2-27.

## Creating a Project Template

Project templates provide a framework to create projects with similar components. These components include tasks, resources, and deliverables that can be similar in construct across multiple projects. Use project templates as a base to modify project content and schedule as required for various projects.

**To create a template:**

1. Launch Agile Web Client.
2. Click the **Create New** drop-down menu.
3. Select **Projects > New.** The **Create New** dialog appears.
4. In the Create New dialog, from the **Type** list, select **Project.** Additional fields appear.
5. Enter the **Name** of the template.
6. Enter the **Description** of the template, if required.
7. From the **Delegated Owner** palette, select the delegated owner.
8. From the **Project State** list, select **Template.**
9. From the Calendar list, select a calendar. Working and non-working days specified in the chosen calendar are used in schedule calculation.

10. Select a **Duration Type**.
11. From the **Calendar** palette, select a **Schedule Start Date**.
12. Enter the **Schedule Duration** in days. The **Schedule End Date** is an auto-populated value.
13. Click **Save**. The **General Info** tab of the new project appears. Fill in information on the various project tabs, as required.

## Identifying the Template Used to Create a Project

If a project is created from a template, a link to the template is provided in the **Created from Template** field in the **General Info** tab of the project and its child activities. You can click this link to open the **Template** that was used to create the **Project**.

After creating a project from a template, if you add child activities to this project, the **Created from Template** field for these activities will be blank as these are not created from the template.

- If you save an existing template as a **Proposed** or **Active** project, the **Created from Template** field shows the name of the original template.
- If you save an existing template as another template, the field is left blank.
- If you perform a **Save As** operation on any level lower than the root level, the field is left blank.

## Adding Activities

You can add activities such as Project, Program, Phase, Task, Gate, or Milestone from Gantt Chart or Web Client.

### Add Activities using Gantt Chart

You can add activities to a Project from the Gantt Chart using the **Insert Activity** options on the main toolbar or the right-click menu.

Alternately, you can use the quicker options listed below.

**To add an activity in Gantt Chart:**

1. Select the row under which you want to add an activity.
2. Press the **Insert** key on your keyboard. This inserts a new row below the row currently selected.
3. Type the name of the activity in the newly created blank row.

   The activity created belongs to the **Task** subclass. To add an activity of a specific subclass, use the shortcut key **Ctrl+Alt+A**.
4. In the **Activity** dialog that opens, select a subclass for the activity.
5. Specify the **Start Date** and **End Date**. The **Schedule Duration** field will automatically display the number of days based on the start and end date. You can also specify the start date and enter the total number of days of your project in the **Schedule Duration** field; the end date is automatically calculated.
6. From the Calendar list, select a calendar. Working and non-working days specified in the chosen calendar are used in schedule calculation.
7. Click **OK** to add the activity.

### Add Activities

You can add activities from the **Schedule** tab of a Project, Program, or Phase.

**To add an activity using Web Client:**

1. Click the **Schedule** Tab.
2. Click **Add**.
3. In the **Create New** dialog, from the **Type** list, select the **Type** of activity.
4. In the remaining fields which appear, type the mandatory information such as **Name**, **Owner**, **Calendar, Schedule** dates, and **Duration Type** as applicable.
5. Enter the optional fields, as required.
6. Click **Save**. The activities appear as a table in the **Schedule** Tab.

## Adding Gates

A Gate is a zero duration activity which signifies completion of a major activity similar to a Milestone. A Gate can be added in the Gantt Chart or Web Client to enable checks or control, for completing tasks on schedule before a new task can start. A dependency should be created to achieve this. See "Creating and Editing Dependencies in Gantt" on page 4-24.

**To add a Gate in Gantt Chart:**

1. Select an activity on the tabular view pane.
2. From the right-click menu, click **Insert Gate**. Or, simply click the **Gate** icon on the tool bar. You can also use the shortcut key **Alt+G**.
3. In the dialog that opens, enter a name for the gate and specify the **End Date**.
4. Click **OK** to add the gate.

**To add a Gate in Web Client:**

1. Navigate to the activity in which you want to add a gate.
2. Click the **Schedule** tab.
3. Click **Add**.
4. In the **Create New** dialog, from the **Type** list, select **Gate**. The remaining fields appear.
5. Enter the **Name** of the gate.
6. Enter the **Description** of the gate, if required.
7. Use the address book palette to select a **Delegated Owner,** if you want to delegate the ownership of the gate.
8. From the Calendar list, select a calendar. Working and non-working days specified in the chosen calendar are used in schedule calculation.
9. Choose the **Schedule End Date** for the gate.
10. Click **Save**. The details of the gate appear in the **Schedule** tab as a row of data.

### Defining Stationary Gates

To have better control over the project schedule, you can mark some gates as Stationary Gates. If you define a gate as 'stationary', only users with explicit privileges

to move the gate can move the preceding tasks forward. For details on configuring this privilege, see "Configuring Stationary Gates" on page 10-16.

**To define a stationary gate:**

1. Open the gate object.
2. On the **General Info** tab, click **Edit**.
3. Scroll down to the bottom of the page to locate the attribute **Enable Stationary Gate**.
4. The default option is No. Change this to **Yes**.

The gate is marked as a stationary gate and only users with appropriate privileges can move the preceding tasks forward.

## Adding Milestones

A Milestone is a zero effort activity identical to a Gate, which marks the completion of a set of activities including gates. Usually, milestones are not directly dependent on deliverables. Milestones can contribute to dependencies in projects where more than one sub-projects are involved and the milestone of one project drives the progress of another.

**To add a Milestone in Web Client:**

1. Navigate to the activity in which you want to add a milestone.
2. Click the **Schedule** tab.
3. Click **Add**.
4. In the **Create New** dialog, from the **Type** list, select **Milestone**. The remaining fields appear.
5. Enter the **Name** of the milestone.
6. Enter the **Description** of the milestone, if required.
7. Use the address book palette to select a **Delegated Owner,** if you want to delegate the ownership of the milestone.
8. From the Calendar list, select a calendar. Working and non-working days specified in the chosen calendar are used in schedule calculation.
9. Choose the **Schedule End Date** for the milestone.
10. Click **Save**. The details of the milestone appear in the **Schedule** tab as a row of data.

## Editing Data

You can perform the following data-editing actions within the Gantt Chart:

- **Copy and Paste from Excel** - You can copy and paste a project directly from an Excel sheet into the Gantt tabular pane. Data in the Excel sheet should be in the field format shown below.

| Sub-class | Name | Schedule Start | Schedule End |
|---|---|---|---|
| <Activity Type> | <Program Name> | <date format according to User Preference in Agile> | <date format according to User Preference in Agile> |

The data to be copied and pasted should contain the activity Type such as Program, Phase, Task or Gate, the project name and the start and end dates of the project. (For Gates, the **Start Date** is considered as the **End Date** in Agile). These fields are mandatory. Ensure you do not select the header row when copying from Excel.

- **Copy and Paste Activities** -You can copy and paste single or multiple activities in the tabular view.
  - To copy, select the activity or activities, and click **Copy** in the right-click menu, or click the **Copy** icon on the toolbar.
  - To paste, place your cursor on the destination row and select **Paste** in the Right-click menu, or click the **Paste** icon on the toolbar.

When you copy an activity to create one, the following information is copied over: Cover Page, Page Two and Page Three attributes, schedule dates and resource assignments. If the activity has any dependencies defined, or content associated with it, these are not copied.

- **Copy and Paste Content** - Content must be pasted in a relevant destination. For example, you cannot copy a text field into a date format field.
- **Fill-up / Fill-down** - You can replicate content such as activity names or dates on the tabular view. This action copies the text of the selected cell to adjoining cells you select.

  To fill-up or fill-down, place your cursor on the corner of the selected cell. The cursor changes into cross-hair shape. Drag the cross-hair cursor up or down, to replicate the same text in the cells above or below.

  **Note:** You cannot fill dates up or down if there is a dependency attached to the activity, and the fill action results in the **Successor** date falling before the **Predecessor** date.

- **View Program Information** - You can view an activity's general information, Page One, and Page Two details from the Gantt Chart.

  To view project information, right-click a project activity and select **Properties**.

The Web Client offers the following options to edit data in the tables:

- Copy
- Paste
- Fill-up
- Fill-down

These options are available in the **More** menu of the Team, Content and Attachment tabs of a project.

For more information, see the *Getting Started with Agile PLM User Guide*.

## Deleting Project Elements

You need appropriate privileges to delete the project elements. An owner may delete a Phase, Task, Deliverable, or Gate. When deleted, Discussions and File Folders are removed only from the project, not from the system. They are retained as standalone objects in Agile. When you delete a project element from the Recycle Bin, the system

deletes it from the database. For more information on deleting Agile objects, see *Getting Started with Agile PLM User Guide*.

**To delete a project element:**

1. Select the row of the object you want to remove.
2. Click the **Remove** button. The **Reason** palette appears.
3. In the **Reason Codes** list, select a **Reason Code**.
4. In the **Comments** field, enter comments as appropriate. This option becomes available only if the corresponding SmartRule - *Enable Comments for Deleting, Archiving & Delegating* - is enabled in Java Client. For details, see the *Agile PLM Administrator Guide*.
5. Click **OK**.

The **Reason Code** and **Comments** fields are optional. This information is recorded in the **History** tab of the object. When you delete a child object, the reason for deletion appears in the **History** tab of the parent object.

Alternatively, you can also use the **Actions > Delete** menu command to delete a selected project element.

### Setting Ownership to Resource Pools

Organizations have projects spanning across departments and hence efficient resource management for these projects require an owner for the Resource Pool. A user group that is associated to a resource pool is owned by the user that created the user group, by default. However, you can modify the ownership of a given resource pool.

**To set ownership to a Resource Pool:**

1. Navigate to **Tools and Settings > Address Book > User Groups**.
2. In the table, click the **Name** of the user group that is a **Resource Pool**. The user group page appears.
3. In the **General Info** tab, click **Edit.**
4. From the **Owner** palette, select the owner of the resource pool.
5. Click **Save**.

**If the User Group that you select is not a resource pool already:**

1. In the **General Info** tab, select **Yes** in the resource pool list.
2. From the **Owner** palette, select the owner of the resource pool.
3. Click **Save**.

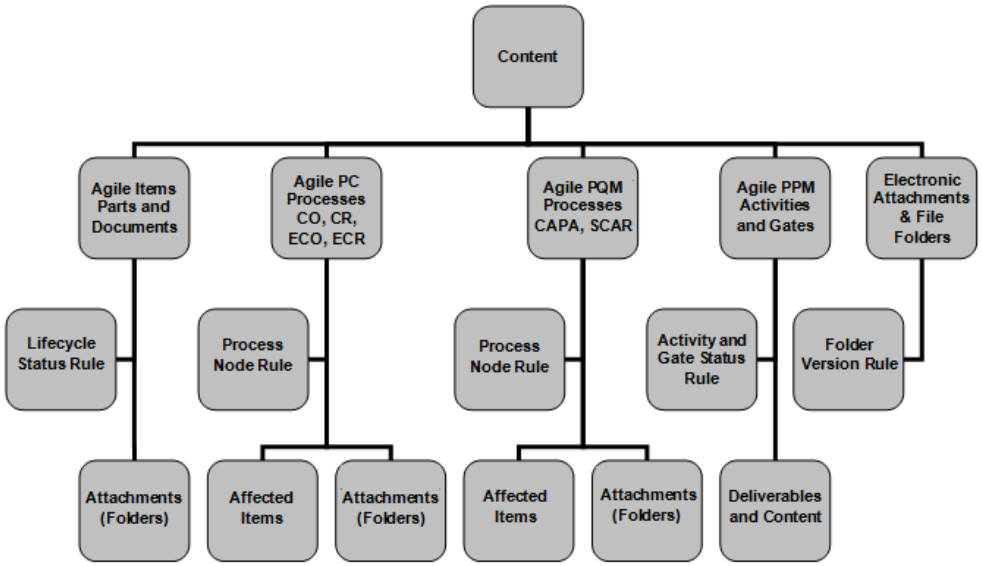
## Managing Content

In PPM, 'content' refers to deliverables associated with the project. A deliverable can be any project or project object that has a lifecycle phase or a workflow assigned to it, or any file added as an attachment in the **Content** tab. Examples of content are programs, projects, phases, templates, files or URLs, or objects referenced from other applications.

The Content tab is not simply a list of deliverables, but a rule-based control system for project management. Any content can have a rule associated with it. Rules can be set to prevent tasks from starting or completing unless certain deliverables have reached

specific states or status. The template will allow you to build out complex control mechanisms that alert users, automate many project processes, and prevent inappropriate tasks from starting or completing out of sequence or without the right information. The following picture outlines what the content tab can contain, what rules can be applied and if the content itself can have attachments or content:

***Figure 3–1 'Content' in PPM***




**Important:** As a best practice, it is recommended that the attachments tab in Agile PPM activities and gates be disabled. Agile PPM provides a unique tab, the Content Tab, that must be used for all project content, including attachments, for projects.

Discussions, Users, and User groups are the only objects that cannot be added as deliverables.

This section describes content objects and key functions such as adding new content, marking content as 'Mandatory', and working with the **Content** tab.

## Adding Content

You can add activities and gates as deliverables on other activities and gates. You can also set rules to ensure the completion of one activity before another. For example, to ensure the completion of an activity before a gate is opened, you can add that activity as a deliverable for the gate to open. You can even restrict one gate from opening before another gate is opened, by adding the prior gate as a deliverable to the subsequent gate.

For more information on defining rules, see "Defining Rules for Content" on page 3-12.

When adding Projects as deliverables to other projects, they can be **Proposed** or **Active**.

Templates can also be deliverables. For a project that has its own copies of deliverables, a template can be a deliverable on tasks.

- You cannot add an object that causes a circular relationship as a deliverable. For example, you cannot mandate that Task1 is a deliverable for Task2 to reach completion, and Task2 is a deliverable for Task1 to reach completion.
- To add an object, you must have Create privilege for that object, and Modify privilege on the attribute for that object.

**To add content to an activity:**

1. Navigate to the activity to which you want to add content.
2. Click the **Content** Tab.
3. Click **Add > By Search** to search and select an object to add. Or click **Add > By Create** to create an object.
4. Complete the required information in the appropriate fields.
5. Click **Add**.

The added content appears in the **Content** Tab.

You can use the combination of **Ctrl + I** keys to view the **Create to Add** icon and the **Search** field.

**To add content to an activity using custom search:**

1. Use the Search icon or use **Ctrl+Shift+Q** keys and specify the search criteria.
2. Click **Navigator** on the Search Results pane. The search results appear on the left navigation pane.
3. Navigate to the **Content** tab of the activity to which you want to add content.
4. Drag and drop the objects you want to add, from the Navigation pane into the Content tab.

You can also drag an object from the **Recently Visited** list on the left pane and add it to an activity.

If the content you want to add is already part of another project, you can copy the content from another project (Use **More >Copy**) and paste (Use **More > Paste**) it into the current project. You can also add Files and URLs as content to an activity.

If you are adding a revision-controlled object, you can double-click the Revision field to choose the revision.

**To add reference objects:**

1. In the **Content** tab, click **Add > Reference Objects**.
2. In the **Search** dialog that opens, select a category and search for the object you want to add. (You can click the name of the object to view it in the corresponding application.)
3. Double-click the row to add the reference object.

Objects that can be referenced are configured in Java Client, under **Admin> System Settings > Reference Objects Management**. Reference object categories need to be defined as subclasses under the Reference Objects class. For more details on configuring reference objects, see the *Agile PLM Administrator Guide*.

**To add files:**

1. Click **Add > Files** in the **Content** Tab.

2. In the **File Upload Selector** dialog, browse for and select the files that you want to upload.
3. Select upload options as appropriate.
4. Click **Upload**. The selected files appear in the **Content** table.

You can add up to five files in a File Folder.

1. If you want to add all the selected files to the same File Folder, select **Add all files to a single file folder** check box.
2. Click **Add**. The selected files display in the **Content** tab.

**To add URLs:**

1. Click **Add > URLs** in the **Content** tab. The **Add URL** dialog box appears.
2. Type the **URL** of the web page you want to add as content.

> **Note:** Do not delete the prefix **http://** in the URL fields.

3. To view the web page before adding it, click **Preview.**
4. Enter the **Description** for the URL, if required.
5. To store all the added URLs in a single File Folder, select **Add all URLs to a single file folder.**
6. Click **Add**. The selected URLs display in the **Content** tab.

## Adding Revision-controlled Objects

If you are adding a revision-controlled object to the **Content** tab, you can double-click the Revision field to choose a particular revision or all revisions. Multiple revisions are allowed for the same object, in separate rows. When any revision-controlled object is revised, all related objects are tagged as "impacted".

You can configure Revision attributes (**Impacted**, **Revision**, **Track Impact**, and **Change**) for a class or subclass in Java Client Administrator. For details on how to enable or disable attributes in Java Client, see the *Agile PLM Administrator Guide*.

> **Note:** The **Revision** field cannot be edited if the task is in Completed or Canceled status.

## Setting Mandatory Content

The Content tab of the activity has project deliverables such as Change Orders, Problem Reports, Items, Documents, Digital Files, activities, gates or URLs. One or more of these deliverables may be required due to regulatory mandates (from agencies such as the FDA), certifications (such as ISO), or approvals (such as Underwriters Laboratory), and cannot be overlooked or deleted by the project managers.

For example, a product may require an Underwriters Laboratory listing before moving into production, and this document is a deliverable for the task assigned to deliver it. You can mark this content as 'Mandatory', to ensure that this deliverable and its related task cannot be deleted by the project manager. Only an Agile PPM administrator or user with the appropriate privileges can delete this task from the project tree.

**Note:** This action is restricted to users who have the *Activities.Content.Mandatory***Applied To** property on the **Modify** privilege mask. For more information, see "Modify Privilege Mask Applied To Properties that Control Specific User Actions" on page 10-9.

**To set mandatory content:**

1. Navigate to the activity that has the requisite content.
2. Click the **Content** Tab.
3. Click the row that displays the content to be mandated.
4. Double-click the corresponding cell in the **Mandatory** column.
5. In the list, select **Yes**. Click any other cell to save the modified value.

You can set rules on the contents of any activity to ensure a check on the availability of the Project artifacts. For more information, see "Defining Rules for Content" on page 3-12.

## Setting Up AutoNumbering

AutoNumbers are the unique identifiers for PPM objects. The AutoNumbers of deliverables are dependent on the AutoNumber preset for each type of deliverable. In PPM, the Web Client does not allow you to modify the AutoNumbers.

For more information on AutoNumbers, see "Duplicating Deliverables from a Project Template" on page 3-13. For information on setting up AutoNumbering in Agile PLM, refer the *Agile PLM Administrator Guide*.

## Personalizing Views for Content

The **Personalize** menu in the Content Tab enables you to set your preferences for the content table.

The following personalization settings are possible for the content table:

- **Sort**: Sort the displayed data by three different attributes in ascending or descending order.
- **Filter**: Filter the displayed data by one or more column-specific search strings.
- **Format**: Choose the fields or columns to be displayed on the table.
- **Properties**: Display the details specific to the current View selected in the **Views** list.

For detailed information on personalizing table views, refer to the *Getting Started with Agile PLM Guide*.

In the Content tab of any activity, you can personalize views based on the keywords of the root project.

**To choose keywords:**

1. In the root project, click the **General Info** tab.
2. Click **Edit**.
3. In the **Status Information** section, select the keywords applicable to the project from the **Project Keywords** palette.

If you do not see the keyword of your choice, add it to the Keyword list in Java Client.

4. Click **Save**.

Your keywords appear in the **Views** list, in the **Content** Tab of the root Project. In addition, the keywords appear in the **More > Add Keyword** menu.

**To personalize views based on Keyword:**

1. Navigate to the content table that you want to personalize.
2. Select a content row.
3. Click **More > Add Keyword**.
4. Select a **Keyword** appropriate to the selected content.
5. In the **Views** list, select the **Keyword**. The content table lists only those content objects that contain the selected keyword.

In the contents table, the **Keyword** column of the content row displays the keyword associated with the content.

## Defining Rules for Content

You can set Relationship Rules on content to ensure dependency criteria. Consider an example scenario, where one of the activities in your project must be 'Complete' before another begins. This change of status contributes to the dependency in the scenario. Relationship rules define the relationship between the status of the content and activity, and the nature of the action triggered when the rule is satisfied.

**To set relationship rules for the content in an activity:**

1. Navigate to the activity that has the requisite content.
2. Click the **Content** tab.
3. To select a content row, click the row handler on the row.
4. Click **Edit Rule**.
5. In the **Relationship Rule** palette, select the content status from the list.

   Example: Document 1 is **Review**
6. Select the corresponding Activity status that you want to set.

   Example: Set Activity to **Complete**
7. Click **Save**.

In the **Relationship Rule** palette, to remove a Relationship Rule, click **Remove.** To return to the **Content** tab, click **Cancel**.

You can also add Rules for Content, using the Quick View dialog of the added content.

**To add a rule using Quick View dialog:**

1. Place the mouse cursor on the **Name** of the content.
2. Click the **Quick View** call out to view the details of the content in a Quick View dialog.
3. Click **Add Rule** link in the dialog to set a relationship rule.
4. In the **Relationship Rule** palette, select the Content Status from the list.

   Example: If Document 1 is **Review**

5. Select the corresponding Activity status that you want to set.

   Example: Set Activity to **Complete**

6. Click **Save**.

## Duplicating Deliverables from a Project Template

There are certain considerations you need to remember when you create a project from a Template as described in "Creating a Project" on page 4-1. These are provided here for your reference.

- While creating a Project from a Template, you can opt to duplicate or clone the Content objects from the template project. Select the **Content** check box in the **Optional** tab section of **Create new > Project > From Template> Create New** dialog.
- If the **Content** check box is selected, copies are created for all deliverables in the template. The project and all its child activities will reference the newly created copies and not the original deliverables in the template. For example, a content object such as a Marketing Requirements Document that was available in the template is duplicated in the new project, with the file attached from the template.
- If the **Content** check box is not selected, there are no copies of deliverables created, and no links are provided to any deliverables on the template.
- If the **Content** object does not have a **Rule**, only the link is copied and this link will point to the same object as in the template. For example, a **Content** object such as a Standard Operating Procedure (SOP) document, where it is not necessary to create an object, and only a link to the controlled document is necessary.
- In the template, if a task's workflow rule criteria has already been met, the content is copied over to the new project but not the rule.

  For example - A task in the template has the following rule - *When Complete, Set Active Gate to In Review.* If the Active Gate is Open or Canceled, it is already past the In Review Status in the workflow progression, so the rule is not copied over.
- In general, copies are not created for all objects that do not have a Save as functionality. All deliverable objects for which copies cannot be automatically created are listed in the error log window.

### AutoNumbers

- If multiple AutoNumbers exist on a content object and the system does not know which one to use, content is not created and an error is reported.
- Within the template, ensure that an AutoNumber is set for each deliverable. Deliverable AutoNumbers for the created project are automatically selected based on the AutoNumber chosen for the original deliverable in the template.
- The AutoNumbers attribute is not filled in **Proposed** or **Active** type projects. If such projects are saved as templates, you need to fill in the AutoNumber attribute in the template again.
- Copies are not created for deliverables where the AutoNumber field is left blank. Templates use the AutoNumber attribute of a particular content to determine the name of the deliverable to be created.
- For all classes, if the same object is a deliverable for multiple activities and gates in the template, the copy of the object is created for the first activity / gate for which

it is a deliverable, and a link to this copy is provided for all other subsequent activities or gates for which the same object is a deliverable.

For example, let's say that a document DOC00341 is a deliverable that is referenced twice in a template, on Task1 and Task2. When a project is created from this template, a new copy of the original deliverable in the template is created - DOC00982 for Task. This document will be a deliverable for Task2 as well, following the same pattern as in the template that the project is created from.

### Required Fields

- All required fields are copied from the original deliverable to the newly created copy.

### Tabs

- For all subclasses, Cover Page, Page Two, Page Three and Attachments tabs are copied.

For example, if an assembly is a deliverable on one of the tasks, the only tabs that are copied are Page One, Page Two, Page Three and Attachments. The BOM tab is **not** copied over.

### Activities and Gates

- When internal activities and gates in the template are used as deliverables, corresponding copies are created in the newly created project tree and referenced as deliverables in the other activities and gates as defined in the template.
- When activities and gates within a template or source project are added as deliverables to later activities and gates in the template, the deliverables on a project created from the template will also reference corresponding activities on the newly created project.

For example, if Task1 is a deliverable of Task2 in the template, then for any project that is created from the template, Task1 in the project will be a deliverable of Task2 in the project. This is one approach of implementing hard exit on gates, that is, ensuring certain activities are completed or certain gates are opened before another specific activity is completed or gate is opened.

### Root Projects

- Only the root projects of **Template** type are allowed as deliverables for activities and gates within a template.
- If an external root template is a deliverable on a task of a template, a new project deliverable is created as a copy of the original template deliverable. This copy of the original project deliverable has the project tree structure in place, but no deliverables. When creating copies of external root templates, only General Info, Page Two, Page Three, Attachments, Dependencies and Schedule tabs are copied.

Team and Content tabs are not copied.

External root templates, if used as deliverables multiple times, are cloned only once, similar to internal activities and gates.

### Templates

- If the user chooses to create a proposed project from a template, all templates that are deliverables of this template are created as proposed projects that are deliverables of the newly created proposed project. (The same applies if you

choose to create an **Active** project from a template. For the copies, only the name of the root project is changed; the names of the activities and gates remain the same. The activities and gates numbers, however, are system-generated and unique.

- Copies of external activity deliverables that are not root templates are not created because non-root activities cannot exist by themselves. In this case, the deliverables on the project created from the template will reference the original deliverables on the template for such objects.

# 4

# Creating and Managing Projects

Creating and managing projects in PPM involves using Web Client or Gantt to:

- Create, edit, activate, and baseline a project
- Work with project content
- Assign resources and allocate activities
- Establish dependencies and reschedule activities
- Initiate and respond to discussions

## Creating a Project

You can create a project using Web Client or Gantt.

### Using Gantt Chart

You can create an **Active** or **Proposed** project from the File menu or an existing template in Gantt.

**To create a project using the File menu in Gantt:**

1. Launch Gantt Chart. See "Launching Gantt" on page 2-29.
2. Click **File > New**. The **New Project** window opens with the standard duration of one day.
3. To rename the project**,** double-click the name of the project.
4. Click **File > Save**. The project is **Active** by default.

Right-click the project name in Gantt and click **Properties** to modify the various properties of the project.

**To quickly create a project using data from a spreadsheet:**

1. Ensure that the data in the spreadsheet is in the following format:

| Activity Type | Name | Schedule Start Date | Schedule End Date |
|---|---|---|---|
| <type of activity> | <name of activity> | <start date in mm/dd/yy format> | <end date in mm/dd/yy format> |

   Dates should be in the mm/dd/yy format.
2. Copy the required rows from the spreadsheet.
3. Launch Gantt Chart.

4. Click **File > New**.
5. Select the default row that appears and paste the rows you copied (Press **CTRL+V** or right-click and select **Paste)**. Errors, if any, are reported at the bottom of the window.
6. The project is copied over. Click **File > Save**.

**To create a project from an existing template in Gantt Chart:**

1. Click **File > Open** to view the **Activity** window.
2. In the **Find From** list, select **Root Templates**.
3. If you know the name of the template, enter the **Name**, or click **Find**.
4. Click a row to select the template.
5. Click **OK** to view the new project based on the selected template.
6. Click **File > Save as File** to save the project on the disk.
7. In the **Save as File Options** dialog, enter the **Name** and **Description** for the new project.
8. Select **Active** or **Proposed** from the **Project State** List.
9. Click **OK** and select the destination folder for the new project.

The new project does not have the Page Two and Page Three attributes copied from the template. The content from the **Attachments** and **Content** tabs are not copied when you save a new project from a template using Gantt.

## Using Web Client

You can create a project from Web Client using the following:

- The **Create New** menu
- The **Save As** menu
- An existing project template

In the Web Client, the Create New menu enables you to create a project.

**To create a project using the Create menu:**

1. Launch Agile Web Client.
2. Click the **Create New** drop-down menu.
3. Select **Projects > New.**
4. In the **Create New** dialog, select **Project** from the **Type** list.
5. Enter the **Name** of the project.
6. Enter the **Description** for the project, if required.
7. From the **DelegatedOwner** list, select the new owner for the project. The default owner of the project is the logged-in user.
8. Select **Proposed** in the **Project State** List. You can change the status to **Active** when you are ready to roll out the project. Your selection here can have implications on the AutoNumber attributes of the new project. For more details, see "Duplicating Deliverables from a Project Template" on page 3-13.
9. In the **Schedule** section:

- From the **Calendar** list, select a calendar. Working and non-working days specified in the chosen calendar are used in schedule calculation.
- Select **Duration Type**, **Schedule Start Date**, and **Schedule End Date**. The **Schedule Duration** is automatically calculated as the difference between the start and end dates.

10. Click **Save**.

---

**Note:** If Recipe & Material Workspace (RMW) is installed, you are presented the option to create an **RMW Project** or **RMW WorkRequest**. In the **Type** list, these options appear instead of **Project**. All other steps remain the same.

---

The **Actions > Save As** menu enables you to save an existing template as an 'Active' or 'Proposed' project. The default type of the project is **Active**.

**To create a project using the Save As menu:**

1. Navigate to the **Template** or **Program** which you want to save as a new project.
2. Click the **Actions > Save As** menu.
3. In the **Save As** dialog, enter the **Name** of the project.
4. Enter the **Description** for the project, if required.
5. Select **Proposed** in the **Project State** list. You can change the status to **Active** when you are ready to roll out the project. Your selection here can have implications on the AutoNumber attributes of the new project. For more details, see "Duplicating Deliverables from a Project Template" on page 3-13.
6. Select the optional components of the project or template whose contents you want to copy to the new project.
7. If your template or project has a lot of content to be copied, select the **Run As a Background Process** check box. You can then continue working on other projects while the new project is being created. A notification is sent to you when the process completes. You can open the project directly from the notification link.
8. To mark this project as the baseline version, select the **Kick-off Baseline** check box.
9. Click **Save**.

