Mercury™ IT Governance Center

Managing Your Projects (Project Management)

Version 5.5.0

MERCURY INTERACTIVE

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Publication Number: ManageProjects-0304A

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Integrating Project Management with Microsoft Project

Chapter 1 Introduction

Project Management enables organizations to streamline and standardize the management of project activities using a template-based, collaborative approach. Projects and initiatives are defined as a hierarchical structure of projects and subprojects that logically group and organize tasks or activities. Project Management defines the step-by-step processes required to complete specific project tasks and deliverables. Organizations can easily manage project activities within and across the technology chain because all project team members, whether internal or external, collaborate and interact through an intuitive interface. The underlying product framework guides users through a dynamic, self-documenting process to support activities such as the execution of standardized checklists or the collection of deliverables using document attachments.

For example, when creating a new and updated version of a business system, a company would classify its efforts into subprojects for each major functional area. Each of these functional subprojects could be further broken down into tasks directed to areas such as web content, application and database tasks. These tasks would be linked to Requests and Packages from Demand Management and Change Management, giving instant visibility to more detailed activities supporting an overall project. Project Management also supports standard integration with Microsoft Project so that functions such as task scheduling and resource management can be utilized at any point during a project.

About This Document

This guide describes how to navigate and use Project Management. Each chapter covers a specific topic on navigation or usage:

Key Concepts and Definitions	Provides key concepts and definitions used when creating, managing, and participating in Projects.
Setting Up Resources	Discusses the Resource Management functionality provided by Project Management.
Setting Up a Project	Describes how to create a Project and set up its Tasks, scheduling, and baselines.
Configuring Tasks	Explains how to configure Tasks within a Project, including assigning Resources, setting up Notifications, and creating Milestones.
Managing a Project	Discusses how to manage a Project from creation to completion, including viewing Task progress, updating the schedule, and printing the Gantt chart.
Updating Tasks: Project Participant Activities	Describes how participants in Projects can locate and update Tasks, including viewing and updating Notes and References.
Using Project Templates	Discusses the creation and use of Project Templates to speed Project creation.
Creating and Using Project Budgets	Explains how to create, modify, and compare Budgets for use in Project Management.
Project Costs	Describes how to use Project Management's Financial Management capabilities to track Project costs.
Project Management Reports	Provides information and instructions on running Project Management Reports.
Integrating Project Management with Microsoft Project	Discusses how to use Project Management in conjunction with Microsoft Project to various degrees, depending on the level of integration desired.
Integrating Requests and Projects	Explains how to use Project Management in conjunction with Demand Management to leverage the capabilities of both systems.

Intended Audience

The intended audience for this document include:

- Users of Project Management
- Managers who create and manage Projects and Tasks
- Managers who create and manage Calendars
- Business users responsible for reporting on Projects and Tasks

Document Conventions

Table 1-1 lists the types of conventions used in this document.

Table 1-1. Document conventions

Convention	Description	Example
Button, menu, tabs	Names of interface components that can be clicked (such as buttons, menus, and tabs) are shown in bold.	**Apply** button
Fields, Windows, Pages	Names of windows, fields, and pages are shown as displayed.	New Request window
`Code`	Code input and output are shown as displayed.	`CauchoConfigFile` `C:/`*`ITG_Home`*`/conf/resin.conf`
Link	Linked URLs, filenames, and cross references are shown as blue italicized text.	*www.mercury.com*
Variable	Variables are shown as italicized text.	*ITG_Home*/bin directory
Note	Used to identify note boxes that contain additional information.	Note
Caution	Used to identify caution boxes that contain important information. Follow the instructions in all caution boxes, failure to do so can result in loss of data.	Caution

Table 1-1. Document conventions

Convention	Description	Example
Example	Used to identify example boxes that contain examples of related procedure.	Example

Additional Resources

Mercury Interactive provides the following additional resources to help you successfully use Mercury ITG Center:

- *Related Documentation*
- *Customer Support*
- *Education Services*

Related Documentation

The Library includes additional documents related to the topics discussed in this guide. Access the Library through the Mercury ITG Center online help.

Using the Dashboard	This document provides details for defining and configuring the Dashboard and custom Portlets.
Processing Requests (Demand Management)	This document explains how to process Requests using Demand Management.
Processing Packages (Change Management)	This document explains how to process Packages using Change Management.
Using the Workbench	This document explains how to navigate through the Workbench interface.
Security Model Guide and Reference	This document presents an overview of the data security model and provides instructions for controlling access to different entities.

Managing Your Resources (Resource Management)	This document provides instructions for managing your Resources. This includes modeling your Organizations, setting up Resource Categories and Calendars, creating Staffing Profiles and Resource Pools, and visualizing Resource load and capacity across the system.
Configuring Time Management	This document provides administrative information and processes for Time Management.
Tracking Your Time (Time Management)	This document provides instructions for using Time Management.

Customer Support

Customer support and downloads for Mercury ITG Center and additional product information can be accessed from the Mercury Interactive Support Web site at *http://support.mercuryinteractive.com*.

Education Services

Mercury Interactive provides a complete training curriculum to help you achieve optimal results using Mercury IT Governance Center. For more information, visit the Education Services Web site at *http://www.merc-training.com/main/ITG*.

Chapter 2

Key Concepts and Definitions

This chapter defines the common concepts and terms used in Project Management. An understanding of these concepts and terms is necessary when using Project Management.

The following topics are covered:

- *Projects*
- *Project Templates*
- *Project Team*
- *Resources*
- *Tasks*
- *Master Projects*
- *Subprojects*
- *Gantt Charts*
- *Milestones*
- *Critical Path*
- *Action Items*
- *Project States*
- *Exceptions*
- *Summary Conditions*
- *Notifications*
- *Scheduling Engine and Calendar*
- *Baseline*

- *Financial Management*
- *Budget*
- *Requests*
- *Packages*
- *References*
- *Mercury ITG Dashboard (Project Management)*

Projects

A Mercury ITG Project is a compilation of information -- Tasks, Action Items, Notes, Packages, Requests, and References -- which is used to define and process a specific business initiative within your company. Projects are active entities, gathering additional information as the Project moves through its life. Project Managers add or modify Tasks in the Project Plan as issues arise, and team members update their individual statuses as they complete assigned Tasks. Projects formalize the definition and processing of business initiatives and provide an easy-to-use interface for viewing key business activities. Projects can be used to define such initiatives as mergers and acquisitions, ISO 9000 certification, eCommerce initiatives, new hire processing, or software development.

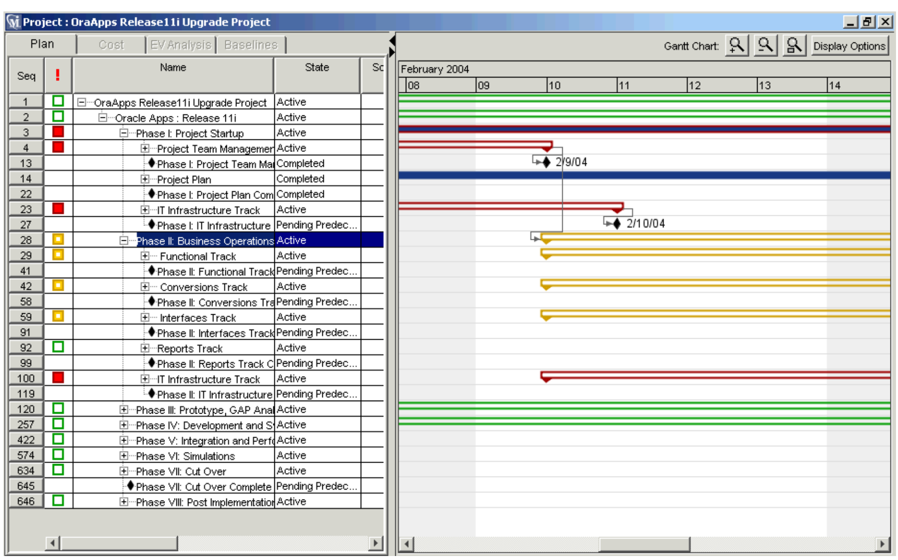


Figure 2-1 Project window

Project Templates

Project Templates are reusable collections of Project parameters and processes that can be applied to any Project in order to allow project managers to rapidly create customized project plans. The Mercury ITG Project Template Workbench captures basic Project Template information. This information helps to create reusable Project structures and hierarchies.

Using a Project Template to create a Master Project, Project Managers can choose to enable or disable fields, set Exception rules, determine which Indicators to display, determine scheduling settings, set up security restrictions, and edit custom fields. Project Templates can speed up the process of setting up a Master Project. A repeated set of Tasks can be bundled into a Project Template and applied to any Project while preserving its Notifications, Project Plan, and any custom fields it can have. Project Templates can also be used to add Subprojects to a Master Project.

Project Team

Project Managers can specify a pool of Project Management users and user groups to draw from when assigning Resources to a particular Project. These Project Teams can vary from Project to Project and are configured from the Project Settings window.

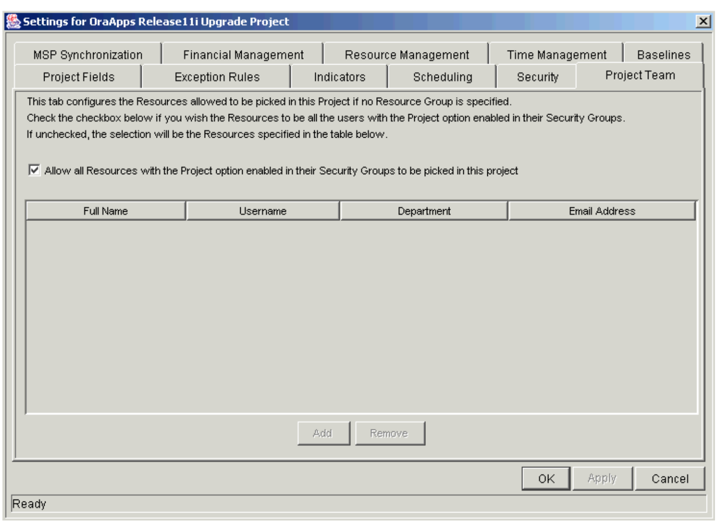


Figure 2-2 Project Settings window

Resources

A Resource in Project Management is a Project Management user who performs work tracked by Project Management. In an IT department, Resources can include permanent employees, contractors, consultants, and outsourcing firms. Resources are assigned Tasks and are able to update their Task statuses in Project Management. They are chosen from the Project Team specified by a Manager. Resources can also have a Resource Rate that is useful in determining Project costs.

Tasks

Tasks are the actions within a Project that must be completed in order for the Project to complete successfully. As Project Managers need to gather data from Projects and make appropriate changes through the life of the Project, Tasks can be configured to deliver appropriate information. For example, Project Managers need to be notified when Tasks are completed or their state changes. Tasks also need to be modified as issues arise during the Project, such as extending their schedules or assigning additional resources to a Task to make a deadline. Team members update their individual statuses as they complete assigned Tasks.

Master Projects

Master Projects are groups of Tasks and Subprojects that define a business initiative. The Master Project allows Project Managers to determine which information they would like to track over the course of the Project. Using the Project Workbench to build a Master Project, Project Managers can choose to enable or disable fields, set Exception rules, determine which indicators to display, determine scheduling settings, and set up security restrictions.

Subprojects

Subprojects are Projects that create hierarchy within a Master Project by establishing logical groups of Tasks and Projects. These groups help to break up Master Projects into manageable pieces. By breaking up a Master Project, a

Project Manager can use Subprojects to define security for a smaller set of Tasks within a Master Project. This is important when a Master Project is large or has numerous components. Assigning managers to Subprojects creates better visibility and control for the Project Manager.

Gantt Charts

Gantt charts graph a Project's Tasks in a form similar to a bar chart, plotted against a time axis that can be expanded or decreased for differing levels of detail. This provides Project Managers with visualizations of Projects that are easy to comprehend at a glance.

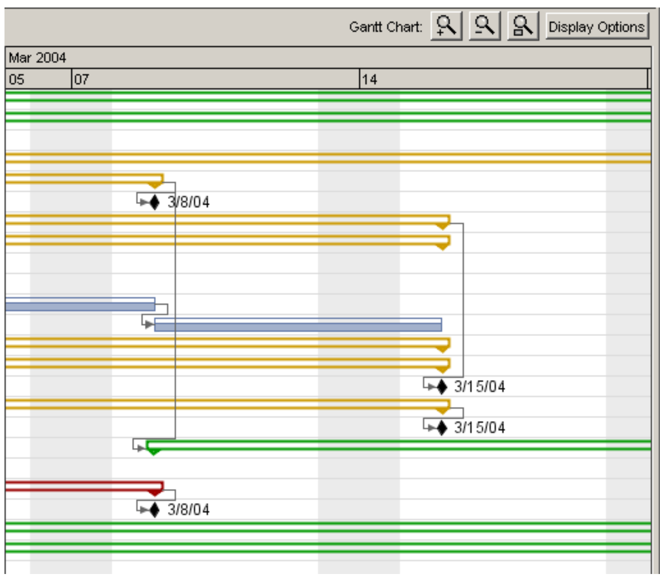


Figure 2-3 Gantt Chart

Milestones

A milestone is a significant event in a Project and often marks the completion of a deliverable. On Project Gantt charts, milestones appear as black diamonds. Since milestones are often markers, they generally do not have a duration associated with them, though they can be configured with durations if so desired.

Critical Path

The critical path of a Project is the longest path through the Project. It is comprised of a series of activities that determine the Project's duration. A Project's critical path can be recalculated at any time.

Action Items

Action Items are used to capture important "to do" items that do not require the formal definition, tracking and hierarchical restrictions of a Task. Each Action Item contains information on the specified item's priority and status. This information can be used to track and verify that all details related to the current Project are logged, tracked and eventually resolved. Action Items on Tasks can be made "required," meaning a Task will not be allowed to be marked as **Complete** until the Action Item is taken care of.

Project States

Project states are used to reflect the various stages of a Project lifecycle. Project Managers can move a Project into different states to facilitate the work associated with that stage of the Project, such as **On Hold**, **Active**, or **Completed**. Project states also provide higher visibility to Project Managers by displaying which Projects can be updated or need their attention. Project Managers can change states at the Master Project, Subproject, or Task level at any time.

Exceptions

Exception Rules provide specific criteria for evaluating risks and variables that can come up during the course of a Project lifecycle. When these identified risks occur, they are prominently displayed. This minimizes the impact that these risks might have on the overall Project completion date.

Exceptions are triggered at the Task level. The Project Management Summary Condition Indicator summarizes the Task exceptions for each Project and

Subproject. Email Notifications can be sent to the proper user if a Task triggers an Exception.

The Master Project is equipped with the following Exception Rules:

Table 2-1. Exception Rules for Master Projects

Exception Name	Rule
Unassigned Tasks	No Resource is assigned, and the Scheduled Start Date occurs in X days. (X is a user-configurable number)
Late Tasks	Task is not yet "Complete", and the current date is X days past the Scheduled Finish Date. (X is a user-configurable number)
Tasks Starting Late	Task is not yet "In Progress", and the current date is X days past the Scheduled Start Date. (X is a user-configurable number)
Late Estimated Finish	Estimated Finish Date is more than X days past the Scheduled Finish Date. (X is a user-configurable number)
Not Enough Time Left	Estimated Remaining Duration exceeds the time left between the current date and Scheduled Finish Date by X days. (X is a user-configurable number)
Predecessor Has Exception	Task directly preceding a milestone has triggered one of the above Exceptions.
Critical Path Running Late	Task preceding a milestone on the Project critical path has triggered one of the above Exceptions.

The following Exception Rule parameters are configurable:

- **Enabled**
  Users can decide whether or not the particular Exception Rule is enabled.

- **Rule**
  Specifies the number of days the particular Exception Rule waits for or monitors.

- **Include in Summary Condition**
  Decides whether or not the violations of the particular Exception Rule are included in Project Management's Summary Condition view (see *"Summary Conditions"* on page 14).

Exception Rule behavior can be set on the **Exception Rules** tab of the Settings window, shown in *Figure 2-4*.

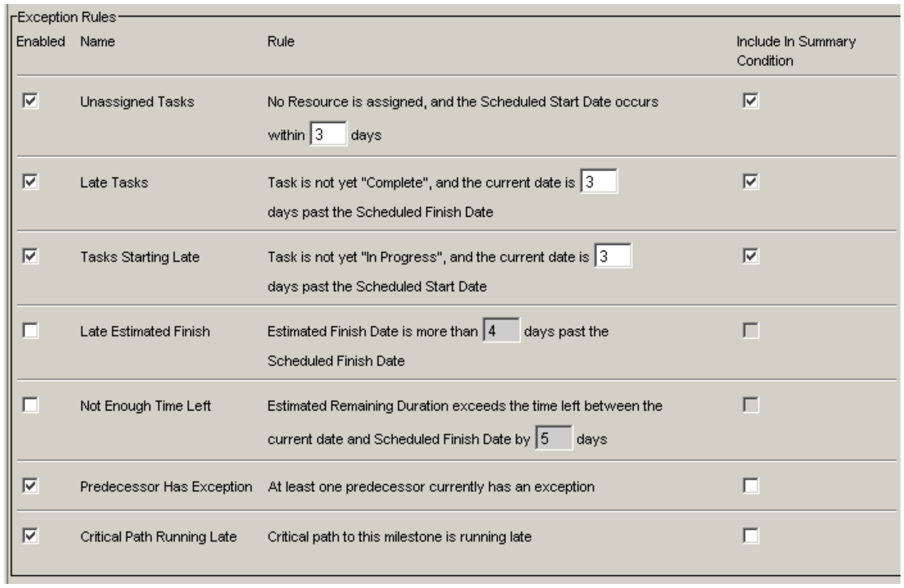


Figure 2-4 Setting the Exception Rules

Summary Conditions

Summary Conditions summarize the Task exceptions for each active Project and Subproject. The Summary Condition View is a simple graphical indicator which is located next to the Project or Subproject name in the following locations:

- **Results** tab of the Project Workbench
- Project Plan Panel
- Project Search Results page in standard interface
- Project Summary Portlet
- Project Details page

A Project's Summary Condition color begins green and changes to yellow or red depending on the percentage of Tasks that have Exceptions within a Project. This percentage is configurable by the Project Manager.