You can create a project from an existing template to avoid entering all project-related information afresh.

**To create a project object from an existing template:**

1. Launch Agile Web Client.
2. Click the **Create New** drop-down menu.
3. Select **Projects > From Template.**
4. In the **Create New** dialog, from the **Templates** palette, select **Template**. The remaining fields appear.
5. Enter the **Name** of the project.
6. Enter the **Description** for the project.

7. From the **Owner** list, select the new owner for the project. The default owner of any activity in the project is the owner specified for that activity in the template.
8. If you want this user to own all the child project-objects, select the **Apply as owner for this level and below** check box.
9. Select the **Start Date** or **End Date** option. Use the **Calendar** palette to select the **Schedule** date.
10. Select **Proposed** in the **Project State** list. You can change the status to **Active** when you are ready to roll out the project. Your selection here can have implications on the AutoNumber attributes of the new project.
11. Select the optional components of the template whose contents you want to copy to the new project.
12. If your template has a lot of content to be copied, select the **Run As a Background Process** check box. You can then continue working on other projects while the new project is being created. You receive a notification when the process completes. You can open the project directly from the notification link.
13. To mark this project as the baseline version, select the **Kick-off Baseline.**
14. Click **Save**.

When you create a project from a template, the dependencies and content relationship rules in the template are replicated in the new project. For details, see "Dependencies Between Templates and Active Projects" on page 4-26.

# Editing a Project

You can edit the information in the project page tabs such as General Info, Schedule, Team, Dependency, Content and Collaboration. In multiuser environments, sometimes, more than one user edits the same task in a project. In addition, concurrent users may need to edit multiple tasks in the same project tree.

## Editing Project Objects Concurrently

The Agile PPM solution is designed to manage large projects with hundreds of activities and numerous team members. It is possible for multiple users to edit the following:

- Multiple tasks in the same project tree structure at the same time.
- The same task at the same time.

## Editing Multiple Tasks in the Same Project Tree

When multiple tasks in the same project tree are edited at the same time, the edit modifications may have affects on objects higher in the project tree (rollup) or lower in the project tree (rolldown).

## Editing Tasks with a Predecessor and Successor Relationship

When a parent task is rescheduled to a specific end date, that end date rolls down to the child objects. You can also edit a child object end date, which then extends the bounds of the parent object (by rollup to the parent object). As each user makes and saves his modifications, the necessary rollup or rolldown takes place.

In this scenario, it is possible for a user to enter a specific date on the edit page, yet see a different date upon save, because of the rollup or rolldown caused by another user's edits. However, the schedule remains accurate.

### Examples

- Task B (owned by Bob) is a predecessor to task A (owned by Mark). Bob and Mark are editing the schedule dates of their tasks at the same time, and save their edits one right after the other. If the new edited dates of the first saved task cause the dates of the second saved task to change, the person saving the second task is presented with a message explaining that the dates he entered will be changed and he can accept the change or cancel.
- Mary is editing a parent activity and several other users are editing several child activities at the same time. Mary reschedules the specific end date of the parent activity. At the same time, some child activities have been modified in such a way that the end date of the parent activity is extended. As each edited activity is saved, the dates for the parent or child activity are updated correctly for schedule accuracy. A user may save his activity and see a different date than the one he entered on the edit page, but the schedule is accurate.
- New roll-up data overwrites a common parent or root activity.

Susan owns task C and Fred owns task D. Both task C and task D have a common parent, task M, thus they are both in the same tree structure. Both Susan and Fred are editing their tasks, modifying data that rolls up to parent task M (percent complete, cost, or status data). Fred saves task D and task M is rescheduled according to Fred's edits. Then Susan saves task C, and task M is again rescheduled, this time according to Susan's edits.

## Multiple Users Editing the Same Task

To keep other users from editing roll-up or roll-down attributes of the object you want to edit, use the feature in Web Client. Locking an object means that only you can edit rollup and rolldown attributes and other users who edit the object are "locked out". Although they can edit attributes that do not rollup and rolldown, they cannot edit roll-up and roll-down attributes until you have finished your edits and you have unlocked the object.

When you use **Launch in Microsoft Project** or **Gantt Chart**, Agile automatically locks the project. When you update from Gantt Chart or Microsoft Project, Agile automatically unlocks the project.

In Web Client, when you use **Edit** on the **General Info**, you must click **Lock** before you click **Edit,** to lock the object. The differences between locked editing and unlocked editing are explained below.

## Locking Tasks for Editing

When a user (Mary) locks the task before entering edit mode, Agile provides the following safeguards when a second user (Carl) edits the same task:

- Carl sees a message "This activity is currently locked by another user. For this reason some fields will not be editable."
- While in edit mode, Carl can edit only non-rollup attributes on the **General Info**, **Page Two**, and **Page Three**. Carl can save his edits. When Mary saves her edits, Carl's edits may be overwritten. The most recent update of non-rollup attributes overwrites the others.

- The Name attribute on the **General Info** is an exception. Even though it is not a rollup attribute, when the task is locked, only the lock user may edit this attribute.

When you lock an object, its dependencies (both external and internal) are locked; the successors and their children are locked.

To lock and edit an activity object:

1. Open the object you want to edit.
2. Click **Lock**.
3. Click **Edit** on the **General Info** tab.
4. Edit the fields as required.
5. Click Save on the **General Info** tab.
6. Click **Unlock**.

## Editing Unlocked Tasks

If you do **not** lock a task before editing it, the same safeguards do not apply.

For example, let's assume there are two users, Joe and Carl. When Joe enters edit mode for a task first, and Carl then enters edit mode, the following applies:

- The second user, Carl, does *not* see a warning that another user is in edit mode.
- Regardless of who entered edit mode first, the user who saves first will update the Agile database with his modified data. The second user who saves receives the following error message: "The current object has been modified by another user, please try again. To ensure that your changes are saved, lock the object before editing."
- If the unlocked parent object has been rescheduled to a specific end date, and any child objects have been modified in a manner that extends the bounds of the parent, no messages are presented, and each modification is saved. The appropriate roll-up or roll-down date modifications are performed. Although the date information that a user saves might not match the date he entered (due to edits made by a different user), the schedule information remains accurate.
- The exception to the above behavior is when two users edit the task status (use the **Change Status** button) or two users add to the Schedule at the same time. Multiple status changes and schedule additions are accepted and saved when done in parallel.

### Reviewing Changes

After making changes to a project offline or online, you can review your changes using an HTML report before saving the project. This feature is available only in Gantt Chart.

**To review your changes to a project:**

1. From the **Tools** menu of the Gantt Chart, select **Show Changes**.

A new window opens, showing a comparative view of changes recorded on the server and on the Gantt Chart. Activities that have been modified, added or deleted are indicated by the colors shown in the legend below the table. A gray dot indicates a modified object.

- To see details of changes made to an activity or gate, click its name. A pop-up window shows Page One, Page Two, Page Three, Schedule and Resource information with old and new values. Scroll down to see all changes.
- To view details of any modifications made to your project schedule, allocated resources, dependencies, Page One, Page Two or Page Three fields, click the appropriate icon in the respective columns.

### Undoing Changes

The Gantt Chart enables you to undo any action that you perform, except **Save**. You can also undo actions such as the opening of a project. The **Edit** menu displays contextual **Undo** or **Redo** options based on the current action.

Only one undo or redo operation is supported per action. You can also use the shortcut key **Ctrl+Z** to undo an action. Pressing **Ctrl+Z** a second time will redo the action.

## Activating a Project

A project can be in the **Proposed** state until the requirements such as schedule, team, and content are fixed. When all the project stake holders agree with the key aspects of the project specifications, you can activate the project.

When you change a project to Active, Agile PPM does the following:

- Opens the project to activity by team members
- Places an active load against all resources and resource pools based on team definitions and allocations
- Starts calculating standard budgeted labor costs
- Places assigned activities in the assignment lists of project participants.

Changing a project to Active does not change the status of the project to "In Process".

**To activate a project:**

1. Navigate to the proposed project or template which you want to activate.
2. In the **General Info** tab, click **Edit**.
3. In the Activities Information section, select **Active** from the **Template** list.
4. Click **Save**.

You can change the status and report time against activities, only in an **Active** project.

## Working with Project Content

The **Content** tab in the project page lists all content specific to the project. This section discusses ways to view and update content in Web Client.

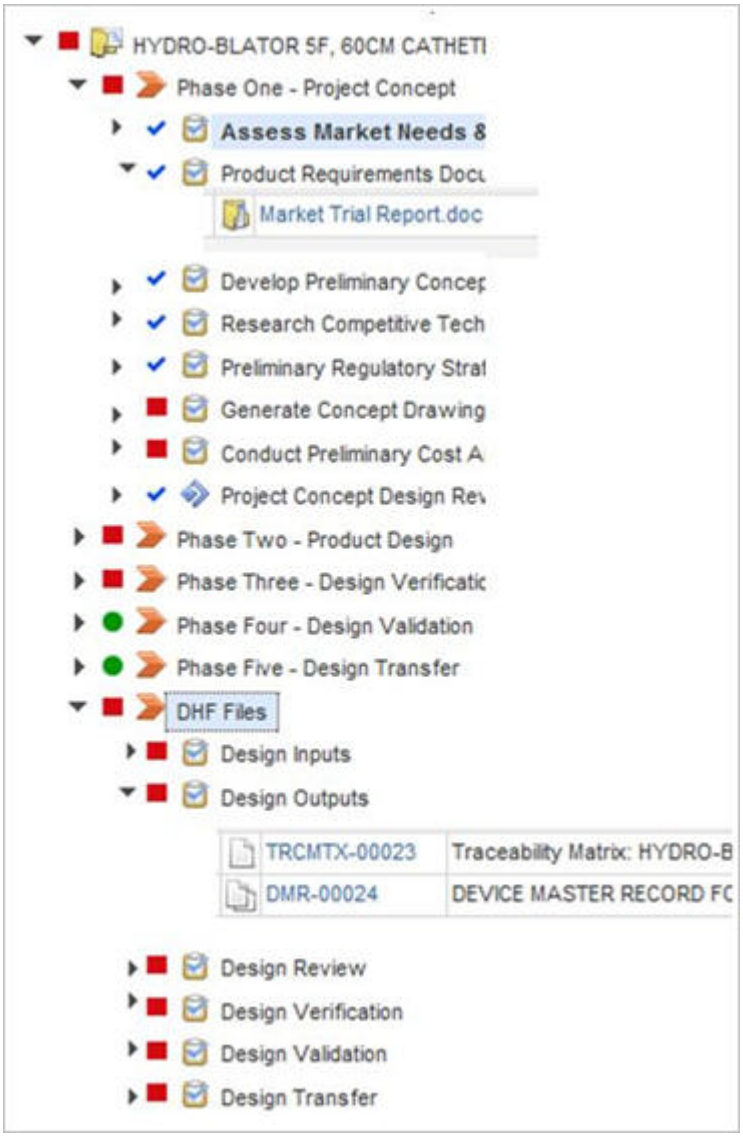
The columns displayed in the Content table are configured using Agile PLM's Table Personalization feature. Click the **Personalize** link in the top right corner to select what fields you want displayed. For detailed information on table personalization, see the *Getting Started with Agile PLM* guide.

### Viewing Content

You can manipulate the **Content** tab view in several ways to display the objects you want to focus on:

- **Navigator**: Click this button to display links to all project content (except for external reference objects), within the project tree in the left pane. You can drag and drop selected content, such as file attachments, from the Content tab of one project to the Content tab of another project using this view.

***Figure 4–1 Navigator View of Content***




If you do not want to view content in the project tree, you can disable the **Display PPM Content in Navigator** option in Java Client, under **Admin > Server Settings > Preferences.**

- **Display all Levels:** Select this check box in the top right corner of the Content tab to ensure that your view displays objects at all levels of the project hierarchy below the current level.
- **Views**: You can use the options in the **Views** drop-down list to filter the view by attributes that you configure. By default, the list includes options such as Complete, Pending, and Rule Not Specified. A Pending deliverable is an object which has not yet met the specified rule criteria, and a Completed deliverable is an object that has met the rule criteria.

To change the name of any of these views:

1. Click the **Personalize** button.
2. In the **Properties** tab of the Table dialog that opens, edit the **Name**.
3. Click **Save**.

> **Note:** A view can be deleted only by the owner of the root project.

To add objects to a view, select the objects, click **More Actions > Add Keyword,** and select one of the available keywords.

Content that you mark with the **Important Content** keyword will also display in the Project Summary page.

To add more views, go to **Personalize > Save As,** enter a name for the new view in the **Name** field, and click **Save**. The newly created view appears in the **Views** list.

> **Note:** Only the project owner can create a view. Program team members can add content to existing views.

To bookmark a selected content object, use the **More > Bookmark** option**.**

To subscribe to notifications on attribute changes for a selected item, use the **More > Subscribe** option**.**

To create a change order for an item, select the item and use the **More > Create Change** option**.**

- **Preview**: Click **Quick View** on any object to see details of that object in the **Quick View** window. Within this window, you can take several actions on the object, such as:
  - View a selected revision.
  - View, add, edit, or remove a rule, to ensure hard dependencies.
  - Add, remove, check out, or view a file attachment in multiple formats.
  - **Create Change** for an item.

  For more navigation tips and shortcuts, see the recorded demos under **Tools & Settings > Quick Tours**.

## Updating Content

In the **Content** tab of the project page, you can do the following:

- Edit rules
- Edit content details
- Change views
- Add mandatory content on template programs
- Assign keywords

You can also use the **Quick View** dialog to perform these actions.

**To edit a rule:**

1. Select a content row for which you want to update the rule.
2. Click **Edit Rule**.
3. In the **Relationship** palette that appears, select a status of the content folder and a corresponding status of the project.
4. Click **Save**.

The updated rule appears in the **Rule** column of the selected content row.

**To edit content details:**

1. Click the **Name** in the content row, the details of which you want to modify. The **Folder** page appears.
2. Edit the details in the **Title block** as appropriate.
3. Click **Save**.

You can also  (a new URL or file) from the **Content** tab and post new content.

**To change views:**

In the **Content** tab, select a view from the **Views** list. This displays content specific to the selected view only.

**To add mandatory content:**

1. In a content row, double-click a cell in the **Mandatory** column. A drop-down list appears.
2. Select **Yes** from the list to mark the content mandatory.

When you generate a new 'Active' or 'Proposed' project from a template with defined mandatory deliverables, these deliverables cannot be deleted from the new project.

**To assign keywords:**

1. Select a content row.
2. Click **More > Add keyword** and choose a keyword.
3. The **Project Keywords** in the **General Info** tab appear in the **More > Add Keyword** choices.

The keyword you select appears in the **Keywords** column of the content row. Select a keyword from the **Views** list in the **Content** Tab, to view the content relevant to the selected keyword.

---

**Note:** The **Add Keyword** menu is not available if you have not added **Project Keywords**. To add Project Keywords, edit the **Project Keywords** field in the **General Info** tab of the project.

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# Managing Resources

Resource Management activities for a project in PPM include:

- Adding resources to the project
- Assigning activities to the resources
- Monitoring resource utilization
- Substituting resources
- Delegating ownership of activities based on resource utilization

- Searching for timesheets
- Removing resources

## Adding Resources

You can add resources to a project using Web Client or Gantt.

### Adding Resources Using Web Client

In Web Client, you can add resources to a project using the Team or Schedule tab. The Team tab enables you to add a user group or a resource pool to a project.

### Adding Team Members from Schedule Tab

You can select single or multiple activities and add team members or resources (the default allocation is 100%).

**To add team members to an activity from the Schedule tab:**

1. Select one or more activities and select **Edit > Add Resources**.
2. In the **Add Resources** dialog, launch the **New Members** palette and select the resources you want to add.
3. In the Team Member type section, specify the resource allocation details.

   To add the selected users as resources (with a specific % allocation), select the Resource with % Allocation option. The default allocation is 100%. You can enter the desired allocation percentage.

   **Note:** The resource allocation percentage can be a fractional value.

   To add the selected users as team members (with a zero % allocation), select the **Add as Team Member only** option.

   Launch the **Roles** palette to select the appropriate roles for the selected resources.
4. Select **Apply to this level and below** if you want the settings to apply to the current object and child objects.
5. Click **Add**.

### Adding Team Members from Team Tab

You can add users or user groups as team members using the Team tab.

**To add team members and apply roles:**

1. In the **Team** tab of the project, click **Add**.
2. In the **Add Resources** dialog, launch the **New Members** palette and select resources you want to add.

   **Note:** Before you select a resource or user group, you can review resource utilization details. Click the **Utilization Report** button. This opens a window where you can review resource utilization details based on query criteria. You must have **Team.Name** as an **AppliedTo** property within the **Modify** privilege to be able to assign members from a resource pool or user group.

3. In the Team Member type section, specify the resource allocation details.

   To add the selected users as resources (with a specific % allocation):

   Select the **Resource with % Allocation** option. The default allocation is 100%. You can enter the desired allocation percentage. The maximum allocation percentage is 400. You can change this setting in Java Client.

   To add the selected users as team members (with a zero % allocation):

   Select the **Add as Team Member only** option.

   Launch the **Roles** palette to select the appropriate roles for the selected resources.

   The roles available for selection are roles assigned to you (the login user) that have an associated PPM privilege.

4. Select **Apply to this level and below** if you want the settings to apply to the current object and child objects.

5. Click **Add**.

The selected resources and assigned roles are displayed in the **Team** tab. People added as resources, are also added as team members automatically. When you complete the addition of resources, each of the selected resources receives a notification in their **Notifications** tab.

If you add a resource pool or user group, the pool owner receives a notification. The request also appears in their **My Assignments** tab. When the pool owner accepts or rejects the request, the project owner receives a notification.

If you add a user who belongs to a pool, the pool owner receives a notification. The user receives a notification and a request. When the user accepts or rejects the request, the project owner and pool owner both receive notifications.

The **% Allocation** is divided among the selected users. If there is a fraction of a percent, the percentage is rounded off to the next lowest whole number, discarding the fractions of a percent.

For example, if the resource pool was assigned at 100% allocation, and you select three users, each user will be assigned 33.33%. If you remove the three users and reassign the **% Allocation** back to the resource pool, the **% Allocation** for the pool will be 99.99% - the fractions of a percent are discarded. However, you can select the appropriate rows in the table and double-click the % **Allocation** cell to adjust the percentages for the users assigned from the resource pool, or (if you have assigned allocation back to the resource pool) adjust the percentage for the resource pool.

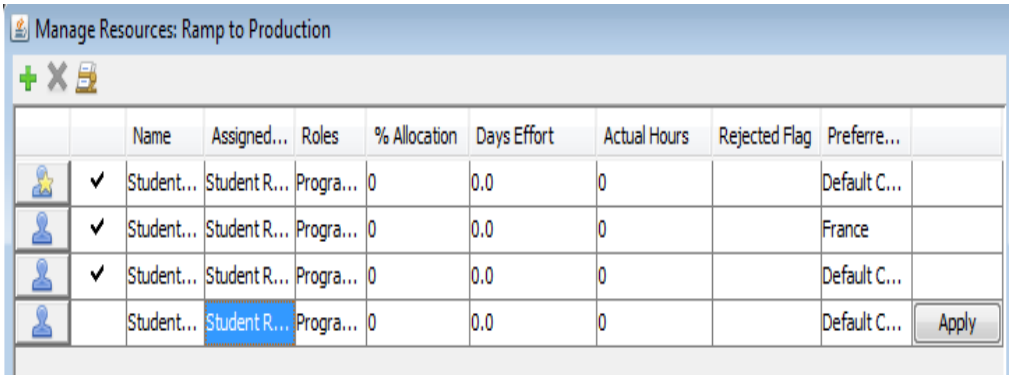
### Adding Resources Using Gantt

You can assign resources to your project from within Gantt. Resource Management enables you to allocate resources to various projects and also split resources between projects.

**To add resources to your project:**

1. Select an activity and click the Task Assignment View icon on the left pane. The **Manage Resources** dialog opens.

*Figure 4–2 Manage Resources Dialog*




2. In the **Manage Resources** dialog:

   a. To add a resource, click the **Add** button. This creates a new row in the table. To enter a value in the new row under the **Name** column, double-click the cell and choose a resource name from the list of values that appears.

   b. To add resources from a resource address book, click the Address Book icon. Click **Find** to view all the resources from the selected resource list. Use the **Find From** drop-down list to select a resource list from your existing resource sheets, for example, an existing resource pool or resource sheet list. Resources or resource pools that have already been added do not appear in the search results.

   c. Depending upon your selection, more options become available. Click **Options** to perform a parametric search to find resources. For more information on Parametric Search, see the *Agile PLM Getting Started Guide*.

   d. Click **OK**. Selected resources appear in the **Manage Resources** table.

   e. In the **Roles** column, specify the role for each resource. To change cell values, double-click the cell and click the **...** symbol. In the dialog that opens, select a role from the **Available Roles** column, move it to the **Selected Roles** column, and click **OK**.

   f. In the **% Allocation** column, enter the percentage of the resource's time that you want to allocate for this activity. If the resource rejects the activity assignment, you will see an icon with an **X** mark in the **Rejected** column.

   **Note:** The percentage (%) allocation for a full-time resource who is assigned to only one activity is 100%. If the resource is being shared across multiple projects, the percentage allocated would vary depending on the time allocation toward each project or activity.

3. To assign a resource, select the row and click **Apply**.

Before you assign resources, you can confirm availability of each resource. See "Viewing Resource Utilization" on page 4-13.

## Viewing Resource Utilization

Resource utilization information is required to make informed decisions during the allocation of tasks to resources. PPM provides the following resource utilization reports:

- Project Resource Utilization Chart
- Resource Utilization Report

> **Note:** All of the utilization chart displays are only certified on the default zoom percentage (100%) of the browser. If you change the zoom size of the browser, the report chart view may be displayed incompletely.

### Viewing Project Resource Utilization Chart

Project Resource Utilization chart enables you to view the overall resource utilization for the project in a given period.

**To view the Project Resource Utilization Chart in the Web Client:**

1. In the program or project page, click **Actions > Reports and Analytics > Project Resource Utilization** menu.
2. In the **Project Resource Utilization** window, the Resource Utilization chart appears according to the default filter criteria.

You can modify the fields such as **Report Type**, **Start Date**, **End Date**, **Reporting Intervals**, **Display Values by**, **Pool**, and **Chart Type** to view resource utilization specific to the modified filter criteria.

1. Click **Print** to view the Project Resource Utilization report in a different window and print the report.
2. Click **Export to csv** to view the Resource Utilization report in Microsoft Excel.

### Viewing Resource Utilization Reports

The Resource Utilization chart helps you to view resource availability, before you assign a resource to a particular activity. You can view resource utilization reports in both Web Client and Gantt.

### Viewing Resource Utilization Reports using Web Client

In Web Client, you can view the Resource Utilization reports from the following:

- Dashboard
- Team tab

**To view the resource utilization report for a resource pool from the Dashboard:**

1. In the **Resources** widget, click in the row. The **User Group Utilization** window appears with the resource pool utilization chart and fields to specify filter criteria.
2. You can specify filter criteria as required, to view the **User Group Utilization report.**

**To view the resource utilization for a particular resource or resource pool from the Team tab:**

1. In the **Team** tab, select a row in the table.
2. Click **Utilization** to view the percentage utilization of the resource or resource pool in a graphical chart.

The results in the chart are based on the filter criteria. You can modify the filter criteria to view resource utilization according to your need.

## Editing Team Member Attributes

In the Web Client, you can edit the team member attributes such as resource pool, role and allocated percentage of effort.

**To edit a team member's resource pool, roles, and % allocation:**

1. In the **Team** tab, select the rows that you want to modify.
2. Double-click in the **Assigned From** cell.
3. Launch the **Assigned From** palette to select a different Resource pool, if required.
4. Double-click the **Roles** cell.
5. Launch the **Roles** palette to select a different Role, if required.
6. Double-click the **% Allocation** cell.
7. Enter a different **% Allocation**, if required.
8. Click anywhere outside the Team table to exit the edit mode and save the entries.
9. Click **Utilization** to view the User Group Utilization report. This report provides information on the time utilized by the resource based on the percentage of the allocated time.

The team member attributes in the Team table are:

| Field | Description |
|---|---|
| **Name** | Name of team member or group. |
| **Assigned From** | The name of the pool from which the resource is assigned. If the resource is assigned to multiple pools, the appropriate pool can be selected.<br>For best results in managing resource utilization, Agile recommends that a user be assigned as a member of only one resource pool. |
| **Roles** | Program-specific roles assigned to team member for this activity. |
| **Days Effort** | Days effort corresponds to the total sum for the resource or group. |
| **Is Resource** | Identifies the user as a resource or just a team member with no time allocated to the activity. This information depends on % allocation of Resource/Team Member / User Group. If % allocation is greater than 0, it is Yes, otherwise No. |
| **Rejected flag** | This indicates that the resource or pool has rejected the request. |
| **% Allocation** | For both Fixed and Effort Driven duration type, this value determines utilization of a resource or group. This field accepts fractional values. |
| **Pool Owner** | Name of the resource pool owner, if there is one. |
| **Actual Hours** | The number of actual hours (duration) the team member has worked.<br>Reported Actual Hours are rolled up and compared to Estimated Duration and Scheduled Duration.<br>Actual hours are also used to determine the labor cost per activity. Actual hours are multiplied by the resource rate to determine the current applied cost of each resource. These totals by resource are added up to determine the applied cost per activity, and are then rolled up to the top to create labor costs for all parent objects. |
| **Preferred Calendar** | Shows the preferred calendar setting of the team member. |

## Assigning Tasks to Resources

You can choose to assign more than one task to multiple resources or split one task among multiple resources, based on your knowledge of the resource pool utilization. For information on resource utilization reports see "Viewing Resource Utilization" on page 4-13.

### Bulk Assigning Tasks to a Resource

You can bulk assign several tasks to a single resource if necessary. For example, a project manager can bulk assign a set of tasks to a particular resource pool owner. This resource pool owner can then assign these tasks to members of the resource pool.

**To bulk assign tasks to a resource:**

1. In Web Client, click the name of the resource pool to view resource details. You can use the Search options to search for a particular user group by name.

   You can also find the name of the resource pool in the **Dashboard > Resources** widget, **My Settings > User Group** page, and the project page **Team** tab.
2. In the User Group page, click the **Assignments** tab to view all the assignments and percentage allocation for the user group.
3. Use the **Personalize** menu to filter table display.
4. Select the assignments that you want to bulk assign to a resource.
5. Click **Assign**.
6. In the **Activity Assignments** dialog that opens, select the option button on the **Allocate** cell of a user to assign the selected assignments. The selected user becomes the owner of the selected assignments. The allocation percentage for this user is the sum of allocation percentages of all the assignments.
7. Click **Finish**.

View the existing assignment list and user group utilization details before you assign tasks to a resource. Use **Actions > Reports and Analytics > Assignments List Report** to view the list of assignments for all resources in the user group. Use **Actions > Reports and Analytics > User Group Utilization Report** to view a report of the resource utilization for the user group.

---

**Important:** It is recommended to verify your allocations using the same reports after you finish assigning tasks to the resources.

---

### Splitting a Task Among Several Resources

As a resource pool owner, you have more visibility into the utilization status of each resource in your pool. Once a task has been assigned to your resource pool, you can split the % allocation of the task across several resources.

**To split a task across several resources:**

1. Navigate to **My Settings> Address Book > User Groups**.
2. In the **Assignments** tab, select the task and click **Assign**.
3. In the **Activity Assignments** dialog that opens, double-click the **Allocate** cell in the resource row to make it editable.
4. Enter the percentage allocation for all resources that share the assignment.

   The resource allocation percentage can be a fractional value.

5. Click **Finish**.

### Changing Ownership of Tasks in Projects Created from Templates

When you create a project from a template, if the owner of any activity except the root activity is defined in the template as a resource pool, the owner of the newly created (duplicated) activity will also be that resource pool. To change the owner of any activity or gate from a resource pool to an individual user, the owner of the resource pool must assign a user to the task owned by the pool.

**To change ownership of a task to a resource pool member:**

1. Navigate to **My Settings> Address Book > User Groups**.
2. Click the resource pool name to view assignments.
3. In the **Assignments** tab, select the task you want to reassign, and click **Assign**.
4. In the **Activity Assignments** dialog, select the option button in the **Change Ownership** column for the new owner of the task.
5. Click **Finish**.

The task can also be split between several users within a pool, from the **Assignments** tab of the user group. See "Splitting a Task Among Several Resources" on page 4-16.

### Removing Resources

If your resource utilization report shows excess allocation for a resource, or if a resource is not available for the project, you can remove the resource from the project using Gantt or Web Client.

**To remove assigned resources in Gantt Chart:**

1. In the **Manage Resources** dialog, select a resource or multiple resources to delete.
2. Click the Delete icon. A message prompts you to confirm deletion.
3. Click **Yes** to confirm.
4. In the dialog that opens, select either of the following:
   - **Delete resource and re-assign % allocation to pools (if applicable)** - Select this option to delete the resource and re-assign the resource allocation percentage to other resources in the project resource pool.
   - **Delete resource and discard % allocation** - Select this option if you do not want to re-assign the resource allocation percentage.

The selected resources are removed according to your specification.

In the **Manage Resources** dialog, a black check mark next to the resource name indicates that the resource is allocated to all selected tasks. If the resource is allocated to at least one task, but not all tasks, the check mark will be gray.