Table 2-2. Default Values for Triggering Color Change in Summary Condition

Green	0%
Yellow	30%
Red	60%

Example

A Project Manager sets the threshold value for yellow to 30%. Four Tasks trigger an exception in a Project consisting of ten Tasks total. The Summary Condition View indicator turns yellow, and will remain yellow until at least two Tasks are reworked so they no longer have Exceptions (this could be accomplished by changing a start date, or modifying resources). Once this occurs, the Summary Condition indicator turns green.

The values for triggering color change in the Summary Condition can be modified on the **Exception Rules** tab of the Settings window shown in *Figure 2-5*.

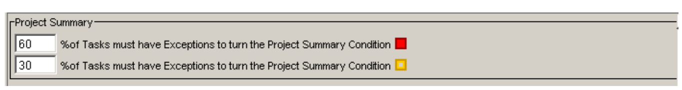


Figure 2-5 Modifying the Summary Condition

Notifications

Email Notifications can be automatically generated whenever a state change occurs for a Task. Notifications can also be sent when a Task triggers an Exception. The automated notification system ensures that Project Managers and Task owners are properly informed of all changes that affect their work. Notifications can also be sent to inform users of the start/finish dates of Tasks.

Project Management Notifications will typically instruct the user to review or act on a Task. Notifications for Tasks are configured in the **Notifications** tab of the Task window. Clicking **New** opens the Add Notification for Task window shown in *Figure 2-6*.

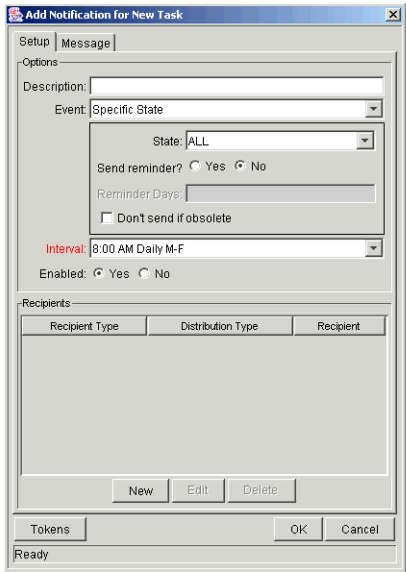


Figure 2-6 Add Notification for Task Window

Figure 2-7 illustrates a sample Notification.

```
Date: Fri, 27 Feb 2004 13:49:20 PDT
From: release@mercury.com
To: JohnSmith@theshire.com
Subject: Mercury ITG Project Management Alert

http://mercury.com/00/1816/mercury.html

       Notified Users: John Smith
Status change for Task: New Task
              Project: Test2
          Description: Test Task

==========================================================================
```

Figure 2-7 Sample Notification

Scheduling Engine and Calendar

Project Management features several pieces of functionality that are designed to enhance Project scheduling and planning. Project Managers have greater control over the Project planning phase. Features include Project Plan revision, duration-based scheduling, Resource Calendar, and enhanced Predecessor relationships.

Project Plan revision allows Project Managers the ability to plan and revise portions of a Project while it is currently in progress. This makes Project management more accurate and up to date by emulating real life project development in which changes can occur during the project life cycle. By making project planning and tracking more accommodating, Project Plan revision gives the Project Manager complete control over the entire process from start to finish.

Duration-based scheduling allows Project Managers to schedule Projects and Subprojects more efficiently. Also, if Task or date changes occur, Project Management will prompt the Project Manager to revise the schedule to reflect those changes. This ensures that the Project Plan is always up to date and still manageable.

The Resource Calendar is used by Project Managers to record company working and non-working days. This information is then used by the scheduling engine to aid in determining Project start and finish dates.

Projects and Tasks can also use external Projects and Tasks as predecessors, eliminating the need to create giant Projects to preserve relationships.

Baseline

A baseline is the original approved Project plan for a Project. As scope changes happen, the baseline is updated to reflect those changes as part of the approved plan. A Project Manager uses baselines to continuously monitor the health of their Project in terms of schedule and cost by comparing the current Project plan to the baseline plan. Multiple baselines of a single Project can be taken by a Project Manager and reviewed at any time.

Financial Management

Project Management's Financial Management capability allows users to capture and track Planned and Actual cost information for their Projects, giving visibility into Project performance from a financial standpoint. Basic cost information can be captured on Projects and Tasks in the following areas:

- **Planned Labor Cost**
  The dollar cost of a work item (typically a Task) which is a measure of the amount of scheduled effort on a Task. This figure is Task-specific and is

rolled up to the Master Project.
Calculated as: Planned Labor Cost = Sum of (Allocation * Resource Rate) for each Resource assigned to the Task.

- **Planned Non-Labor Cost**
  The dollar cost of miscellaneous items needed to complete a work item. This is not a direct measure of the effort to be spent on a work item. This figure is Task-specific and is rolled up to the Master Project.
- **Planned Cost**
  The total planned dollar cost represented by a work item.
  Calculated as: Planned Cost = Planned Labor Cost + Planned Non-Labor Cost.
- **Baseline Labor Cost**
  The Labor Cost for a work item in the latest Baseline taken of a Project.
- **Baseline Non-Labor Cost**
  The Non-Labor Cost for a work item in the latest Baseline taken of a Project.
- **Baseline Cost**
  The total dollar cost represented by the latest Baseline taken of a work item.
  Calculated as: Baseline Cost = Baseline Labor Cost + Baseline Non-Labor Cost.
- **Actual Labor Cost**
  The dollar cost of the work performed on a work item.
  Calculated as: Actual Labor Cost = Sum of Actual Effort * Resource Rate
- **Actual Non-Labor Cost**
  The total of all miscellaneous costs accrued in completing a work item.
- **Actual Cost**
  The total dollar cost incurred in completing a work item.
  Calculated as: Actual Labor Cost + Actual Non-Labor Cost.
- **Planned Value (PV)**
  The portion of the Baseline Cost planned to be spent between the Project's start date and the current date.
- **Earned Value (EV)**
  The portion of the Baseline Cost for the entire Project that has theoretically been spent by the current date, measured as a function of the amount of work performed thus far.
  Calculated as: EV = Baseline Cost * % Complete

- **Cost Performance Index (CPI)**
  The cost efficiency ratio of Earned Value to Actual Cost. CPI is used to calculate Projected Actual Cost for a Project.
  Calculated as: CPI = EV / Actual Cost
- **Schedule Performance Index (SPI)**
  The ratio of Earned Value to Planned Value. SPI describes what portion of the Project plan has been accomplished in terms of its Cost.
  Calculated as: SPI = EV / PV

Budget

A Budget indicates an allocation of money between specific start and finish dates. Between these dates, the Budget specifies the money available for each time period (usually a calendar month). Entries in a Budget can be set for labor or non-labor categories. Budgets can be associated with Projects or Organization Units.

Requests

Project Management can integrate with Demand Management to provide a comprehensive and powerful Project management and issue resolution system. Requests, the primary work unit of Demand Management, can be linked directly to Projects or Tasks. The Request contains all of the information that is typically required to bring the Request to closure. By associating Requests with the Project, Project Managers can track other company issues which can affect the ultimate Project success. Project Tasks can also be created from Requests in the Project Plan Panel.

Packages

Project Management can integrate with Change Management to combine the powerful Project management and change management tools featured in each Mercury ITG product. Packages, the primary work unit of Change Management, can be linked to Projects or Tasks. The Package contains all of the information that is required to deploy and audit software changes to mission critical applications. By associating Packages with a Project, Project

Managers can track other company issues related to software change management that could affect the outcome of the current Project.

References

Projects can include references to other entities or sources of information, allowing easy access and visibility to data related to the current Project. References can be linked to Projects or Tasks. Summary information for references is viewed as part of the Project. Each reference can be viewed in detail with a click of the mouse. There are several reference types available in Project Management: Attachments, Document URLs, Requests, Packages, Tasks, and Projects.

References can also have dependencies associated with them; for instance, a Task can be configured to wait for a referenced Request to finish before being marked Complete. In addition, new Requests can be created from a Task as References in both the standard and Workbench interfaces.

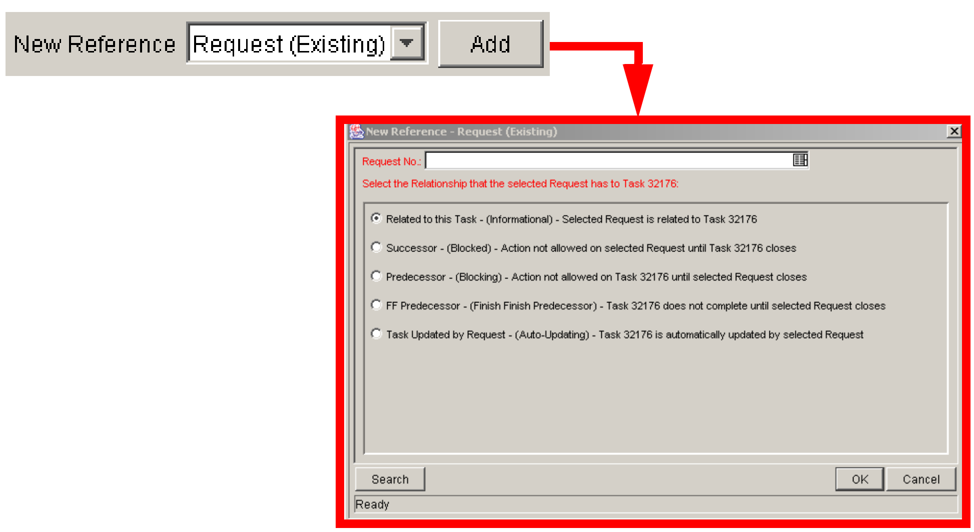


Figure 2-8 Adding an Existing Request as a Reference

Mercury ITG Dashboard (Project Management)

Project Management provides an additional level of Project efficiency when used in conjunction with Mercury ITG Dashboard. The Dashboard is a highly configurable application that offers greater visibility and control over Projects and Tasks. The Dashboard seamlessly integrates with the core Mercury ITG products in a way that allows for the delivery of real-time status and exception information on IT initiatives and operational tasks.

Upon login to Project Management, users will see the Dashboard—a collection of windows, or Portlets, that comprise their Mercury ITG Home page. Users who do not have access to the Dashboard will only see one summary level Portlet for Project Management: the My Tasks Portlet. Users who have purchased the Dashboard will receive all of the following Project Management related Portlets:

- **My Tasks Portlet** (all users)
  Displays all Project Tasks currently assigned to the user that have a scheduled finish date within two weeks of the current date.
- **Project Budget and Staffing Profile vs. Actuals Portlet**
  Compares Budget and Staffing Profile plans to the actual cost and resource usage of running Projects.
- **Project List Portlet**
  Displays general information about Projects, including overall status of the Project, start and end dates.
- **Project List (Expanded) Portlet**
  Displays general information about Projects using a broader list of fields than the Project List Portlet.
- **Project Summary Pie Chart**
  Displays Projects in the system according to their Summary Condition.
- **Project Overview Page**
  Contains the following Portlets:
  - **Project Summary Portlet**
    Displays summary information about Projects, such as percentage complete and scheduled start and finish.
  - **Project Exception Summary Portlet**
    Displays summary information about the status of Exceptions for the Project, and how many Tasks fit into each Exception category.
  - **Project Exception Detail Portlet**
    Displays detail information about Exceptions for the Project, such as any Tasks that have violated Exceptions, the state of the Task and the Resource assigned to the Task.

- **Project Milestones Portlet**
  Lists the Milestones in a Project.
- **Project Overview Gantt Portlet**
  Displays the Gantt chart for a Project.
- **Project References Portlet**
  Displays detail information about entities referenced by the Project.
- **Project Related Actions Portlet**
  Displays links to a Project's Assignment visualizations and Staffing Profiles.
- **Subproject & Tasks Summary Portlet**
  Displays summary information about a Project's Subprojects and Tasks, such as percentage complete and scheduled start and finish.

- **Resource Gantt**
  Displays information on a Resource's workload including Project Tasks and assigned Requests.

Tabs in the Dashboard allow users to group Portlets according to their own needs. To save time in configuration, your application administrator can define a default Dashboard layout for all users. For further adaptability, your application administrator can also create custom Portlets to suit your particular business needs.

Chapter 3

Setting Up Resources

Resources in Project Management can be tracked to optimize their time and capabilities with Project Management's Resource Management functionality. Using Resource Management, a Project Manager can:

- Configure a Global Calendar and set the number of hours in a working day
- Assign a Primary Skill and Cost Rate to a Resource
- Map Resources into an Organization Model and tie Organization Units to Security Groups
- Track the future supply of Resources using Resource Pools
- Project the allocation of Resources over time using Staffing Profiles
- Assign Resources to Work Items
- View Resource load by time period, Project, or individual
- Compare Project assignments to Staffing Profiles

See Managing Your Resources (Resource Management) for additional details.

Chapter 4

Setting Up a Project

This chapter describes the process of creating a Project. Projects allow organizations to define business initiatives as a hierarchical structure of Tasks and Subprojects that logically groups and organizes activities and deliverables. Using Projects, users can define, browse, edit, and manage complex business initiatives.

The following sections provide a comprehensive set of instructions related to setting up a Project:

- *Creating a Project*
- *Setting Up a Master Project*
- *Adding Tasks to a Project*
- *Setting Up Project Dependencies*
- *Creating a Master Project Schedule*
- *Establishing a Project Baseline*

Note

Many Project activities are performed in the Workbench interface. If you have installed a pop-up blocker in your web browser, the Workbench will not open.

Creating a Project

Master Projects handle, link, and reference all of the variables vital to planning a successful endeavor. Master Projects consist of different subsets of information -- Tasks, Subprojects, Action Items, Cost data, Notes, Packages, Requests, and References -- that can be linked to each other. In addition, the Master Project maintains global settings and configurations that are tracked throughout an initiative's life cycle.

There are three main stages in the creation of a Project:

- Stage One - Setting up a Master Project
- Stage Two - Adding Tasks to a Project
- Stage Three - Creating a Master Project Schedule

Stage One - *Setting Up a Master Project*:

The Master Project is the overarching entity that keeps track of a particular initiative. The Master Project can be configured to display useful data about a Project as it moves toward completion. Project Templates can also be used to define an entire Master Project, and can be subsequently modified.

- *Creating the Master Project Entity*
  Using the Workbench, you will create a Master Project. When enabled, this Project will be visible to other users through the Mercury ITG Dashboard.
- *Selecting Information to Track and Display*
  The Master Project contains configurable fields that collect information which will be tracked as the Project progresses. These fields, which include % Complete and Confidence, provide a constant point of reference for Project Managers and Participants throughout an initiative's life cycle.
- *Setting Up Exception Behavior*
  During the course of a Project's life, some things can go wrong -- resources can be missing, Tasks can be completed late or not at all, the Project can go over budget, etc. The Master Project contains Exception Rules that can be configured to deliver advance warning of these circumstances or to signal when they have occurred.

Example

A particular Task currently has no Resource assigned to it, and it is scheduled to begin in two days. The Master Project can flag this Exception for review.

- *Setting Up Indicators*
  The Master Project also features configurable Project Plan Indicators. Indicators can display exceptions that have occurred, Projects with Custom

Fields, Tasks or Projects that might require rescheduling, Tasks with defined Notifications, and any scheduling constraints that apply to a Task.

- *Setting Scheduling Options*
  The Master Project can be set to schedule Projects based on different configurations for resource availability and actual start and finish dates.

Example

Andrew, Jered, and Dave are the assigned Resources for a Project, but Jered is going on vacation for a week, and all three people need to be present for the initiative to move forward. The Project can be set not to include Jered's vacation time as viable for scheduling.

- *Setting Security Restrictions*
  Project Managers can set Security Restrictions on a Project so that only those directly involved in a Project can view its information.

Stage Two - *Adding Tasks to a Project*:

Projects consist largely of Tasks and Subprojects. Tasks and groups of Tasks (using Templates) can be added freely to any Project Plan. Below are some common procedures used to add and modify Tasks:

- *Adding Tasks to the Project Plan Panel*
- *Adding Tasks Using Project Templates*
- *Setting Up Project Hierarchy*
- *Attaching Additional Information to a Project or Task*

Stage Three - *Creating a Master Project Schedule*:

Once the tasks have been added and the scheduling options have been set, the Project can be scheduled. Project Management will calculate scheduled start and finish dates automatically, and inform the user of any errors it encounters in the process.

Setting Up a Master Project

The Master Project is the entity in Project Management that keeps track of a business initiative. It can be configured to display useful data about a given Project as it moves toward completion.

> **Note**
>
> When a user creates or edits a Project or Subproject, that user is the only one able to save changes. All other users will be warned of this before attempting to edit that Project or Subproject at the same time.
>
> In the case of two users wanting to edit two different Subprojects under one Master Project, opening and editing only the desired Subprojects from the Project Workbench will enable each user to save changes without interfering with each other.
>
> Two users can even edit separate Tasks in the same Project without risk.

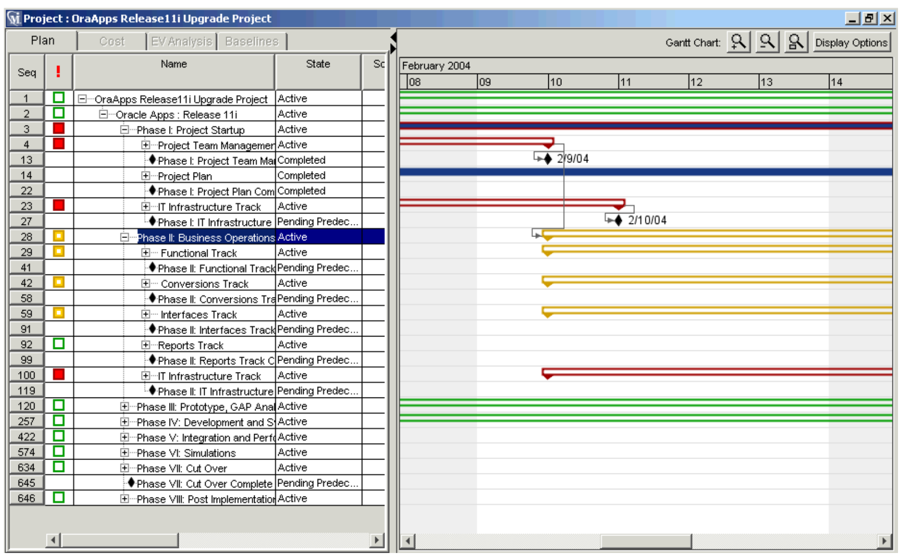


Figure 4-1 Master Project

The Master Project can be configured in the following ways:

- *Creating the Master Project Entity*
- *Selecting Information to Track and Display*
- *Setting Up Exception Behavior*
- *Setting Up Indicators*

- *Setting Scheduling Options*
- *Setting Security Restrictions*
- *Setting Up the Project Team*
- *Setting Up Microsoft Project Integration*
- *Importing Custom Fields from a Project Template*

Creating the Master Project Entity

To create a Master Project:

1. From the Mercury ITG Menu Bar, select **Administration > Open Workbench**.

   The Workbench opens.

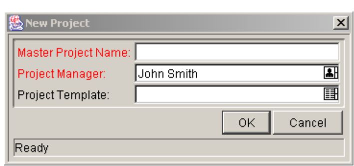
2. Click the Project Mgmt screen group.

3. Click the **Projects** icon.

   The Project Workbench window opens.

4. Click **New Project**.

   The New Project Menu window opens.



5. In Master Project Name, enter the name of the Project.

   You can optionally select to use a Project Template to define the structure and custom fields for the new Project.

6. Click **OK**.

   The Project window opens.

7. Add Tasks according to the Project schedule.

See *“Adding Tasks to a Project”* on page 52 for more details. You need to add at least one Task to the Project in order to save the Master Project.

8. Click **Save**.

   You can now set up your Project. This includes setting up Project options and adding and configuring Tasks to the Project.

To copy a Project to create a new Master Project:

1. Open the Project Workbench window.
2. Query for the Project that you would like to copy.
3. In the **Results** tab, select the Project.
4. Click **Copy**.

   The Copy Project window opens.

5. In the Project Name field, enter the new name of the Project.
6. Select the information that you would like to copy from the original Project by clicking the associated checkboxes.
7. Click **Copy**.

Selecting Information to Track and Display

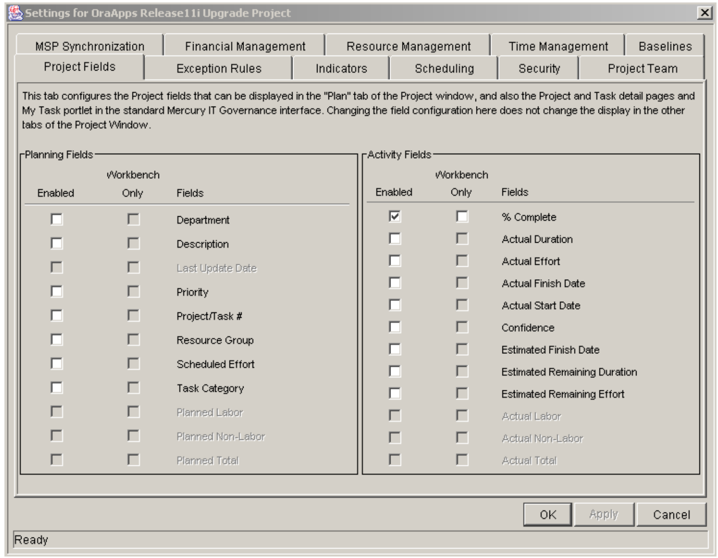
The Master Project allows Project Managers to choose information they would like to track over the course of the Project. Fields selected in this window become enabled for all Project Participants.

To select information to track and display:

1. From the menu at the top of the Workbench, select **Project > Settings.**

   The Settings window opens.

2. Click the **Project Fields** tab.



3. For each field, select the appropriate check box, depending on whether you want the field to be displayed in both the Workbench and standard interface, or only in the Workbench.

   If you do not want the field displayed in either location, do not select a check box for that field.

4. Apply the changes.

   To apply changes to the Project and continue to set desired information without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting Up Exception Behavior

The Master Project comes with a set of predefined Exception Rules. A Project Manager can specify which Exception Rule(s) are to be enabled, as well as the criteria needed to trigger them. A Project Manager can also configure the Summary Condition, which is a simple color-coded indicator of the health of a Project. The Summary Condition watches for Exceptions that have been triggered, and changes color according to rules that can be set by the Manager. The health of the Project in terms of its cost can also be represented with the configurable Cost Health Indicator.

Example

> For a Project with a very low margin for error, you can set the percentage of triggered Exceptions needed to change the Summary Condition red to 20, giving clear early warning of problems.
>
> A Project whose cost needs watching can be configured such that its Cost Health Indicator takes into account violations of the planned budget.

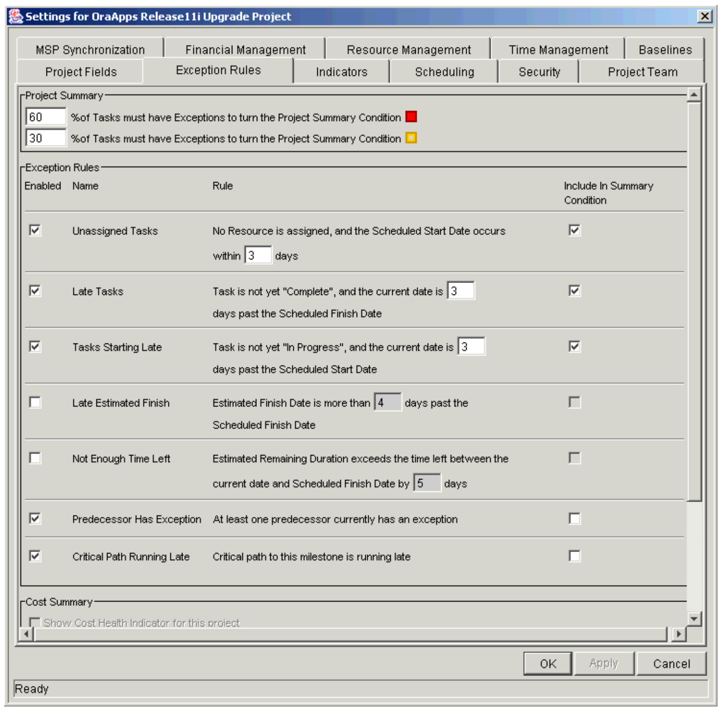


Figure 4-2 Settings Window - Exception Rules Tab

By default, Unassigned Tasks, Late Tasks and Tasks Starting Late are enabled and included in the Project Summary Condition. The following topics are related to setting up Exceptions:

- *Setting Exception Rule Behavior*
- *Summary Condition*
- *Cost Health Indicator*

Setting Exception Rule Behavior

The Master Project is equipped with the Exception Rules described in *Table 4-1*:

Table 4-1. Exception Rules for Master Projects

Exception Rule	Description
Unassigned Tasks	Task has no Resource assigned and Scheduled Start Date occurs in X days, where X is a user-configurable number.
Late Tasks	Task is not yet "Complete," and the Current Day is X days past the Scheduled Finish Date.
Tasks Starting Late	Task is not yet "In Progress," and the current date is X days past the Scheduled Start Date.
Late Estimated Finish	Estimated Finish Date is more than X days past the Scheduled Finish Date.
Not Enough Time Left	Estimated Remaining Duration exceeds the time left between the current date and the Scheduled Finish Date by X days.
Predecessor Has Exception	Task directly preceding a milestone has triggered one of the above Exceptions.
Critical Path Running Late	Task preceding a milestone on the Project critical path has triggered one of the above Exceptions.

The following parameters for all Exception Rules are configurable:

- **Enabled**
  Project Managers can decide whether or not the particular Exception Rule is enabled.
- **Rule (number of days)**
  Specifies the number of days the particular Exception Rule waits for or monitors. The default number of days for each Exception Rule to be triggered is three.
- **Include in Summary Condition**
  Decides whether or not the violations of the particular Exception Rule are included in Project Management's Summary Condition (see *"Summary Condition"* on page 35).

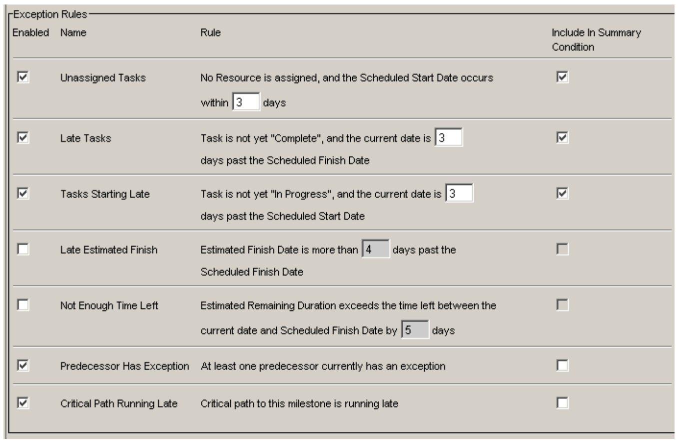
Each Exception Rule within the **Exception Rules** tab can be configured independently.

To set Exception Rule behavior:

1. From the menu at the top of the Workbench, select **Project > Settings.**

The Settings window opens.

2. Click the **Exception Rules** tab.



3. To enable a particular Exception Rule, select the check box to its left in the Enabled column.

4. To set the number of days that trigger a particular Exception Rule, enter the desired number into the text field inside that Rule.

5. To include a particular Exception Rule in a Project's Summary Condition View, select the check box to its right in the Include in Summary Condition column.

6. Apply the changes.

   To apply changes to the Project and continue to set Exception Rule behavior without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Note

Some Exception Rules require that certain fields in the **Project Fields** tab be enabled in order to trigger. For example, the Not Enough Time Left rule requires Estimated Remaining Duration to be enabled. See *"Selecting Information to Track and Display"* on page 30 for more information on enabling fields in the **Project Fields** tab.

Summary Condition

The Summary Condition is a graphical indicator of the health of a Project, located next to the Project name. A Project's Summary Condition color begins green and changes to yellow or red depending on the percentage of Tasks within a Project that have triggered Exceptions. This percentage is configurable in this tab, by any Project Manager. A Project's Summary Condition will not be calculated until the Project is saved.

Table 4-2. Default Values for Triggering Color Change in Summary Condition

Green	0%
Yellow	30%
Red	60%

Example

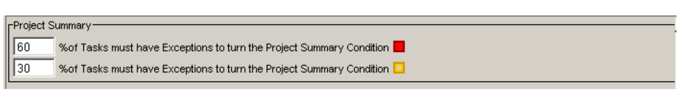
A Project Manager sets the threshold value for yellow to 30%. Four Tasks trigger an exception in a Project consisting of ten Tasks total. The Summary Condition View indicator turns yellow, and will remain yellow until at least two Tasks are reworked until they no longer trigger Exceptions (this could be accomplished by changing a start date, or modifying resources). Once this occurs, the Summary Condition indicator turns green.

To set the values for triggering color changes in the Summary Condition:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Exception Rules** tab.



3. Enter the desired triggering value into each text field.

   Do not include the percent sign (%).

4. Apply the changes.

To apply changes to the Project and continue to set Exceptions without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Cost Health Indicator

The Cost Summary is part of Financial Management, and can be enabled or disabled on a per-Project basis. It appears on the Project window's **Cost** tab, and as an Indicator on the Project **Plan** tab if enabled in the Settings window's **Indicators** tab. It is used to indicate the health of a Project in terms of its cost. Project cost health is calculated in the following areas:

- **Cost Performance Index (CPI)**
  The cost efficiency ratio of the Project's Earned Value (Baseline Costs * % Complete) to Actual Costs.
  Calculated as Earned Value / Actual Cost. CPI for a healthy Project should be greater than 1.
- **Schedule Performance Index (SPI)**
  The difference in value between the scheduled completion of a Task/Project and its actual completion.
  Calculated as Earned Value - Planned Value. SPI for a healthy Project should be greater than 1.
- **Prorated Budget**
  A measure of the budget scheduled to have been spent to date.

Any one of these factors can be enabled or disabled when calculating Project cost health.

Table 4-3. Default Values for Triggering Color Change in Cost Health Indicator

Color	CPI	SPI	Actual Costs > Prorated Budget By
Green	> 1	> 1	< 5%
Yellow	< 1	< 1	> 5%
Red	< 0.7	< 0.7	> 10%

Example

A Project Manager doesn't care about CPI or SPI, but wants to know when his Project exceeds its prorated budget by 2%. Exceeding the budget by 5% is the upper limit of tolerance.

He un-checks the boxes Include CPI Violation in the Cost Indicator and Include SPI Violation in the Cost Indicator.

He configures the Indicator to turn yellow if Actual Costs Exceed Prorated Budget by 2%, and red if Actual Costs Exceed Prorated Budget by 5%.

Setting Up Indicators

Project Management provides Project Plan Indicators to give users a better at-a-glance overview of their Projects in progress. The following Indicators can be configured to be displayed at the Master Project level. Indicators appear in the Project Plan Panel to the left of Subproject and Task names, where appropriate.

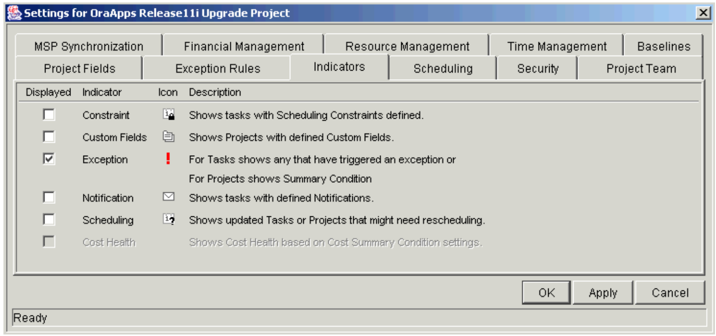
- **Constraint**
  Displays for Tasks with scheduling constraints.
- **Custom Fields**
  Displays for Projects that have custom fields defined.
- **Exception**
  Displays for Tasks that have triggered exceptions, and also displays the Summary Condition for Projects.
- **Notification**
  Displays for Tasks that have Notifications defined.
- **Scheduling**
  Displays for updated Tasks or Projects that might require rescheduling.
- **Cost Health**
  Displays for Projects that have Financial Management enabled.

To set Indicators to be displayed:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Indicators** tab.



3. To display a particular Indicator, select the check box to its left in the Displayed column.

   The Exception Indicator is displayed by default.

4. Apply the changes.

   To apply changes to the Project and continue to set Exceptions without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting Scheduling Options

Project Managers can set different scheduling options, depending on the Project's level of resource dependency. Project Management's Scheduling Options also allow for the creation of schedules based on actual start and finish dates. The default configuration is set to not use actual dates. Project Managers can perform the following scheduling actions:

- *Setting a Default Date From Which to Schedule*
- *Setting Scheduling With or Without Actual Start/Finish Dates*
- *Setting Scheduling Options for Resource Dependency*
- *Setting the Work Day Hours*

Setting a Default Date From Which to Schedule

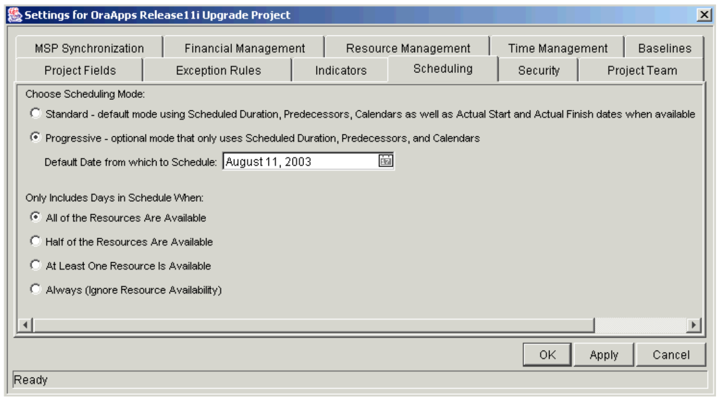
Project Managers can set a default date for Project Management to start scheduling from. This is useful for setting a hard date from which to begin an initiative, no matter what occurs during the planning process.

To set a default date from which to schedule the Project:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Scheduling** tab.



3. Select the **Progressive** scheduling option.

4. Select the desired date from the Default Date from which to Schedule field.

5. Apply the changes.

   To apply changes to the Project and continue to set Scheduling Options without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting Scheduling With or Without Actual Start/Finish Dates

A Project Manager can choose to determine a Project's schedule using actual start/finish dates. This is the default scheduling mode.

Example

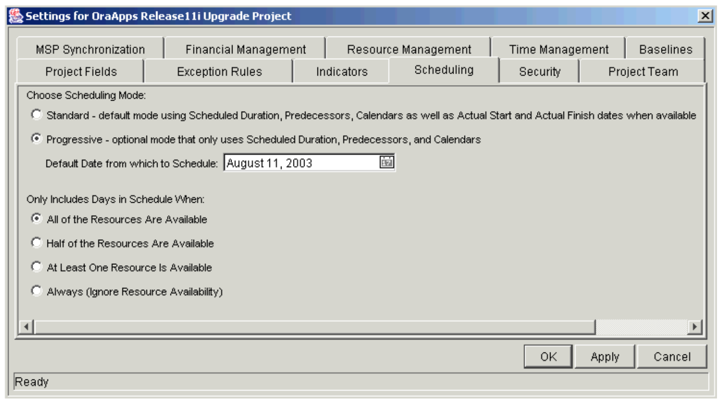
Once a Project becomes Active, its Tasks can be marked **In Progress**. When Tasks are marked **In Progress**, actual start dates are specified for that Task. If the Master Project is set to use actual start/finish dates in scheduling, it will use these dates to determine the schedule.

To determine whether scheduling is based on actual dates or not:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Scheduling** tab.



3. Set one of the two scheduling date options:

   - To schedule your Project using actual start/finish dates, select **Standard**. This is the default setting.