**To remove assigned resources in Web Client:**

1. In the **Team** tab, select one or multiple resources to delete.
2. Click **Remove**.
3. In the **Remove Team Members** dialog, select either of the following options:
   - **Remove only resources without a percent allocation** - Select this option to delete the resources without the resource allocation percentage.

- **Remove resources and assign their percent allocation to their resource pool if applicable** - Select this option to delete the resource and re-assign the resource allocation percentage to other resources in the project resource pool.
- **Remove resources and discard their percent allocation** - Select this option if you do not want to re-assign the resource allocation percentage.

4. Click **OK**.

The selected resources are removed according to your specification.

### Delegating Ownership

When you create a project element, by default, you are the owner. The **Delegate** command enables you to change ownership of a project element.

An owner of a higher-level project element retains ownership of lower level items reporting to it, even when ownership of the lower level is delegated to another team member.

You can delegate ownership of an activity to a selected resource. In this way, you can assign an owner to each task in your project. When you delegate an owner to a task, a request is sent to the owner for approval. See also: "My Assignments" on page 2-11.

Once the delegated owner accepts the request, that resource owns the task and the delegated field becomes blank.

To delegate ownership of a project element from Web Client:

1. Open the project object you want to assign to a new owner.
2. Choose **Actions > Delegate.**
3. In the **Delegate** dialog:
    1. You can optionally specify the reason for this action, for later use (Filtering data for reports, for example.).

        In the **Reason Code** field, select an option from the list.

        In the **Comments** field, enter comments as appropriate.
    2. Select a new owner from the table. If the intended new owner is not listed, click **Add**.
    3. In the **Users** field, enter the first few letters of the user's name and then select the name from the list that pops up. Or click the Address Book icon to launch the address book and select the user.
    4. In the Roles field, use the palette to select a role and click **Save**.
    5. Click **Delegate** to assign ownership to the new owner.

A gray dot appears beside the **General Info** tab link. In the **Delegated Owner** field, the **?** icon appears next to the delegated user's name.

In the delegated user's Home page, there is a delegation notification in the **Notifications** tab, and a corresponding request in the **My Assignments** tab. Once the delegation is accepted, the gray dot is cleared and the **Delegated Owner** field is blank as the delegated owner has become the owner of the activity.

If the delegated owner has not yet accepted the delegation, you can use **Actions > Delegate** to choose a different user as the delegated owner.

To cancel the delegation, use **Actions > Delegate** and select the original owner as the delegate.

| Action or condition | Results or consequences |
|---|---|
| The activity is locked.<br>To unlock an activity, click the **Unlock** button. | The **Delegate** menu appears inactive when you click **Actions** menu. |
| The project is not active (the **Template** field setting on the **General Info** tab is not equal to Active).<br>Or<br>The project is active, but its status is Not Started.<br>To start a project (move it to the In Process status), change the status of one of its leaf activities. You cannot directly change the status of an activity if it has subordinate activities. | No delegations are sent to the delegated owners. Delegations are sent only when the project is Active. |
| A current team member is selected as the new owner, but has not yet accepted. | The new owner's name appears in the **Delegated Owner** field on the **General Info** tab.<br>The gray dot appears beside the **General Info** tab name indicating that the project has been delegated, but the delegation has not been accepted. |
| A user who is *not* a current team member is selected as the new owner, but has not yet accepted. | The new owner's name appears in the **Delegated Owner** field on the **General Info** tab.<br>The gray dot appears beside the **General Info** tab name indicating that the project has been delegated, but the delegation has not been accepted.<br>Because the delegation has not yet been accepted, the new owner does not appear on the **Team** tab. |
| The delegated user accepts the delegation in the **My Assignments** tab. | The gray dot beside the **General Info** tab name is removed.<br>If the delegated owner was not a current team member, he is added as a team member on the **Team** tab.<br>On the **Team** tab, the Agile PPM default owner role is automatically added to the delegated owner's assigned roles. By default, the default owner role is the Program Manager role, however, your Agile administrator may set a different role. For more information, see the *Agile PLM Administrator Guide*. |
| The delegated user rejects the delegation. | The gray dot beside the **General Info** tab name is removed.<br>The **Delegated Owner** field on the **General Info** tab is empty. |

**To delegate ownership of a project element from Gantt Chart:**

1. Select the activity or task. The **Delegate Owner** icon is enabled.
2. Click the **Delegate Owner** icon. A list of default resources is displayed.
3. Select the resource from the list, or click the Address Book icon to select resources from the Address Book.

4. Click **OK** to delegate ownership.
5. You can optionally enter a reason for the delegation and comments in the **Reason for Delegation** column. Double-click within the column row to open a dialog where you can enter these details.

When you save the current updates to the Gantt chart, the **Reason for Delegation** field appears blank. The information you entered is recorded in the History tab.

### Changing Ownership Directly

You can also directly edit the **Owner** field in the **General Info** tab of projects that are in Active or Proposed state, if you have the necessary privileges.

Ownership can be changed to a user, but not to a user group. The new owner is added to the Team tab of the project, if not present already. When the ownership change is complete, any pending delegation is removed automatically.

### Substituting Resources

You can use the **Actions > Substitute Resource** command to substitute one resource for another.

**To substitute one resource for another:**

1. Choose **Actions > Substitute Resource**.

   Alternatively,

2. In the **Substitute Resource** dialog, select a **Resource to Remove** from the list. The list contains all team members including those assigned to child activities.

   Click the **Substitute** button in the **Team** tab.
3. In the **Substitute To Resource** palette, select a **Replacement Resource**.
4. To substitute the resource in all the child activities, select the **Apply to Children** check box.
5. Click **Substitute**. The replaced resource's role is assigned to the substituted resource.

> **Note:** You can substitute a resource on a completed activity only if the % allocation is zero. For information on working with the Address Book Palette, see "Address Book Palette" on page 2-26. In the **Substitute To Resource** palette, the user groups that are already added to the team table are not available for selection, in the drop-down menu. Similarly, the **Search within a User Group** option in the drop down menu does not display the user groups already added to the team table.

## Searching for Timesheets

You can search for timesheets only if you have the **Update All Timesheets** privilege and you log in as Administrator.

**To search for timesheets:**

You can search for timesheets by one or more of the following attributes:

- **User(s)** -Launch the User(s) palette to select a resource, or several resources. This displays timesheets of the selected resources.

- **Project(s)** - Launch the Project(s) palette to select a project, or several projects. You can choose to include Canceled and Soft-Deleted Activities. This displays timesheets belonging to the selected projects.
- **Date Between** - Launch the Calendar to choose the From and To dates. This displays the timesheets that fall within a particular period.

A blank search, where you do not choose any attributes as criteria, will return all timesheets recorded in the system.

1. On the Timesheet tab, click **More >Timesheet Search**.
2. Click **Search**. The search results display in a table.
3. To sort the results by a listed attribute, click the relevant column heading. By default, the list is sorted by **Name**.
4. To export selected rows to another project for analysis or computing in the Comma Separated Values format, click **Export(csv).** To export selected rows to another project for analysis or computing in the Microsoft Excel format, click **Export(xls).** You can then download the results to a local drive on your computer.
5. To print search results, click **Print**.

### Defining Timesheet Views

To view and change timesheet data recorded for selected users, you require a personalized view of selected timesheets.

**To define a timesheet view:**

1. In the **Timesheet** tab, click **Views > My TimeSheet View**.
2. In the **Personalize** list, select **Save As.** The **Table Personalization** palette appears.

   To name the view, select the **Properties** tab.

   - Enter the custom view name and select the view type.
   - Click **Apply**, then click **Save**.

   To choose users, select the **Filter** tab.

   - Use the filter criteria to add timesheets of selected users to the view. For example, you may select all members of a project team or resource pool.
   - Click **Apply**, then click **Save**.

   To choose which fields to display in the table, click the **Format** tab.

   - Move fields to the Hidden Fields column as required. The Name and Team Member fields must be displayed.
   - Click **Apply**, then click **Save**.
3. Click **Close** to return to the **Timesheet** tab.

The new view displays the timesheets of the selected users. You can now view and edit the timesheets.

## Managing Schedules

Managing schedules in PPM involves:

- Using customized calendars

- Creating dependencies between activities or projects
- Rescheduling project dates
- Creating baselines

You can establish dependencies between activities within your project schedule. A dependency between activities mandates that one activity's schedule is driven by the predecessor's schedule. You can also establish and change dependencies using the Gantt Chart.

## Using Calendars

When you create a project, the Default Calendar is assigned as the project calendar. (If you have a Preferred Calendar specified in your user profile (under My Settings), then that calendar is displayed by default.) All activities and gates use the project calendar to define work days, unless you explicitly assign a different calendar to a specific task or phase. If the project was created from a template, the project calendar is the same as the calendar specified in the template.

> **Note:** The Preferred Calendar attribute in the General Info tab of a user or user group is usually set by an administrator, who has privileges to modify user and user group settings.

You can assign a calendar for a project or any activity within the project from its General Info tab. The Calendar field provides a list of available calendars for selection. You can create or modify calendars in the system if you have the Calendar Administrator privilege.

### Identifying Calendar Conflicts

You can run the Activity Calendar Conflict Report to check for variances between a task-level calendar and the preferred calendar of resources assigned to that task. For example, you can see whether any of the working days in the project calendar are specified as non-working days in a user's preferred calendar, creating a conflict.

For example, let's say you assigned a US Calendar to a task and assigned that task to a resource based in China. If the task period includes Oct 1st, which is a working day in the US but a national holiday in China, the report highlights the conflict and shows the reason why the date is marked as an exception.

To view the activity calendar report:

1. From the **Actions** menu of the task, choose **Reports and Analytics**, then choose **Activity Calendar Conflict Report**. You can also access the report from the **Reports** drawer in the left pane, where it appears in the **Project Reports** list under **Standard Reports**.
2. Specify report parameters. The users and dates associated with the current task are automatically selected, but you can edit these as required.
3. Click **Finish**. The report appears, showing you a weekly view of the task, and the preferred calendars of the resources assigned to the task. Conflicts with the project calendar are highlighted in yellow.

You can switch to the Daily View to drill down into the details.You can also click on the highlighted dates to get additional information, such as why these dates are marked as exceptions.

To resolve a conflict in the dates, reschedule the dates or assign the task to other resources, as appropriate.

### Accepting Calendar Changes

If an administrator makes an update to a calendar you are using, a warning message appears on the activities and gates that are affected by the change. The administrator can also choose to send you a notification informing you of the calendar change. When a calendar is updated, you can do the following:

- To accept the calendar change, in the Actions menu, choose **Accept Calendar Change**. The affected projects are rescheduled according to the updated calendar.
- To retain the current schedule, create a copy of your calendar with a different name and then assign the new calendar to affected projects. (You can access the updated calendar from the link provided in the notification.) For more information on creating a new calendar from an existing one, see "Configuring Calendars" on page 10-24.

> **Note:** Calendar changes affect rescheduling only in Proposed or Active projects that are in Not Started or In Progress status.

## Creating and Editing Dependencies

Dependencies in Agile PPM control the schedule timing of any two tasks in a project timeline linked through a dependency. Dependencies do not control the activity in those tasks. To control the activity between two activities or gates, you can use content relationships and rules.

Dependencies can be offset positively or negatively with a time buffer.

### Creating and Editing Dependencies in Web Client

The **Dependencies** tab in the Agile Web Client displays a list of all the predecessor (**Dependent Upon**) and successor (**Required for**) activities in the project. The Web Client also enables you to create external dependencies to other projects and tasks not in the current project timeline. If you establish such external dependencies, links to these also appear.

This tab page has the following buttons:

- **Add** - Enables you to add a dependency to the selected activity. Dependencies can be made between activities in the same project or other projects. You can also create dependencies between a template project and an active project.
- **Remove** - Deletes the selected object. The **Remove** button affects only the selected activities in the current page.

Navigate to the activity for which you want to create dependency.

**To create dependencies:**

1. Click the **Dependencies** Tab.
2. Click **Add**. The **Add Dependency** dialog appears.
3. In the **Root Project** palette, select the **Root Project** which has the predecessor activity.
4. In the next dialog, to view a filtered list of **Activities**, select the **Type** of the predecessor activity. The default selection is 'All'.

5. Click **Continue**.
6. In the **Activities** palette, select the predecessor activity.
7. In the **Type** list, select a dependency relationship.
8. Enter the **Time Buffer** between the finish of the Predecessor activity and the beginning of the successor activity, if required.
9. Click **Finish**.

For quick editing of dependencies, use the Gantt Chart view.

You can create external dependencies only in Web Client.

For information on types of dependency relationships and time buffers, see "Types of Dependencies" on page 4-24.

### Creating and Editing Dependencies in Gantt

You can create a dependency between two activities in the Gantt Chart. By default, all project schedules begin on the start date of the first task and finish based on the date of the last task to complete. When dependencies are created, the Gantt Chart adjusts the schedule appropriately. Dependencies can change the project's finish date.

**To create a dependency:**

1. Click the **Create Dependency** icon on the toolbar. The cursor turns into a cross-hair pointer.
2. Drag the cross-hair pointer from the start point of the task to its end point. The direction you drag and the start point or end point of the task you select determines the dependency Type.

To create a dependency between two tasks that are not close to each other, you can type the dependency directly into the predecessor column. Type the predecessor's task ID no. (shown on the right-hand side of the tabular view) in the **Predecessor** column in the tabular view pane.

You can also create a Dependency using the **Edit >Create Dependency** menu command.

**To edit a dependency:**

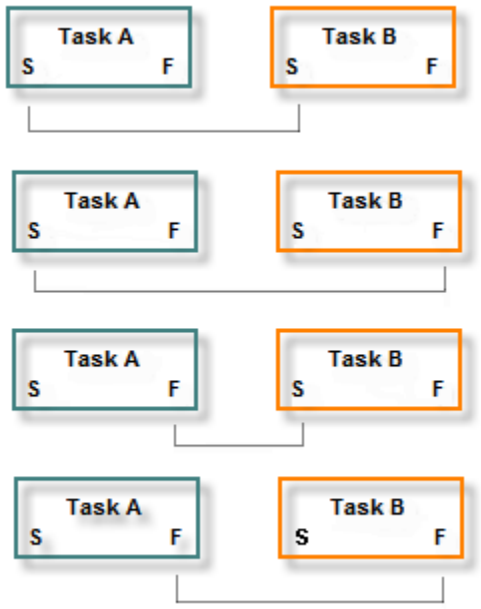
1. Double-click the dependency arrow link on the graphical view of the Gantt Chart or select **Edit > Edit Dependency**.
2. Select the Type of dependency from the **Types** drop-down menu.

### Types of Dependencies

There are four types of Dependencies:

- Finish to Start (FS)
- Start to Start (SS)
- Finish to Finish (FF)
- Start to Finish (SF)

*Figure 4–3 Types of Dependencies*




For example, if the Predecessor task is **Task A** and the Successor task is **Task B**:

- **Finish to Start**: In an FS scenario, the Schedule Finish date of Task A determines the Schedule Start date of Task B.
- **Start to Start**: In an SS scenario, the Schedule Start date of Task A determines the Schedule Start date of Task B.

To maintain a schedule which enforces the parallel scheduling of tasks, use the SS dependency type.

- **Finish to Finish**: In an FF scenario, the Schedule Finish date of Task A determines the Schedule Finish date of Task B.
- **Start to Finish**: In an SF scenario, the Schedule Start date of Task A determines the Schedule Finish date of Task B.

> **Note:** In the Gantt Chart, the Successor column shows the task that may be affected if the predecessor task is changed or moved.

### Dependency Time Buffer

A buffer can be inserted to maintain a gap between a predecessor and its successors. Positive or negative values are accepted for the buffer.

When creating or editing a dependency, you can enter a value in the **Time Buffer** field that represents "slack time" between the control dates of the predecessor and successor activities or gates.

Days set as time buffer follow the calendar of the target Activity or Gate. For instance, if you set an FS dependency between Task 1 and Task 2, with 3 days buffer, and each task has a different calendar assigned, the 3-day buffer is taken into consideration in the calendar for Task 2.

You can also create and change dependencies from the Gantt Chart view. See "Creating and Editing Dependencies in Gantt" on page 4-24.

### Dependencies Between Templates and Active Projects

You can create dependencies between a project and a project template. For example, you could create dependencies between **Release Project A** and a **Feature Release Project Template**.

Be aware that this can impact other projects that are subsequently created from the same template, as described below.

Let's assume **Release Project B** is created from the same **Feature Release Project Template** which has dependencies with **Release Project A.**

- Slack defined in the template project is not copied over to the new project.
- If internal and external dependencies conflict, the external dependencies are maintained and conflicting internal dependencies are removed.
- If there are conflicting external dependencies, all dependencies are maintained, but dates are aligned to the last date of the dependency, adding slack to any earlier dependencies.
- If there is a dependency to a parent activity in the template, the start date of the parent activity is moved. Slack is not removed from the child activities.

> **Note:** A template activity or gate cannot be a predecessor. Only an active or proposed activity or gate can be a predecessor. You cannot create a dependency between two template projects

### Editing Display Order

You can change the order in which tasks or phases appear on the **Schedule** tab.

**To edit the sequence of the Program elements on the Schedule tab:**

1. On the **Schedule** tab, select **More > Change Display Order**. The Change Display Order dialog appears.
2. In the boxes in the **Order** column, enter a number that represents the order in which you want the corresponding project elements to appear on the **Schedule** tab.
3. Click **Save**.

### Rescheduling a Program

While other Schedule tab edit functions allow you to select and modify rows in the schedule table, the **More > Move Schedule** menu acts on the currently displayed object only, not on the rows in the schedule table.

**To reschedule your Program:**

1. From the Schedule tab, select **More > Move Schedule**. The Move Schedule Dates dialog opens.
2. To move the scheduled dates of a project element, do one of the following:
   - Select the **Start Date** or **End Date** options and use the calendar to select new dates.

- Select the **Forward** or **Back** options, as appropriate, and specify the number of days by which the schedule needs to move. For example, if your Schedule Start Date is January 5th, and you want to move this forward to January 8th, select **Forward** and specify 3 (days). If you want to move the date back to January 2nd, select **Back** and specify 3.

3. Click **Save** to reschedule the project.

When you move the end date of a project to reschedule it, errors occur if there is slack between the activities. To prevent such errors, you can do either of the following:

- Quantify the slack in the Time Buffer field. See "Dependency Time Buffer" on page 4-25.
- Remove slack. The quickest way to do this is to launch the Gantt Chart for the project and use the **Edit > Remove Slack** command. This action adjusts project dates to give you a 'best fit' schedule.

This error can also occur if you reschedule a parent project by moving the end date and the end dates of any child activities fall on weekend dates.

### Creating a Baseline

You can create Baselines to capture schedule and resource snapshots of a project at regular intervals of time, for project tracking. Baselines are permanent reference points against which you can compare the updated task structure and changes to schedule, budgeted costs, and resource allocations. To be able to create baselines, your Agile administrator must assign you Modify privilege on the *Schedule.Name* attribute.

Baselines can be created only on the root project object. To take snapshots of extensive project data during the planning phase, you must save multiple baselines. For example, you may want to do this at major planning milestones.

When you open the project, all saved baselines for that project appear in the **Version** list on the Schedule tab. Baselines are versioned for easy identification.

To compare the current project against a saved baseline, select it in the **Version** list. The details of the selected baseline are displayed next to the Version field.

> **Note:** If the baseline description exceeds 15 characters, it appears truncated. To view the complete description, place the cursor over the truncated description. A tool tip displays the complete baseline description.

You can create two types of special baselines:

- **Kickoff Baseline**: This is the very first baseline of a project. Use the kickoff baseline as the preliminary version, against which you can compare the subsequently created baselines. Agile PPM provides you the option to mark the current version of a project as a kickoff baseline when you perform any of the following actions:
  - Create a baseline from the Schedule tab.
  - Create a project from a template.
  - Change the Template setting on the General Info tab of a project to Active.
  - Save a project using the Save As command on the Actions menu.

- **Plan Of Record**: This is a special type of baseline which you may want to create at major milestones during the execution of the project.

The version number of a kickoff baseline or a plan of record baseline appears suffixed with an asterisk ('* ').

**To create a baseline:**

1. From the **Schedule** tab of a root project, click **Create Baseline** on the drop-down menu adjacent to the **Baseline** list.
2. In the **Create Baseline** dialog:
    1. Enter a **Description** for the baseline. This description appears in the **Baseline** list.
    2. To mark it as your Kickoff Baseline, select the **Kickoff Baseline** check box.
    3. To mark it as a Plan of Record baseline, select the **Plan of Record** check box.
    4. Click **Save** to save the baseline.

**To remove a baseline:**

1. Select the baseline in the **Version** list.
2. Click **Remove Baseline** on the drop-down menu adjacent to the **Baseline** list.

When you remove a baseline, the references to the baseline for all objects in the tree are also removed.

#### Comparing Baselines

Baseline comparison can be done using either of the following:

- Using the Compare Baselines feature.
- Using the Baseline Comparison report.

**To compare baselines using the Compare Baselines feature:**

1. From the **Actions** menu of a project, click **Compare Baselines**. A new window displays all the baselines created for the project.
2. Select a baseline. A list of baselines against which you can compare the selected baseline appears to the right.
3. Select a baseline from this list for comparison. You can compare the selected baseline only against the current project, or against a baseline that was created *after* the selected baseline.
4. Click **Compare**. A new window opens, showing a comparative view of the selected baselines. Activities that have been modified, added or deleted are indicated by the colors shown in the legend below the table. A gray dot indicates a modified object.
    - To see details of changes made to an activity or gate, click its name. A pop-up window shows General Info, Schedule and Resource information with old and new values. Scroll down to see all changes.
    - To view details of any modifications made to your project schedule, allocated resources, or General Info fields, click the appropriate icon in the respective column.

**To compare baselines using the Baseline Comparison Report:**

1. In the left navigation pane, choose **Analytics and Reports**.

2. Under **Standard Reports**, navigate to **Program & Portfolio Reports > Program Reports,** and choose **Baseline Comparison Report**.
3. Execute this report to compare selected baselines. For more information on running reports, see related documentation in *Getting Started with Agile PLM*.

# Managing Discussions

Managing Discussions in PPM involves:

- Adding, viewing, and joining a discussion
- Replying to discussions
- Viewing action items that were assigned during a discussion

## Discussions Table

The Discussions table in **Collaboration > Discussions** tab displays important information about each discussion. The column heading with the Action Item icon appears on the rows which have action items associated with the Discussion. Click the gray dot or click the **Subject** of the discussion to open it.

## Adding Discussions

You can add a new discussion or reply to an existing discussion from the Web Client.

**To add a new discussion:**

1. Open the activity, and click **Collaboration > Discussions** tab.
2. Click **Add** and choose the **Create New** icon.
3. In the Create New dialog, select Discussion from the **Type** drop-down list.
4. Enter a **Subject** for the discussion.
5. Type the **Message** you want to send.
6. From the **Priority** drop-down list, set the discussion priority.
7. In the **Notify List** palette, select the users who must receive notification of this discussion.
8. Click **Add**.

**To search and add an existing discussion:**

1. Open the activity, and click the **Collaboration > Discussions** tab.
2. Click **Add** and choose the **Search** option.
3. In the **Discussions Search** palette, search for one or more existing discussions.
4. In the search results, double-click the discussions you want to add to the activity.

You can run multiple searches to find and select additional discussions.

## Replying to Discussions

You or your team members or notified users can reply to discussions.

**To reply to discussions:**

1. Open the activity, and click the **Collaboration >Discussions** tab.

2. Click the discussion name to open it.

   In the **Schedule** tab of the root project object, the discussions column indicated by the Discussions icon, displays the symbol for all activities that have discussions.

   You can view the discussion thread in the preview pane just below the Discussion table on the **Collaboration > Discussions** tab.

3. On the **Discussions** tab, select the discussion you want to reply to.
4. Click the **Reply** button in the preview pane. Enter your message and the list of people to notify, and click **Send**.

**To add a comment to an existing reply:**

1. Open the activity, and click the **Collaboration >Discussions** tab.
2. Click the symbol in the discussion row for which you want to add a comment. In the discussion page, the **Discussion** tab displays the reply thread.
3. Click **Reply** to add a comment to the existing response.
4. Modify the subject, type a Message, and select the users to notify, if required.
5. Click **Send**.

Your reply is added as the latest response in the ongoing discussion thread.

### Replying to Discussions from your Home Page

When a discussion appears in your Notifications tab on the home page, you can open the discussion object and either add a reply or add a comment to an existing reply.

**To reply to Discussions from your Home page:**

1. In your **Notifications** tab, click the link in the **Regarding** cell on a discussion row to open the discussion item.

   The Discussions icon identifies the discussions in the Notification table.

2. In the **Discussion** tab of the Discussion page, click **Reply**.
3. Add the reply message and the list of people to notify, and click **Save**.

### Replying to Discussions from the Project Summary Page

A list of recent discussions specific to the project appears in the Summary page of a project.

**To reply to a discussion from the Project Summary page:**

1. Navigate to the **Summary** page of a project.
2. In the **Recent Discussions** widget, select a discussion row to view the discussion thread within the widget.
3. Click **Reply** to respond to the discussion.
4. Modify the subject, type a message, and select users to notify in the **Reply to Discussion** window.
5. Click **Send**.
6. Click **Cancel** to exit from the **Reply to Discussion** window without sending the response.

## Viewing Discussion Replies

In the Web Client, navigate to the program or project page to view the replies to a discussion.

**To see a list of replies to a discussion**

1. Click **Summary**.
2. In the Recent Discussions widget, click a discussion to view the reply thread.

**Alternatively:**

1. Within the **Collaboration** tab, open the **Discussion** view.
2. Click the Discussions icon or the subject of discussion on any row. The discussion page appears with the reply thread.

   Or

   Click a discussion row to view the reply thread in the preview pane below the Discussion table.

## Removing Discussions

After you finish all your discussions, you can remove the discussion objects.

**To remove discussions:**

1. Open the activity, and click the **Collaboration > Discussions** tab.
2. Select the discussion row you want to remove.
3. Click **Remove**.

The discussion object is removed from the activity.

**To delete discussions from the Actions menu:**

1. Open the activity, and click the **Collaboration > Discussions** tab.
2. Click the **Subject** of discussion. The discussion page appears.
3. Click **Actions > Delete** menu.
4. Click **OK** on the Confirmation message box.

If this discussion is not active in any other PPM activity, the system deletes the discussion from the Agile PLM database.

## Viewing Action Items

In the Web Client, you can access action item details from the **Collaboration > Action Items** by clicking the name of the action item.

- The list of action items in the table is a combined list of the action items associated with the project and the action items associated with the listed discussions.
- The **Belongs To** column and Discussions icon indicate whether the action item is associated with a discussion object or with a project object. Click the link in the **Belongs To** column to open the object.

Click the name of the action item in the **Subject** column to open the action item.

**To add an Action Item:**

1. Open the activity and click the **Collaboration > Discussions** tab.

2. Click **Add**.
3. In the **Create Action Item** dialog, enter the action item information. Fields that are in **boldface** are required.
4. Click **Create**.

The action item will appear in the **Notifications** and **My Assignments** tabs of the user to whom it is assigned.

The Action Items tab displays all action items related to the current activity, including those action items created on the associated discussion objects. If you have configured flex fields for the activity class, ensure that the same configuration is done for the Gates and Discussions classes as well. The list values that display in the flex fields columns of the Action Items table will be the values you configured for the activity class.

## Archiving Projects

You can change the archive status of a root-level project from the **Actions** menu. Archiving old data can improve system performance. The archived project's data remains searchable.

Archiving requires the *Projects.Generalinfo.Archived* attribute enabled for the *Modify All Projects, Programs, Phases, Tasks and Gates* privilege in Java Client.

**To change the archive status:**

1. Select a root-level object.
2. Select **Actions > Archive.**
3. You can optionally specify the reason for this action, for later use (Filtering data for reports, for example.). This information is stored in the **History** tab of the object.
   - In the **Reason Code** field, select an option from the list.
   - In the **Comments** field, enter comments as appropriate.

This option becomes available only if the corresponding SmartRule is enabled in Java Client. For details, see the *Agile PLM Administrator Guide*.

When a project is archived, it is removed from all active project lists and from the project navigation tree. All buttons and **Actions** menu choices are grayed out, except for **Actions > Unarchive**. You can select this option to remove the archive status.

An archived program is automatically removed from the PLM Reference field of programs that reference it, but is retained on the Content tab. You must manually remove it from the Content tab if you do not want it to be visible there.

You can also change the archive status for Completed and Canceled projects.

---

**Note:** Once a project is archived, it is no longer searchable using Advanced Search. To search for an archived project, use Simple Search.

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# 5

# Participating in Projects

This chapter addresses the actions you can perform as a participant in a project.

## Working on Assignments

The Home page **My Assignments** tab shows a list of your assignments. You can accept, decline, and edit these assignments, or take other actions as appropriate.

### Accepting Assignments

You can use the Home page **My Assignments** tab **Accept** function to accept multiple activities or action items simultaneously. The accept action applies to:

- Activities where you are the delegated owner.
- Project activities assigned to you.
- Action items whose status is Not Accepted and you are the assignee.

**To accept assignments on the My Assignment tab:**

1. Click the **Home** button to display the Home page.
2. Click the **My Assignments** tab to display your list of assignments.
3. Select one or more rows in the table.
4. Click the **Accept** button.

The selected objects are accepted.

### Declining Assignments

You can use the Home page **My Assignments** tab **Decline** function to decline multiple activities or action items simultaneously. The decline action applies to the:

- Activities where you are the delegated owner.
- Action items whose status is Not Accepted and you are the assignee.

When you decline an activity, you must enter a reason.

**To decline assignments on the My Assignment tab:**

1. Click the **Home** button to display the Home page.
2. Click the **My Assignments** tab to display your list of assignments.
3. Select one or more rows in the table.
4. Click the **Decline** button.

5. If one or more of the selected rows are activities, you must enter a reason why you are declining the activities. Enter your reason in the pop-up dialog and click **Send**.