   - To schedule your Project without using actual start/finish dates, select **Progressive**.

4. Apply the changes.

   To apply changes to the Project and continue to set Scheduling Options without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting Scheduling Options for Resource Dependency

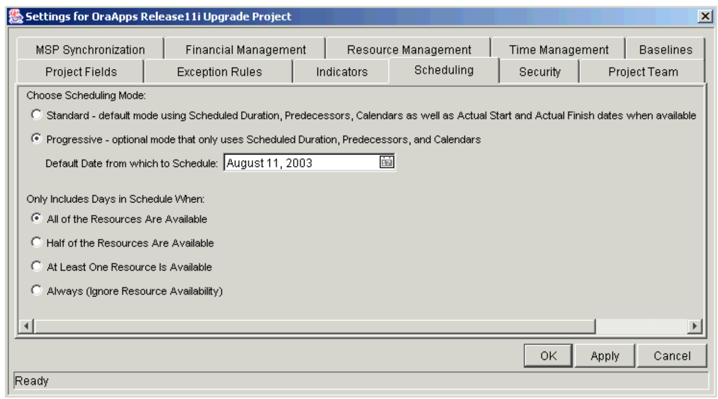
Every business initiative has some minimum resource requirements, usually in the form of available personnel. The Master Project can be set to consider resource requirements when creating its schedule. For instance, it is possible to set the Master Project to ignore resource availability and schedule accordingly. The default configuration is set to require all resources to be available on any given day. When creating the Master Project's schedule, Project Management will only consider days when all resources are present.

To set the minimum resource requirements for the Master Project schedule:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Scheduling** tab.



3. To specify the minimum resource requirement necessary for a day to be considered available, select the condition desired.

Note

Only one condition can be selected at a time.

4. Apply the changes.

   To apply changes to the Project and continue to set Scheduling Options without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting the Work Day Hours

Not all companies have the same length of working day. Project Management allows you to set the number of hours in a working day for scheduling purposes.

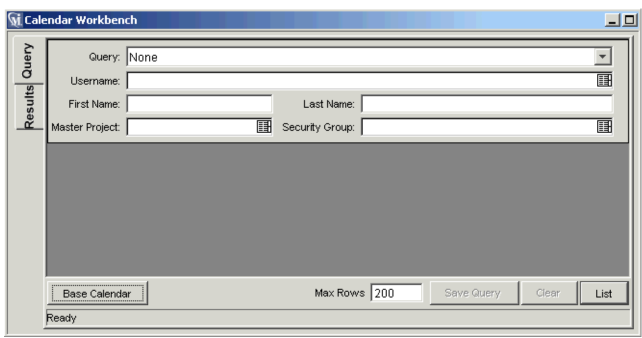
Note

This is a system-wide configuration and should not be adjusted by unauthorized users.

To set the number of hours in a working day:

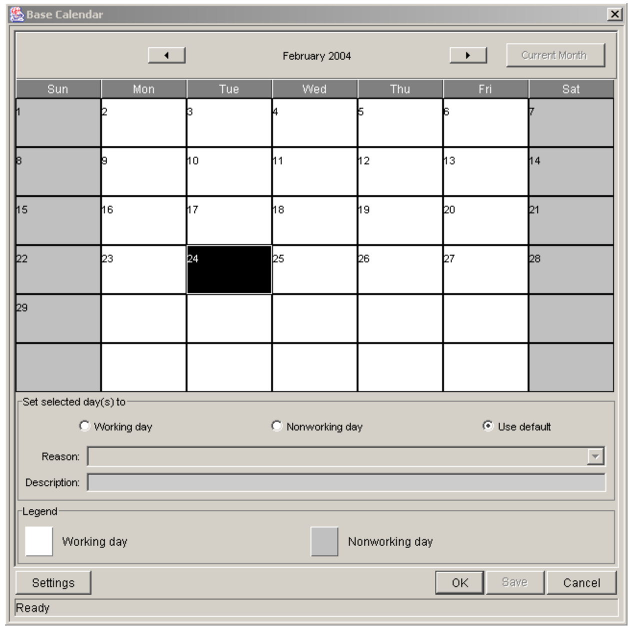
1. Open the Workbench
2. Click the **Project Mgmt** screen group.
3. Click the Calendars icon.

   The Calendar Workbench window opens.



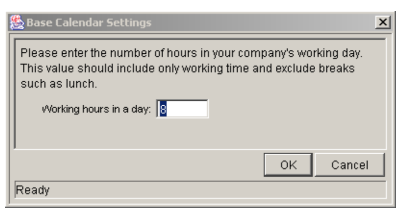
4. Click **Base Calendar**.

   The Base Calendar window opens.



5. Click **Settings**.

   The Base Calendar Settings window opens.



6. Enter the number of Working hours in a day

7. Click **OK** to save the change and close the Base Calendar window.

Setting Security Restrictions

Project Managers can set security restrictions on a Master Project such that only those who are involved in the Project can view it. Someone who is not a Manager or Participant in a Project will not be able to open or edit it. Additionally, the Project will not appear in any searches run by a non-Participant or non-Manager, both from the Project Workbench and Project Search page. Project Management defines Project Participants as users who are involved in Projects, but lack the administrative responsibilities of a Project Manager. For more information on Project Participants, see *"Updating Tasks: Project Participant Activities"* on page 167.

Security restrictions can be set in the following areas:

- *Setting Security for the Master Project*
- *Setting Security for Cost Data*

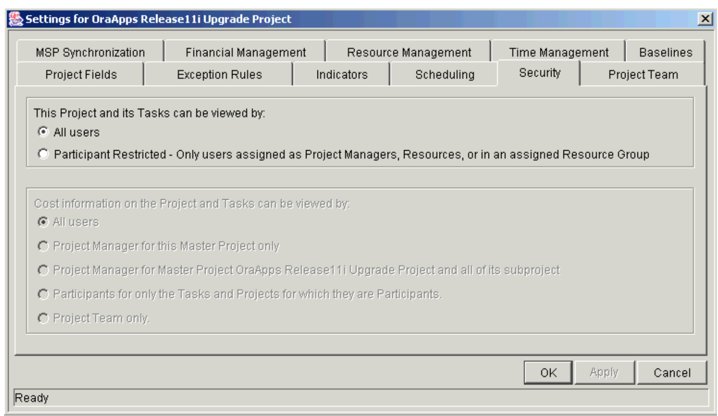
Setting Security for the Master Project

To set security restrictions for a Master Project:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Security** tab.



3. Select the restriction type desired from the This Project and its Tasks can be viewed by section.

   - To allow any user to view and search for the Project, select **All Users**.
   - To restrict Project visibility to only those involved in the Project, select **Participant Restricted**.

4. Apply the changes.

   To apply changes to the Project and continue to set other options in the Settings window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

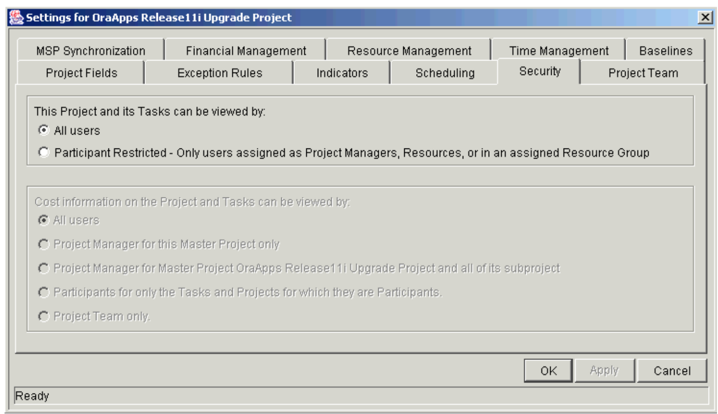
Setting Security for Cost Data

To set security restrictions for a Master Project's Cost data:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Security** tab.



3. Select the restriction type desired from the Cost information on the Project and its Tasks can be viewed by section.

   - To allow any user to view Cost data for the Project, select **All Users**.
   - To restrict Cost data visibility solely to Master Project and its Project Managers, select **Project Managers for this Master Project only**.
   - To restrict Cost data visibility to the Master Project, and its Subprojects' Project Managers, select **Project Managers for Master Project <Project Name> and all of its subprojects**.
   - To restrict Cost data visibility to only those involved in the Project, select **Participants for only the Tasks and Projects for which they are Participants**.
   - To restrict Cost data visibility to only those specified in the Settings window's **Project Team** tab, select **Project Team only**.

4. Apply the changes.

To apply changes to the Project and continue to set other options in the Settings window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Setting Up the Project Team

Project Managers can specify who will be allowed to act as Resources for a Project. Resources can be users and groups of users. In the **Project Team** tab, the Project Manager can choose to either:

- Allow all users with the Project option enabled in their Security Groups to be Resources for a Project.

  Or

- Only allow those Resources who are specified in the **Project Team** tab to be used as Resources for a Project. These Resources are listed in the tab's Resource table.

Note

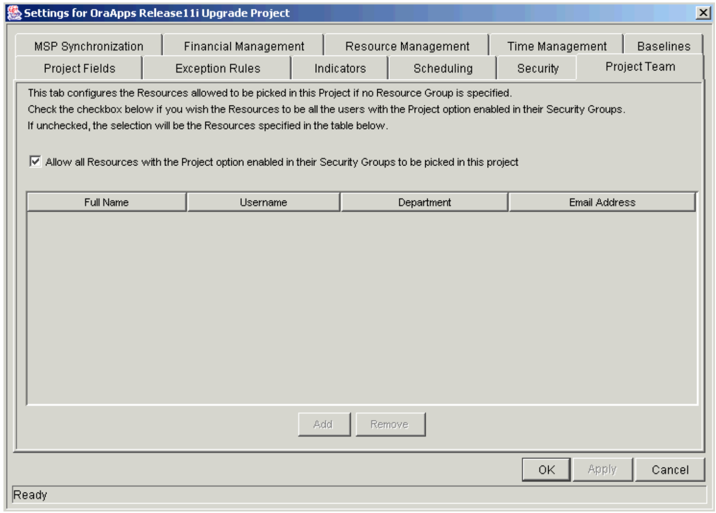
Exception: Users with the SysAdmin: Override Key Fields Segmentation can add any users as a Resource to the Project.

To setup the Project Team for a Master Project:

1. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.

2. Click the **Project Team** tab.



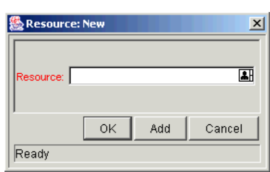
3. To allow all Resources with the Project option enabled in their Security Groups to be used as Resources for a Project, click the appropriate check box.

   Skip the steps shown below and go to Step 9 of this procedure.

4. To specify Resources for a Project, deselect the appropriate check box.

5. Click **Add**.

   The Resource: New window opens.

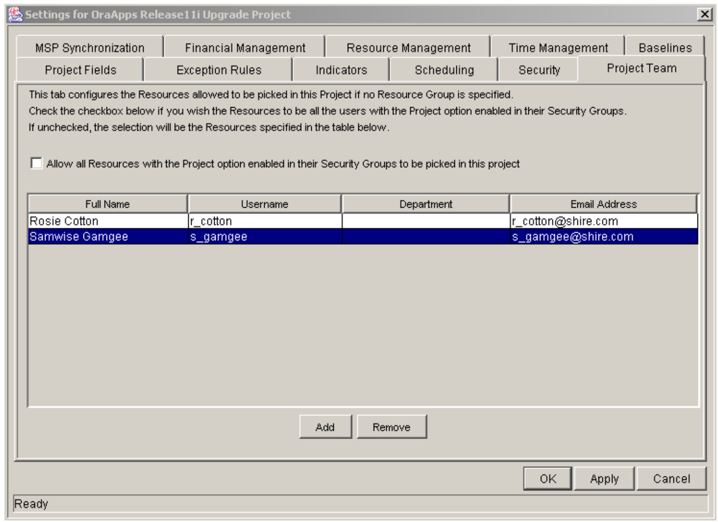


6. Select a Resource or group of Resources from the Resource auto-complete list.

   The name of the selected Resource appears in the required Resource field of the Resource: New window.

7. Add the Resource.

Click **Add** to add the current Resource and continue adding more Resources. Click **OK** to add the current Resource and close the Resource: New window.



8. Save the selections.

   Click **OK** to save the selections and close the window. Click **Save** to save the selections and leave the window open.

Deleting Resources from a Project Team

To delete a specified Resource from a Project Team:

1. From the **Project Team** tab, select the Resource in the tab's Resource table.
2. Click **Remove**.

   The Resource is removed from the Resource table.

3. Save the action.

   Click **OK** to save the action and close the window. Click **Save** to save the action and leave the window open.

Setting Up Microsoft Project Integration

The Project Management - Microsoft Project 2000 interface allows Project Managers to synchronize project information in a Project with the project information in a Microsoft Project 2000 Project file. Information can also be imported from Microsoft Project to Project Management and exported from Project Management to Microsoft Project.

Project Management has three different synchronization modes that a Project Manager can choose from. The various synchronization modes let the Project Manager use different strategies for importing/exporting information between Project Management and Microsoft Project. See *"Control Mode"* on page 50 for more information about synchronization modes.

Before exporting or synchronization, the Project Manager must select a synchronization mode from the **MSP Synchronization** tab in the Settings window. The **MSP Synchronization** tab is shown in *Figure 4-3*.

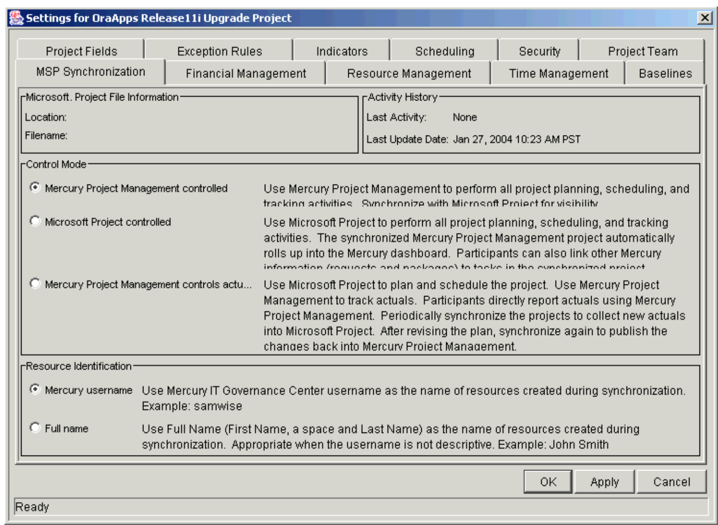


Figure 4-3 MSP Synchronization Tab

Note

The **MSP Synchronization** tab is available only for Projects, but not for Project Templates.

The **MSP Synchronization** tab has four sections:

- *Microsoft Project File Information*
- *Activity History*
- *Control Mode*

- *Resource Identification*

> **Note**
> When importing information from Microsoft Project to Project Management, the **MSP Synchronization** tab is not available because the Mercury ITG Project file has not been created yet. The Import Wizard performs the same functions as the **MSP Synchronization** tab sections described below.

Microsoft Project File Information

The Microsoft Project File Information section displays the path and filename information of the Microsoft Project file associated with a Project Management Project. The Microsoft Project file can be stored on a local machine or a local network.

Activity History

The Activity History section displays information about the last synchronization, export or import that took place for this Project.

Control Mode

The Control Mode section lets the Project Manager select a synchronization mode. The available options are:

- **Project Management-controlled**
  The Project Manager creates a project in Project Management to perform planning and tracking activities, such as scheduling tasks and tracking actuals. After exporting, the Microsoft Project file is used for reports and distribution. (This is the default value for new Projects created in Project Management.)

- **Microsoft Project-controlled**
  The Project Manager creates a project in Microsoft Project and synchronizes it in the Workbench. For all subsequent synchronizations, information in Project Management is updated with current information from Microsoft Project.

- **Project Management controls actuals**
  The Project Manager plans and schedules the Project in Microsoft Project while using Project Management to track actuals. Each subsequent synchronization updates the Microsoft Project file with actuals data from Project Management. The Mercury ITG Project is updated with changes to the project structure or schedule in Microsoft Project.

Resource Identification

The Resource Identification section lets the Project Manager choose how missing resources created during an export or synchronization will be named in the Microsoft Project file. (This section is only enabled when the Control Mode is set to **Project Management-controlled**.) Select one of the following options:

- **Username**
  The username is used as the name of the new Microsoft Project resource created during synchronization.
- **Full Name**
  The Full Name is used as the name of the new Microsoft Project resource created during synchronization.

After selecting the Control Mode and Resource Identification options, click **OK** to save your selections.

Importing Custom Fields from a Project Template

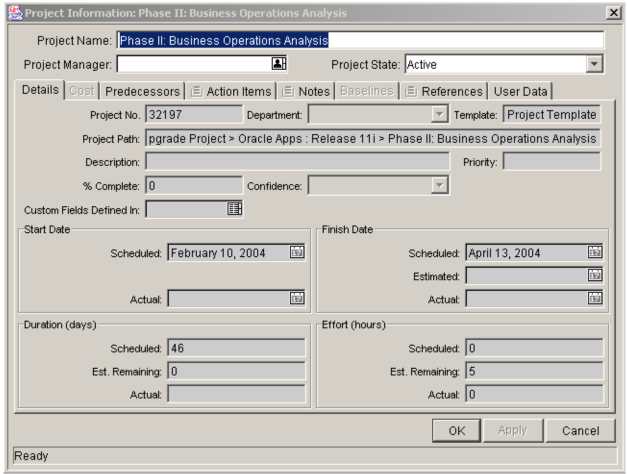
Project Templates are used in Project Management to create repeatable processes to be used in Projects. They can be used as a model and serve as a basis for Master Projects or Subprojects. Project Templates can also contain custom fields that can capture information not normally covered by standard Project and Task fields. These custom fields are unique to their Project Template.

Custom fields can be associated with an existing Project without importing the Project Template they come from. This allows you to capture whatever information is needed without having to simultaneously import a superfluous set of Projects or Tasks. Custom fields appear in the Project or Task Information window on their own tab.

To associate custom fields from a Project Template with your own Project:

1. Open the Project.
2. In the Project Plan Panel, double-click the Project name or select it and click **Edit**.

   The Project Information window opens.



3. Select the Project Template containing the desired custom fields from the Custom Fields Defined In auto-complete list.

4. Save the changes in the Project Information window.

   Click **Apply** to save changes and continue working in the Project Information window. Click **OK** to save changes and close the Project Information window. Click **Cancel** to close the Project Information window without saving any changes.

5. Save the changes.

   Click **Save** to save changes and continue working on the Project. Click **OK** to save changes and close the Project. Click **Cancel** to close the Project without saving any changes.

Adding Tasks to a Project

Once the Master Project has been configured, you can add Tasks to the Project and specify Task details, including assigning resources or resource groups. Tasks can be added individually or in a pre-sequenced group with a Project Template. Tasks can also be organized in a hierarchical fashion quickly and easily.

Some common methods for adding and manipulating Tasks are described below:

- *Adding Tasks to the Project Plan Panel*
- *Adding Tasks Using Project Templates*
- *Setting Up Project Hierarchy*
- *Attaching Additional Information to a Project or Task*
- *Creating a Task From a Request*
- *Adding Milestones*

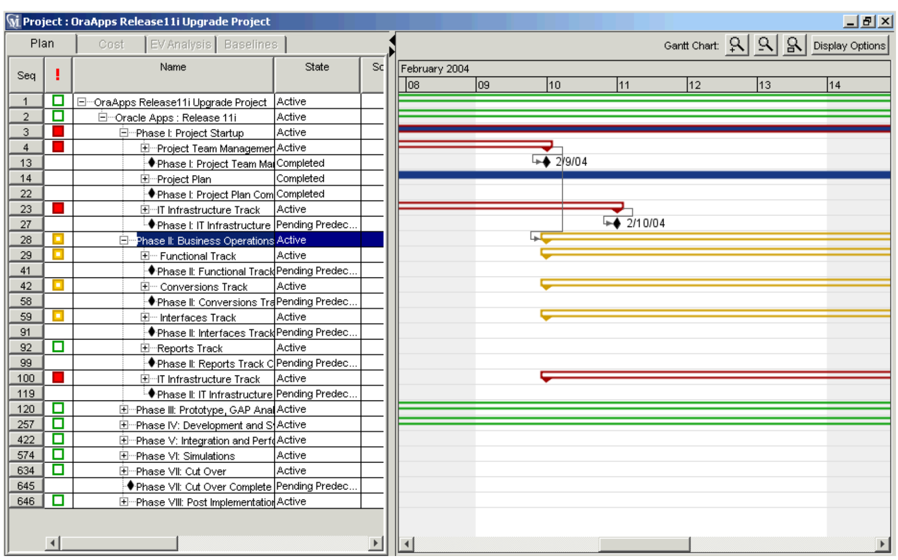
Adding Tasks to the Project Plan Panel

To add a Task to the Project Plan Panel:

1. Within the Project window, click **Add Task**.

   A new Task appears in the Project Plan Panel below the current selection.

   You can also add a new Task by selecting the last item in the Project Plan Panel and pressing Insert or the down arrow on your keyboard.

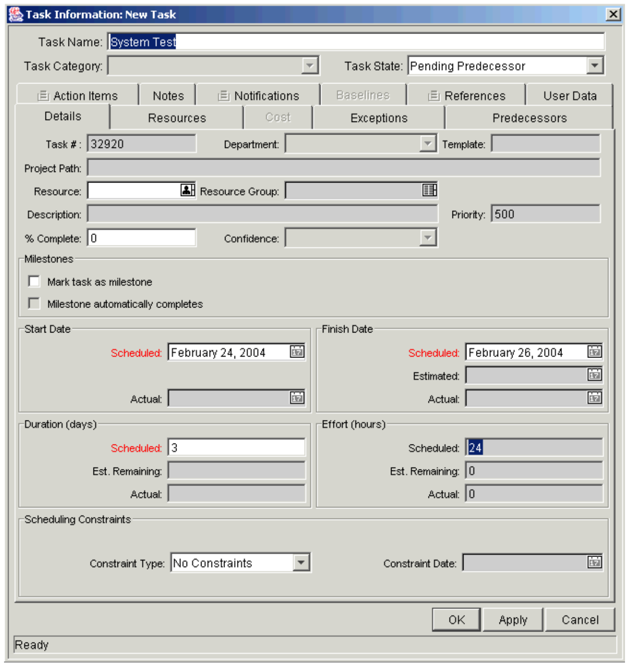


2. Edit the new Task's information.

   - Tasks can be edited directly inside the Project Plan Panel. Click on a field to edit its contents.

- Tasks can also be edited through the Task Information window, which displays more detailed information on a Task.

    I. DOUBLE CLICK ON THE NEW TASK. THE Task Information WINDOW OPENS.



    II. MODIFY THE INFORMATION UNDER EACH TAB IN THE Task Information WINDOW AS NECESSARY (FOR DETAILS, SEE *"Editing Task Information"* ON PAGE 89).

3. Apply the changes.

    To apply changes to the Project without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**. You can also copy and paste Tasks using **Ctrl-C** and **Ctrl-V**. Multiple Tasks can be copied by holding down the Shift key and selecting with the mouse.

Adding Tasks Using Project Templates

Pre-defined bundles of Tasks can be added with the use of Project Templates. The Template will be copied into the working Project Plan Panel as a Subproject, along with its default values for Scheduled Effort, Scheduled Duration, and Notifications.

To add a set of Tasks using a Project Template:

1. Within the Project window, select **Project Created From Template** from the drop down list.

2. Click **Add**.

   The Add Project Template window opens.

3. Select a Project Template from the auto-complete list.

4. Click **OK**.

   The Add Project Template window closes. The selected Template is added to the Project Plan as a collapsed Subproject.

5. Modify the information for any Task inside the Subproject by either editing it directly in the Project Plan Panel, or double-clicking on the Task and editing fields.

   See *"Adding Tasks to the Project Plan Panel"* on page 53 for more detailed information.

Note

Project Templates can be modified to contain custom fields. See *"Creating Custom Fields for Project Templates"* on page 201 for more detailed information.

Setting Up Project Hierarchy

Project Management allows users to add Tasks and Subprojects (from Templates) in any order. Once the Tasks have been added, Project Management users can also arrange and group them in a hierarchy.

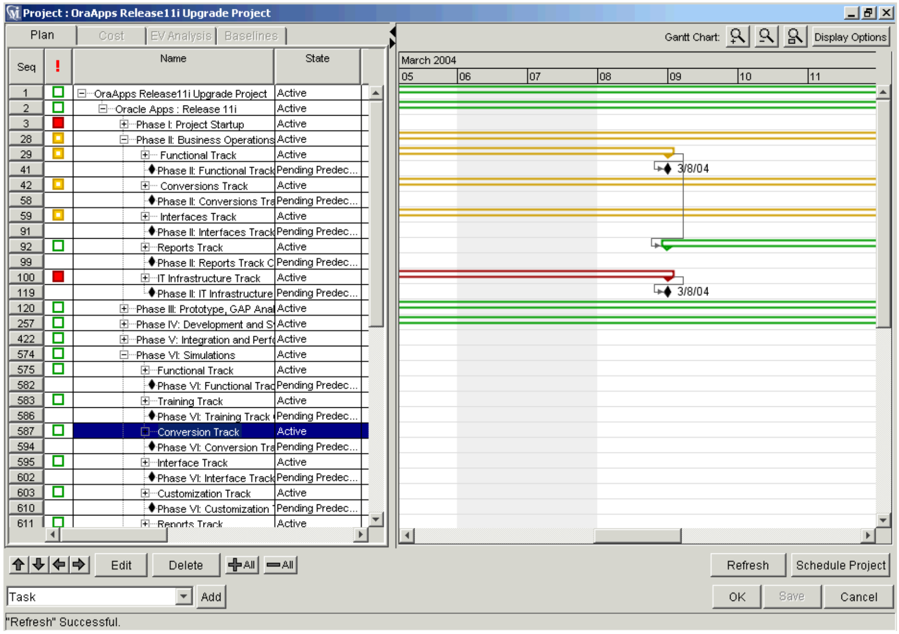


Figure 4-4 Project Plan Panel

To move an item up in the hierarchy:

1. In the Project Plan Panel, select the Task or collapsed Subproject.
2. Click the **Up Arrow** button or press **Ctrl-up arrow** on your keyboard.

   The selected Task or Subproject moves up in the list.

   - If the selected item is not at the same level as the item it is switched with, it is indented or out-dented to match the level of the item it is switched with.
   - If the switch results in a Subproject with no immediate children, that Subproject is converted to a Task after it moves.

To move an item down in the hierarchy:

1. In the Project Plan Panel, select the Task or collapsed Subproject.
2. Click the **Down Arrow** button or press **Ctrl-down arrow** on your keyboard.

   The selected Task or Subproject moves down in the list.

- If the item immediately above the selected item is an expanded Subproject, the selected item becomes its child.
- If the item immediately above the selected item is a collapsed Subproject or Task, the selected item is indented or out-dented to match the Subproject or Task's level.
- If the selected item was the only child of a Subproject, that Subproject is converted to a Task after the selected item moves.

To indent an item:

1. In the Project Plan Panel, select the Task or collapsed Subproject.
2. Click the **Right Arrow** button or press **Ctrl-right arrow** on your keyboard.

   The selected Task or Subproject moves one level deeper in the hierarchy.

   - If the item immediately above the selected item is a Task, that Task is converted to a Subproject.

Note

If the selected item is the first child of a Subproject, you will not be able to indent it.

To outdent an item:

1. In the Project Plan Panel, select the Task or collapsed Subproject.
2. Click the **Left Arrow** button or press **Ctrl-left arrow** on your keyboard.

   The selected Task or Subproject moves out one level in the hierarchy.

   - If the selected item was a child of a Subproject, it becomes either a Task or Subproject on the same level as its former parent.
   - If the selected item was a Subproject's only child, that Subproject is converted to a Task.
   - If the selected item was a Task with other Tasks of the same level beneath it, those Tasks are converted to children of the selected item, which is now a Subproject.

Useful Keyboard Shortcuts in the Project Plan Panel

Tasks and Subprojects within the Project Plan Panel can be manipulated from the keyboard as well as the buttons in the Project window. *Table 4-4* lists all available keyboard shortcuts.

Table 4-4. Keyboard Shortcuts in the Project Plan Panel

Keystroke	Action
Insert	Inserts a Task into the hierarchy above the current row.
Delete	Deletes the selected Task from the Project.
Ctrl-Up Arrow	Moves a Task up in the hierarchy.
Ctrl-Down Arrow	Moves a Task down in the hierarchy.
Ctrl-Left Arrow	Outdents a Task in the hierarchy.
Ctrl-Right Arrow	Indents a Task in the hierarchy.
Down Arrow (on last Task in hierarchy)	Adds a new Task to the hierarchy below the last row.
Ctrl-C	Copies the selected Task.
Ctrl-V	Pastes a Task or Tasks (must be on the Project's last line)
F2	Edits the selected cell in the Project Plan Panel.
ESC	Cancels changes to a cell in the Project Plan Panel.
Left or Right Arrow (while editing)	Saves edits and moves cursor to the next cell in the Project Plan Panel.

Attaching Additional Information to a Project or Task

Tasks and Subprojects can contain other types of information, such as Demand Management Requests, Change Management Packages, attachments, and URLs. They can also be configured to send Notifications based on certain conditions.

Project Managers can create Tasks from Requests in the Workbench. The newly created Task is linked as a Reference to the originating Request. See *"Creating a Task From a Request"* on page 59 for more information.

Refer to *"Configuring Tasks"* on page 81 for detailed instructions on:

- *Assigning Resources*

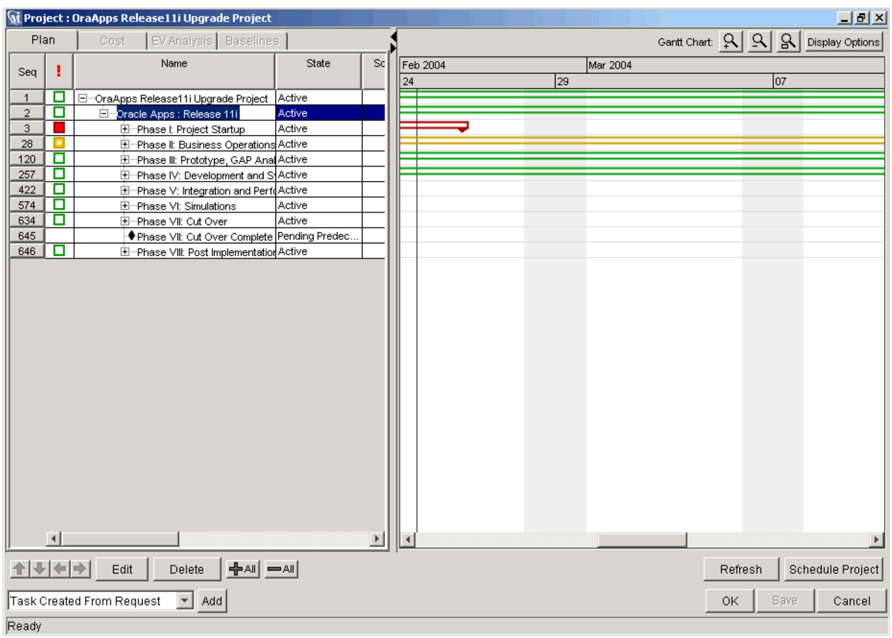
- *Setting Up Notifications*
- *Editing Task Information*
- *Attaching References to Tasks*
- *Configuring Task Predecessors*
- *Setting Scheduling Constraints*

Creating a Task From a Request

A Task can be created from a Request and added to the Project Plan. The new Task will have a Reference to the originating Request.

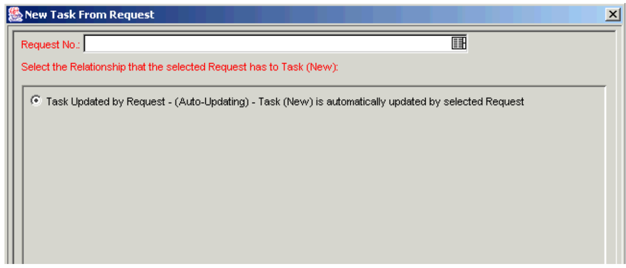
To create a Task from a Request:

1. Within the Project window, select **Task Created From Request** from the drop down list at the bottom left corner of the window.



2. Click **Add**.

   The New Task From Request window opens.

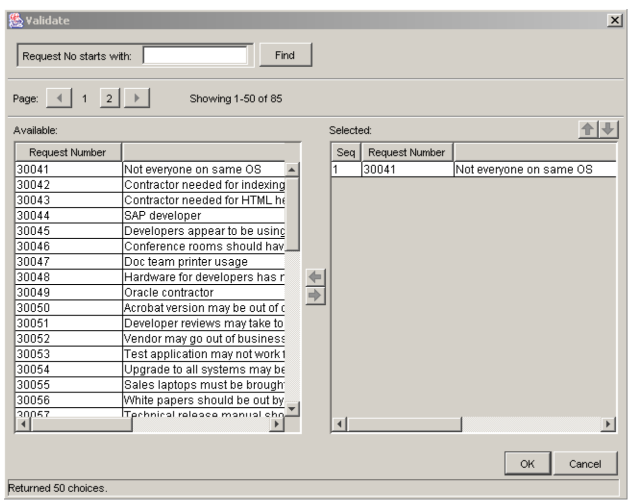


3. Specify the Request(s) to use in the Request No auto-complete list, or click **Search** to search for the Request(s).

   The Request Selection window opens.

4. Search for the Request(s) to use by entering search criteria in the appropriate fields and clicking **List**.

   The Requests that match your search criteria display in the Query Results section of the window.



5. Select the Request(s) in the Query Results section that you want turn into Tasks.

   You can select multiple Requests in the Query Results section. When they are added to the Project Plan, a new Task is created for each selected Request.

6. Create the new Task.

Click **OK** to create the new Task and close the window. Click **Add** to create the new Task and perform additional searches for more Requests.

7. Save the new Task.

   Click **Save** to save the new Task and leave the Project window open. Click **OK** to save the new Task and close the Project window. The new Task has been created from the selected Request and is part of the current Project. The Task is linked to the Request. You can change the Reference for this Task at any time by double-clicking it, opening the Task Information window and editing it in the **References** tab.

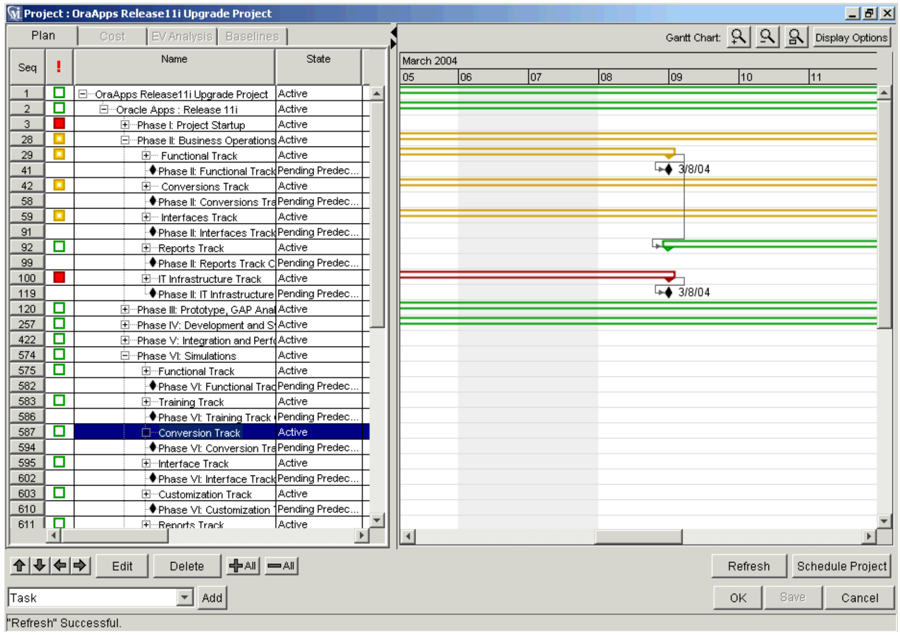
Adding Milestones

Milestones are used to mark significant events in a Project, often the completion of a deliverable or arrival of a deadline. As markers, milestones are typically set by Project Managers to complete as soon as they are reached and therefore generally do not have effort or duration, though they can be configured to possess duration. Milestones are created the same way as Tasks.