## Editing Assignments

You can edit the assignment attributes in the **My Assignments** tab table. You must have the appropriate Modify privileges for the editable fields.

For example, depending on your privileges, for an activity, you can edit the **Status**, **Percent Complete**, **Actual Hours**, and **Due Date**.

**To edit My Assignment table rows:**

1. Click the **Home** button to display the Home page.
2. Click the **My Assignments** tab to display your list of assignments.
3. Locate the row of the assignment you want to edit.
4. Within the row, double-click a table cell to make the field editable.
5. Make the desired modifications.

   The editable fields are determined by which fields your Agile administrator has included in the assignments table and your modify privileges.
6. To duplicate an existing cell value across multiple cells:
   1. Select the range of cells that you want to fill with the same value.
   2. To deselect a cell within the range, press CTRL and click the cell.
   3. From the **More** dropdown menu, choose **Fill Up** or **Fill Down** as appropriate.
   4. When you are finished, click **Save**.

## Mark Assignments Complete

You can use the Home page **My Assignments** tab **Mark Complete** function to mark as complete multiple activities or action items simultaneously.

If you have not accepted an action item, you cannot mark it as complete. Accept the action item first and then mark it as complete.

When you mark an activity as complete, the **Percent Complete** field is automatically set to 100%.

**To mark assignments as complete on the My Assignments tab:**

1. Click the **Home** button to display the Home page.
2. Click the **My Assignments** tab to display your list of assignments.
3. Select one or more rows in the table.
4. Click the **Mark Complete** button.

The selected assignments are marked complete.

## Flagging Assignments

On the Home page **My Assignments** tab, the flag icon included in each row is a useful assignment management tool. Because you can sort assignments according to whether they are flagged or not, you can use the flag to indicate assignments that you want to track differently from other assignments. The flags on your assignment table appear only on your **My Assignments** tab, so you can decide how you want to use them.

**To set or unset the flag in a single assignments table row:**

1. Click the **Home** button to display the Home page.
2. Click the **My Assignments** tab to display your list of assignments.
3. Click the flag icon in the row you want.
   - If the flag is not set, clicking it toggles the flag to set.
   - If the flag is set, clicking it toggles the flag to not set.

**To set the flags in multiple assignments table rows:**

1. Click the **My Assignments** tab to display your list of assignments.

   If desired, use the **Views** dropdown list or the filter to sort which assignment rows are displayed.
2. Select the rows you want to flag.
3. Choose **More > Add to Flagged View**.

**To unset the flags in multiple assignments table rows in the flagged view:**

1. Click the **My Assignments** tab to display your list of assignments.
2. In the **Views** dropdown list, choose **Flagged**.
3. In the flagged assignments view, select the rows you want.
4. Choose **More > Remove from View**.

## Reporting Time

A resource who has been assigned tasks on one or more projects can use the Timesheet feature to report actual hours spent on each task. Reporting can be done on a daily or weekly basis. To be able to report time, the **Detailed Timesheet Entry** SmartRule must be set to **Allow** in Java Client, and Timesheet tab visibility must be enabled in your user preference settings.

When a team member enters time data against a particular project task in the Timesheet, the hours reported are added to the Actual Hours recorded on the Team tab for that task. The labor cost and any other information impacted by the number of hours this resource has worked on the project are then automatically recalculated.

You can only report time against a leaf-level task that is In Process. You cannot report time against a root project. Only In Process tasks will be displayed in the Timesheet tab.

**To report time against a particular task:**

1. In the Timesheet tab, select the row for the task.
2. Enter actual hours worked in the columns for each day of the week. Double-click within the cell to make it editable. You can also simply fill in the **Total** column with actual hours for the whole week. For example, if you fill in 40 hours in the **Total** column, this value is equally distributed as 8 hours each for Monday through Friday.
3. Click **Save** to save your data.

## Subscribing to Events

The events you can subscribe to vary per object. Product Portfolio Management has the following Activity-specific subscription events that do not apply to other objects:

- Add Discussion
- Reply to Discussion
- Add News
- Add Action Item
- Modify Schedule

The **Apply to Children** check box in activities and gates "push" a subscription to all child objects. If you subscribe to an activity that has a schedule and select this check box, you will automatically subscribe to all of the activity's projects, programs, phases, and tasks (that is, any object created in the out-of-box subclasses of Activities class). Since **Page Two** and **Page Three** fields can be defined differently for projects, programs, phases, and tasks, any of the attributes that do not apply are ignored.

## Changing Workflow Status

The workflow status of leaf objects, or objects that have no children, can be changed using the **Change Status** button. The status of parent objects cannot be changed directly, since it is changed by rolling up the status from leaf-level objects. You must have the appropriate privileges; by default, the Program Manager and Program Administrator roles have the required privileges.

The **Change Status** button is only available for objects whose **Template** field is Active in the **General Info** tab. You cannot change the status of objects whose **Template** field is Proposed or Template. Changing the **Template** field must be done at the parent level, and child objects are automatically moved to the **Template** value of the parent.

If you have added a Functional Team to the project, members of this team are automatically included in the Change Status dialog as the designated approvers, acknowledgers or observers for the proposed change of status. If you have not added a Functional Team, you can manually add each of the approvers, acknowledgers or observers.

For detailed information on using the Functional Teams feature, see the *Getting Started with Agile PLM Guide*.

# 6

# Tracking Projects

This chapter covers status tracking and reporting options for project or program managers.

## Status Tracking

Agile PPM enables project status tracking according to criteria set up within Agile Java Client Administrator. Health Status values are rolled up for all objects that are configured to report health status. To ensure health status values are rolled up, the Rollup Health Status attribute must be set to **Yes** in the object's **General Info** tab.

The following status elements are rolled upward:

- Overall
- Schedule
- Cost
- Resource
- Quality

Parent objects derive their status from the status of their child objects. If any one child of a project object is Off Track, the parent project is set to Off Track. If the Quality Status of a child object is Below Quality, the parent object is also set to Below Quality. Health attributes are maintained in Java Client Administrator settings, and each value has an activation period or value.

### Default Health Statuses

The following table shows default schedule, cost, resource, and quality health statuses.

| Status | Values | What triggers change? |
|---|---|---|
| Overall | On Track (green), Needs Attention (yellow), Off Track (red) | Corresponds to the most negative setting of the four health statuses for any project. If any one of the other statuses is red, Overall status will be red. |

| Status | Values | What triggers change? |
|---|---|---|
| Schedule | On Track (green), Needs Attention (yellow), Off Track (red) | Within the Java Client you can create a setting to trigger a health status change if there is schedule slippage of a certain number of days. The default setting for the Health Status to change from Not Started or On Track to Needs Attention is 1-5 days. If the task is overdue for more than 5 days, the status changes to Off Track. To learn how to configure these settings, see the *Agile Administrator Guide*. |
| Cost | On Budget (green), Off Budget (yellow), Over Budget (red) | Cost status is calculated based on the percentage of deviation from the original cost as set in the cost status node in Agile Administrator. |
| Resource | Staffed (green), Understaffed (yellow), Not Staffed (red) | Resource status is an editable field in the General Info tab of a project object which can be edited by a user with appropriate privileges, usually the project owner. |
| Quality | Meets (green), Below (yellow), Poor (red) | Quality status is an editable field in the General Info tab of a project object which can be edited by a user with appropriate privileges, usually the project owner. |

## How Status Roll-Up works

Several attributes are passed upward from child objects to parents, in a process called rolling up.

The attributes that are rolled up include:

- Activity workflow status
- Health statuses
- Scheduled dates and scheduled duration
- Actual start/end dates and actual duration
- Estimated start/end dates and estimated duration
- Days effort
- Percent complete

The rolling up of values starts with leaf nodes (child objects that have no children) that are not either Complete or Canceled, and moves upward to parent objects. If any leaf node object is determined to be Off Track, the parent object is considered to be Off Track.

Parent object fields that reflect rolled-up status of child objects, such as Days Effort or Scheduled Dates, cannot be edited because it is automatically rolled up from lower levels in the hierarchy. Status can only be edited at the lowest levels (leaf nodes).

The only way you can change the status of a parent object at the project level is to cancel the project using the **Actions > Change to Canceled** menu command. Once canceled, a project can be reset to the Not Started state, using **Actions > Change to Not Started**.

## Workflow Status

Agile Web Client uses a workflow stamp in the upper right of the **General Info** tab to indicate the workflow status of an activity. The Agile administrator defines the name of each status in each workflow.

The default project workflow statuses are:

- Not Started
- In Process
- Complete
- Canceled

Your company may have its own customized workflows and status stamps, as displayed in the **Workflow** tab. For further information see "Workflow Routings Tab" on page 2-11.

If a user has the appropriate privileges, they can use the **Change Status** button to change an activity's status, promoting it to the next lifecycle state.

> **Important:** Since lifecycle status of parent objects is rolled up from lower levels, you can only use the Change Status button to change status on individual leaf node objects, or objects with no children. You cannot promote an activity whose **Template** field setting is Template or Proposed.

## Rules for Parent Status

The following rules apply for parent object status change:

- Parent object workflows are affected when any of the related child workflows start. For example, if one child activity is in the In Process state, then Parent status is In Process.
- Parent object workflows are affected when all related child objects workflows complete. For example, if all activities are Complete, then parent status is Complete.
- When custom workflows are used, the rollup is governed by the transition between the Status Type, not necessarily a change in the step. For example, a workflow with seven steps can roll up to a parent with three steps because each has only one transition between the "Pending" and "Review" type (Pending, Review, Complete, and Cancel are the Status Types).

> **Note:** It is not recommended to use multiple review states on parent tasks, as the review status on the parent is driven by the status of the child tasks.

For leaf-node objects, you can click the **Change Status** button to change the workflow status (provided you have the required role).

To change the workflow status of the parent activity, open a leaf-level child activity and click the **Change Status** button to change the workflow status of the leaf-level activity.

You cannot use the **Change Status** button to change the workflow status of an activity that has children (subordinate activities).

For more information about workflows, see *Getting Started with Agile PLM* and the *Agile PLM Administrator Guide*.

## Cost Status

Agile PPM enables you to calculate four types of project costs as listed below. Each of these costs have Actual, Budgeted and Estimated categories. There are 12 cost fields in total; all appear on the **General Info** tab.

- **Labor Costs** - Actual and Budgeted Labor costs are automatically calculated. Budgeted Labor Cost uses scheduled duration, % allocation, and the users' resource pool rate, and man hours (8 hours per day) to calculate labor cost per resource assignment. These are summed for multiple resources assigned to an activity.

If an activity has a resource assigned, and has lower-level objects with Labor costs, then it is summed at the parent level and not replaced. Budgeted and Actual Labor Costs are always calculated in this way. However, Estimated Labor Cost can be editable at all levels. If not edited, it is rolled up by default.

- **Capital Expenses** - Can be both rolled up values and edited values, depending on whether the Agile administrator has enabled the Calculate/Roll-up flag on each cost field.
- **Fixed Costs** - Works in the same way as Capital Expenses.
- **Flex Costs** - These cost fields can be customized according to your business requirement in Administrator. For example, you could call it Setup Costs, and use it for calculation of project setup costs. Works in the same way as Capital Expenses and Fixed Costs.

While calculating labor costs, if a Resource is not assigned to a Resource Pool, the user's individual Labor Rate is used. The labor rate must be defined for the resource in the User Settings before you add the resource to a project.

## How Total Cost is Determined

Total Cost fields that appear on the **General Info** tab are calculated values and cannot be edited. Total Cost is the sum of the four cost types: Labor Cost, Capital Expenses, Fixed Cost and Flex Cost.

For example, Total Actual Cost is the sum of:

- Actual Labor Cost
- Actual Capital Expenses
- Actual Fixed Cost
- Actual Flex Cost

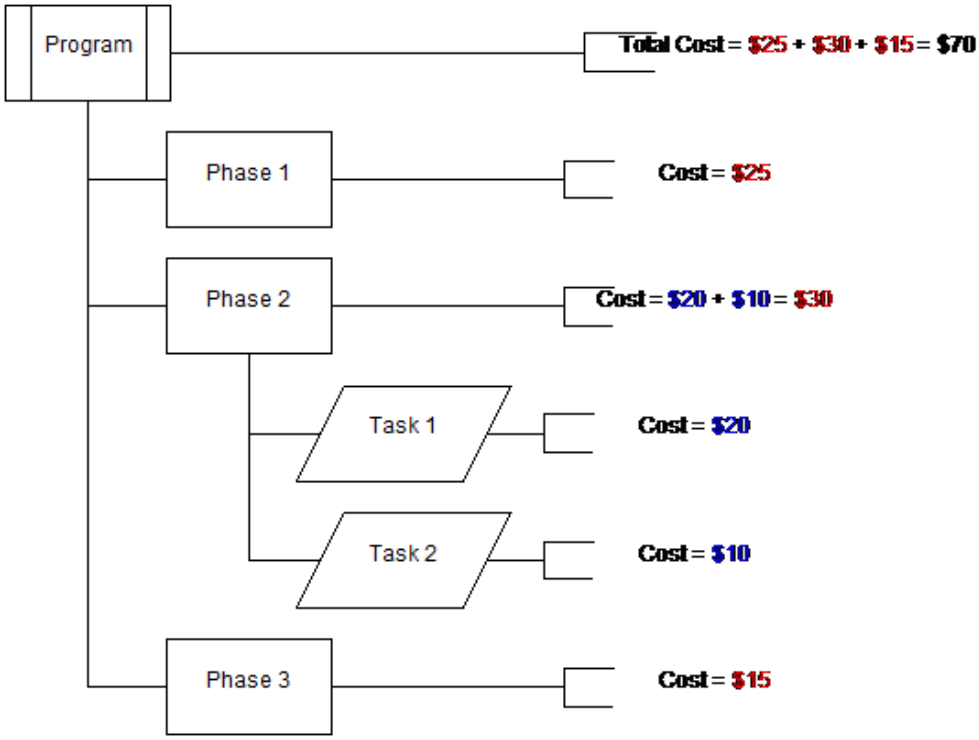
In the same manner, Total Estimated Cost is the sum of Estimated Labor Cost, Estimated Capital Expenses, Estimated Fixed Cost, and Estimated Flex Cost. Total Budgeted Cost is the sum of Budgeted Labor Cost, Budgeted Capital Expenses, Budgeted Fixed Cost, and Budgeted Flex Cost.

By default, cost information for each field will be rolled up through the project structure such that cost at the summary or parent task is a summation of the cost values of its child objects. If cost (Budgeted Labor Cost and Actual Labor Cost) is incurred at the Summary task level, then the cost is the summation of costs at the summary task level and the child levels below the summary task.There are flags (not

visible by default) that can be enabled to allow users to determine whether they want the parent/summary task's values to be calculated/rolled up or edited manually.

As you can see in the example below, if a cost is associated with the leaf node it gets added to the parent node. The total cost of the entire Program can be obtained in this manner.

***Example 6–1 Program Cost Rollup***




In this diagram, the cost for Phase 2 is $30, which is the sum of the costs for its leaf-level objects. You can also edit Cost at the parent node level for Phase 2.

## Costs Included in Baselines

All Cost fields are part of the baseline. Ten Calculate flags are also baselined. Budgeted and Actual Labor costs do not have the calculate/roll-up flags as they are always calculated and rolled up. See also "Enabling the Calculate Attributes" on page 10-3.

Use the Baseline Comparison Report in the Agile Standard Reports to compare these values.

# Reports

Reports allow you to display the values of your Agile projects and product records. By accessing this information and summarizing it in a meaningful way, reports provide insight into your business processes and can help guide better-informed decisions.

## About Agile Standard Reports

Agile PLM provides a robust reporting platform that enables you to:

- Measure and monitor business performance using standard out-of-the-box reports. These standard reports capture the best practices in product lifecycle management business processes.
- Configure reports with Agile's custom reporting to obtain the specific information you need.
- Use a single point of access to all relevant reports-even those developed outside of the Agile PLM application- through Agile's external reporting capability.

For detailed information about using all types of Agile reports, see the *Getting Started with Agile PLM Guide*, which includes information about:

- How your roles and privileges affect reports
- Report object tabs
- Creating and modifying report layouts
- Creating custom and external reports
- Running, scheduling, saving, and deleting reports
- Report output window

Your browser may have default security settings that compromise report display. If you are using Internet Explorer with Windows XP, add the Agile site URL as a trusted site within the **Tools > Internet Options > Security** tab to enable proper downloading of reports.

## Agile Standard Reports for PPM

This section discusses the Agile standard reports that are included as part of Agile Product Portfolio Management.

**To access project reports:**

1. In the left pane, click **Reports** to display the Reports folder structure.
2. Expand the **Reports and Analytics** tree and navigate to **Standard Reports > Program & Portfolio Reports.** Agile PPM standard reports are organized into subfolder under the **Program and Portfolio Reports** folder.
3. Click the report you want to view. Available reports are listed here for your reference. For details on selecting report parameters, using searches, and executing reports, see the *Getting Started with Agile PLM* Guide.

Reports for projects that are Complete or Canceled are not listed for selection.

| Project Reports | Description |
|---|---|
| Project Schedule | The schedule report of all the activities of the selected root project. |
| Project Off Track Activities | Report of all the activities based on the selected health status within the selected root project. |
| Project Top Discussions | Report of all open discussions with priority you select, within the root project you select. |
| Project Open Action Items | Report of all the open action items associated with discussions and tasks of the selected root project. |

| Project Reports | Description |
|---|---|
| Project Actual vs. Budgeted Cost | Report of the Actual Cost and Budgeted Cost for the selected project. |
| Project User Assignments | Report of assignments of a selected user within a selected root project. |
| Project Documents | Report of all the documents of the selected root project. |
| Project Deliverable Gate | Report of all the Gates and their dependent tasks and deliverables in the selected root projects. |
| Baseline Comparison | Report of comparison of the baselines for the selected project. |
| All Cancelled Activities | Report of all canceled activities that have been recorded in the system. |
| Activity Calendar Conflict Report | Highlights weeks where the project activity calendar and a user's preferred calendar show different working day exceptions.<br>For example, in the US Calendar, 3/9 is a working day, but in the CN Calendar, 3/9 is a non-working day. The task owner can use this report to identify the conflict. |

| End User Reports | Description |
|---|---|
| My Discussions | All open discussions owned by you with the priority selected when you execute the report. |
| My Open Action Items | All the open action items associated with issues and tasks that are assigned to you. |
| User Time | All the projects where the specified user has entered Actual Time. |
| My Documents | All the documents for which you are the Creator or Checkout User. |
| My Activities and Utilization | All your task assignments. |

| Resource Pool Reports | Description |
|---|---|
| Pool Member Report | Report of all the resources of the selected resource pool. |
| Resource Pool Consumption | Report of the resource pool consumption during the specified time period. |
| Resource Pool Utilization | Report of all your task assignments for all root projects and projects. |

| Portfolio Reports | Description |
|---|---|
| Portfolio Status | Status report of all the root projects to which you have access. |
| Portfolio Cost | Cost report of all the root projects to which you have access. |

| Portfolio Reports | Description |
|---|---|
| Portfolio Cross Program Dependencies | Report of all the activities that have external dependencies. |
| Portfolio Deliverable Gate | Report of all the Gates and their dependent tasks and deliverables in the portfolio of root projects. |
| Portfolio Priority Discussions | Report of all the open discussions in your portfolio of projects. |

# 7

# Working with Microsoft Project

The Agile PPM-Microsoft Project integration enables you to schedule projects using Microsoft® Project (**MSP**) and publish the results back to PPM. The integration uses Microsoft® Project data stored in XML format to facilitate import and export.

In order for the integration to work, it is imperative that you understand the following:

- For every project that may be imported to, or exported from, PPM, a single schedule editor must be defined, and honored, for the life of the project.
  - If MSP is the owner of the project/program schedule, no changes to the schedule dates, features that impact schedule dates, or resource assignments can be made in PPM.
  - If PPM is the owner of the project/program schedule, exports to MSP can only be for distribution and will be prohibited from being imported back into PPM.
- Agile PPM is a Project Management system designed to work as part of PLM, and is different from Microsoft Project.
  - Agile PPM is deliverable-oriented; MSP is constraint-oriented.
  - Percent complete is calculated in each system independently, and may not be identical at time of integration, and as activities are executed in PPM the % complete will be different, as it recalculates based on task updates.
  - PPM has a separate class of objects for Gates and Milestones. They are not tasks with 0 duration, as in MSP. Therefore, there are restrictions in the integration on how these items are transferred.
  - Many other features in MSP are not supported in PPM, and vice versa.

> **Caution:** Review all documentation for the integration before you begin your implementation.

As part of the integration, you can choose to do the following:

- Create a project in PPM from a legacy MSP file.
- Use a PPM project template to create a project in MSP.
- Use MSP as the schedule editor for a project that is tracked in PPM, and has deliverables that are managed as part of the PLM context.
- Use MSP as a distribution tool, to send PPM projects or programs to users that are not registered PPM users (typically suppliers and/or customers).

The integration XML can also be used to transfer PPM schedules from one server to another, for example, a test environment server to a production environment server.

Agile PLM imports and exports MSP files using the following features:

- **Create Project from XML** - Imports an MSP file in XML format to create a PPM project.
- **Load Microsoft® Project XML** - Updates the current PPM project with changes made in MSP.

For auditing and timing purposes, the import date and time is tracked on the project's General Info tab and the Gantt Chart. When you import XML into Agile PPM, there are 2 options for the schedule editor: PPM and Microsoft Project. For more information, see "Understanding How the Schedule Editors Differ" on page 7-5.

## Data Supported in the Integration

The following is a list of data that is synchronized, as well as the schedule and resources supported in the integration:

- Extended attributes mapped to Page Two attributes.
- Customized calendars and working days.

  In MSP, you can define a specific calendar against each task level, but you need to correctly match each calendar to a PPM calendar during import. See "Creating a Project from an Existing Microsoft Project File" on page 7-8 for information about the mapping process.

  **Caution:** If calendars are not mapped properly, a project reschedule may happen if a task starts/ends on a non-working day in a PPM calendar. For instance, you may have a calendar defined in MSP that has October 9 as a working day, which might be a non-working day in PPM. When this task is imported to PPM, the starting day of the task may be postponed to October 10, because a task cannot start on a non-working day in PPM.

- MSP Constraints Retention.

  **Note:** PPM does not use or support constraints, however, if MSP is the schedule editor for a project, the constraints are restored when the PPM version is exported back to MSP. Note that constraints are retained during export only if all scheduling and resource management operations for the project are done in MSP, and all execution-related operations are done in PPM. Scheduling and resource management operations include any operation that affects the project structure, dates, or resources. Execution-related operations include managing deliverables, updating task progress, and so on.

  See "Maintaining PPM Constraints" on page A-15 for a specific list of unsupported scenarios.

**Note:** The Estimated flag has the same restrictions as Constraint type if the original data from MSP is to be retained. Note that any PPM-generated "Estimated" flag is set to No by default.

See "Maintaining PPM Constraints" on page A-15 for a specific list of unsupported scenarios.

Data validation is performed for:

- Duplicate MSP Text30 values: Agile PPM uses two columns in MSP, Text29 and Text30, to control integration integrity. Text30 carries the unique identifier for all objects in the project and no duplicates are allowed. If these columns are not manipulated in MSP, then there should not be any issues.
- Invalid Dependencies
  - Self dependencies
  - Parent-Child dependencies
- Finish-to-Finish and Start-to-Finish type predecessor on parent task
- Inactive users or user groups
- Inactive roles
- Name, Description, and Page Two text attributes

  Exceptions are noted under "Data Not Supported in the Integration".

## Data Not Supported in the Integration

The import operation does not support the following data:

- Work Contour values - all assignments from MSP are converted as Flat values.
- Split-task resource assignments.
  - Split tasks from MSP are converted into new tasks in PPM and can cause the loss of constraints when re-imported since they will change the schedule in PPM.
  - Best practice is to remove all split tasks prior to import to avoid loss of constraints.
- Manually-edited rollup data on tasks, including both parent and leaf levels.
- Estimated and Actual Duration values at the second level task node or leaf node is not supported by Oracle Agile PPM, both in import and in export functionality. This data is not retained during the import and export operation, and can cause data corruption.
- Percent Complete value synchronization for parent task between MSP and in PPM.

  Percent Complete at the leaf node level is always synchronized, however, Percent Complete in the parent node will never be synchronized. The difference in percent complete occurs because MSP allows users to change Duration on the parent task if Schedule Mode is set to Manual. In this case the parent duration becomes out of sync with its children. Note that the Percent Complete value on Leaf nodes in MSP is the same as PPM after export/import.
- Fractional values for Team.PercentAllocation value.

Fractional Values are supported in A9 PPM for the Team.PercentAllocation attribute, but it is not supported in Microsoft® Project. We recommend that you do not use MSP-PPM integration for projects that have fractional allocation for resources on the Team tab.

- SmartURLs.
- Microsoft® Project outline numbers.
- Actual Date values are neither exported nor imported.
- Estimated Date values are neither exported nor imported.
- A Milestone/Gate cannot have any other activities/gates as its children, even though it is allowed in Microsoft® Project.
- Milestones with a non-zero duration. If a user tries to import into PPM a milestone with a non-zero value for Duration, the data can become corrupted. Non-zero durations are supported in MSP, but not in PPM.

See also, "Transferring Microsoft Project Work Values to PPM" on page 7-7.

In addition, the Agile menu in MSP, installed with earlier versions of Agile, is no longer required or supported. See "Notes on the Agile Menu in Microsoft Project" on page 7-8.

Importing of multiple project XML files is not supported through the Web Client interface. You can use the Agile SDK to handle bulk loading requirements.

## Before You Begin

Before you begin synchronizing projects between PPM and MSP, make sure the integration requirements are met.

- Ensure that all your Microsoft® Project team members exist in the Agile database.
- Ensure that you have the Microsoft Project Privilege assigned to you by your Agile administrator.
- Ensure that the necessary attribute mapping has been configured on the MSP/Agile PPM mapping file (*MSPSyncMapping.properties*). See "Setting Up Microsoft Project Synchronization" on page 7-5. for details.
- If your work site has previously used PPM 8.5 or 9.0, uninstall the 8.5 or 9.0 macros.

  To uninstall macros:

  1. Open Microsoft® Project.
  2. Select **Tools > Organizer > Modules**.
  3. Open Global.mpt and delete the Get File and XML macros.
- Understand what could create integration challenges; see "Transferring Microsoft Project Work Values to PPM" on page 7-7.
- Understand the impact of choosing a scheduling engine. See"Understanding How the Schedule Editors Differ" on page 7-5.

## Setting Up Microsoft Project Synchronization

To ensure that data synchronization works successfully, MSP project elements must be mapped to the correct PLM object attributes. Agile provides a mapping file, *MSPSyncMapping.properties*, where these values can be mapped appropriately.

You can find this file in the Agile installation directory under **..\agileDomain\applications\application.ear\APP-INF\classes**. Follow the instructions provided within the file to map attributes as required.

## Understanding How the Schedule Editors Differ

The schedule editor can be set to either PPM or MSP.

There are certain values that you need to pay extra attention to when importing a project into MSP or importing an MSP project into PPM. These values are as follows:

- Schedule dates: Both in MSP and PPM
- Schedule duration: Both in MSP and PPM
- % complete: Both in MSP and PPM
- Dependencies: Both in MSP and PPM
- Effort/Fixed based: both MSP and PPM
- Project status: Both in MSP and PPM
- Calendar mapping: Both in MSP and PPM
- Resource mapping: Both in MSP and PPM
- Auto schedule: MSP specific value
- Work contours like weeks /hours: MSP Specific value
- Split task: MSP specific

When you create a project in PPM and export it into MSP in edit mode, the potential results and effects are documented in the following table.

***Table 7–1 PPM Project Imported Into MSP***

| Action | Results | Warnings |
|---|---|---|
| Project created in PPM and exported to MSP | Project is loaded into MSP.<br>Schedule editor for that project in A9 becomes "MSP". | The following values need attention in this case:<br>1. Effort/Fixed duration: Effort driven would be "Yes" and type is "Fixed Work".<br>2. By default the task mode is "Auto scheduled" |

When you update a project in MSP and then export it into PPM in edit mode, the potential results and effects are documented in the following table.

*Table 7–2 MSP Project Imported Into PPM*

| Action | Results | Warnings |
|---|---|---|
| Project exported into MSP from PPM | Project is in MSP.<br>Schedule editor can remain as MSP or PPM. | The following values need attention when project updates occur in MSP:<br>1. Schedule dates: Scheduling happens according to MSP logic.<br>2. Duration/percent complete: according to MSP logic.<br>3. Task with % complete becomes split task when dependencies are added.<br>4. Weekly/hourly work changes the schedule.<br>5. Only Auto schedule is supported to import back in A9. |
| Project imported from MSP to PPM, after being updated in MSP | Project is in PPM.<br>Schedule editor can remain as MSP or PPM. In this case, it is set to MSP. | The following are values that need attention when a project goes is exported into PPM and Schedule Editor is MSP:<br>1. Schedule dates: Scheduling dates copied from MSP<br>2. Duration: Same duration copied to MSP<br>3. Percent complete: Rollup occurs according to PPM logic<br>4. Weeks/hours in schedule duration/time buffer is converted as days as per PPM logic.<br>5. Split task: Duration is computed according to A9 logic with schedule dates the same as in MSP.<br>6. Dependencies: Same as in MSP.<br>Note: Any addition of tasks, deletion of tasks, change in duration, change in dates of tasks, or rollup happens as per A9 logic.<br>Any changes in dependencies/time buffers does not reschedule the project unless the schedule editor is changed to PPM. |
| Project imported from MSP to PPM, after being updated in MSP | Project is in PPM.<br>Schedule editor can remain as MSP or PPM. In this case, it is set to PPM. | The following are values that need attention when a project goes back into PPM and the schedule editor is PPM:<br>1. Rescheduling and rollup of dates happen according to PPM logic<br>2. Split task: Rescheduling happens according to PPM logic |

**Note:** The schedule editor can be changed from any child level. Additionally, any child of the project can be exported to MSP and imported back.