To create a Milestone:

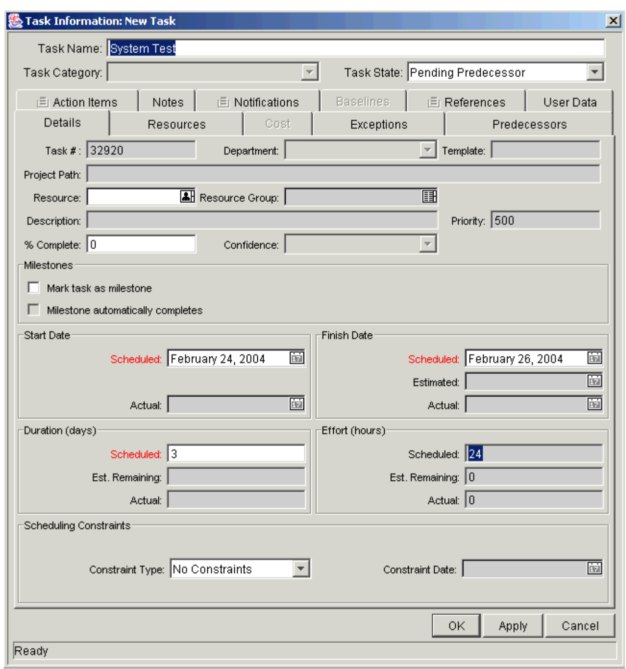
1. Within the Project window, click **Add Task**.

   A new Task appears in the Project Plan Panel below the current selection. You can also add a new Task by selecting the last item in the Project Plan Panel and pressing Insert or the down arrow on your keyboard.



2. Double click on the new Task.

   The Task Information window opens.



3. Select the Mark task as milestone check box.

   If you want the Milestone to mark itself as Complete automatically upon being reached, select the Milestone automatically completes check box.

4. Modify the information under each tab in the Task Information window as necessary (for details, see *"Editing Task Information"* on page 89).

5. Apply the changes.

   To apply changes to the Task without closing the window, click **Apply**. To apply changes to the Task and close the Task Information window, click **OK**. To close the Task Information window without saving changes, click **Cancel**.

Note

A Task will be automatically converted to a Milestone if its duration is 0.

Setting Up Project Dependencies

Project Management allows you to create dependencies between a Project or Task and another, completely separate Project or Task.

Example

Manager Bob has a Training Project for a new software module being installed on his group's computers. In order for his Project to get started, the Software Upgrade Project headed by Manager Steve must be finished first. Bob can create a Finish-Start Dependency relationship between the Software Upgrade Project and his own Training Project.

These dependency relationships are controlled from the **Predecessors** tab of the Project or Task Information window.

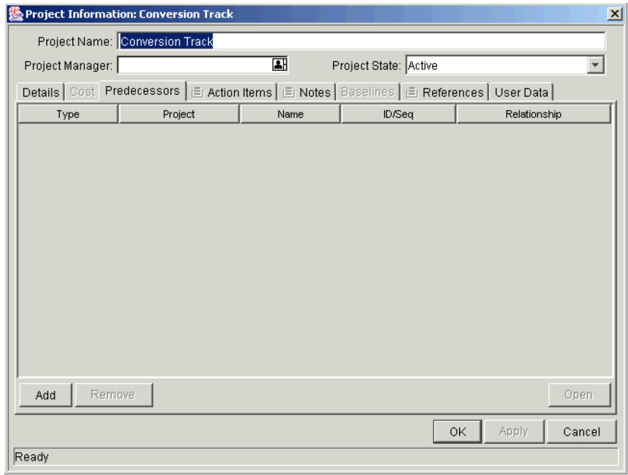


Figure 4-5 Predecessors Tab of the Task Information window

The types of Predecessor relationships available are described in *Table 4-5*.

Table 4-5. Possible Predecessor Relationships to a Project or Task

Predecessor Type	Description	Possible Relationships
Task/Project	A Task or Project in the current Project	**Finish/Start** - The Project or Task can start once its Predecessor has completed.
External Task	A Task from a separate Project	**Finish/Start** - The Project or Task can start once its Predecessor has completed.
External Project	A separate Project	**Finish/Start** - The Project or Task can start once its Predecessor has completed.
Request	A Request (possible for Tasks only)	**Finish/Start** - The Task can start once its Predecessor has completed. **Finish/Finish** - The Task and Request can start at the same time, but neither will be marked complete until both are complete.

The following sections discuss setting Predecessor relationships in more detail:

- *Setting Internal Predecessors*

- *Setting an External Predecessor Task*
- *Setting an External Predecessor Project*
- *Setting an External Predecessor Request*

Setting Internal Predecessors

Setting a Project/Task Predecessor that is contained in the same Project can be done directly in the Project Plan Panel.

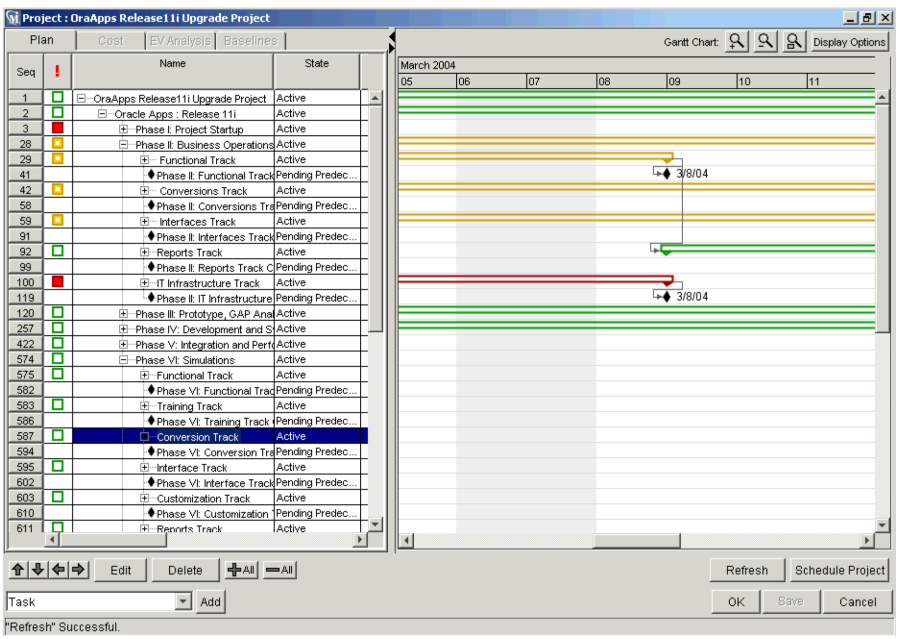


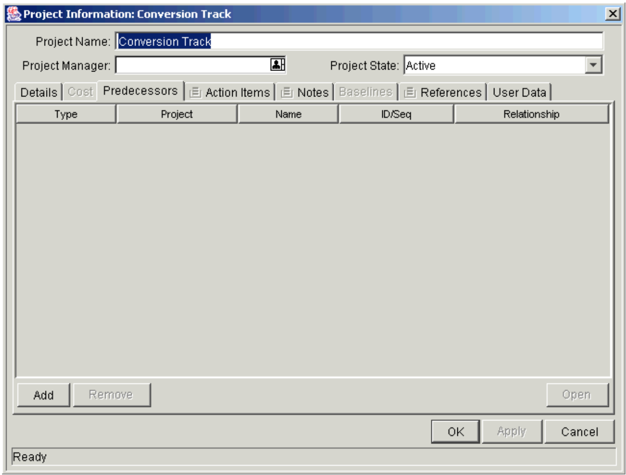
Figure 4-6 Project Plan Panel

In the Predecessor column, type the sequence number of the desired Predecessor Project or Task and click **Save** to save changes.

Setting an External Predecessor Task

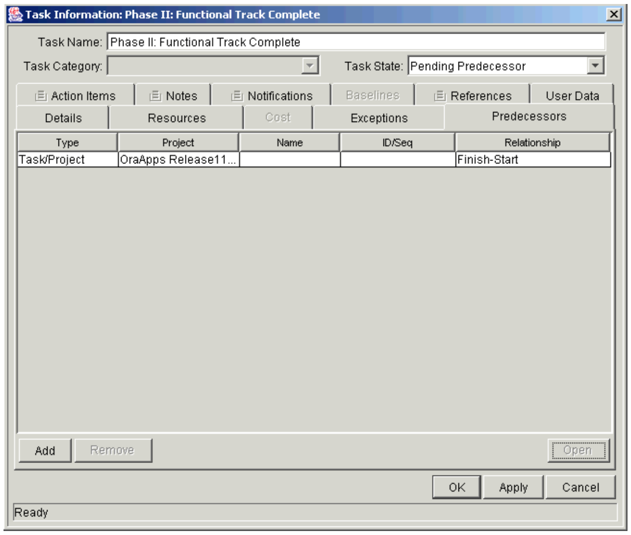
To set an external Predecessor Task for a Task or Project:

1. Open the Project or Task Information window of the Project or Task.
2. Click the **Predecessors** tab.



3. Click **Add**.

   A line is added to the **Predecessors** tab table.

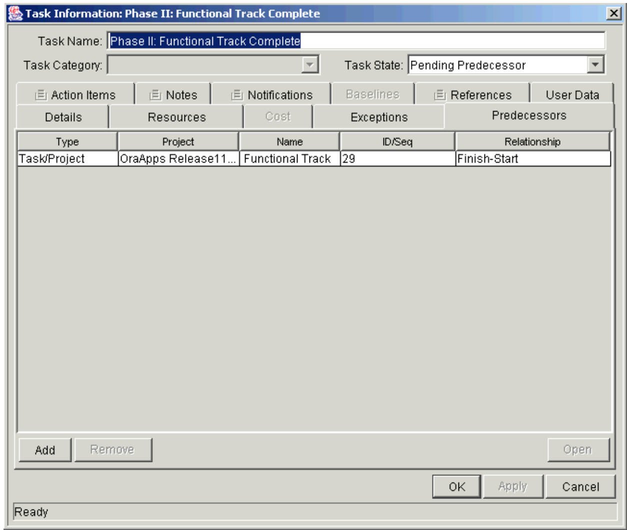


4. In the Type column, select **External Task** from the drop down list.

5. In the Project column, select the external Project from the auto-complete list.

6. In the Name column, select the Task Name from the auto-complete list.

7. Click the field in the ID/Seq column to display the Task ID.



8. Apply the changes.

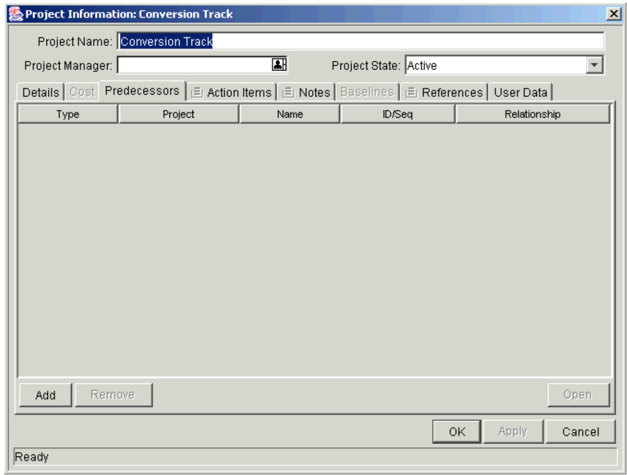
   Click **Apply** to save changes and continue working in the Project or Task Information window. Click **OK** to save changes and close the Project or Task Information window. Click **Cancel** to close the Project or Task Information window without saving any changes.

Setting an External Predecessor Project

To set an external Predecessor Project for a Task or Project:

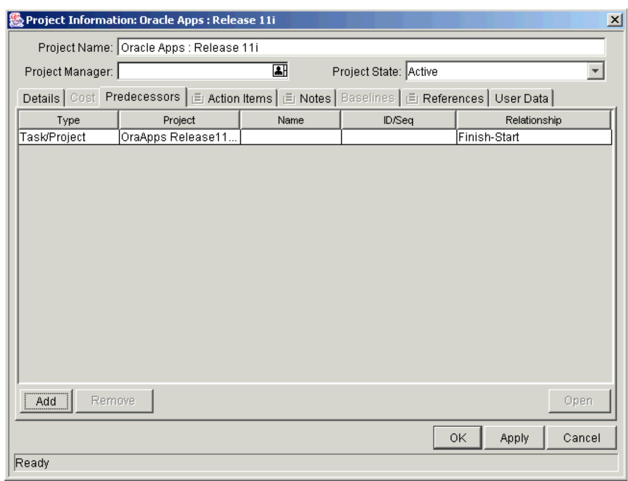
1. Open the Project or Task Information window of the Project or Task.

2. Click the **Predecessors** tab.



3. Click **Add**.

   A line is added to the **Predecessors** tab table.

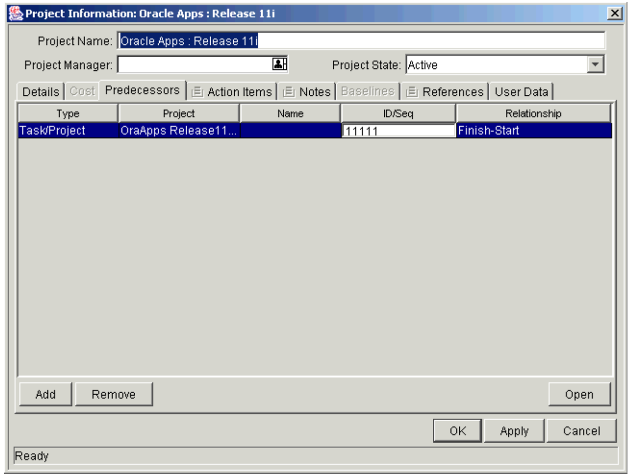


4. In the Type column, select **External Project** from the drop down list.

5. In the Project column, select the external Project from the auto-complete list.

6. In the Name column, select the Project or Subproject Name from the auto-complete list.

7. Click the field in the ID/Seq column to display the Project or Subproject ID.



8. Apply the changes.

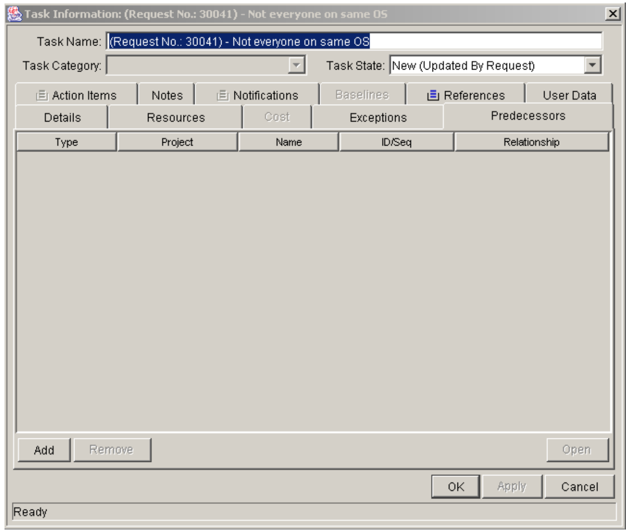
   Click **Apply** to save changes and continue working in the Project or Task Information window. Click **OK** to save changes and close the Project or Task Information window. Click **Cancel** to close the Project or Task Information window without saving any changes.

Setting an External Predecessor Request

To set an external Predecessor Request for a Task:

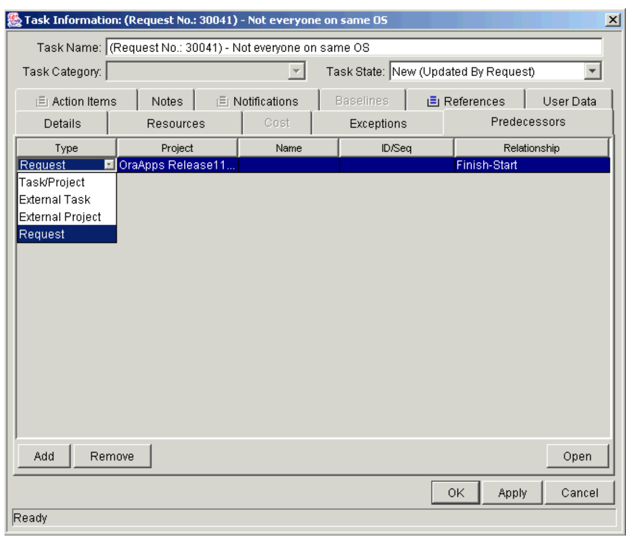
1. Open the Task Information window of the Task.

2. Click the **Predecessors** tab.



3. Click **Add**.

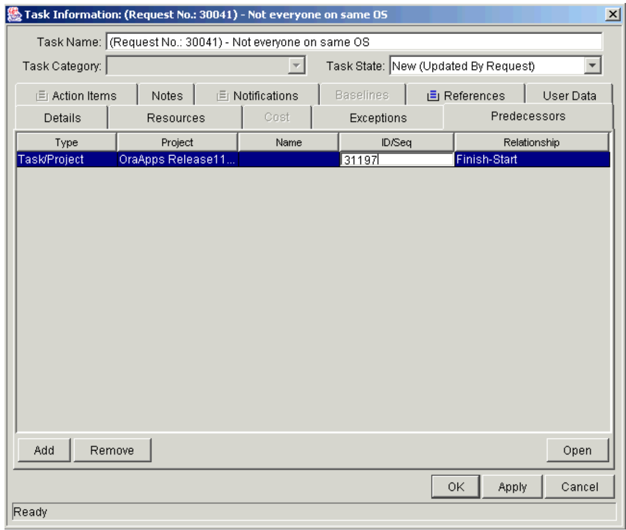
   A line is added to the **Predecessors** tab table.



4. In the Type column, select **Request** from the drop down list.

5. In the ID/Seq column, select the Request ID from the auto-complete list.

6. In the Relationship column, select **Finish-Start** or **Finish-Finish** from the drop down list.



7. Apply the changes.

   Click **Apply** to save changes and continue working in the Task Information window. Click **OK** to save changes and close the Task Information window. Click **Cancel** to close the Task Information window without saving any changes.

Creating a Master Project Schedule

Project Management generates schedules for Master Projects, based on the configurations set in the **Scheduling** tab of the Settings window. The following are common tasks and items associated with scheduling:

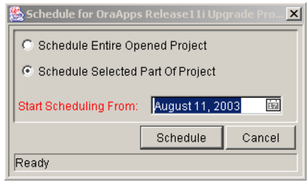
- *Generating the Schedule*
- *Scheduling Errors*
- *Scheduling Warnings*

Generating the Schedule

To generate the schedule for a Master Project:

1. In the Project window, click **Schedule Project**.

The Scheduling window opens.



2. Specify whether to schedule all or part of the project.

   a. To schedule the whole project, select **Schedule Whole Project**.

   b. To schedule only a specific part of the project, make sure you have selected the part you want to schedule in the Project Plan Panel, and select **Schedule Selected Part of Project**. If a Subproject is clicked, all of its children will be scheduled.

3. Specify a date to begin scheduling from by clicking on and selecting from the Start Scheduling From field.

4. Click **Schedule**.

Note

If scheduling ***errors*** occur, no schedule will be generated and a list of errors will appear. Take note of each error and its cause, and make the necessary adjustments within the Project. See *"Scheduling Errors"* on page 72 for more details.

If scheduling ***warnings*** occur, a schedule will be generated and a list of warnings will appear. Take note of each warning, as they can be important to the initiative's success. See *"Scheduling Warnings"* on page 73 for more details.

Scheduling Errors

It is possible for certain combinations of input to cause a schedule to be unworkable. If any of these errors are encountered, the schedule will not be created. *Table 4-6* describes scheduling errors, their causes, and possible solutions.

Table 4-6. Scheduling Errors, Causes, and Possible Solutions

Scheduling Error	Cause	Possible Solution
Circular dependency	The predecessors of a set of projects or tasks contains a cycle. This cannot be scheduled.	Break the cycle by removing or changing a predecessor.
Not enough available resources for task	The amount of working days available from the pool of resources assigned to a task is less than the duration of the task. This situation can occur if a resource does not have any available working days, or perhaps for contractors who only have set periods of time to work.	Assign more resources to the task, increase resource availability via resource Calendars, or change the Scheduling setting to require less resource availability.
Selected Subproject has dependencies outside of items to be scheduled	There are tasks or projects that are not in the selected sub-tree, but have predecessors in the selected sub-tree.	Select a larger sub-tree that includes all dependents, or remove the dependencies.
No tasks to be scheduled	There are no non-complete, non-cancelled tasks within the selected sub-tree to be scheduled	Add tasks, or select a larger sub-tree that includes non-complete or non-cancelled tasks.

Scheduling Warnings

It is possible for certain combinations of input when using actual-based scheduling or scheduling constraints to cause a schedule to be potentially unworkable. Warnings appear when actual-based scheduling has been specified. The schedule will still be created, however. *Table 4-7* describes scheduling warnings, their causes, and possible solutions.

Table 4-7. Scheduling Warnings, Causes, and Possible Solutions

Scheduling Warning	Cause	Possible Solution
Duration extends past finish date for task	The duration for a task is longer than the number of available working days between the earliest possible start date and the actual finish date. This assumes there is no actual start date.	Move the actual finish date, change the duration, or change the number of available working days.
Duration does not fit within actual dates of task	The duration of a task is longer than the number of available working days between the actual start and finish dates.	Change actual dates, duration, or number of available working days.
Actual start date of task occurs before predecessor finishes	The actual start date of a task occurs before its earliest possible start date.	Change actual start date, predecessors, or the earliest possible start date.

Establishing a Project Baseline

A baseline is the original approved Project plan for a Project. As scope changes happen, the baseline is updated to reflect those changes as part of the approved plan. A Project Manager uses baselines to continuously monitor the health of their Project in terms of schedule and cost by comparing the current Project plan to the baseline plan.

The following topics discuss baselines in more detail:

- *Selecting Baseline Fields*
- *Taking a Baseline*
- *Managing Baselines*
- *Comparing Baselines*

Selecting Baseline Fields

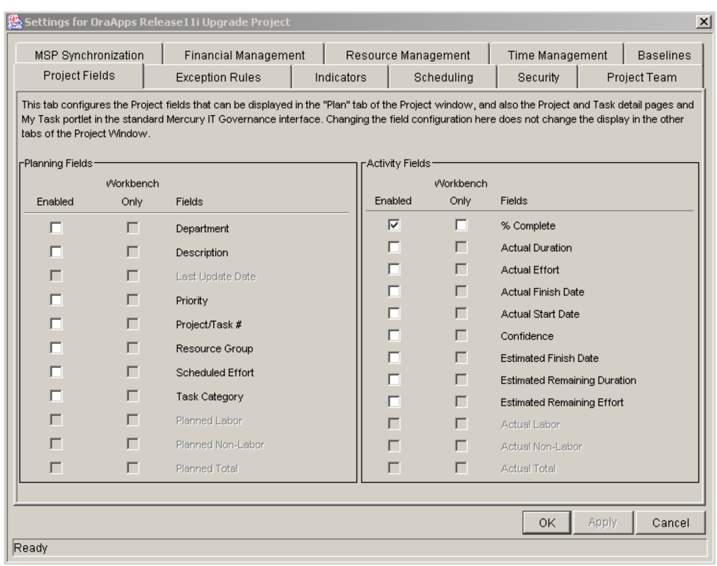
You can select any of the following Project fields to capture in a baseline:

- Summary Condition
- Scheduled Start
- Scheduled Duration
- Scheduled Finish
- Scheduled Effort
- Predecessor Information
- Resource/Project Manager
- Department
- Description
- Priority
- Resource Group
- Task Category
- Planned Labor
- Planned Non-Labor
- Planned Cost

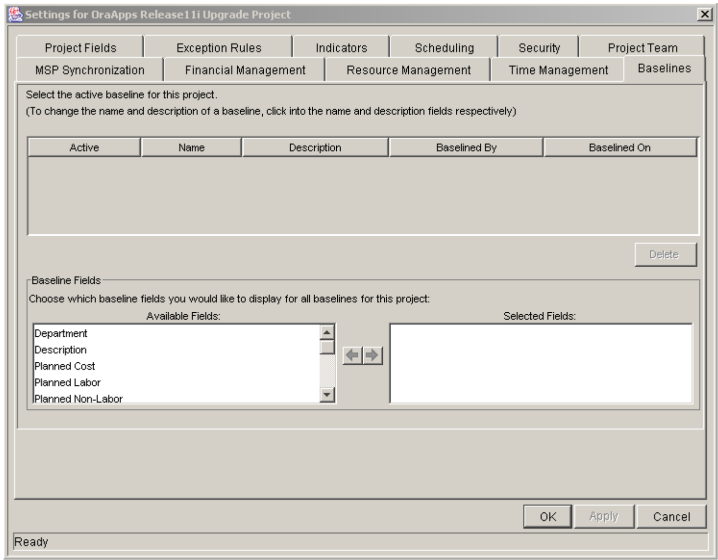
To select fields for a baseline:

1. Open the Project.
2. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.



3. Click the **Baselines** tab.



4. In the Baseline Fields section, double-click the fields or use the arrow buttons to move fields from the Available Fields list to the Selected Fields list.

5. Apply the changes.

   To apply changes to the Project and continue to set baseline options without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

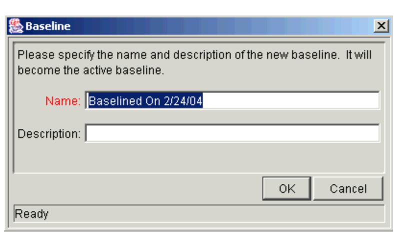
Taking a Baseline

To take a baseline:

1. Open the Project.

2. Select **Project > Baseline** from the menu at the top of the Workbench.

   The Baseline window opens.



3. Enter a Name and optional Description for the baseline.
4. Click **OK**.

   The baseline has been taken. It can be viewed from the **Baselines** tab of the Project window.
5. Click **Save** to save the baseline along with the Project.

Managing Baselines

Multiple baselines can be taken for a single Project. You can specify which is the active Project baseline, as well as delete baselines at any time.

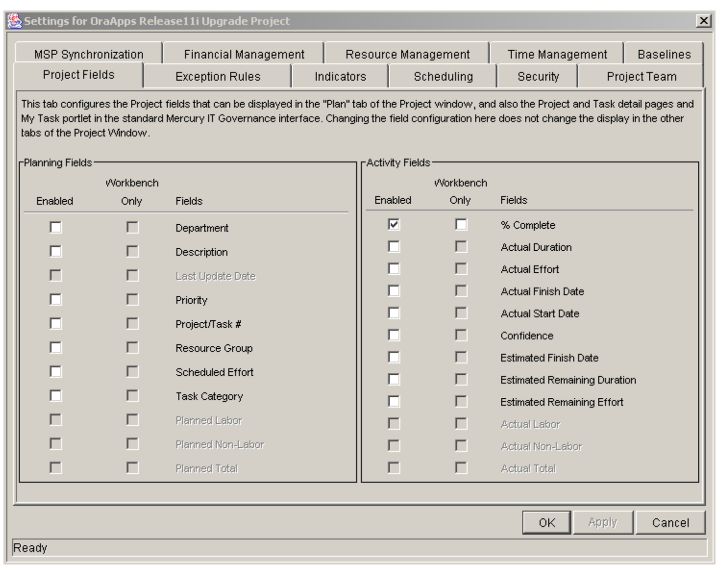
Note

While any Project Manager can see the active baseline for a Project, only the Project Manager for the Master Project can manage baselines (take new baselines, delete baselines, specify the active baseline).

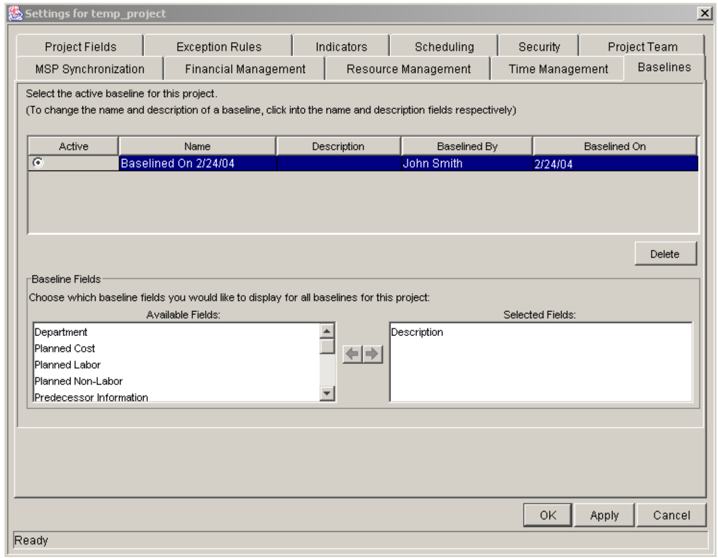
To manage Project baselines:

1. Open the Project you have taken baselines of.
2. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.



3. Click the **Baselines** tab.

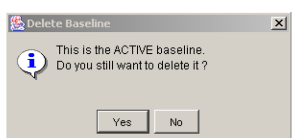


4. Select the radio button next to the baseline you want to be active for the Project.

5. (optional) Highlight a baseline you want to delete.

6. Click **Delete**.

   a. A dialog box will open asking if you are sure you want to delete the baseline.



   b. Click **Yes** to delete the baseline.

7. Apply the changes.

   To apply changes to the Project and continue to set baseline options without closing the window, click **Apply**. To apply changes to the Project and close the window, click **OK**.

Comparing Baselines

The Project Schedule Change Report can be used to compare baselines to each other, or to the Project schedule as it currently stands.

Chapter 5

Configuring Tasks

This chapter explains how to configure Tasks within a Project, including assigning Resources, setting up Notifications, and creating Milestones.

The following topics are covered:

- *Task Elements*
- *Adding Tasks to Projects*
- *Editing Task Information*
- *Assigning Resources*
- *Adding Action Items*
- *Adding Notes*
- *Setting Up Notifications*
- *Attaching References to Tasks*
- *Configuring Task Predecessors*
- *Changing the Task State*
- *Setting Scheduling Constraints*
- *Configuring User Data*

Task Elements

Projects are repositories of information consisting of Tasks, Action Items, Subprojects, Notes and References. These elements define and process specific business initiatives within an organization. Projects are not static entities. They gather additional information and are modified as they move through their Tasks to completion.

Tasks are the components of a Project that must be completed in order for the Project to complete successfully. Project Managers gather the information from Tasks and make appropriate changes to them through the life of the Project. This means the Tasks must be configured to deliver the kinds of specific information that Project Managers need. For example, Project Managers can need to be notified when Tasks are completed or their states change.

Tasks also need to be modified as issues arise during the Project, such as extending Task schedules or assigning additional resources to a Task to make a deadline. Team members must update their individual statuses as they complete assigned Tasks.

The following sections discuss the processes and elements used for configuring Tasks within a Project:

The following elements within Projects contribute to the information delivered by Tasks:

- *Notifications*
- *References*
- *Task Categories*
- *Task States*

Notifications

Project Managers can set up Notifications for Tasks within a Project. Email messages can be sent to appropriate team members whenever a specific event occurs on a Task. This would include such events as:

- The completion of a Task.
- The changing of a Task's state designation. For example, the Task could progress from 'Ready' to 'In Progress.'
- The triggering of an Exception Rule by a Task.
- The arrival of a Task's start or finish date approaches.

References

Tasks can include additional references to other entities or points of information, allowing easy access and visibility to data related to the current Task. Summary information for references is viewed as part of the Task.

There are several reference types defined for Tasks: Requests, Packages, Projects, Releases, Attachments and URLs.

Note

Project Managers can create Tasks from Requests in the Workbench. Once the Task is created, it automatically has a Reference to the originating Request. See *"Creating a Task From a Request"* on page 84 for additional details.

Task Categories

Tasks can be grouped in user-defined categories. For example, certain tasks could be grouped within a Design category, while other Tasks could be grouped within a Production category.

Task States

In the Workbench, the Task State is displayed in the State column of the Project window. The available states for a Task are defined in *Table 5-1*.

Table 5-1. Task State Definitions

Task State	Definition
New	A newly created Task starts in this state.
Pending Predecessor	A Task that is holding for one or more predecessors to be completed.
Pending Request	A Task that is holding for one or more Requests to be completed.
Ready	A Task that is ready to be worked on by its Resource.
In Progress	A Task that is moving through the actions necessary for its completion.
Completed	A Task that has been finished.

Table 5-1. Task State Definitions

Task State	Definition
cancelled	A Task that is not complete and will not be worked on, as it is no longer required for the completion of the Project.
Bypassed	An incomplete Task that is left unfinished after the Project is completed.

Note

Depending on their defined level of responsibility in a Project, users can only be able to change Tasks between certain states.

For example, Project Managers can change a Task from **Ready** to **In Progress** to **Cancelled**, or from **Bypassed** back to **Ready**. Project Participants are only able to change a Task from **Ready** to **In Progress** to **Complete**.

Available Task states can also depend on the state of the Project.

Adding Tasks to Projects

Tasks can be added to a Project individually or in a pre-sequenced group, as defined in a Project Template. Tasks can also be quickly and easily organized in a hierarchical fashion. See *"Adding Tasks to a Project"* on page 52 for more information.

The following sections explain how to create specific types of Tasks:

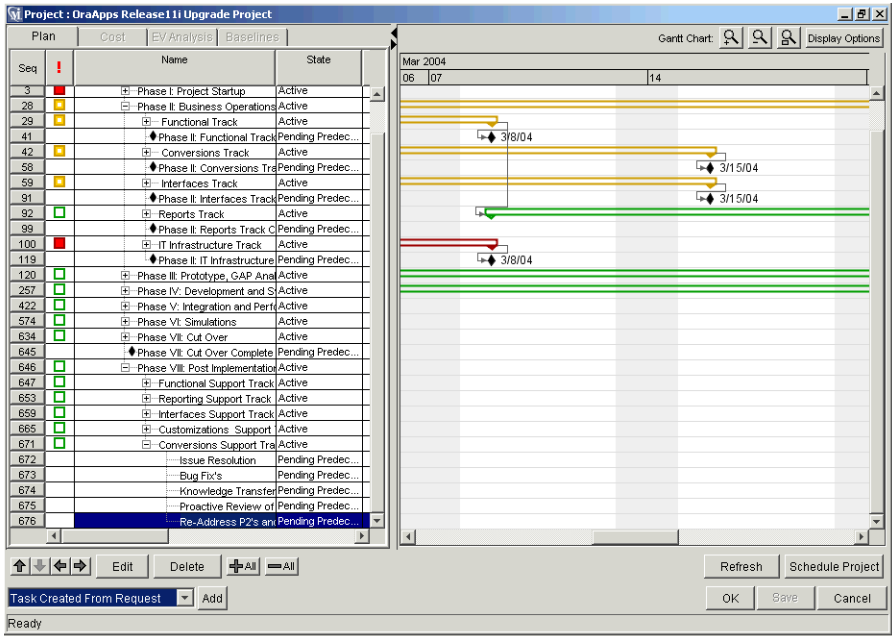
- *Creating a Task From a Request*
- *Creating a Milestone*

Creating a Task From a Request

A Task can be created from a Request on the Project window in the Workbench. The new Task will have a Reference to the originating Request.

To create a Task from a Request:

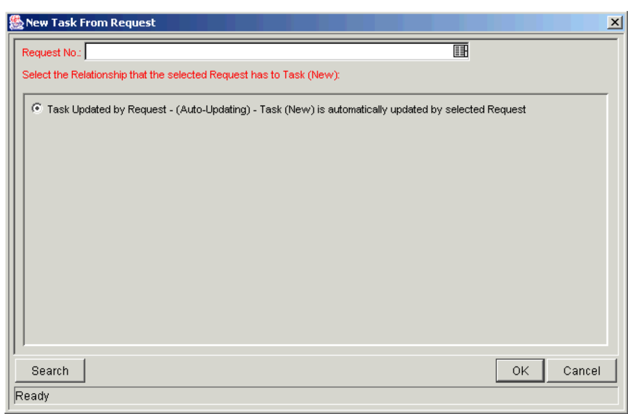
1. Go to the Project Plan Panel.