In that case, the schedule editor of the child will be MSP and the parent will be PPM. There might be changes in schedule dates /duration /% complete due to this change.

Any rescheduling happens for that child only when the editor is changed to PPM.

**Note:** Split tasks can be created unintentionally by adding a dependency to an activity which has % complete in MSP.

### Choosing the Scheduling Engine

The scheduling engines used by PPM and MSP follow different rules for rescheduling and default settings. You cannot schedule projects using MSP and PPM at the same time.

PPM has a **Schedule Editor** switch that can be set for each project to indicate which scheduling engine (PPM or MSP) needs to control scheduling. By default, the Schedule Editor is set to **PPM**, but you can control the setting at a template level and thus retain that setting for all projects created from a particular template.

The first time you import an MSP file into PPM to create a PPM project, you are provided the option to select the preferred scheduling engine. After the PPM project is created, to update it with further changes made in MSP, the schedule editor must be set to MSP.

The Schedule Editor attribute can also be edited on the project's **General Info** page. To see what actions change the Schedule Editor setting automatically, see "Read Only and Edit Modes" on page 7-10.

## Transferring Microsoft Project Work Values to PPM

To ensure the accurate mapping of work values from Microsoft® Project to a PPM project, you must understand the way each solution handles data, and configure your data accordingly.

- **Days Effort** - In Agile PPM, days effort is always calculated based on % allocation and duration. Unlike in Microsoft® Project, Agile PPM requires an allocation to a resource or resource pool in order for days effort to be populated. To ensure that effort data values without resource or resource pool allocation are not lost while publishing tasks from Microsoft® Project, your Agile administrator can set up and define a generic resource pool to hold the work/days effort values. If your Agile administrator has defined the generic resource pool, you will notice that tasks which satisfy these conditions have a generic resource pool associated to them on the **Team** tab.
- **Custom Subclasses** - While creating new tasks in MSP for a PPM project, you can override the default subclass values in the **Text29** column with custom subclass values specified in the Java Client.
- **Page Two Attributes** - To ensure the correct mapping of Page Two attributes, you must edit the appropriate values in the MSP/Agile PPM mapping file (MSPSyncMapping.properties on the Agile server) provided by Agile. Page Three attributes cannot be mapped.
- **Float Values** - From release 9.3.1, PPM supports float values for duration and resource allocation in projects. You can add resources with fractional allocations, for example, 200.25, 100.35 and so on. After launching such projects in Microsoft® Project and publishing back to PPM, you may see minor variances in these values because Microsoft® Project does not support float values.
- **Project Tree Structure -** The Agile PPM project name must be at outline level one in Microsoft® Project. All Agile PPM subtasks, phases, and gates must be indented under level one in Microsoft® Project.

- **% allocation for resources -** Within Microsoft® Project, the % allocation for a resource should be a value between 0 and 400 to ensure error-free data mapping. The default maximum value for the corresponding field in PPM is 400. To assign a higher value, you can change the default configuration for the Team attributes in Java Client as appropriate. To learn how to modify attributes, see the *Agile PLM Administrator Guide.*

**Caution:** Data in the **Text30** column should not be tampered with, as this could interfere with the synchronization process and cause errors.

## Notes on the Agile Menu in Microsoft Project

If you were using the MSP-PPM integration feature with an earlier version of Agile, the Agile menu may still appear in your Microsoft® Project toolbar. This feature is no longer supported or required, and can safely be removed from the list of COM add-ins in MSP.

This is an optional step; retaining the menu does not affect the integration.

**To see a list of active COM add-ins for Microsoft® Project:**

1. Go to **Tools > Customize > Toolbars**. The "Customize" window opens.
2. From the Commands tab, within the left-hand list, select **Tools**.
3. Locate "COM Add-Ins" in the right-hand list.
4. Drag and drop "COM Add-Ins" from the list onto the top menu bar.
5. Close the Customize window.
6. Click the newly added **COM Add-Ins** menu. A list of all the installed add-ins is displayed.
7. Select the add-in you want to uninstall.
8. Click the **Remove** button to uninstall the selected add-in.

# Creating a Project from an Existing Microsoft Project File

You can use an existing MSP plan that contains at least one Level 1 task, as the basis for an Agile PPM project object. (All tasks must be rolled up under a single project; PPM transforms that project into the root project object.)

**To create a PPM project from an existing MSP file:**

1. Open the target file in MSP.
2. In the MSP menu, select **File > Save As** and save the project file in *.xml* format.
3. Move to the Agile **Tools and Settings** menu and select **Create Project from XML File.**
4. In the dialog that opens, choose the project XML file from your local directory.
5. If you want PPM to take care of the scheduling for the new project, select the **Set scheduling engine to PPM** option. If you leave this blank, scheduling engine is automatically set to the source application, MSP. For more information, see "Choosing the Scheduling Engine" on page 7-7.
6. Click **Load.**
7. Choose what type of project you want to create, **Active**, **Proposed** or **Template**.

If your MSP file contains users or user groups that are not in the Agile system, you are prompted to map these resources to existing users. In the Map Resources dialog, the **File Resource** column lists the unmapped users.

a. Click in the **System User** cell against each resource name, and use the search palette to select and map users.

b. Assign roles in the same way. You can choose to do this later; by default the mapped users are assigned the Program Team Member role.

8. If your MSP file contains references to calendars that are not in the Agile system, you are prompted to map these calendars to existing calendars. From the **System Calendars** list, select appropriate calendars to map to the ones in the MSP file.

9. Click **Load** again.

The Load Summary page confirms whether the file has been successfully uploaded. Click **Close**.

The new project is displayed, showing the data imported from the MSP project.

> **Note:** The import date and timestamp appear in the attributes list on the General Info page. Before you work on an imported project, check this information to ensure that you are working on the latest version.

## Updating a Project with Changes Made in Microsoft Project

It is recommended that you import changes made in MSP back to PPM.

**To update your PPM project with changes made in MSP:**

1. Save the MSP project file in XML format.

2. In Agile, open the PPM project you want to update.

3. From the **Actions** menu, select **Microsoft® Project > Load Microsoft® Project XML**.

4. Choose the MSP project XML file.

5. Click **Load**.

   If your MSP file contains users or user groups that are not in the Agile system, you are prompted to map these resources to existing users. In the Map Resources dialog, the **File Resource** column lists the unmapped users.

   a. Click in the **System User** cell against each resource name, and use the search palette to select and map users.

   b. Assign roles in the same way. You can choose to do this later; by default the mapped users are assigned the Program Team Member role.

6. If your MSP file contains references to calendars that are not in the Agile system, you are prompted to map these calendars to existing calendars. From the **System Calendars** list, select appropriate calendars to map to the ones in the MSP file.

7. Click **Load** again. The Load Summary confirms successful upload of your changes. Click **Close**.

You can verify the import date and time on the project's General Info tab.

# Using a PPM Project Template in Microsoft Project

You can export a PPM project template to MSP, edit project data in MSP, and then import the changes back to PPM. The export and import files should be in XML format.

**To export a PPM project template to MSP:**

1. Create a project from a template in PPM.
2. In the **Actions** menu, select **Microsoft® Project > Save as XML - Edit**.
3. Save the project file to your local directory.
4. From MSP, open the project XML file.
5. In the dialog that opens, choose **As a new project**.
6. Click **Finish**.

Once you finish editing the project in MSP, you can import the changes back to the PPM project you created. See "Updating a Project with Changes Made in Microsoft Project" on page 7-9.

# Working Offline on a PPM Project

If you do not have MSP installed on your computer, you can save your PPM project to your local drive as an XML file, and work on it offline. You can access this file from a computer on your network that has MSP installed, view or edit it offline, and then publish your changes back to PPM when you are online again.

You can use either of the following commands to save your project as an XML file:

- Save as XML - Read Only
- Save as XML - Edit Mode

For considerations that you should be aware of before you choose Read Only or Edit mode, see "Read Only and Edit Modes" on page 7-10.

**To save your project as an XML file:**

1. Open the project you want to save.
2. From the **Actions** menu, choose **Microsoft® Project > Save as XML - Read only** or **Save as XML - Edit.**
3. Download the file to your local drive.

> **Note:** If you are using Windows XP with Internet Explorer 7, default security settings for file downloads may result in duplication of History records during the Save as XML - Read only operation. To prevent this: Ensure that the Web Client URL is added under **Tools > Internet Options > Trusted Sites > Sites**. Under **Custom Level** settings, select **Enable** for "Automatic prompting for file downloads".

# Read Only and Edit Modes

You can launch or save a PPM project in Read Only or Edit mode. The mode you choose can affect project data.

- **Read Only Mode**

  When you save a PPM project using **Microsoft® Project > Save as XML - Read Only**, you can view, print, or analyze a PPM project in MSP without altering the project data in Agile PPM. In MSP, you can perform any edit, modification, or analysis actions you choose and save the project file to any local or network directory to which you have access.

  You cannot, however, publish the launched-as-read-only project back into Agile PPM. When you launch as read-only, the PPM project is not locked, the **Lock User** field remains empty, and the **Schedule Editor** field remains set to PPM. It is therefore possible for another user to modify the PPM project by using any of the available Agile PPM edit methods: Edit in PPM, edit in MSP, or edit in Gantt Chart.

  The MSP file that you create when you use **Microsoft® Project > Save as XML - Read Only** is not updated or affected by any subsequent edits made to the PPM project file.

- **Edit Mode**

  When you launch a PPM project in MSP using **Microsoft® Project > Save as XML - Edit**, the PPM project is automatically locked so that no other user can modify it. Your name appears in the **Lock User** field, and the **Schedule Editor** field is set to MSP.

  You are able to publish the launched-in-edit-mode project back into Agile PPM.

  For more information about locking projects, see "Multiple Users Editing the Same Task" on page 4-5.

## Replicating a PPM Project Across Servers

You can create a project on one server and replicate it on another, following the process outlined here:

1. In Agile PLM, open the PPM project you want to replicate.
2. In the **Actions** menu, select **Microsoft® Project > Save as XML - Edit**.
3. Save the project XML file to your local directory.
4. From MSP, open the project XML file.
5. In the dialog that opens, choose **As a new project**.
6. Click **Finish**. The project opens in MSP, with updated data.
7. Save the project to your local drive in XML format.
8. Log in to Agile PLM on the server where you want the project replicated.
9. Import the project XML file as described in "Creating a Project from an Existing Microsoft Project File" on page 7-8.

The project is replicated on the current server.

## Deleting Objects in Microsoft Project

You can delete projects, phases or tasks in Microsoft Project by using the Microsoft Project features.

When you update Agile PPM with the changes you have made in Microsoft Project, Agile PPM checks your assigned Delete privileges to ensure that you are allowed to

delete projects, programs, phases, or gates in Agile PPM. If you have deleted activities in Microsoft Project that you are not allowed to delete in Agile PPM, none of your Microsoft Project changes are saved to the Agile database, and you see an error message telling you that you do not have the appropriate privileges.

**Note:** If the publish to PPM fails because you do not have the appropriate Delete privileges, you will not be able to go back to the original project tree in Microsoft Project. However, you can go back to Agile PPM and launch Microsoft Project again.

If you are not able to delete specific types of PPM objects in Agile PPM, you will also not be able to delete them in Microsoft Project and update the Agile database.

# 8

# Working with Recipe Management for Pharmaceuticals

The PPM integration with Recipe Management for Pharmaceuticals enables you to use PPM project management features to track and manage Active Pharmaceutical Ingredients (API) development. You can create and manage Recipe & Material Workspace (**RMW**) projects and work requests in PPM.

Work requests are handled in the same manner as tasks in PPM, and can be grouped under the appropriate project. Progress tracking is done using standard PPM status tracking functionality, as described in "Status Tracking" on page 6-1.

This integration enables you to do the following in PPM:

- **Create RMW projects and work requests.**

  You can create an RMW project or work request in the same way that you create a PPM project, phase or task. (See "Creating a Project" on page 4-1.) After you create an RMW project, you can create and add work requests to it, provided you have been assigned the RMW Administrator role. Work requests must be associated with a recipe to ensure successful integration.

- **Add recipes from RMW as content to the work request in PPM.**

  You can use the **Add > By Search** option on the Content tab to add recipes associated to the work requests. Only recipes that have been approved and set to Ready to Publish in RMW can be added to the work request.

- **Synchronize RMW data between PPM and RMW.**

  Work requests created in PPM are visible in RMW, and can be updated in RMW. Updates made to the work request in RMW are automatically synced to PPM. Updates made in PPM must be manually synced to RMW.

If you close out a work request in RMW, the following events are triggered:

- The recipe is published to PPM in XML or PDF format.
- If there are samples (results) in the BOM tab of the work request, these are also published to PPM.
- In PPM, the status of the RMW project or work request changes from In Process to Completed.

## Synchronizing Data between PPM and RMW

The PPM Sync to RMW feature enables data synchronization between the two solutions.

**To update the RMW project or work request in PPM with the latest data entered in RMW:**

1. Open the RMW project or work request in PPM.
2. In the **Actions** menu, select **PPM Sync to RMW**.

A confirmation message appears - " The project hierarchy is integrated successfully." You can also see integration details in the last three fields on the General Info tab. The project data is refreshed to display current information.

# 9

# Import and Export

Agile PLM provides the capability to import or export PLM data by the use of Import and Export wizards. To import or export Agile data, you must have the appropriate privileges.

For generic information on importing and exporting data in Agile PLM, see the *Agile PLM Import Export Guide*. If you have questions about privileges that are not covered in this guide, contact your Agile PLM administrator or refer to the *Agile PLM Administrator Guide*.

## Importing Data

The Import wizard enables you to add and update large files (product content) from other formats into Agile PPM. Import not only brings in legacy data that is required to start your business processes within Agile, but also enables you to update product content periodically. The Import process must be implemented appropriately to reap the value of Agile solutions.

You can create large data source files and quickly upload them in bulk into Agile through the import procedures described here. Prior to import, you can set preferences to specify the conditions for import.

The Import Wizard enables you to import the following objects into Agile PPM:

- Projects and project content such as Discussions or Action Items
- User Groups
- Users

Discussion and Action items can only be created and not updated. You cannot update or modify existing data.

### Before You Begin

Before you import data from source files into Agile PPM:

- **Ensure that you have the appropriate Agile PPM user license and privileges.** To import Agile data, you must have Create, Discover, Read, and Modify and Import privileges for each type of Agile object you are importing. You also must have the Import privilege options enabled in Java Client. If you have questions about privileges, contact your Agile administrator or refer to the *Agile PLM Administrator Guide*. To launch Import, you must have the My User Profile role, Read User privilege and Import privilege.
- **Ensure that you understand the specifications for each field.** Certain fields are mandatory; therefore you must map them in the Import wizard fields. Fields also

have data types, which determine how the data should be formatted, and maximum lengths, which the Agile PPM system validates on import. These are set in the Import Wizard Preferences.

- **Ensure that your data is in the correct file format**. If you are importing data from text files, check your source data to ensure that it is in a supported file format, and matches the Import Preferences settings. For details, see "Supported File Formats" on page 9-2. To create aXML files, use Agile Content Service (ACS), Agile Integration Services (AIS), or create an aXML file from the **Export** command. You can view aXML files in any XML viewer, including Internet Explorer.
- **Ensure that the Agile PPM system has sufficient hard disk space** for importing large data files or create an aXML file from Export Wizard.

## Persistence of Import Settings

When you use the Import Wizard in Web Client, the data stays for the duration of the session. The settings that persist include:

- Import preference settings
- Source file configuration
- Selected content to import
- Selected mapping file
- Selected transformation file
- Selected change number

When you choose a different source file, the selected content, mapping file, and transformation file are reset.

## Importing Large Data Files

Before importing a large file, clear the Log Transformations preference check box for faster results. If you are importing large amounts of data during one import session, you should perform the session during non-business hours - when system usage is low. After the import session is finished, you can view the log file in a browser or save it to a file.

For more information, see the *Import and Export Guide.*

## Supported File Formats

You can import and export data in several file formats. The following file formats are supported:

| Use File Type | Description | To Import |
|---|---|---|
| Delimited Text File (.dtf) | A standard flat text file where each field data is delimited by a special character, such as a comma or a tab. | Any object. |
| Excel Workbook (.txt, .csv, .xls) | Microsoft Excel workbook files. For details of the latest versions supported, see *Agile PLM Capacity Planning Guide*. | Users, User Groups, Root Projects, and Action Items. |

| Use File Type | Description | To Import |
|---|---|---|
| Agile XML (.axml) | Agile's proprietary XML format that includes data not supported by PDX. | Users, User Groups, and Discussions |
| MS Project Export File (.xml) | XML data exported from Microsoft Project for import to Agile. For more information about this format, see the *Agile Import and Export Guide*. | Projects and project objects created in Microsoft Project. |

### Data Transformation

Before you import data, you may need to transform the values in some fields to make them compatible with the Agile system. You can use a Transformation Definition file to perform this transformation. Transformation definition files are especially helpful for importing data from PDX or aXML packages. Generally, PDX or aXML packages are read-only. You cannot change the values contained in an archived file. If there are data inconsistencies in a PDX or aXML package, you must try to correct them using a transformation definition file.

A transformation definition file is a comma-delimited text file. Optionally, you can qualify text strings in the file using double-quotes ("). The file must contain a set of required fields needed to transform import data.

The Import wizard does not support transformation definition files created with previous Agile Product Cost Management or Agile Product Collaboration releases.

Transformation definition files are optional for importing data. If the source data does not need to be modified, you can skip the Data Transformation step in the Import Wizard. Transformation file step is used only in case of aXML data as it cannot be modified in any other tool.

## Importing Projects and Project Content

To launch the Import function, choose **Tools and Settings > Import**. This opens the Import Wizard that guides you through the import procedure. Importing is done in the following sequence:

1. Define import preferences.
2. Select the source file to be imported and specify file type.
3. Select the content from the list of contents that can be imported.
4. Map source fields to target solution fields to store the imported data.
5. Transform source field data into the Agile format.
6. Review the information that you have entered and start the import.

An Import log records the process, and logs the results and errors.

The following sections describe each step of the import procedure in detail.

### Define Import Preferences

Preference settings allow you to set different conditions to run the import. The Import wizard has several preference settings that you can set from any step in the wizard. These settings persist during the current Agile PLM client session, but they are not permanently saved with each user's profile.

These settings are optional; you can complete the import without specifying preferences.

**To set import preferences**:

1. Click the **Preferences** button at the bottom left corner of the Import wizard. The Import Preference window appears.
2. Select one of the following from the list:
   - Parsing and Validation Options
   - Business Rule Options
   - Default Types
   - AutoNumber Sources

     Depending on the option you choose, the wizard displays a list of values that you can define. For complete details on the impact of each setting you define, see the *Agile Import and Export Guide*.
3. Select preference settings and click **OK.**

## File Selection

The File Selection step in the Import Wizard lets you select the source file to be imported and configure it for import.

**To select the source file for the import:**

1. In the **Import File** field, click **Browse** to select the file from your local drive. Ensure that the file you select is in one of the supported formats. Depending on the format of the file you choose, additional configuration fields appear.
2. Select the appropriate options for your import as described in the table below.

| Field Name | Action |
|---|---|
| Template Type | Select the template type of your import file. |
| Select Worksheet (for Excel files) | Excel files consists of several sheets in a single file. In case more than 1 sheet exists, you can specify the sheet number here. |
| Field Delimiter | Select the appropriate field delimiter which will separate figures or text within the file. |
| Text Qualifier | Select the symbol which will qualify the data as text and not figures. |
| Location of Header Row | Specify the row number within the worksheet which contains the text to be used as the header row. |
| Location of Last Row | Specify the row number in the worksheet to be taken as the last row to import data.<br>Use this setting to import a table format file which may contain multiple object types. Import will only load specified data based on header row and last row specified.<br>You can also use it if the import sheet is too long and you do not want all the content to be imported. |
| File Encoding | Specify File encoding. |

3. Click **Next.**

## Specify File Content

The third step of the import wizard enables you to:

- Specify the objects that you want to import.
- Select mapping and data transformation methods to use.

**To select project content to be imported:**

1. Click **Project** to view the options available.
2. Select the content object you want to import. You can only select one object at a time.
3. Click **Next** to move to the next step.

**To select mapping and transformation methods:**

1. Under Data Mapping, select one of the following options to define mapping specifications:
   - **Define attribute mapping in next step** - To map each field manually, select this option.
   - **Use a saved mapping file** - If you already have an existing mapping file which corresponds to the file which is being imported, select this option. Then click **Browse** to locate and select the saved mapping file from your directory.
2. Under Data Transformation, select one of the following options to define transformation specifications:
   - **Do not Perform any Transformations -** If you are not importing an aXML file, select this option**.**
   - **Use a saved transformation file** - If you are importing an aXML file, select this option. Then click Browse and select a Transformation Definition file from your directory. You can also use the transformation template that Agile provides, if you want. Click **Download Transformation Template**. Save the file onto your computer and then select it for use in the import.

   Any transformation that occurs during an import session is recorded in the Import Log file. For more information on transformation files, see "Data Transformation" on page 9-3.
3. Click **Next** to move to the next step.

## Specify Attribute Mapping

You can map fields in the source data to Agile fields. The left column (Import Fields) lists the fields in the header row of the import source file. The data fields that can be imported are displayed in the right column (Agile Fields) categorized as Activities and Gates. Only fields that you map will be imported. The remaining data will not be included.

**To map source fields to Agile fields:**

1. Click **Expand All** to view all the fields listed under Agile fields. Mandatory fields for creating a project are displayed in **bold**. Required fields appear in **green**.
2. Click once on a field in the left column to select it. Click the corresponding Agile field in the right column to create the mapping. The mapped field appears next to the Agile field for your reference.
3. Continue mapping each field. Ensure that all required fields are mapped.

If you have mapped the same import field more than once, the word **[multiple]** appears next to the field. To remove an incorrect mapping, click the **x** symbol next to the field name.

4. When you finish mapping source fields to Agile fields, you can choose to save this mapping file for future use. Click **Save As** and save the file to your local drive.
5. To review import settings, click **Next**.

### Review Import Settings and Begin Import

The final step of the Import Wizard enables you to review all the specified import settings so that you can go back and make changes if necessary.

1. To check if your data is in order, click **Validate**.
2. To begin the import, click **Import**. The source data is imported into Agile PPM. To cancel the process, click **Cancel.**

   An Import Log displays the results of the import action and error messages. To keep a record of the import errors, click **Save Log.**
3. To return to Agile Web Client, click **Close.**

## Exporting Data

The Export Wizard enables the extraction of projects and other objects from Agile PLM into formats such as Microsoft Excel worksheets, comma-delimited text, PDX Packages or aXML Packages, for distribution to customers or vendors.

You can export the following types of objects from Agile PPM:

- Discussions
- Root Projects
- Users and User Groups

You can also export a project, make modifications to P1, P2 and P3 fields, and then import it back into Agile.

**To start the Export wizard from Agile Web Client:**

1. Open an object to export.
2. Choose **Tools and Settings > Export.**

**To start the Export wizard from Agile Java Client:**

1. Open a root project to export.
2. Choose **Actions > Export.**
3. Search for objects that can be exported, and select one or more objects in the Search Results page.
4. Choose **Tools > Export**.

**To export a project or PPM object:**

1. In the Select Objects to Extract page, from the **Format** drop-down list, select the format to which you want to export data.
2. In the **Site** field, select a site. To export data for all sites, select **All**.

The **Site** field is only available if your Agile system includes the Sites server license.

3. To identify the projects or other Agile objects for export, click **Add**. An Add Objects dialog opens, where you can search and locate objects.
4. Select the objects you want to export and click **Next**.
5. You can provide filter conditions for the export:
   - To define your own filter conditions, select the **Create custom filter** option and click **Next**. Then select the individual tabs for the content you want to export or select **Select All** to export all content. Click **Next** to continue.
   - To use a pre-defined filter for each of the selected objects, select the **Use predefined filter** option. Select the filter you want from the drop-down list for each object. To review details of each filter, select the filter and click **Details**. Once you make your selection, click **Next**.
6. In the next step, enter export header information for your reference.
7. To complete the export, click **Export**. Specify a directory or location to save your export data when prompted.

A confirmation dialog displays to indicate that the export is complete. If there are errors, an error log is displayed.

The export operation takes into consideration only base class-level attribute configuration. If you have enabled or disabled attributes at the subclass level, these configurations will not be maintained during export.

# 10

# Configuring Product Portfolio Management

Agile PLM is highly configurable and provides administrators considerable flexibility in determining the display and behavior of various Agile objects to suit discrete business needs. Configuration options are available both in Agile Java Client and Agile Web Client.

## Administration in Agile Java Client

The administrative features in Agile's Java Client help you configure and adapt Agile PLM to fit the way you already do business. Administrator nodes let you manage users and tailor aspects of Agile PLM to meet your company's requirements.

Detailed instructions on how to perform all Agile PLM administration tasks are provided in the *Agile PLM Administrator Guide*. Some configuration settings that are required for Product Portfolio Management are listed here. You must be familiar with administering Agile objects to perform the PPM configuration tasks described here.

### Product Portfolio Management Configuration Checklist

Use the following checklist to configure Agile PLM server settings for Product Portfolio Management. For instructions on how to perform these configuration tasks, refer the *Agile PLM Administrator Guide.*

- **Configure the Projects Class** - Change base class and class names according to your business requirement. Enable, disable, or rename Page Two tabs and attributes.
- **Configure Subclasses of the Projects Class** - Configure the Page Three tab and attributes. Create new autonumbers or modify predefined autonumbers.
- **Customize Lists** - Create new lists or modify predefined lists to display attributes for user selection.
- **Configure Criteria** - Define the criteria by which workflow and access control should be determined.
- **Configure Workflows** - Define the workflows you require to facilitate your business processes.
- **Define Users** - Define the users and resource pools (user groups) who will participate in projects.
- **Configure Roles and Privileges** - Assign those users appropriate roles, such as Program Manager, Program Team Member, Program Administrator and so on. Check the privileges assigned to the predefined roles and modify if necessary.

- **Configure SmartRules** - Ensure that you properly configure SmartRules related to MSP integration, timesheet entries, adding activities to completed Projects, commenting, and other SmartRules related to workflows.
- **Configure Notifications** - Configure settings for the predefined notifications or create new ones.
- **Configure My Assignments** - Define the attributes that should display in your My Assignments tab. Enable, disable or rename the attributes as appropriate.
- **Define Company Profile** - Specify the name, address, phone number, URL, and the corporate currency for your company.
- **Define Currency Exchange Rates** - Ensure that currency exchange rates are current to reflect accurate project costs.
- **Configure the Dashboard** - Define what tabs and tables you want displayed in the Dashboard.
- **Configure Status Indicators** - Define status attributes for Schedule, Cost, Quality, and Resource status tracking.
- **Configure Default Roles** - Specify which Agile PLM roles are assigned automatically to users when a task is delegated to them or when a Microsoft Project is published to Agile PPM.
- **Configure Quick View for Projects** - Configure the display of the Quick View dialog that provides details of the project object. Define what fields and action buttons should display to facilitate user action.
- **Configure Events** - Define custom actions that should occur before, after, or during predefined events.
- **Set Up Task Configuration** - Schedule execution of project-specific background tasks.
- **Configure Calendars** - Configure the display of custom calendars for use in projects.

## Notes on Data Settings

The following section provides information you need to keep in mind while configuring classes and sub-classes in Agile PLM.

### Object Classes for Deliverables

The objects that a user can specify as a deliverable are determined by several factors:

- If the appropriate Agile solution is installed at your site. For example, to select a Declaration, Agile PG&C must be installed at your site.
- Whether the user has the appropriate privileges to discover and read the object.

| Class | Target Event Attribute | Notes | Deliverables tab table | Add by |
|---|---|---|---|---|
| Item base class | Lifecycle | Defined in Agile Administrator **Classes** node, **Lifecycle Phases** tab.<br>Controlled by the Agile change process. | Affected By | Search<br>Create New |

| Class | Target Event Attribute | Notes | Deliverables tab table | Add by |
|---|---|---|---|---|
| Changes base class | Workflow.Status | Target status list depends on the workflow that has been selected for the specified object. | Affected By<br>Affects | Search<br>Create New |
| Manufacturer Part class | Lifecycle | Defined in Agile Administrator **Classes** node, **Lifecycle Phases** tab.<br>Not controlled by the Agile change process. | Affected By | Search<br>Create New |
| Manufacturer class | Lifecycle | Defined in Agile Administrator Classes node, Lifecycle Phases tab.<br>Not controlled by the Agile change process. | Affected By | Search<br>Create New |
| File Folder base class | Lifecycle | Defined in Agile Administrator **Classes** node, **Lifecycle Phases** tab.<br>Not controlled by the Agile change process. | Affected By | Search<br>Create New |
| PSR base class | Workflow.Status | Target status list depends on the workflow that has been selected for the specified object. | Affected By<br>Affects | Search<br>Create New |
| QCR base class | Workflow.Status | Target status depends on the workflow that has been selected for the specified object. | Affected By<br>Affects | Search<br>Create New |

## Enabling the Calculate Attributes

By default, all costs are calculated. However, by enabling the **General Info** tab Calculate attributes, the end user can choose whether to use the calculated cost or a cost value that he enters. The Calculate attributes are list type attributes that use a Yes/No selection list. When the Calculate attributes are disabled (not visible), the default setting is Yes (calculate). See also "How Total Cost is Determined" on page 6-4.

With the exception of Labor costs, each of the cost fields shown in the table below has an associated Calculate attribute. You can enable all the Calculate attributes or only the Calculate attributes you want to use.

If the Calculate attribute is visible and the end user has the privilege to modify the attribute, he has the option to select **Yes** or **No**.

- **Yes** - When rolling up the costs of the current activity to its parent activity, use the calculated cost of the current activity's children.
- **No** - When rolling up the costs of the current activity to its parent activity, do not use the calculated cost, rather, use the cost entered in the cost field. In this case, there will be no rollups. Instead, cost will be calculated based on the values specified for the parent activity.

To use a Calculate attribute you must:

- Enable the appropriate Calculate attribute of the object's **General Info** tab. (**Settings > Data Settings > Classes**)
- Edit the appropriate Modify privilege masks by adding the Calculate attribute to the Applied To property of the privilege mask. (**Settings > User Settings > Privileges > Modify**)

For example, to use the Yes/No selection list for **Calculate Capital Cost - Budget** on the **General Info** tab of Activities, the user must have a Modify privilege mask for Activities that includes **Activity.General Info.Calculate Capital Cost - Budget** in the Applied To property.

The following table shows the cost attributes, their associated Calculate attributes, and the Modify privilege mask attributes that must be added to the Modify privilege mask Applied To property.

| General Info tab Cost attribute: | Enable the associated General Info tab Calculate attribute: | Add to the appropriate Modify privilege mask Applied To property: |
|---|---|---|
| Actual Labor Cost<br>Budgeted Labor Cost<br>Estimated Labor Cost to Completion | Actual Labor Cost and Budgeted Labor Cost are always calculated.<br>Estimated Labor Cost to Completion can be edited on the **General Info** tab; it is not calculated.<br>No Calculate attributes are provided for labor costs. | (Not applicable) |
| Actual Capital Cost | Calculate Capital Cost - Actual | <*object*>.General Info.Calculate Capital Cost - Actual |
| Budgeted Capital Cost | Calculate Capital Cost - Budget | <*object*>.General Info.Calculate Capital Cost - Budget |
| Estimated Capital Cost to Completion | Calculate Capital Cost - EAC | <*object*>.General Info. Calculate Capital Cost - EAC |
| Actual Fixed Cost | Calculate Fixed Cost - Actual | <*object*>.General Info.Calculate Fixed Cost - Actual |
| Budgeted Fixed Cost | Calculate Fixed Cost - Budget | <*object*>.General Info.Calculate Fixed Cost - Budget |
| Estimated Fixed Cost to Completion | Calculate Fixed Cost - EAC | <*object*>.General Info. Calculate Fixed Cost - EAC |
| Actual Flex Cost | Calculate Flex Cost - Actual | <*object*>.General Info.Calculate Flex Cost - Actual |
| Budgeted Flex Cost | Calculate Flex Cost - Budget | <*object*>.General Info.Calculate Flex Cost - Budget |
| Estimated Flex Cost to Completion | Calculate Flex Cost - EAC | <*object*>.General Info. Calculate Flex Cost - EAC |

### Configuring Display of Date Attributes in Schedule Tab

In the Schedule tab, the order and display of date attributes in the header row of the activities table are controlled by settings for **Date Group Table**, **Actual Date Group Table** and **Estimated Date Group Table** attributes in Java Client (**Admin > Classes > Activities > User Interface Tabs > Schedule > Attributes:Schedule**). Settings for these group attributes override settings for individual date attributes.

You can enable or disable these attributes and also reorder the attributes to appear in the sequence you want them to appear.

### Variances Displayed in the General Info Tab Summary Table

The following variance calculations appear in the summary table at the top of the **General Info** tab of Activity objects and Gate objects. Use the **Classes** node to make the variance calculations visible in the summary table by enabling the attributes. Work days indicate the variance in scheduled days of work. Calendar days indicate the variance according to days on the calendar. A four week variance would appear as 20 work days and 28 calendar days.

If Actual and Estimated date fields are blank, no variance calculations are performed for those attributes.

Use the **Classes** node to choose which variance calculations will be visible in the summary table by enabling or disabling the attributes. In addition, you can use the Applied To property of PPM object Read privilege masks to control which users can read these attributes.

| Variance attribute | Difference between |
|---|---|
| Estimated Start Variance Work Days | Estimated Start Date - Scheduled Start date (in work days) |
| Estimated Duration Variance Work Days | Estimated Duration - Schedule Duration (in work days) |
| Estimated Finish Variance Work Days | Estimated Finish Date - Scheduled Finish date (in work days) |
| Estimated Start Variance Calendar Days | Estimated Start Date - Scheduled Start date (in calendar days) |
| Estimated Duration Variance Calendar Days | Estimated Duration - Schedule Duration (in calendar days) |
| Estimated Finish Variance Calendar Days | Estimated Finish Date - Scheduled Finish date (in calendar days) |
| Actual Start Variance Work Days | Actual Start Date - Scheduled Start date (in work days) |
| Actual Duration Variance Work Days | Actual Duration - Schedule Duration (in work days) |
| Actual Finish Variance Work Days | Actual Finish Date - Scheduled Finish date (in work days) |
| Actual Start Variance Calendar Days | Actual Start Date - Scheduled Start date (in calendar days) |
| Actual Duration Variance Calendar Days | Actual Duration - Schedule Duration (in calendar days) |
| Actual Finish Variance Calendar Days | Actual Finish Date - Scheduled Finish date (in calendar days) |

## Notes on Setting Up Roles

The following section provides information you need to keep in mind while setting up Roles for users.

### Default Roles Assigned Automatically to Agile PPM Users

The **Default Role** node enables you to specify which Agile PLM roles are assigned automatically to users when a task is delegated to them or when a Microsoft Project, along with its users and roles, is published to Agile PLM.

Access to the Default Role node requires that the administrator user have PPM Default Role selected in the Applied To property of that user's Administrator privilege mask. For more information, see the *Agile PLM Administrator Guide*.

When you open the **Default Role** node, the Default Role window appears. It lists two Agile PPM roles:

- **Default MSP Synchronization Role** - Controls the role assigned to a user from a Microsoft Project that was published to Agile PLM. By default, the user is assigned the Program Team Member role.
- **Default Object Owner Role** - Controls the role assigned to a user when another user delegates a task to him. By default, the user is assigned the Program Manager role.

The Default Object Owner Role is also assigned to the object owner in the **Team** tab when an activity is created. When an activity is delegated, the role is assigned to the delegated owner only after the delegated owner accepts the delegation.

You can change the roles used for Microsoft Project synchronization or task delegation. By default, available roles you can choose are:

- Change Analyst
- Program Team Member
- Program Manager
- Resource Pool Owner
- Program Administrator

If you have modified the Agile PPM roles or defined additional roles for Agile PPM, the list of roles in the Default Role **Role(s)** lists may differ from the list above. For more information, see "How the Lists of Available Agile PPM Roles are Determined" on page 10-7.

**To change default roles used for Microsoft Project synchronization and task delegation:**

1. Under **System Settings > Product Portfolio Management**, double-click **Default Role**. The Default Role window opens.
2. Double-click the **Default MSP Synchronization Role** to open it.
3. Click the **Role(s)** list and select a role.
4. Click **Save**.
5. Click **Close** to close the window.
6. In the Default Role window, double-click the **Default Object Owner Role** to open it.
7. Click the **Role(s)** list and select a role.

8. Click **Save**.
9. Click **Close** to close the window.

### How the Lists of Available Agile PPM Roles are Determined

There are several actions in Agile PLM where the Agile administrator or the end user is required to select an Agile PPM role from a list. Agile PPM role-selection actions include:

- When the Agile administrator selects the **Default MSP Synchronization Role** or the **Default Object Owner Role**, as described above.
- When the end user adds team members or resources to the **Team** tab of an activity.

The Agile PPM roles that appear in these lists are roles assigned to the login user that include at least one privilege mask with an object type of activities or gates. For example, the Agile-supplied Change Analyst role includes the privilege mask Subscribe to Gates Class; therefore, the Change Analyst role appears in the list of available PPM roles. If you were to remove that privilege mask (thus removing all activity and gate privilege masks) from the Change Analyst role, the Change Analyst role would no longer appear on the list of available Agile PPM roles.

End users do not need to have these PPM roles assigned at the system level (that is, in the **Roles** property of their User Profiles), as these roles are applied only on specific Agile PPM objects.

## Notes on Assigning PPM-specific Privileges

The following section provides information on PPM-specific privileges and what you must keep in mind while assigning these privileges to users.

### Create from Template Privilege

This privilege, enabled for the Program Administrator and Program Manager roles, enables the user to create a project from an existing template. Users who do not have either of the "Program" roles will also need to have the following privileges to use the Create from Template privilege:

- Read privilege for the template that is being accessed
- Create privilege to create subclasses in the template

### Share, Grant, and Delegate Owner Privileges

Share, Grant, and Delegate Owner privileges cannot be inherited from a project role or default role. These privileges need to be assigned to users separately, as appropriate.

### Microsoft Project Privilege

Depending on the AppliedTo property of a Microsoft Project privilege mask, the Microsoft Project privilege enables the user to perform specific tasks between Microsoft Project and Agile PPM. By default, this privilege mask is enabled for the Program Administrator and Program Manager roles.

This privilege contains five properties in the Applied To field.

- Save As XML-Read Only - save PPM project data in XML in Read Only mode
- Save As XML-Edit - save PPM project data in XML in Edit mode

To enable these properties, move the required properties from the **Choices** list to the **Selected** list.

Before Agile PLM Release. 9.2.2, the Modify privilege contained the capability to access MS Project, which is now broken out to the Microsoft Project privilege. In addition to this privilege, you must enable **General Info.Lock User** and **General Info.Schedule Editor** in the Modify privilege to access MS Project in PPM Gantt Chart.

### Update All Timesheets Privilege

This privilege is enabled for the Timesheet Administrator role, and enables the user to administer all timesheets recorded in Agile PLM. With this privilege, a user can do the following:

- Search and view timesheets for other users, using the **Timesheet Tab** tools. For more information, see "Searching for Timesheets" on page 4-20.
- View all tasks for a selected user, then view and change timesheet data recorded for each task, using the **View** and **Personalize** tools. For more information, see "Defining Timesheet Views" on page 4-21.

This privilege overrides system privileges for viewing tasks. The user need not be a team member on the task to perform these actions.

### Calendar Administrator Privilege

The Calendar Administrator privilege enables you to perform all administrative actions on calendars. This includes creating, editing, importing, exporting, and sending calendar change notifications. It is assigned to the Administrator role by default.

This privilege contains four properties in the Applied To field.

- Create - allows you to create calendars. Enabled by default.
- Read - allows you to read all calendars. Enabled by default.
- Modify - allows you to modify all calendars. Enabled by default.
- Delete - allows you to delete all unused calendars. Disabled by default.

### Adding Project Contents in Modify Privilege

In PLM 9.2.2, the Relationships tab was renamed to Content, for PPM objects. However, in the Projects classes, the properties under the Content tab are displayed under the Attributes: Relationships tab.

You can add other objects or contents to an existing project such as Customers, File Folders and so on. To enable this privilege, two properties have been added - **Content.Name** and **Content.Rule**. The AppliedTo property of any Modify privilege mask can be tailored to permit the user to add content (that is, add relationships) or add a Content rule (that is, add a rule to a relationship) based on the **Name** and **Rule** attributes, respectively, being enabled in the AppliedTo property.

To enable the ability to add content **(Name** attribute) and content rules **(Rule** attribute), in the Modify privilege mask's AppliedTo property, move **Content.Name** and **Content.Rule** properties from the **Choices** list to the **Selected** list. These properties are displayed in the AppliedTo property list as **Activity.Content.Name** and **Activity.Content.Rule**, and as **Gates.Content.Name** and **Gates.Content.Rule**. (In other classes, the format will read, for example, **Substances. Relationships.Name**.)

For more details on the AppliedTo property, see the section, "AppliedTo Capability" in the *Agile PLM Administrator Guide*.

### Accessing Gantt Charts

The Gantt capability is covered by Read Program Schedule and Modify Program Schedule privilege masks. For more information, see the following section.

### Modify Privilege Mask Applied To Properties that Control Specific User Actions

Agile PLM uses Modify privilege mask Applied To properties to determine and control certain specific user actions and capabilities in Agile PPM. For example, if a user has a role that includes a Modify privilege mask for activities and the Applied To property includes the Activities.Schedule.Name attribute, then that user can use the **Add** function on the **Schedule** tab.

Agile PLM roles and privilege masks allow you to define very specific and narrow Agile PPM user capabilities if required. For detailed information about privilege masks, see *Agile PLM Administrator Guide.*

The following table lists the Modify privilege mask Applied To properties and which PPM actions they control.

This table uses <*object*> as a place holder for the class or subclass name in the Applied To attribute column. The actual class or subclass name in any privilege mask is determined by the reusable criteria specified in the privilege mask. If you view the example privilege masks mentioned in the Notes column, the Applied To properties will be appropriate for that specific privilege mask (for example, Activities.General Info.Lock User).

**Object-level actions**

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Lock or unlock projects<br>**Lock** and **Unlock** | <*object*>.General Info.Lock User | Example - Modify Program Schedule. |
| Cancel Locked Project<br>**Unlock** Enables user to cancel the locked condition of a project that was locked by a different user. | <*object*>.General Info.Locked From Program | Example - Cancel Lock Program. |
| Edit the Gantt chart<br>**Gantt Chart** | <*object*>.General Info.Lock User<br>and<br><*object*>.General Info.Schedule Editor | Example - Modify Program Schedule (for Lock User).<br>and<br>Example - Read Program Schedule (for Schedule Editor).<br>The user requires modify privilege for *both* of these attributes to edit the Gantt chart. |
| Read the Gantt chart<br>**Gantt Chart** | <*object*>.General Info.Schedule Editor<br>(and the user **does not** also have<*object*>.General Info.Lock User) | Example - Read Program Schedule.<br>If the user has Modify applied to General Info.Schedule Editor, but he lacks Modify applied to Lock User, he will be able to open and read the Gantt chart, but he will not be able to edit the Gantt chart. |

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Save as XML<br>**Microsoft® Project >Save As XML** | <*object*>.General Info.Schedule Editor | Example - Read Program Schedule.<br>This is a Modify type privilege mask, not a Read type privilege mask.<br>**Note**: **Save as XML** sets the Schedule Editor attribute to MSP. This disables the roll-up of dates in Agile PPM. |
| Substitute Resource<br>**Actions > Substitute Resource** | <*object*>.Team.Name | Example - Modify All Programs, Phases, Tasks and Gates. |
| Change Parent<br>**Actions > Change Parent** | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |
| Change Archive Status<br>**Actions > Change Archive Status** | <*object*>.General Info.Archived | Example - Modify All Programs, Phases, Tasks and Gates. |
| Delegate<br>Delegate an activity (you are the owner) to a different owner<br>**Actions > Delegate** | <*object*>.General Info.Delegated Owner | Example - Modify All Programs, Phases, Tasks and Gates. |
| Change Owner--Edit the Owner field of an activity from the General Info tab. | <*object*>.General Info.Owner | Example - Read All Programs, Phases, Tasks and Gates<br>Modify All Programs, Phases, Tasks and Gates |
| Delete<br>Delete the current object<br>**Actions > Delete** | Always requires a Delete privilege mask for the current object where the delete action is performed in Agile PPM.<br>Requires Delete privileges for subordinate objects on the current object's **Schedule** tab.<br>If there is a parent object, Delete of the current object also requires the following:<br>Delete privilege mask for the parent object.<br>•Modify privilege mask for the parent object: <*parent object*>.Schedule.Name | When the current PPM object is deleted in Agile PPM Web Client, all three privilege masks are required (if there is a parent object).<br>Current object Delete privilege<br>Children objects Delete privileges<br>Parent object Delete privilege<br>Parent object Modify Schedule.Name |
| Change Preferred Calendar<br>Edit the Preferred Calendar attribute on the General Info tab of a user or user group. | <*object*>.General Info.Preferred Calendar | Modify Users, Modify User Groups. |

**Schedule** tab actions

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Add activities<br>**Add** button | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |
| Delete activities<br>**Delete** button | <*object*>.Schedule.Name for the current **Schedule** tab object.<br>Requires Delete privileges for the deleted object and the deleted object's subordinate objects. | The user must have Modify privilege applied to Schedule.Name for the object where the Delete activities action (on the **Schedule** tab) is preformed. Also requires Delete privileges for the deleted objects and their children.<br>Example - Add Programs, Example - Add Phases, Example - Add Tasks.<br>**Note:** Delete privileges for the current objects are not required. |
| **Edit > Dependencies** | <*object*>. Dependencies Dependent Upon.Name for the object in **Schedule** tab row that is being edited. | Example - Modify All Programs, Phases, Tasks and Gates. |
| **Edit > Display Order** | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |
| **Edit > Reschedule** | <*object*>.General Info. Schedule Start Date<br>and<br><*object*>.General Info. Schedule End Date | The user must have modify privilege masks that allow him to modify the Schedule Start Date and Schedule End Date of the object where the Reschedule action (on the **Schedule** tab) is performed.<br>Example - Modify All Programs, Phases, Tasks, and Gates. |
| **Edit > Add Team** | <*object*>.Team.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |
| **Create Baseline** | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |
| **Remove Baseline** | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |

### Dependencies tab actions

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Add activities<br>**Add** button | <*object*>.Schedule.Name | Example - Add Programs, Example - Add Phases, Example - Add Tasks. |

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Add or remove dependencies<br>**Add** button<br>**Remove** button | *<object>*. Dependencies Dependent Upon.Name | Example - Modify All Programs, Phases, Tasks and Gates. |

**Team** tab actions

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Add team members<br>**Add** button | *<object>*.Team.Name | Example - Modify All Programs, Phases, Tasks and Gates.<br>Modify privilege for attribute Team.Name enables the user **only** to add or to remove team members.<br>To edit the Team table, the user must have additional modify privileges for the specific Team table attributes; refer to the row below. |
| Edit team member<br>**Edit** button | *<object>*.Team.%_Allocation<br>*<object>*.Team.Actual_Hours<br>*<object>*.Team.Assigned From<br>*<object>*.Team.Roles | To edit the Team table, the user must also have a modify privilege mask with explicit Applied To properties for the specific Team table attributes that must be edited, for example, **Actual Hours**. |

**Content** tab actions

| Action or capability provided | Applied To attribute | Example Privilege Mask / notes |
|---|---|---|
| Set mandatory content | Activities.Content.Mandatory | To be able to make a Yes/No selection in the **Content** tab **Mandatory** column, the user must have a modify privilege mask with explicit Applied To properties for the **Mandatory** attribute. |

### About Privileges for Microsoft Project

The table above includes definitions of the Modify privilege masks necessary to grant users the ability to launch an Agile PPM activity in Microsoft Project and edit that activity, including editing its child activities and creating new child activities.

When activities are edited in Microsoft Project, Agile Create and Modify, privilege masks pertaining to the editing of the contents of specific fields cannot be checked within Microsoft Project applications. For example, a user may not be able to create a particular Agile PPM subclass when working in Agile PPM, but he may be able to create that subclass in Microsoft Project. In a similar manner, a user may not be able to edit the content of specific Agile PPM object attributes when working in Agile PPM, but he may be able to edit those fields in Microsoft Project.

**Caution:** To precisely limit the create and modify attribute privileges of some users, do not give those users the ability to edit in Microsoft Project. Microsoft Project edit capabilities are more appropriate for Agile PPM users requiring broad create and modify capabilities.

When a user edits an Agile PPM project in Microsoft Project, he can perform many actions including deleting objects (activities or gates), changing the parent, changing dates or adding dependencies.

When the user uploads his changes to the Agile PPM server via an XML data file, Agile PLM checks to ensure that the user has the appropriate delete privilege masks for all activities and gates deleted. If the user does not have the appropriate delete privilege mask for an object that was deleted in Microsoft Project, none of the modifications made will be written to the Agile database. An error message informs the user that the action requires the necessary delete privileges.

Therefore, you can define mandated activities in Agile PPM, that is, activities that cannot be deleted from a project. This is enforced by configuring Delete privilege masks that do not allow users to delete mandated activities. See "Setting Up Restricted Delete Privileges" on page 10-14.

### About Privileges in Gantt

Create privileges and Modify privileges, as well as Delete privileges (against subclass), are checked in Gantt. A user cannot create, modify, or delete any object data in Gantt without the necessary privileges.

The privilege control behavior in Gantt is different than it is in Web Client. For example, to add a dependency in Web Client, only the modify privilege against Dependency.Name is required, however, in Gantt, a bundle of privileges are required.

The following table details the differences in modify privilege control between Web Client and Gantt client.

**Modify Privilege Control in Web Client Vs. Gantt Client**

| Scenario | Applied to attribute required in Web Client | Applied to attribute required in Gantt Client |
|---|---|---|
| Add Dependency | <*object*>.Dependency.Name | <*object*>.Dependency.Name<br><*object*>.Dependency.Type<br><*object*>.Dependency.Buffer<br><*object*>.General Info.Schedule Start Date<br><*object*>.General Info.Schedule End Date<br><*object*>.General Info.Schedule Duration |
| Modify Dependency | <*object*>.Dependency.Type<br><*object*>.Dependency.Type | <*object*>.Dependency.Type<br><*object*>.Dependency.Buffer<*object*>.General Info.Schedule Start Date<*object*>.General Info.Schedule End Date<*object*>.General Info.Schedule Duration |

| Scenario | Applied to attribute required in Web Client | Applied to attribute required in Gantt Client |
|---|---|---|
| Update Assigned Calendar | <*object*>.General Info.Calendar | <*object*>.General Info.Calendar<br><*object*>.General Info.Schedule Start Date<br><*object*>.General Info.Schedule End Date<*object*>.General Info.Schedule Duration |
| Update Schedule Start Date | <*object*>.General Info.Schedule Start Date | <*object*>.General Info.Schedule Start Date<br><*object*>.General Info.Schedule End Date<br><*object*>.General Info.Schedule Duration |
| Update Schedule End Date | <*object*>.General Info.Schedule End Date | <*object*>.General Info.Schedule Start Date<*object*>.General Info.Schedule End Date<*object*>.General Info.Schedule Duration |
| Update Schedule Duration | <*object*>.General Info.Schedule Duration | <*object*>.General Info.Schedule Start Date<*object*>.General Info.Schedule End Date<*object*>.General Info.Schedule Duration |
| Update Actual Start Date | <*object*>.General Info.Actual Start Date | <*object*>.General Info.Actual Start Date<*object*>.General Info.Actual End Date |
| Update Actual End Date | <*object*>.General Info.Actual End Date | <*object*>.General Info.Actual Start Date<*object*>.General Info.Actual End Date |
| Update Estimated Start Date | <*object*>.General Info.Estimate Start Date | <*object*>.General Info.Estimate Start Date<*object*>.General Info.Estimate End Date |
| Update Estimated End Date | <*object*>.General Info.Estimate End Date | <*object*>.General Info.Estimate Start Date<br><*object*>.General Info.Estimate End Date |

### Setting Up Restricted Delete Privileges

The Agile-supplied Delete privileges masks are very broad, for example, **Delete All Programs, Phases, and Gates** enables the user to delete any object in the Projects base class, with no restriction. To create a restricted Delete privilege mask, create a reusable criterion that defines the objects the user will be allowed to delete, then use that criteria to create a Delete privilege mask. (For more information about reusable criteria and privilege masks, see the *Agile PLM Administrator Guide)*.

When a user modifies a PPM project in the Gantt Chart or in Microsoft Project, the restricted Delete privilege masks are applied when the user updates or publishes back to Agile PPM.

Here are some examples of how you might set up and use restricted Delete privilege masks:

- Create a specific subclass for mandated activities that you will not allow to be deleted. You can then create reusable criteria that either exclude the mandated subclass, or include all subclasses except the mandated subclass.
    - Object Type: **ActivitiesGeneral Info. Activities Type Not Equal to Mandated Task**

      Where **Mandated Task** is a subclass you created to use for tasks that cannot be deleted.

      The setting enables all other Activities subclasses to be deleted, but Mandated Tasks cannot be deleted.
- Create individual criteria and individual Delete privilege masks for each subclass, but do not create or assign a Delete privilege mask for the **Mandated Task** subclass. For example, you might create Delete privilege masks using the reusable criteria:

  Object Type: **Programs**

  Object Type: **Phase**

  Object Type: **Task**

  (No Delete privilege mask created for **Mandated Task**.)
- Define an object attribute that determines whether the task is mandated or not. The setting enables users to define mandated tasks on a case-by-case basis. This designation can be set up in a template and new projects copied from the template will carry over the value.

Once you have defined the attribute, you can create reusable criteria that evaluate the contents of that attribute. For example:

**Page Two.List01 Not Equal to Mandated**

Where **Page Two.List01** is a list field that you have defined to set whether an activity is mandated or not.

Additionally:

- You must define a list for the **Page Two.List01** attribute, for example, list selections **Mandated** and **Non-Mandated**.
- To limit who may edit the **Page Two.List01** attribute, you must create and assign Modify privilege masks that allow and disallow the ability to change whether a task is mandated. Including **Page Two.List01** in the Applied To property of a Modify privilege mask enables the user to change this attribute. Typically, you will allow very few users to change this attribute.

**Caution** If you plan to use restricted Delete privileges for Agile PPM, remove any broadly-defined Delete privilege masks from the Agile PPM roles.

Agile privilege masks are additive. If a user has a Delete privilege mask that restricts delete privileges for Mandated Task subclass objects, but he also has the **Delete All Programs, Phases, and Gates** privilege mask (which enables him to delete any object in the Programs base class), then the user will be able to delete Mandated Task subclass objects.

### Settings Required for Menu Command: Actions > Change to Canceled

The **Actions > Change to Canceled** menu command enables users to cancel the displayed project object and automatically cancel all its children (change workflow

status to Canceled). In addition, users can also cancel leaf node objects by using the **Change Status** button.

Regardless of which method the user chooses, his ability to change the workflow status of a PPM object (including canceling a PPM object) is determined both by the workflow status property Valid Manual Next Status setting and by the user's assigned Change Status privilege masks.

The Agile-supplied default Change Status privilege masks for PPM objects provide the ability to change statuses from any status to any other status. If you use custom Change Status privilege masks for PPM objects, review them to verify that the end users will be able to perform a top-level cancellation.

### Enabling Assign Action in User Groups

Resource Pool owners can assign pending assignments to resources across projects from the **User Groups** page in Agile Web Client. User groups that have resources with percentage allocation to any project appear in this tab. When you click a user group name a set of tabs display details of that user group. Under the Assignments tab, you can select a user and click **Assign** to assign a task. This **Assign** action button is made available based on a setting in the Agile Java Client.

**To enable the Assign** action button:

1. In the Java Client Admin tab, navigate to **User Settings > Privileges.**
2. Double-click **Modify**.
3. Search and locate the **Modify User Groups** privilege. Double-click the table row to view details.
4. Click the down arrow next to the **Applied to** field.
5. Move **User groups.Assignments.Name** from the **Choices** list to the **Selected** list and click **Save**. For details on the AppliedTo property, see the topic "AppliedTo Capability" in the *Agile PLM Administrator Guide*.

The **User Groups > Assignments** tab is not available for configuration in Java Client.

### Configuring Stationary Gates

To allow selected users to define a Gate as a Stationary Gate, you must first create a specific privilege in Java Client Administrator. Then you can assign this privilege to a particular Role, and assign that role only to users who should be able to modify stationary gates.

**To configure a privilege to modify stationary gates:**

1. In the Java Client Admin tab, navigate to **User Settings > Privileges.**
2. Create a privilege. You can call it ModifyStationaryGates, for example.
3. In the **Privilege Criteria** field, choose **All Gates**.
4. In the **Applied to** field, click the down arrow to open the selection dialog.
5. Under **Choices**, select **Gates.GeneralInfo.EnableStationaryGate**. Click the right arrow to move it to the **Selected** list.
6. Click **OK** to save your changes.

## Notes on Setting Up SmartRules

The following section provides information you need to keep in mind while setting up SmartRules.

### Automatic Installation from PPM SmartRule

**Auto-Installs From PPM** is a SmartRule that can be set to Allow, Disallow, or Warning. This SmartRule controls the automatic installation of Microsoft Project (2002 and 2003) DLLs into a user's system Registry. Installation of the DLLs enables seamless publishing using an Agile menu within Microsoft Project. **Auto-Installs From PPM** also controls the installation of Sun's JRE for the java-based Gantt Chart. The JRE is required to launch the Gantt Chart.

The default setting for **Auto-Installs From PPM** SmartRule is Allow. Set this to Disallow if your company does not want any applications to be automatically installed.

If end users do not have Administrator rights on their PCs, you should consider setting **Auto-Installs From PPM** to Disallow and have your IT organization load the DLLs or JRE.

If **Auto-Installs From PPM** is set to Allow and a user does not have Administrator rights on his PC, selecting the Gantt Chart or Microsoft Project buttons in Agile PPM will initiate the installation process but it will not successfully install. This will happen every time a user selects one of these buttons and will become a usability issue.

IT departments can do systemwide installations of the JRE or Microsoft Project DLLs, in which case, the functionality of the Microsoft Project integration and Gantt Chart will be fully supported regardless of the setting of this SmartRule. **Auto-Installs From PPM** SmartRule governs only the automatic installation of the JRE or Microsoft Project DLLs; it does not govern the launch of these applications.

## Configuring Status Display

Status tracking for projects is achieved by the use of appropriate status indicator settings in Java Client. You can configure the display to show the types of statuses you want to monitor, using names, icons, colors, and other settings of your choice.

### Status Nodes

The **Status** nodes provide visibility into whether a project's targets in the areas of Schedule, Cost, Quality, and Resources are currently being met (the **1** value), currently not being met (the **2** value), or are seriously off the target (the **3** value).

The **Rollup Health Status** attribute on the **General Info** tab of an activity object determines whether that activity object is included in the rollup. By default, statuses from leaf node activities (tasks with no children) roll up to higher levels in the project structure (**Rollup Health Status** = Yes). The user can determine which objects are excluded from the rollup by editing the **Rollup Health Status** attribute on the **General Info** tab to **No**. The setting enables the user to include or exclude a selected activity in the rollup.

### Changing the Status Names the User Sees

In Agile PPM Web Client, the health statuses are attributes on the **General Info** tab. They are also reported in the health status indicators in the upper right of the activity window. By default, these are named: Overall Status, Schedule Status, Cost Status, Resource Status, and Quality Status.

To change the labels or names that appear in Agile PLM Web Client, modify the names of the health status attributes on the **General Info** tab of Activities or Gates class.

For example, to change the name of the Activities object's **Cost Status** attribute to **Accounting Status**, change its name on the **Classes** node. The new name, **Accounting Status**, appears on the Activities object's **General Info** tab; it also appears in the health status indicators in the upper right of the activity window.

### Modifying Status Node Settings

When you open one of the **Status** nodes (Schedule, Cost, Quality, or Resource), the appropriate Status window appears. The properties on the main table are Order (1, 2, or 3), Name, Description, and Enabled. The buttons are **Create** and **Delete**.

When you double-click anywhere in the row of a status table, the object opens to the **General Information** tab. You can edit the fields in this window as necessary.

Quality and Resource status are not programmatically set by Agile PPM. These fields can be renamed and used for other status purposes, such as Risk. These are subjective ratings. Cost and Schedule status are always calculated according to the thresholds set. It is not possible to turn off this automatic calculation.

### Schedule Status

The **Schedule Status** window reports the status of the project regarding schedule.

The **Overdue Value** can be either a positive number or a negative number.

The **Overdue Value** can be either days or a percentage of the duration.

**To set the Overdue Type (Days or Percentage):**

1. In Agile Administrator, open the **Schedule Status** node under **Settings | System Settings | Product Portfolio Management.**

   The Schedule Status window opens with the **General** tab displayed on top.

2. On the **General** tab, in the **Overdue Type** drop-down list, select either Days or Percentage.

3. When you are finished, click **Save**.

**To modify the Schedule Status values:**

1. In Agile Administrator, open the **Schedule Status** node under **Settings | System Settings | Product Portfolio Management.**

   The Schedule Status window opens with the **General** tab displayed.

2. Click the **Status** tab to display the schedule statuses.

3. Double-click the status row you want to modify. The schedule status window is displayed.

4. Make the desired modifications.

   It is important that you follow the guidelines explained in the section "Schedule Status Guidelines" in the *Agile PLM Administrator Guide*.

5. When you are finished, click **Save**.

**Schedule Status Guidelines** The following table shows the default Schedule Status settings (Overdue Type = Days).

| Order | Name | Description | Overdue Value | Icon |
|---|---|---|---|---|
| 1 | On Track | On Track | 0 | Green |
| 2 | Needs Attention | Needs Attention | 1 | Yellow |
| 3 | Off Track | Off Track | 5 | Red |

In order for the schedule status to evaluate correctly, follow these rules when setting the **Overdue Value** attributes:

- All three states (On Track, Needs Attention, and Off Track) *must* have a value for **Day_Overdue**. A blank value is not valid, however, zero (0) is a valid value.
- The **Overdue Value** values must be ascending values that follow the order. That is, On Track (1) must have the lowest value, Needs Attention (2) must have a higher value than On Track, and Off Track (3) must have a higher value than Needs Attention.
- The above rules apply for both Overdue Type = Days and Overdue Type = Percentage.
- The following tables show some examples of valid **Overdue Value** settings:

Overdue Value settings, Days:

| Order | Name | Overdue Value Days | Overdue Value Days | Overdue Value Days | Overdue Value Days |
|---|---|---|---|---|---|
| 1 | On Track | -10 | -5 | 0 | 5 |
| 2 | Needs Attention | -5 | 0 | 5 | 10 |
| 3 | Off Track | 0 | 5 | 10 | 15 |

Overdue Value settings, %

| Order | Name | Overdue Value % | Overdue Value % | Overdue Value % |
|---|---|---|---|---|
| 1 | On Track | -150 | -150 | 0 |
| 2 | Needs Attention | -100 | 0 | 50 |
| 3 | Off Track | 0 | 75 | 100 |

**How Schedule Status is Determined** If the activity's workflow status is Not Started, Schedule Status is determined by comparing the current date against the calculation of the Scheduled Start Date and the Overdue Value.

If the activity's workflow status is In Process, Schedule Status is determined by comparing the current date against the calculation of the Scheduled End Date and the Overdue Value. The following examples illustrate how Needs Attention and Off Track statuses are determined:

| Overdue Value Days | Overdue Value % of Duration | Task Duration | Calculation | Schedule Status changes when the current date is... |
|---|---|---|---|---|
| 5 | 10 | Scheduled End Date + 5 | 5 days after the scheduled end date | <specify date> |
| -5 | 10 | Scheduled End Date - 5 | 5 days before the scheduled end date | <specify date> |
| 0 | 10 | Scheduled End Date | On the scheduled end date | <specify date> |
| 5 | 2 | Scheduled End Date + 5 | 5 days after the scheduled end date | <specify date> |
| -5 | 2 | Scheduled End Date - 5 | 5 days before the scheduled end date (not dependent on duration) | <specify date> |
| -150 | 10 | -150% * 10 = -15 days | 15 days before the scheduled end date | <specify date> |
| -100 | 10 | -100% * 10 = -10 days | 10 days before the scheduled end date | <specify date> |
| -50 | 10 | -50% * 10 = -5 days | 5 days before the scheduled end date | <specify date> |
| 0 | 10 | 0% * 10 = 0 days | On the scheduled end date | <specify date> |
| 50 | 10 | 50% * 10 = 5 days | 5 days after the scheduled end date | <specify date> |
| 100 | 10 | 100% * 10 = 10 days | 10 days after the scheduled end date | <specify date> |
| 150 | 10 | 150% * 10 = 15 days | 15 days after the scheduled end date | <specify date> |

## Cost Status

The **Cost Status** window reports the status of the project regarding cost and budget. Total Cost is the sum of the four cost types: Labor Cost, Capital Expenses, Fixed Cost and Flex Cost. The Cost Status color indicator is based on comparing Total Budgeted Cost to the sum of Total Actual Cost and Total Estimated to Completion and determining the percentage over Total Budgeted Cost.

The **Percentage** value cannot be a negative number.

| Order | Name | Description | Percentage | Icon |
|---|---|---|---|---|
| 1 | On Budget | On Budget | 0 | Green |
| 2 | Off Budget | Off Budget | 5 | Yellow |

| Order | Name | Description | Percentage | Icon |
|---|---|---|---|---|
| 3 | Over Budget | Over Budget | 10 | Red |

### Quality Status

The **Quality Status** window reports the status of the project regarding issues of quality.

| Order | Name | Description | Icon |
|---|---|---|---|
| 1 | Meets Quality | Meets Quality | Green |
| 2 | Below Quality | Below Quality | Yellow |
| 3 | Poor Quality | Poor Quality | Red |

### Resource Status

The **Resource Status** window reports the status of the team, or users with similar skill sets. Resource status enables you to evaluate the assignment of resources to programs and to help manage employees' workloads.

| Order | Name | Description | Icon |
|---|---|---|---|
| 1 | Staffed | Staffed | Green |
| 2 | Under Staffed | Under Staffed | Yellow |
| 3 | Not Staffed | Not Staffed | Red |

## Configuring Calendar Display

You can configure the legend names that appear in calendars. To do this, in the Java Client **Admin** tab, edit the legend names and descriptions in the **Calendar Legend Settings List**. Names can be customized, but colors cannot. These settings apply to the Default Calendar only.

**Note:** You cannot define exception settings within the Default Calendar. The Default Calendar cannot be disabled.

## Configuring UI Data Display

In Web Client, you can click the **Quick View** tool tip that appears when you place your mouse cursor over an object to see details of that object. The task editing dialog that opens enables the user to view and edit subclass details. As an administrator, you can define the primary fields that task owners are required to edit and design how these fields should display. Task owners can then edit task details without having to navigate to the task details.

To configure the display, you must first define and select each component that you want to display in the dialog, such as attribute groups, tables and action menus. Think of attribute groups, tables, and actions as the building blocks of the task editing dialog. These can be combined in different ways to form different layouts. You can select the components, and assemble them into specific layouts. One layout can be associated to one subclass only.

The configuration for this is done in the UI Configuration Data node of the Java Client Admin tab.

### UI Configuration Data

**To configure a Quick View dialog:**

1. Navigate to **System Settings > Product Portfolio Management**.
2. Click **UI Configuration Data**. The UI Configuration window opens.
3. Configure the following:
   - Attribute Groups
   - Configure Tables
   - Configure Action Groups
4. Assign a layout.

**To configure an attribute group:**

1. Click **Attribute Groups**.
2. Provide a name for the group. For example, "Cost" or "Schedule".
3. From the **Available Attributes** list, select the attributes that you want to display. You can use the drop-down list to filter the attributes by subclass. Ensure that the N*a*me field is in one of the attribute groups to ensure that it is in the header.
4. Use the forward arrow button to move the selected attributes to the **Selected Attributes** area. You can reorder the selected attributes using the arrow buttons.
5. Click **Add** to add the selected attributes to the dialog.

**To configure tables:**

1. Click **Tables**.
2. Choose a table and provide a display name for it. For example, "Relationships".
3. From the **Available Columns** list, select the columns that you want to display.
4. Use the forward arrow button to move the selected columns to the **Selected Columns** area. You can reorder the selected columns using the arrow buttons.
5. Click **Add** to add the selected columns to the dialog.

**To configure Action Groups:**

1. Click **Action Groups**.
2. Provide a name for the group. For example, "Task Actions".
3. From the **Available Actions** list, select the actions that you want to display for workflow sign-off. For example, Approve, Reject, and Mark Complete.
   - To add a process extension to an action, click **New**. In the dialog that opens, specify the Action Name and then select a process extension to apply.
   - To change the name of a selected action, click **Edit** and enter a new name for the action in the dialog that opens.
   - To delete a selected action name, click **Delete**. You can only delete action names that you created.
4. Use the forward arrow button to move the selected actions to the **Selected Actions** area. You can reorder the selected actions using the arrow buttons.
5. Click Add to add the selected actions to the dialog.

**To assign a layout:**

1. Click **Layout**.
2. In the **Define Layout For** field, choose the object for which you want to assign a layout. For example, Program.
3. Select the desired attribute group, table and action group.
4. Use the forward arrow button to move your selections to the **Form** area. You can reorder the components using the arrow buttons.
5. Click **Add** to assign the layout for the specified object.

You can verify the results of your configuration actions in the Project Summary page.

# Administration in Agile Web Client

A limited amount of configuration can be performed for PPM in Agile Web Client, primarily related to object display.

## Configuring Project Summary Display

You can configure the layout and widgets of the **Summary** page if you have the Administrator privilege with "PPM Summary Page Configuration" as an AppliedTo value. This configuration applies to all Activities across the Agile PLM system.

**To configure the Project Summary widget:**

1. On the Summary page, click **Configure**.
2. To avoid displaying this widget in the Summary page, deselect the check box next to the widget name.
3. To configure the data that appears in the widget, click the **Edit** link that appears at the top right corner.
   - For Project Summary and Project Gates widgets, you need to manually configure the fields that are displayed. Select the fields you want from the **Hidden Fields** column on the left and move them to the **Displayed Fields** column on the right. You can reorder the displayed fields using the up and down arrows.
   - For all other widgets, you can only edit the widget name.
4. After you make changes to a widget, click **Apply** for the changes to take effect.
5. Click **Save** to save your settings, or click **Cancel** to revert to the default settings. Saved settings are immediately reflected on the Project Summary page.

## Personalizing the Project Summary Page

You can personalize the Project Summary page to display chosen widgets only, in the order in which you want to see them.

The Summary page offers a two-column view - one wide and one narrow. Each column contains a set of configurable widgets.

**To personalize summary page widgets:**

1. On the Project Summary page, click **Personalize**. Two sets of configurable widgets are displayed.
2. To avoid displaying a widget in the Summary page, deselect the check box next to the widget name.

3. To change the order in which the widgets display, drag each one up or down to the desired location.
4. After you make changes, click **Save** for the changes to take effect.

## Configuring Timesheet Display

The Timesheet feature enables you to view records of actual time reported against all In Process projects in the system. Project managers with appropriate privileges can view time transactions reported against a project or group of projects, to conduct audits across projects, business units, or other criteria.

The Timesheet tab is visible only if your user settings are configured appropriately.

**To display the Timesheet tab:**

1. Click **My Settings** on the left panel.
2. In the **Preferences** tab, click **Edit** to make the fields editable.
3. Under **Display Preferences**, change the **Show Timesheet** option to **Yes**.

The **Timesheet** tab is displayed next to My Assignments.

When you change preference settings, you must log out and then log in again for the changes to become effective.

## Configuring Calendars

As an administrator with the Calendar Administration privilege, you can create, update, import and export calendars.

### Creating a Calendar

You can adapt an existing calendar to create a new calendar.

To create a calendar:

1. In the **Tools and Settings** menu, choose **Calendar**. The Calendar dialog opens.
2. Click **Create**.
3. In the **Create From Calendar** dialog, choose an existing calendar to adapt. If this is the first calendar being created, select **Default Calendar**.
4. Click **Apply**.
5. In the **Calendar Configuration** dialog, enter calendar details.
6. Provide a name and description for the new calendar.
7. The **Enabled** field is set to **Yes** by default. The calendar will be available for use when you finish creating it. If you do not want to make this calendar available now, set this to No. You can enable it later when required.

> **Note:** If this field is set to **No**, the calendar will not be available for selection as a Preferred Calendar in the General Info tab of activities or users and user groups.

8. Under **Work Week Setting**, select the days of the week that are to be considered as working days.

   Legend Settings can be edited in the Default Calendar only.

9. In the **Calendar Settings** tab, set exceptions to the regular working or non-working days. The color codes at the bottom of the dialog identify working, non-working, and exception days. Click on a date to bring up the Exception Settings dialog and mark exceptions to working or non-working days.
10. Click **Save**. Your changes are visible on the calendar.
11. To notify owners of related programs about the calendar changes you have made, click **Notify**.

### Importing and Exporting Calendars

You can import or export a calendar in Web Client if you have the Calendar Administration privilege.

Calendars can be exported as AGL files only. All calendar settings including exception settings are exported.

#### To export a calendar:

1. In the Tools & Settings menu, choose **Calendar**.
2. In the Calendar dialog, select the row of the calendar you want to export. You can select multiple rows to export several calendars at the same time.
3. Click **Export**.
4. Save to a location of your choice.

#### To import a calendar:

1. In the Tools & Settings menu, choose **Calendar**.
2. In the Calendar dialog, select the calendar you want to import.
3. Browse and select the AGL file to import.
4. Click **Validate**. If there is an existing calendar of the same name, a warning message appears. To overwrite the existing calendar, select the **Accept** check box and click **Import**. If you want to retain the existing calendar, you must rename it before importing the new calendar.
5. To import more calendars, click **Import Another File**, and repeat the process.

### Updating Calendars

When you update an existing calendar using the administration options in the Web Client, there can be a schedule impact on all programs and activities that use that calendar. Use the **Where Used** tab in the Calendar dialog to review all activities associated with the calendar and determine the impact of the update. (You can use the filter to narrow down search results. If the number of results exceeds 1000 rows, you can use the **Export** button and export the list to XLS format for detailed analysis.)

After you make the update, click **Notify** to send a notification to owners of affected activities so that they can take necessary action to maintain schedule accuracy. See also "Accepting Calendar Changes" on page 4-23.

### Deleting Calendars

You can only delete calendars that are not in use. To delete a calendar, you must have the Delete attribute included as an AppliedTo attribute on your Calendar Administration privilege.

To delete a calendar:

1. In the Tools and Settings menu, choose **Calendar**. The Calendar dialog opens.
2. Select the row of the calendar you want to delete. You can select multiple rows to delete several calendars at the same time.
3. Click **Remove**.

**Note:** The Default Calendar cannot be deleted.

### Setting Preferred Calendar

You can specify preferred calendars for users or user groups in the **General Info** tab under My Settings. Edit the **Preferred Calendar** attribute to indicate your choice. This calendar setting is automatically applied during project creation.

A calendar that has been disabled does not appear for selection as a preferred calendar.

## Configuring Microsoft Project Integration

Integration with Microsoft Project 2010 is supported. For successful synchronization of data between MicroSoft Project and PPM, the *MSPSyncMapping.properties* file must be configured with the appropriate values. This file is available in the Agile PLM installation directory (under

**..\agileDomain\applications\application.ear\APP-INF\classes**) along with the *agile.properties* file.

Follow the instructions within the file to map attributes in the recommended format.

See "Automatic Installation from PPM SmartRule" on page 10-17 for more information about automatic installation of the appropriate DLLs.

See also:

- "Modify Privilege Mask Applied To Properties that Control Specific User Actions" on page 10-9 for information about modify privilege mask properties that control access to Microsoft Project integration features.
- "Transferring Microsoft Project Work Values to Agile PPM as Days Effort" on page 10-27.
- "Using Custom Agile PPM Subclasses in Microsoft Project" on page 10-26.

## Using Custom Agile PPM Subclasses in Microsoft Project

If you have defined custom Agile PPM subclasses, users can specify those subclasses in Microsoft by using Microsoft Project column Text29.

**To enable the use of custom Agile PPM subclasses in Microsoft Project:**

1. In Microsoft Project, right-click the column headers.
2. Select **Insert Column**.
3. Select **Text29** for the field name. The default Agile PPM subclass names are displayed.
4. As you create new tasks and enter them, you can type in this field the name of any custom Agile PPM activity subclass. If you leave the field blank, the Agile PPM default subclasses are used.

The subclass name you enter must be spelled correctly; if the name is not spelled correctly, the out-of-box default subclass names will be displayed.

## Transferring Microsoft Project Work Values to Agile PPM as Days Effort

In Agile, days effort is always calculated based on the % allocation and duration. Agile requires an allocation to a resource or resource pool in order for days effort to be populated.

To handle the publishing of tasks from Microsoft Project, where work values are entered, you can set up a global resource pool to hold the work/days effort values. If you set up a global resource pool, users will notice that tasks which satisfy these conditions have a global resource pool associated to them on the **Team** tab.

**To set up the global resource pool:**

1. Enter the resource pool name in the MSPSyncMapping.properties file.
2. Restart the server.
3. Create the resource pool ensuring that:

- You use the name you entered in the MSPSyncMapping.properties file.
- The resource pool is a Global resource pool.

The resource pool must be created as Global to enable the mapping.

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**Important:** If either of the following is true, the system ignores the mapping and discards the work values:

The resource pool name is configured in the properties file, but the resource pool does not exist (not created).

The resource pool name is configured in the properties file and the resource pool has been created, but it does not meet the criteria; it is not a Global resource pool.

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# A

# Best Practices

This chapter describes the best practices that you can follow to derive the most value out of PPM to meet your business needs.

## Best Practices for General Project Management

This section provides recommendations on:

- Process Definition and Acceptance
- Implementation Realities and Requirements

### Process Definition and Acceptance

Any enterprise project execution and management implementation requires a defined process or processes, and general acceptance or mandates that these processes will be followed. No automation or system can work if the stakeholders and solution constituents are not participating. The process or processes do not need to be fully developed, but they must be accepted and followed. As the system is used, processes will show their weaknesses and standard process improvement logic will apply.

The following are key areas for consideration before you turn on the computer:

- Define the process and process steps that need to be managed. Start from the key milestones and gates, and work backward to the tasks that need to be accomplished, and the deliverables that need to be met.
- Get general consensus from key stakeholders to ensure process adoption and compliance; or appoint an executive sponsor who will mandate that the process is followed.
- Determine how many project types (templates) you need. It is probably more than one and less than 100. Start simple and grow into complexity.
- Decide the categories in which you classify your projects and programs: Business unit, geography, demographics, customers, markets, and so on. These are critical to the ways in which PPM will build and control access to dashboard portfolios. Some categories will be used as security filters, and some as convenience filters.

### Implementation Realities and Requirements

- Take the schedule agreed to in the preparation stage and determine the initial depth of tracking required to manage your first pass. It is recommended that you start at a maximum of 4 levels of task indentation, which gives you the phase level, summary task level, and detail task level. For many organizations, this is deep enough with granulation covering the major items to be tracked. Later on,

when the process has been refined, there may be value in going into deeper layers, into a deep Work Breakdown structure.

- Decide how deep your initial implementation needs are to track resources. It is advisable that you run the system with minimum expectations for resource management until you are confident of the process schedule, timing and sequence. Detailed resource planning against unreliable and erroneous schedules and durations can be frustrating and lead to distrust of the system. With the power of the template, it is not difficult to assign resource requirements to tasks in the system, but if the tasks are not correctly aligned in the schedule or in their duration, the resulting resource utilization calculations will also be out of alignment.
- Understand the limits of coexistence with other project tracking systems. PPM adds value as a real-time enterprise project management solution. As such, changes made to projects and resources are made in real-time, providing up-to-the-minute task requirements, project health and status, and resource requirements. Projects that are managed in other systems and then uploaded create a set of reports and assignments that are only as accurate as the last uploads.

# Best Practices for PPM Setup

Guidelines for general administrative setup and project-specific setup are detailed in this section.

## Administrative Setup

**Security**

Agile PPM uses the PLM security model, and treats all users in an Agile PLM implementation as potential project participants. All default roles in PPM have default configurations but can be enhanced or reduced to meet internal security requirements. See the security section of the *Agile PLM Administrator Guide* for more details. Guidelines on the use of PPM roles and privileges:

- **Project Manager** - Use as delivered. The Project Manager has access to all PPM objects that he or she owns or is authorized to access. Understand that a project manager is given access to object types; project owners are given access to specific projects. These two concepts work together.
- **Project Administrator** - Use as delivered. The Project Administrator has specific privileges that allow access to projects that he or she does not own. He Or She can also cancel or delete projects, put projects on hold, or delete mandatory deliverables.
- **Executive Privilege** - This privilege, used with the PPM dashboard and project categories, provides a single dashboard UI that builds a portfolio based on the user's executive privilege to access certain of those categories. Thus a General Manager of Business Unit 1 will see all projects for his/her business unit, while the General Manager of Business Unit 2 will see all projects for his/her business unit. Others may be authorized by markets, product lines, and so on.

**Note:** **Agile Users** - All Agile PLM users are potential participants as owners and resources of a project phase or task. When added to a project or added from a template, the participant is given an internal project role. Thus a development manager can be added to a project as the "project manager" of his or her group of tasks. This does not override the Project Owner's rights and access to all project activities.

**Resource Pools**

In Agile PPM resources can be assigned to projects and templates as resource pools. These are user groups, identified as resource pools, that act as containers for groups of Agile users that have been identified as potential project participants.

Consider the following:

- **Pool Segmentation**

  Divide your pools with as much granularity as required to manage conflicts.

  Set up pools to match departmental realities. Effective use of resource pools requires a resource pool manager that can respond to requests, overloads and employee issues.

- **Pool Attributes**: Pools carry with them similar attributes as an Agile user. Key to the PPM implementation is the need to put a standard cost per hour in monetary value to the pool labor force. This is used at project creation time to calculate a standard cost labor budget.
- **Empty Pools**: This is useful when you need to generate requirements and budgets for resources that may not have Agile access: contractors, partners, and so on.
- **Individual users** - Any individual added to a project is a resource. Most, if not all, should be assigned from a resource pool. Ideally, no resource should be assigned to more than one pool.
- The system uses the monetary values assigned in the user ID for standard resource costing when calculating labor budgets or actuals.
- The executive privilege looks at the user profile and the categories assigned to that profile to allow viewing of projects that are not owned by that user.

**Distributed Task Management (DTM)**

DTM provides project participants with accurate real-time assignments and resource requirements, and direct access to the project without project navigation.

The following setup items should be considered to take full advantage of DTM:

- **"My Assignments" Configuration** - This ensures that all project task owners and resources have a single place to go to get their up-to-the-minute task assignments and priorities. This UI is designed to provide dynamic and actionable access to all tasks that are assigned to a user without the need to "navigate" to the project. These tables, and the actions to be allowed, are configured in the administration setup.
- **"Quick View" Creation** - Quick views allow users across PLM to review key details about an object and its data, directly from a list, without navigating to that object. Quick views are accessible from the "My Assignments" UI. PPM is the only module that has actionable and editable "Quick Views". (For information on how to set up "quick Views" see the *Agile PLM Administrator Guide.*) Every sub-class can

have a different quick view, with different access levels. Thus the Quick View for DG1 (Decision Gate, Phase One) can have different editable fields and actions.

**Dashboard Categories**

Using the segmentation needed for project filtering and security determined in the preparation stage, create the categories and category values required for your implementation. This is critical to the dashboard, analytics, reporting and security. None of the default categories are fixed. They can all be renamed and re-sequenced for selection.

**Calendars**

If you need to quickly add new exceptions or update existing exceptions within a calendar, directly edit the calendar AGL file. To do this, export the calendar from the Calendar Administration dialog in Web Client, and save the AGL file to your local drive. Unzip the file and edit the entries using a text editing tool such as Notepad.

- To add additional exceptions, copy and paste an existing exception entry to create as many entries as you need. (Example entry: **<EXCEPTION ID="2471926" DAYOFWEEK="2" DATE="2014-06-16" REASONFORCHANGE="Company Holiday" />)** Modify the DATE and REASONFORCHANGE values in each entry.
- To update existing exceptions, modify only the REASONFORCHANGE values. When you modify the DATE value, it is recognized as a new entry.

Save your changes and import the file back into Agile PLM. The changes are reflected in the calendar in Web Client.

**Timesheets**

If you need to track hours spent against hours budgeted, with or without costs, you must enable timesheets in the setup.

**Activity Sub-Classes (Types) and flex fields**

The following sub-classes are delivered as defaults with PPM. They can mostly be used as delivered. Any sub-class that is not being used should be disabled to remove them from prompts and lists.

- **Project** - Self explanatory. A project is defined in PPM as an activity without a parent. The object type does not necessarily define its behavior.
- **Phase** - Used in phase gate management. Though decision gates are segmented for the phase in which they participate (DG1-DG6) it is not often necessary to have corresponding phase segmentation. However, if there is a need to have a similar phase segmentation, use new sub-classes such as "PH1", "PH2".
- **Task** - Generally use as delivered. In some environments, another task type such as "Meeting" (with agendas and attendee lists) can be set up using a new sub-class.
- **Program** - Use as delivered. Seen by Oracle PLA with a specific context when used with the PLM Reference Field on the Project Object.
- **Portfolio-** Use as delivered. Seen by Oracle PLA with a specific context when used with the PLM Reference Field on the Project Object.

**Milestone and Gate Sub-Classes (Types) and flex-fields**

Gates are defined as any entry on a project timeline that does not have duration. Many project methodologies do not use the concept of a gate, though they do support "tasks" with a zero or single day duration or they support a milestone. Agile PPM uniquely supports gates of multiple types to support both phase-gate and standard project management environments.

The following gate types exemplify the best practice definition of gates for project management:

- **Decision Gates**

  Phase gate methodology divides a project into distinct sets of tasks called a phase. Each phase is bounded at the end by a decision gate. In phase-gate processes a specific phase (P1) is bounded by a matching decision gate (DG1). In "Stage-Gate™" processes a specific phase is (P1) is bounded at the end by the next decision gate, (DG2).

  Decision Gates are most often used for Phase-Gate or Stage-Gate™ processes and management. However they are not restricted to these environments. Decision gates, as implied by the name, are points in time in the project timeline that require a major decision. In the context of Phase-Gate, this is often referred to as a "go/no-go" or "kill" decision, essentially asking the question: "Should this project continue to be funded?" In phase-gate, the gates are connected as the end of a phase so Phase One is bounded at the end by Decision Gate.

  Decision Gates should be set up as sub-classes for cross project reporting.

  Agile is shipped with several pre-defined sub-classes that are designed to be used as decision gates: DG1, DG2, DG3, DG4, DG5, and DG6. If your organization has a nomenclature already established for gates, you can rename these defaults to reflect your terminology.

  Each gate sub-class can have gate specific data fields by enabling Page Three flex-fields. DG1 will have a different Page Three from all other gates.

  Decision gate workflows should be configured to reflect the specific gate type.

- **Review (Checkpoint) Gates**

  Review or check-point gates are points in time on the project timeline that set a border for a group of tasks within a phase. Typically, they are used as a checklist to validate that a set of deliverables or tasks have been completed as required. These gates are not typically routed for approval, but reviewed for completeness.

  The default checkpoint gate sub-class in Agile is the "Review Gate". If your process requires additional stratification of review types it is recommended that you add additional sub-classes as required. Examples would be: CP1, CP2 or RV1, RV2.

  Workflows are not typically used for review gates.

- **Milestones**

  Milestones are also a type of gate. In many different project methodologies the milestone is the only gate type. In phase-gate methodologies, milestones are typically used to mark significant points in the project that can trigger other activities.

  The default milestone gate in Agile is the "Milestone" sub-class.

  Typically milestones are not sub-classed. However, if your process has milestones that are important to you as a metric or that are needed to measure progress across the portfolio, it is recommended that you add sub-classes to meet that need. Examples would be MM1, MM2, or MS1, MS2.

  Workflows are not typically used for milestones. However, using scripting and events, you could trigger a notification to mark the passing of a milestone. For example, when a customer project reaches a milestone, a notification is sent to accounting to bill the customer for work completed.

## Templates and Project Setup

Templates are an integral part of the best practice use of PPM. Templates are used at a minimum to establish the corporate baseline for a particular project type, such as NPD versus NPI. In more sophisticated environments, templates are defined by business unit or product line, or both, to set a standard process at the appropriate accountability level. Templates are also an integral part of using PPM in a project context that uses Phase-Gate methodologies. With templates, you can create a deep and broad schedule process that must be only set up once, and then used to generate thousands of activities over time. With templates, you can set up complex gate and deliverable controls, mandatory deliverables, deep accountability and team structures, and guarantee compliance with internal and external process control or regulatory agencies. (ISO, FDA, and so on.)

This section provides some practices to consider when setting up templates (or projects).

**Schedules**

Consider the following when setting up a schedule in a template (or project):

- **Depth of Schedule**: Set as deep as your accountability levels and your ability to absorb. This will change over time as the system becomes more pervasive and schedules more accurate.
- **Avoid "checklists" converted to tasks**: This is a common problem that creates 2000 task projects. If you need to track 2000 tasks, then do so, but do not convert checklists to task lists. Checklists are best left as documents, attached to tasks.
- **Use gates to set boundaries**: Even if you do not follow a Phase Gate process, milestones and checkpoints are powerful tools to set boundaries of activities, establish formal reviews, and mark significant progress that is visible to all.
- **Set up all necessary dependencies** to ensure schedule integrity of any projects created from that template. Setting up project dependencies is a daunting task. To ensure the consistent durations required to manage task sequence generally requires a complex matrix of dependencies. When you set them up in the template, 80-90% of all dependencies required for the projects generated from that template can be pre-defined and automatically created.

**Ownership**

- Ownership at the phase, summary task, task, or gate level is set in the template using resource pools. Owners, by default, are not given a percentage of activity and as such are not considered part of the resource load. If the owner is active in the activity and the owner of it, set the allocation to a number >0 that represents their contribution. Then, when projects are generated from a template, resource pool requests for task owners are generated, and if the owner allocation is >0, a resource load is also generated. Agile PPM enables you to set ownership at the deepest level, without giving up the master control of the project/program manager.

**Resources**

Resources for phase, summary task, task, and gate levels are set at each level in the template using resource pools. For each resource required, enter the pool which represents the resource, and set an allocation that represents their required contribution. When projects are generated from a template, the project team and labor cost budget are automatically created; resource loads are set at the proposed or active level; resource requests are sent to the resource pools. Always set resource

requirements at the task level that you can or must absorb. Avoid duplicating the resources at multiple levels. Typically this is at a minimum at the summary task level.

**Content /Deliverables**

Agile PPM is unique in allowing users to build all standard project deliverables in the template, and have the template automate deliverable creation and controls. All standard deliverables should be set in the template.

- **Digital File Content**: File attachments such as documents, spreadsheets, and presentations can be set into the template as content or deliverables. The template can be set to recognize the content as static pulls from the vault, or copies of a boilerplate. Here are some examples:

Static Pull - You can establish a link in the template to an ISO process document, version controlled in Agile PLM, which triggers the template to copy the latest version of the ISO document to every project created from that template.

Boilerplates - You can attach a project deliverable boilerplate (that is, standard product requirements document) to a task or phase in a template and the template will create a blank copy of that boilerplate for every new project.

- **Agile PLM Items**: PLM documents and parts/BOMs can be set as deliverables. For example, you can set-up a mandated project document, such as a Regulatory Requirements Document (RRD), as an item document sub-class in PLM. Create an RRD template object from that sub-class, attach a digital document boilerplate to that RRD and then attach the RRD document template to the project template. Every time the template creates a project, it creates a new RRD (RRD-2010, RRD-2011, and so on) with the digital file boilerplate, as content in the task that controls its due dates.
- **Agile PLM Processes**: PLM process templates can also be set as deliverables in the template, and the template will create a copy of that process every time the template creates a project. For example, create a Part Number Request (PNR) process template, attach it to a task in the project template and every time the template creates a project, it creates a new PLM PNR in the content tab of that task.
- **PLM PPM Objects**: Agile PPM activities and Gates can also be created in the template. You can set up a phase with 3 review gates, and a decision gate. Then, in the template, you can add the 3 review gates as content to the decision gate, and set up a relationship that will not allow the decision gate to go into review, unless all 3 review gates were open (approved).

**Content Tab and Rules**

Agile PPM is designed to control all deliverables and files from the tab on the UI called the "Content" tab. It is highly recommended as a best practice to disable the Attachments tab on all project classes (activities, gates) and place all project content including standard digital files into Content. This provides the highest level of visibility, control, and flexibility when working with deliverables.**Approval Workflows**

All gates and milestones in Agile PPM have a standard 3 step workflow, which can be enforced, and automated. As stated above, using PPM best practices, a template can establish for every NPD project that DG1 depends upon deliverables such as the three review gates being open, the PNR reaching release status, and a requirements document reaching review status. You can set up the rule to state at the moment the last deliverable rule is met DG1 will be set in "review" status on the gate workflow. This immediately notifies all approvers and observers of the gate process. Workflows for gate approval are essential is successfully implementing complex Phase-Gate procedures.

# Best Practices for PPM Process Execution

This section covers recommendations on general project execution and phase-gate project execution.

## General Project Execution

Consider the following process execution recommendations before implementing PPM.

**Using the PLM Reference Field**

This field can be found on the General Info Tab of any project. The PLM Reference field is the primary way to associate a project with a specific PLM object in the project context. The PLM Reference field is pervasive across the entire project structure. Items entered here will be visible (based on security) to all other levels of the project. It is primarily used to identify the product or products to be developed within the project. You can also use it to associate the project with other projects, programs, or portfolios. Multiple objects can be entered here. With the additional implementation of Oracle PLA for PPM, you can use it to associate projects with a portfolio or program, or both. When used with Oracle PLA, the following concepts should be understood.

- Any portfolio or program object placed in the PLM reference field will link that project to those objects in Oracle PLA.
- The first Item object encountered on that will be used by Oracle PLA as the product to be associated with this project for reporting and filtering.

**Using Project Keywords**

This field can be found on the General Info Tab of any project. Use this field to free-associate the project with concepts and categories (keywords) for searching and filtering.

**Using the UI Navigator**

The Navigator is especially useful for PPM users. Any project that is displayed can be "pushed" to the Navigator and used to navigate to other parts of the project, drag and drop deliverables, and maintain one project view while navigating to another.

**Creating and Releasing Projects**

PPM was designed to provide a multi-step process from creation of a project, publishing the project, and executing the project. The steps to follow, and their implications are as follows:

- **Create project from template in "Proposed" state**. This sets up a project with all template constructs, resource requirements, and deliverables. However in the "Proposed" state, the project is not generally visible. In this state the resource requirements are set but not treated as firm. Thus they *do not* add a load to the resource calculations unless one asks *explicitly* for proposed projects to be added into the calculations. No resource requests or task assignments are generated. The

"proposed" project state is enabled for use by project managers to manipulate the project after it is created by the template, to mold its timeline and work to meet the specific needs of the new project: that is, add or subtract tasks or resources; reset dates; assign specific resources to the project, and so on. All changes to the project are audited, and any new tasks added can be identified as not coming from the template. Also, at the time of creation, the user can choose to establish a baseline.

- **Change project state from "Proposed" to "Active"**. This action is in effect the publication of the project to the community. The project is now "Active - Not Started". The project appears on dashboards, resource pool requirements are sent to pool owners, and any tasks assigned or owned by unique users appear on their "My Assignments" tab. However, no activity is taking place and the project can be activated well ahead of its scheduled start date. The setting enables projects to be published with the lead time necessary to staff the first group of tasks with resources and for users to see their workloads with the time needed to prepare. The system will prompt the user to set up a "Kick-off" baseline.
- **Change project status to "Active - In Progress"**. This is done by any task owner marking any task as "In Progress". When the first task is set to "In Progress", the project and all activities out-dented from that task are also marked "In Progress".
- **Assign resources as needed, not all at once**. Because resources and owners can be set to resource pools, even without resources assigned the system sees the load. Thus it is logical to allow project and resource managers to assign specific resources close to the events for which they are needed.

**Using Dependencies**

Setting up complex dependencies in a project is essential yet onerous. The template functionality enables you to set up a very complex dependency model once, and use it over and over. The stepped process to project publication enables Project Owners to adjust those standard dependencies to meet specific needs. Agile PPM supports two dependency constructs: schedule dependencies, and progress dependencies.

- **Schedule dependencies**: Agile PPM supports 4 types of schedule dependencies: Start to Start (SS), Start to Finish (SF), Finish to Start, and Finish to Finish. These dependencies, when set, will link the dates of the interlinked tasks, and if any task is moved in time (rescheduled), any linked task is automatically moved to keep the durations constant, based on the dependency type. This is standard to all project management systems, and is essential to maintaining schedule integrity when rescheduling any or all project activities.
- **Progress dependencies**: Agile PPM supports the concept of progress dependencies using the content tab of the project, phase, gate, or task and content rules. There are two types of progress dependencies:
  - **Project-based**: This links any task or gate to another task or gate, and establishes a rule that predicates the progress of one task or gate, based on the progress (status) of another. For example you can prohibit a gate from opening until several previous tasks have been completed, or you can prohibit a gate from going into "Review" until several milestones have been completed, or you can automatically open a new project phase at the moment the pervious phase decision gate is approved/opened.
  - **Deliverable-based**: This links PLM deliverables, and their status to the progress of tasks and gates. For example, you can prohibit the start of the prototype phase of a project until the BOM of the product has been set to "Prototype", and when it is set to "Prototype", it can be set to automatically open the prototype phases and tasks.

**Defining Dynamic and Static Deliverables**

- Standard deliverables are those that can be pre-defined in the template and that are generated during the creation process. These have been discussed.
- Dynamic deliverables are those deliverables that cannot be pre-defined. These can be broken down further in those that are anticipated, and those that are not anticipated.
  - **Anticipated**: Every project has deliverables that are required but are not specific until the project is active. The most common of these in the NPD process is the BOM (P/N) of the product to be developed. In Agile PPM, the PLM object that represents the BOM, once created, can be added to the project content at any level for control. The status of the BOM can control the progress of the project from one phase to another.
  - **Unanticipated**: Every project has deliverables/issues that impact the project and must be addressed. For example, during the test of a prototype, a major flaw is discovered. An Agile Change Request (CR) or Agile CAPA is launched to fix the problem. No further action on the project should go forward until the investigation is complete. The owner of the CAPA or CR can navigate to the relationship tab of that process and set a rule to prohibit the project task or phase from progressing until the CAPA or CR reach a certain status. (Security controls are set to control such activity appropriately)

## Phase-Gate Project Execution

With unique abilities to track deliverables and use them to manage the sequence and requirements of a project PPM provides the most effective platform for true phase-gate process management.

This section provides a series of guidelines to follow when using Agile PPM for Phase-Gate Project methodologies.

**Phase-Gate Management**

- Phase Management:
  - Phases should be owned by their logical center of accountability: that is, the Director of Development should own the "Development" phase.
  - Phases should always be bounded by a decision gate.
  - Phases should be linked by schedule or progress dependencies, or both, to other phases
  - Resources assigned at the phase level should not be duplicated at lower indented levels (tasks) within the phase.
- Decision Gate Management:
  - Phase-Gate processes suggest that all phases must have a decision gate with an approval process linked to them that controls entry into the next phase. Decision gates should be automatically controlled by progress dependencies. For example, set a phase decision gate to automatically go into "Review" or "Open" when all of the checkpoint gates, defined in the phase are set to "Open".
  - Decision gates should be routed for review/approval in alignment with the phase that it bounds. The routing should include all stakeholders that can verify and support the work completed in the current phase, those stakeholders in the next phase that can verify readiness and confidence in that

next phase, project management that can summarize the project condition and health, and executive managers responsible for funding and resource management.

- Decision gates should be baselined. Agile enables users to set multiple baselines. Decision Gates have a specific type of baseline called "Plan of Record". Every decision gate process should involve creating a "Plan of Record" baseline.

**Task Management**

Agile PPM is designed for two basic types of Project Management:

- **Centralized Task Management**: Typical project management tools do not provide users with the environment to effectively manage a distributed task context. These systems focus all control and accountability for the project and all project activity on the project manager. Agile PPM can be operated in this fashion, simply by assigning ownership of all activity in the project to the project manager. This is done in the creation dialog or in the template.
- **Distributed Task Management**: Agile PPM also provides for decentralized management of all project activities. Tasks are owned and resourced with resource pools. All activities that require resources are visible when released in the task owner's "My Assignments" home page.
  - **Task Ownership**: Task owners are free to manipulate the tasks they own, within the boundaries of the projects: secondary project managers. Set up task owners to represent the accountability associated with each phase, summary task, or task. For example, "Phase Two: Product Development" is owned by the pool "Development" "; the summary task, "Engineer Product Design" is owned by the pool "Product Managers", and the actual tasks needed to design the product are owned by the doers, that is, mechanical engineers for tasks needed for a box design, formula engineers for the tasks needed to create a formula or process model, and electrical engineers for the tasks to create a PCB. As soon as needed, but no sooner, ownership assignments are converted from pools to individuals from those pools.
  - **Resources**: Project participants can and should come from across the enterprise. When a project is created from a template, the system will copy all resource requirements as defined in the template "Team" tab into the project "Team" tab with an allocation >0. Typically all resource requirements are represented as a resource pools. At some point in the process, when needed, resource pool assignments should be given to individual resources.
  - **Timesheets and Actual Standard Costs**: It is recommended that organizations that need to track labor costs across a project enable the timesheet functionality. Users whose time tracking is not necessary can elect to not have the timesheet tab visible. When a user enters time spent into the timesheet, Agile will use the time entered and calculate an actual labor cost. The system will multiply the hours reported by either the hourly cost of the individual resource if available in the user profile, or if not available, by the hourly cost of the resource pool entered in the pool profile.

## Best Practices: Using Oracle Product Lifecycle Analytics for PPM

Oracle Product Lifecycle Analytics (Oracle PLA) derives information from PPM projects to generate analytical reports. Follow the guidelines provided in this section to ensure that the metrics captured in the reports are accurate and meaningful. Usually, the following steps are required:

- Configure Oracle PLA correctly
- Use the PLM Reference number correctly
- Ensure projects have the right structure

## Configuring Oracle PLA

Keep in mind that Oracle PLA provides an administrator the ability to configure the following using domain values:

- **Activity subclasses, to be configured as Portfolios, Programs, or Phases.**
  - You can configure one Activity subclass as a Portfolio and another Activity subclass as a Program.
  - You can configure one or more Activity subclasses as Phases.
  - There are no configurations required for Projects and Tasks. Oracle PLA infers these based on the Phase domain value configuration and the structural hierarchy of the Projects. Therefore, it is extremely important to follow the hierarchy rules provided in the subsequent sections.
- **Gate subclasses, to be configured as one or more Decision Gates.**
  - You can configure one or more Gate subclasses as Decision Gates. In addition to this configuration, the exact level and position of the Decision Gate plays an important role in ensuring that Decision Gates are displayed correctly within Oracle PLA.
  - The Gate dimension within Oracle PLA is populated using the Decision Gates configuration described above. The gates that are not configured as Decision Gates do not appear in the gate dimension.
  - You can configure one or more Gate subclasses as Decision Gates. In addition to this configuration, the exact level and position of the Decision Gate plays an important role in ensuring that Decision Gates are displayed correctly within Oracle PLA.
  - The Gate dimension within Oracle PLA is populated using the Decision Gates configuration described above. The gates that are not configured as Decision Gates do not appear in the gate dimension.

## Using the PLM Reference Number

It is recommended that you follow the rules outlined in this section while using the PLM Reference field in PPM for Portfolio, Program, and Product objects.

Portfolio and Program objects can be created within PPM using the Activity subclass. You can use the subclass type Portfolio or Program, or the exact name of the object as configured in your system. Portfolio and Program are expected to be created as standalone objects; these objects should have no child objects under them.

The PLM Reference number in the Portfolio or Program object can group the programs and projects within Oracle PLA. Some fundamental rules for using the PLM reference number are provided here:

### Rules for using PLM Reference field in a Portfolio:

- The PLM reference field in a Portfolio object can refer to one or more projects or programs, or both. However, you cannot use the PLM Reference field on a Portfolio to refer to other Portfolios.

- A Portfolio cannot be aggregated as a collection of programs within Oracle PLA. Portfolio is shown as a collection of projects. If Programs are associated with a Portfolio, Oracle PLA will break down the Programs into referred Projects for display within Oracle PLA.
- All projects in programs associated with a Portfolio are treated as belonging to a Portfolio.

#### Rules for using PLM Reference field in a Program:

- The PLM reference field in a Program can refer to one or more Projects. You cannot use the PLM Reference field on a Program to refer to other Programs or Portfolios.

#### Rules for using PLM Reference field to identify a Product:

- Typically, Projects result in one or more 'Products'. You can use the PLM Reference number on a Project to identify the Product. Only objects of type 'Items' are treated as Products and reference to any other type of object will be ignored by Oracle PLA.

The PLM Reference field is available from Agile PLM version 9.3 onwards. If you are a 9.2.2.x customer, use a Defined field (P2/P3) instead of the PLM Reference field.

## Using the Right Project Structure

Based on the domain value configurations for each Project, Phase, and Decision Gate, Oracle PLA 'locates' the object and makes hierarchical inferences, as explained below:

- An activity situated one level above a Phase is considered to be a Project. As a result, it is important to have one and only one object above the Phase in a Project hierarchy.
- Tasks are activities that are one or more levels below a Phase.
- Decision Gates can be at same level as a Phase or one level below the Phase.

Therefore, it is necessary to ensure that you follow the guidelines provided here while defining project structure.

The following figure illustrates the Project hierarchy structures that are recommended:

***Figure A–1 Recommended Project Hierarchy***

| Project Hierarchy 1<br>(Decision Gate is at same level as Phase) | Project Hierarchy 2<br>(Decision Gate is within a Phase) |
|---|---|
| Project 1 | Project 1 |
| Phase 1 | Phase 1 |
| Task 1.1 | Task 1.1 |
| Task 1.1.1 | Task 1.1.1 |
| Task 1.1.2 | Task 1.1.2 |
| Task 1.2 | Task 1.2 |
| Decision Gate 1 | Decision Gate 1 |
| Phase 2 | Phase 2 |
| Task 2.1 | Task 2.1 |
| Task 2.2 | Task 2.2 |
| Decision Gate 2 | Decision Gate 2 |
| Phase N | Phase N |
| Task n.1 | Task n.1 |
| Task n.2 | Task n.2 |
| Task n.n | Task n.n |
| Decision Gate N | Decision Gate N |

For more detailed metrics on Phases, you can split Phase subclasses into Phase 0, 1, 2... and so on.

Oracle PLA does not support a Phase subclass under another Phase subclass.

**Note:** While it is possible to look at a flat list of all Tasks below the Phase, Oracle PLA does not maintain or display a tree of tasks. For example, in the above Project hierarchies, it is possible to get Tasks under Phase 1 such as Task 1.1, 1.1.1 and 1.1.2 but it is not possible to get a list of Tasks under Task 1.1.

## Using Category Fields

Use the Category Fields in PPM to capture project-level information. These fields are exposed as Project dimensions in Oracle PLA. These fields can also be used as Dimensions on Activities, but only in the Project Detail subject area.

# Best Practices for MSP-PPM Integration

Due to data and functionality constraints, we recommend that you follow these best practices when using the MSP-PPM integration functionality.

## Creating A Project

As a best practice, create your project in PPM, then export to MSP and publish it back to PPM.

## Maintaining PPM Constraints

The integration process does support constraints, however, there are some limitations to maintain data integrity.

Constraint data is not supported in the following schedule-related scenarios:

- Update XML Date element in xml like: start / finish date of task
- Task is found in xml but deleted in PPM
- Task has been cancelled in PPM
- Task is changed to 0 duration in PPM
- Task's duration is changed in PPM
- Duration type of task is modified in PPM
- Task parent outline number has been changed in PPM
- 0 duration task milestone value is changed
- Text30 for task is empty or missing
- New tasks are added in PPM
- New dependencies are added in PPM
- The predecessor of activity has been deleted in PPM
- Dependency has been removed in PPM
- Time buffer/type of dependency is modified in PPM
- Multiple resource in MSP is mapped to same user
- Assignment has been deleted in PPM
- Resource allocation has been changed in PPM
- New assignments have been added in PPM

Constraint data is not supported in the following resource-related scenarios:

- Multiple resource in MSP is mapped to same user
- Assignment has been deleted in PPM
- Resource allocation has been changed in PPM
- New assignments have been added in PPM

# Glossary

### ACP

See **Agile Configuration Propagation (ACP)**

### Activity

A project activity in Agile Product Portfolio Management, such as a program, task, or phase.

### Affected Files

Similar to Affected Items, these objects are EC files that are Design Release Candidates.

### Agile Configuration Propagation (ACP)

Propagating existing configuration the PLM to the newly installed version of PLM.

### ACS

See **Agile Content Service (ACS)**

### Agile Content Service (ACS)

ACS is an event-driven XML-based publishing service that makes the product record available to a wide variety of business applications and users, internally and across the global manufacturing network

### Agile Destination

A package created by an Agile PLM system in the target PLM using Web Services to import from the Attachments tab of the package in the target system.

### Agile Integration Services (AIS)

A collection of predefined Web Services in the Agile Integration Framework that enable communication between the Agile Application Server and disparate systems

### Agile Product Portfolio Management

The Agile PLM project management solution that is integrated with the product information in PLM.

### AI

Affected Items tab on Change objects in Agile.

### AIS

See **Agile Integration Services (AIS)**.

### Approved Manufacturer Parts List (AML)

List of approved manufacturer parts associated with an item.

### AML

See **Approved Manufacturer Parts List (AML)**.

### API

See **Application programming interface (API)**.

### Application programming interface (API)

A set of routines, protocols, and tools for building software applications. An API expresses a software component in terms of its operations, inputs, outputs, and underlying types.

### Assembly

A product assembly lists the parts in a product and shows the substances and materials that comprise those parts. It is linked to specifications that can restrict how much of a particular substance that product assembly may contain

### Automated transfer orders (ATO)

Content published by Agile PLM users in real time with a content transfer order (CTO) or set up subscribers to automatically create automated transfer orders (ATO) based on a schedule or triggered by a workflow status change.

### Baseline

A snapshot of a project, usually in its initial stage, used as a reference for future comparison in Agile Product Portfolio Management.

### Bill of Material (BOM)

A hierarchical representation of a product that is made up of other products.

### Bill of Substances (BOS)

A hierarchical list of substances that are contained in the parts and assemblies that make up a BOM.

### BOM

See **Bill of Material (BOM)**.

### BOS

See **Bill of Substances (BOS)**.

### CAD

See **Computer-aided design (CAD)**

### Commodity

A class of goods that is in demand, that is supplied without qualitative differentiation regardless of supplier.

### Computer-aided design (CAD)

The use of computer systems to assist in the creation, modification, analysis, or optimization of a design. CAD software is used to increase the productivity of the designer, improve the quality of design, improve communications through

documentation, and to create a database for manufacturing. CAD output is often in the form of electronic files for print, machining, or other manufacturing operations.

### Contract (Price)

This is a subclass of the Published Prices class. Contract prices are prices provided by the supplier for a specific item or manufacturer part. This price information applies only for the specified duration and can apply to any project.

### Co-Sourcing

The process of leveraging product cost across suppliers.

### DCO

See **Design Change Order (DCO)**

### Deliverable

A unit of work required for a project's success, usually fulfilled by generating a digital file. (Word processing documents, spreadsheet documents, PDFs, presentation documents, and so on.) Deliverables can also be Agile PLM objects and processes. Also called 'content' in Agile Product Portfolio Management.

### Design Change Order (DCO)

A Change Order subclass that is available when the effected File Tab is enabled and provides access to all Agile PLM Workflow functions.

### Design File Folder

An EC file folder that is integrated with CAD and PLM files, providing full access to PLM Workflow function.

### EC

See **Engineering Collaboration (EC)**

### EC Client

A Java-based UI to access, administer and operated the EC solution.

### ECO

See **Engineering Change Order (ECO)**

### Engineering Change Order (ECO)

An object that carries with it all the proposed changes to a product and/or its BOM. When approved and implemented, the proposed changes become effective.

### Engineering Collaboration (EC)

An application that provides data and process integration between CAD applications and Agile PLM. It allows CAD designers and engineers to capture and control the data representing a primary source of the product record.

### Extensible Markup Language (XML)

A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable

### File Manager

The File Manager manages files in a repository or vault in the file system and provides a place to store and retrieve files locally or remotely. You can install it on the same

server as the Agile Application Server or on a separate one. You can also install the File in a redundant configuration and/or distributed across geographic regions.

### File Transfer Protocol (FTP)

A standard network protocol used to transfer computer files from one host to another host over a TCP-based network, such as the Internet.

### FQPN

See **Fully qualified path name (FQPN)**.

### FTP

See **File Transfer Protocol (FTP)**

### Fully qualified file name

The exact name of a file on a computer that is completely specified such that it is unambiguous and cannot be mistaken for any other file on that system.

### Fully qualified path name (FQPN)

The full path of a resource, directory or file, stored in a computer. It is composed by the full path to the resource and its syntax depends on the operating system.

### Gantt Chart

A project management tool that shows project activities and schedule as a bar chart. The chart lists project activities in sequence, and presents critical information such as the start and end dates of each activity, as well as interdependencies between activities.

### Item Master

The product record. It is the entire collection of Items - Parts, Documents, and any other user-defined subclasses of the Items class maintained under change control in the Agile system.

### Java Message Service (JMS)

The Java Message Service (JMS) API is a Java Message Oriented Middleware (MOM) API for sending messages between two or more clients.

### JMS

See **Java Message Service (JMS)**.

### Lifecycle Phase

Current state in an object's workflow.

### LRR

Latest Released Rev - concerning a Part or Document.

### NCNR

Non-Cancelable Non Returnable. Applies to an item. NCNR can be a Yes or No, depending on the supplier. You can ask for the NCNR information in the supplier response. This is one of the critical factors in finding the best deal among the supplier responses.

### PDX

See **Product Definition eXchange (PDX)**.

### PLM

See **Product Lifecycle Management (PLM)**.

### Percent allocation or % allocation

The percentage of a resource's time allocated to a specific task or tasks in Agile Product Portfolio Management..

### Percent complete or % complete

Amount of time and effort expended on a project measured as a percentage of the time and effort required to complete the whole project. Used in Agile Product Portfolio Management.

### Product Definition eXchange (PDX)

A standard designed for the e-supply chain. This standard is based on the XML format because it provides a simple yet powerful and flexible way to encode structured data into a format that is both human- and computer-readable. In PLM, PDX packages contain product content, such as items.

### Product Lifecycle Management (PLM)

The process of taking parts/documents from inception to production to phase-out, and all the stages in between.

### Protocol

A system of digital rules or agreed-upon format for data exchange within or between devices. It determines the type of error checking and data compression used.

### Published Price

This is a subclass of the Published Prices class. Published prices are prices provided by the suppliers in response to an RFQ and published from the project. The published price information can also be used in other projects.

### PCO

See **Price Change Order**

### Price

An object that carries with it all the proposed changes to a product and/or its BOM. It can be approved and implemented to make the proposed changes effective.

### Price Change Order

It is an object that carries with it all the proposed changes to a price. It can be approved and implemented to make the proposed changes effective.

### Quote history

A subclass of the Quote Histories class. Quote history prices are the stored prices from supplier responses that you can use. Any change in the response line of an RFQ is stored in the historical response and is usable at any time.

### Request for Information (RFI)

A material declaration that lists the parts in a product assembly and shows the substances and materials contained in the part.

### Request for Quote (RFQ)

A standard business process whose purpose is to invite suppliers into a bidding process to bid on specific products or services.

### Request for Proposal (RFP)

A solicitation, often made through a bidding process, by an agency or company interested in procuring a commodity, service or valuable asset, to potential suppliers.

### Response Line

A response line has information about only one item. The negotiation of price and terms for items is dealt with in a response line.

### Resource Pool

A group of users who can be bulk assigned as resources for a particular project or task in Agile Product Portfolio Management.

### RFI

See**Request for Information (RFI)**.

### RFP

See **Request for Proposal (RFP)**

### RFQ

See **Request for Quote (RFQ)**

### RFQ Response

A medium of communication between the user and the supplier. One response from a supplier can contain multiple response lines for different items. Price data is added to the project automatically when the supplier submits the response.

### Schedule Editor

The scheduling engine that handles updates to the project schedule in Agile Product Portfolio Management.

### Schema

In computer programming, a schema is the organization or structure for a database. The activity of data modeling leads to a schema.

### SDK

See **Software Development Kit (SDK or "devkit")**

### Software Development Kit (SDK or "devkit")

A set of software development tools that allows the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform.

### Sourcing Project

The entry point of sourcing and product pricing. A sourcing project tracks data required for sourcing and pricing, to perform data analysis for effective pricing.

### Standard Cost

Applies to an item. This is the market cost of the item. It is site-specific. The standard cost is for a unit.

### Supplier

A supplier of one or several commodities.

### Target Cost

Applies to item. This is the expected cost of the item by you or the supplier. This can be a percentage of the standard cost. Target cost is for a unit.

### Timesheet

The time entry system in Agile Product Portfolio Management, used to track actual hours spent by resources on project activities and to calculate corresponding labor cost.

### TLA

See**Top Level Assembly (TLA)**

### Top Level Assembly (TLA)

The level in a BOM that indicates the ultimate product being manufactured.

### Transfer order

Every time Agile Content Service (ACS) publishes product content, it produces a transfer order that keeps track of what, where, and when product content is transferred.

### UPK

See **User Productivity Kit (UPK)**

### User Productivity Kit (UPK)

The Oracle online help system used in some Oracle products.

### Web Service Extensions (WSX)

A Web service engine that enables communication between Agile Product Lifecycle Management system and disparate internal and external systems.

### WSX

See **Web Service Extensions (WSX)**.

### XML

See **Extensible Markup Language (XML)**.

### XML Schema

Description of a type of XML document, typically expressed in terms of constraints on the structure and content of documents of that type, above and beyond the basic syntactical constraints imposed by XML rules.