2. Select **Task Created From Request** from the drop down list at the bottom left corner of the window.

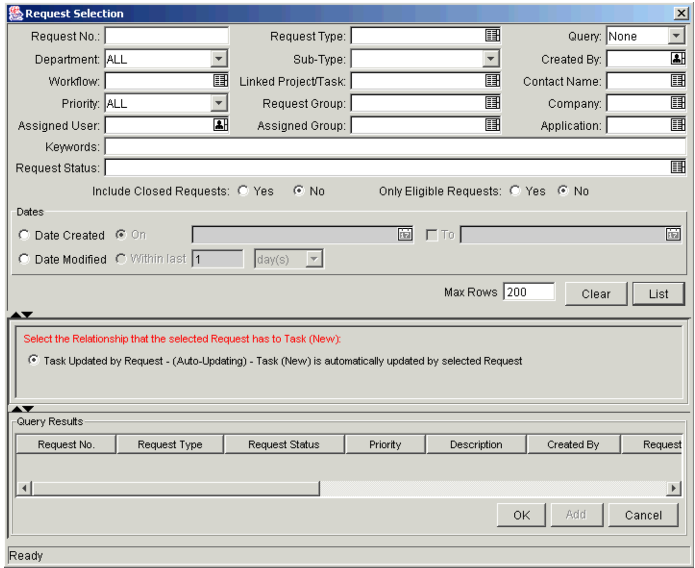
3. Click **Add**.

   The New Task From Request window opens.



4. Specify the Request(s) to use in the Request No. auto-complete list, or click **Search** to search for the Request(s).

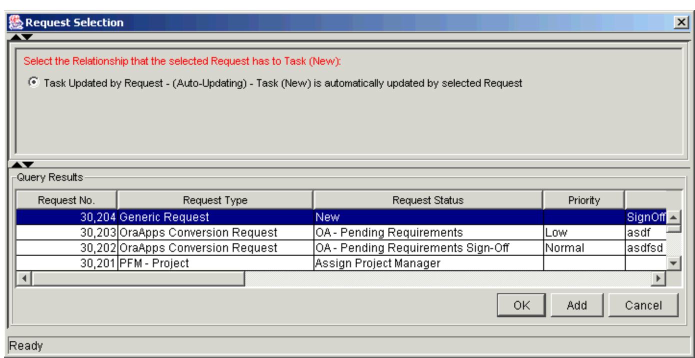
   The Request Selection window opens.



5. Search for the Request(s) to use by entering search criteria in the appropriate fields.

6. Click **List**.

   The Requests that match your search criteria display in the Query Results section of the window.



7. Select the Request(s) in the Query Results section that you want turn into Task(s).

   You can select multiple Requests in the Query Results section. When they are added to the Project Plan, a new Task is created for each selected Request.

8. **Task Updated by Request** is specified as the Relationship.

9. Create the new Task.

   Click **OK** to create the new Task and close the window or click **Add** to create the new Task and perform additional searches for more Requests.

   The new Task has been created from the selected Request and is part of the current Project. The Task is linked to the Request. You can change the Reference for this Task at any time by double-clicking it, opening the Task Information window and editing it in the **References** tab.

10. Save the new Task.

    Click **Save** to save the new Task and leave the Project window open or click **OK** to save the new Task and close the Project window.

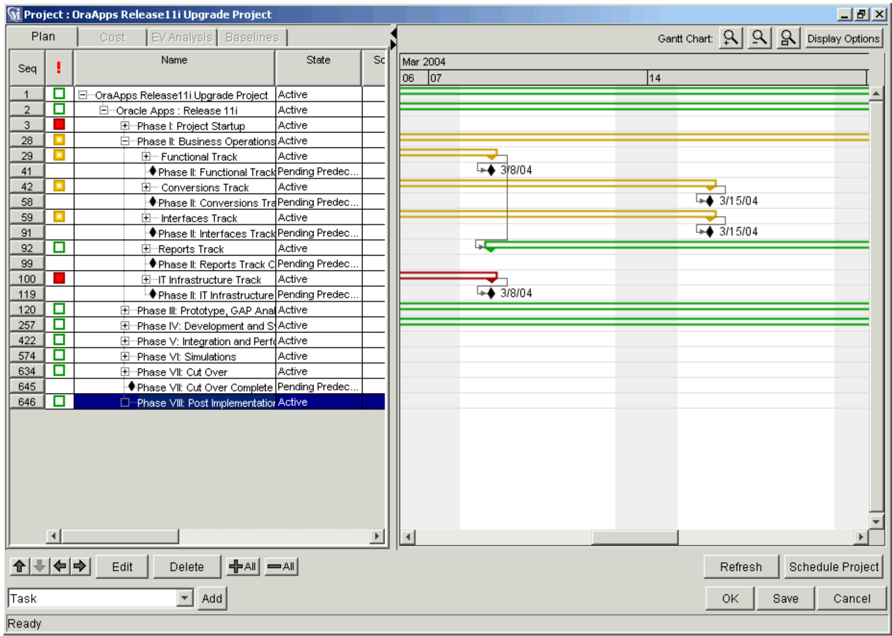
Creating a Milestone

Milestones can be created for a Project plan in the same way as Tasks.

To create a Milestone:

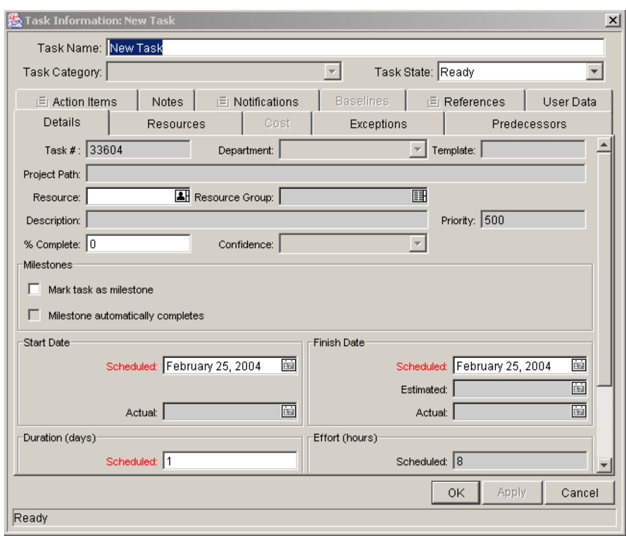
1. Within the Project window, click **Add Task**.

   A new Task appears in the Project Plan Panel below the current selection. You can also add a new Task by selecting the last item in the Project Plan Panel and pressing Insert or the down arrow on your keyboard.



2. Double click on the new Task.

   The Task Information window opens.



3. Select the Mark task as milestone check box.

If you want the Milestone to mark itself as Complete automatically upon being reached, select the Milestone automatically completes check box.

4. Modify the information under each tab in the Task Information window as necessary (for details, see *"Editing Task Information"* on page 89).

5. Apply the changes.

   To apply changes to the Task without closing the window, click **Apply**. To apply changes to the Task and close the Task Information window, click **OK**. To close the Task Information window without saving changes, click **Cancel**.

> **Note**
> A Task will be automatically converted to a Milestone if its duration is 0.

Editing Task Information

Users with appropriate security permissions can edit information for Tasks displayed in the Project Plan Panel. Task information can be edited directly in the Project Plan Panel, or in the Task Information window.

To edit Task information from the Project Plan Panel

1. Locate the Task to edit.

   - If you are editing an existing Task, query and open an existing Project.
   - If you are editing a newly created Task, you are already in the Project Plan Panel.

2. Click on any desired fields to edit their contents directly.

3. Click **OK** or **Save** to save the information.

To edit Task information in the Task Information window

1. Locate the Task to edit.

2. Open the Task Information window.

- Query and open the Task directly from the Task Workbench. The Task Information window opens.

  Or

- Query and open an existing Project. Double-click the Task to edit, or select it and click **Edit**. The Task Information window opens.

3. Make whatever changes are necessary in the Task Information window.

4. Click **OK** or **Save** to save the information.

Note

Updating information in the Project Plan Panel is more direct, while more detailed information can be edited in the Task Information window.

Assigning Resources

Users with appropriate security permissions can assign Resources to Tasks displayed in the Project Plan Panel. Resources can be assigned directly in the Project Plan Panel, or in the Task Information window. The following sections discuss Resource-related topics in more detail:

- *Assigning Resources in the Project Plan Panel*
- *Assigning Resources in the Task Information Window*
- *Assigning Multiple Resources in the Task Information Window*
- *Assigning Resource Groups*
- *Determining Project Resources*

Assigning Resources in the Project Plan Panel

Resources can be assigned for existing Tasks and new Tasks in the Project Plan Panel.

To assign Resources to existing and new Tasks in the Project Plan Panel:

1. In the Workbench, open the Project Plan Panel for the Project you are editing.

- If you are assigning Resources to an existing Task, query and open the Project containing the Task.
- If you are assigning Resources to a newly created Task, you are already in the Project Plan Panel.

2. Select the Task to assign Resources.
3. Click the auto-complete icon in the Resource/Proj Manager column field.
   a. The Validate window showing all the available resources opens.
   b. From the Validate window, select a resource.
4. Click **OK** or **Save** to save the information.

Assigning Resources in the Task Information Window

Resources can be assigned to existing Tasks and new Tasks in the Task Information Window.

To assign Resources to existing or new Tasks in the Task Information Window:

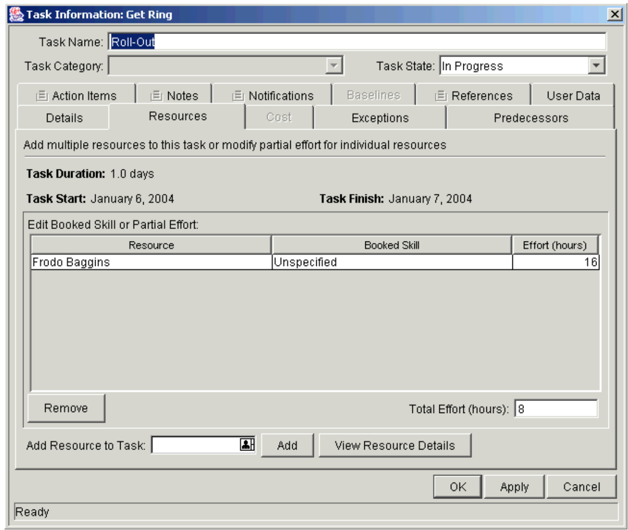
1. Open the Task Information window.
2. Click the **Details** tab.
3. In the Resource field, click the auto-complete list icon.
4. From the Validate window, select a Resource.
5. Click **OK** or **Apply** to save the information.

Assigning Multiple Resources in the Task Information Window

Multiple Resources can be assigned to existing Tasks and new Tasks. Once multiple Resources have been assigned, their individual effort hours or Booked Skill can be adjusted at any time.

To assign multiple Resources to existing or new Tasks in the Task Information Window:

1. Open the Task Information window.
2. Click the **Resources** tab.



3. Specify a Resource in the Add Resource to Task auto-complete list.

4. Click **Add**.

   Repeat as necessary.

5. If the Resource has more than one Skill defined, choose the appropriate Skill from the auto-complete in the Booked Skill column.

6. To adjust the number of effort hours for a Resource, click the numeric field in the Effort (hours) column and enter a new value.

7. Save the information.

   Click **Apply** to store the information and continue to work in the Task Information window, or click **OK** to save the information and close the window. The Resource assignments will not be saved until you click either.

Assigning Resource Groups

In order to add Resource Groups, first make sure that the field is enabled in the Project Settings. See *"Selecting Information to Track and Display"* on page 30 for details.

Determining Project Resources

Project Managers can specify users who will be allowed to act as Resources for a Project. In the **Project Team** tab of the Project Settings window, the Project Manager can choose to either:

- Allow all users with the **Project** option enabled in their Security Groups to be Resources for a Project.

  Or

- Allow only those Resources who are specified in the **Project Team** tab to be used as Resources for a Project. These Resources are listed in the tab's Resource table.

See *"Setting Up the Project Team"* on page 46 for more information about setting up the resources in the **Project Team** tab for a Master Project.

Adding Action Items

Action Items are used to capture important "to do" items that do not require the formal definition, tracking, and hierarchical restrictions of a Task. Action Items can be added to existing Tasks and new Tasks. Action Items are added in the Task Information window.

To add an Action Item to a Task:

1. Open the Task Information window.
2. In the Task Information window, click the **Action Items** tab.
3. Click **Add**.

   The Action Item window opens.

4. Enter information in the required fields and drop down lists.

   Select Required = **Yes** if you want the Action Item to be required. The Task will not complete until the Action Item has been completed.

5. Click **Add** to add the Action Item and continue to create more, or click **OK** to add the Action Item and close the window.
6. Save the Action Item.

Click **Apply** to store the information and continue to work in the Task Information window, or click **OK** to save the information and close the window. The Action Item will not be saved until you click **OK**.

7. Save the Task information.

   If the Task Information window is opened from the Project Plan Panel, you must click **OK** or **Save** in the Project window to save the task information.

Adding Notes

Users can enter free-form text in the **Notes** tab of the Task Information window. Saved entries are marked with a timestamp.

To add Notes to a Task:

1. Open the Task Information window.
2. In the Task Information window, click the **Notes** tab.
3. Enter any Notes into the New Notes text field.

   To increase the viewable area, click **Enlarge**.
4. Save the Notes.

   Click **Apply** to store the Notes and continue to work inside the Task Information window, or click **OK** to save the Notes and close the window. The Notes will not be saved until you click **OK**.
5. Click **OK** or **Save** in the Project window to save the task information.

Note

The **Notes** tab can contain up to 32K of information per Project.

Setting Up Notifications

Notifications are set up in the Task Information window.

To set up a Notification for a Task:

1. Open the Task Information window for the Task.
2. In the Task Information window, click the **Notifications** tab.
3. Click **New**.

   The Add Notification for Task window opens.

4. In the **Setup** tab, enter information as described in the *Table 5-2 on page 96*.

   The Event drop down list allows you to choose to send a Notification based on any of the following criteria:

   - The Task has reached a specific state.
   - The Task has triggered a particular Exception.
   - The Task's Scheduled Start or Finish date is approaching, has arrived, or has passed.

5. To add a new user to the Recipients, click **New**.

   The Add New Recipient window opens.

6. Enter information in the required fields.
7. Click **Add** to add the new recipient.

   Note that the enabled **Multi** capability of the Username auto-complete list enables you to select multiple recipients. Click **OK** to return to the Add Notification for Task window. Click **Cancel** to return to the Add Notification for Task window without saving any changes.

8. (Optional) In the Add Notification for Task window you can use the **Edit** and **Delete** buttons to modify the list of recipients. Click **Token** to view the available tokens.
9. (Optional) Click the **Message** tab in the Add Notification for Task window if you want to view and edit the Message Notification Template.

10. (Optional) Notifications can be configured to include the Web address (URL) for a specific Project or Task. This is referred to as a Smart URL. You can include a Smart URL token for the Notification. See the next section, *Using Smart URLs in Notifications*, for more information.

11. Click **OK** to close the window.

Using Smart URLs in Notifications

Notifications can be configured to include the Web address (URL) for the specific Project or Task. When users receive a Notification email and click the URL, they are taken directly to the Project or Task. The available Tokens for Projects and Tasks are described in *Table 5-2*.

Table 5-2. Smart URL Tokens

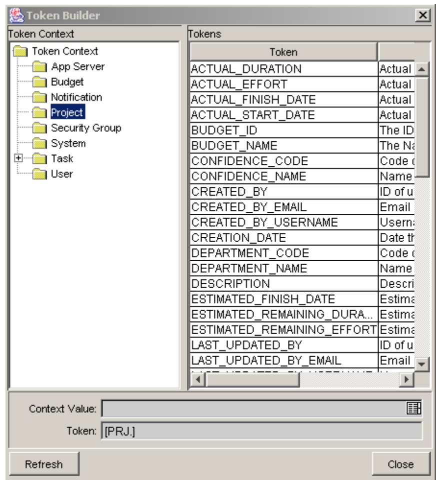
Smart URL Token	Description
PROJECT_URL	URL to access the Project Overview page for this Project.
WORKBENCH_PROJECT_URL	URL to access the Project window for this Project in the Workbench.
TASK_URL	URL to access the Task Detail page for this Task.
WORKBENCH_TASK_URL	URL to access the Task window for this Task in the Workbench.

To use a Smart URL:

1. Follow the procedure described in *"Setting Up Notifications"* on page 95.
2. Open the Task Information window.
3. Click the **Notifications** tab.
4. Click **New**.

   The Add Notification for Task window opens.
5. Click the **Message** tab.
6. Click **Tokens.**

The Token Builder window opens.



7. Click either the Project or Task folder to display the list of Tokens.

   The figure above shows the Smart URLs for Projects.

8. In the Token column of the window, select the appropriate Token from the list of Tokens, such as CREATED_BY or DEPARTMENT_CODE for Projects.

   The Token you select displays in the Token field.

9. Select the Token in the Token field.

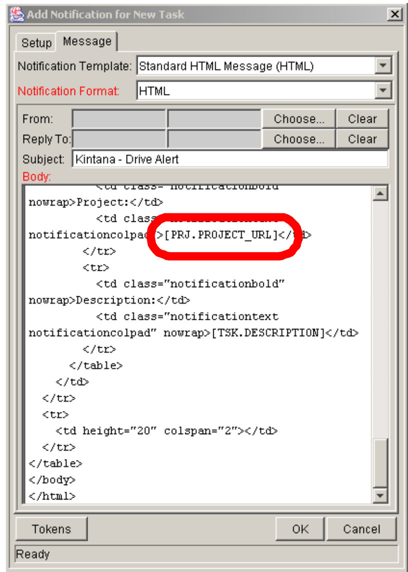
10. Press **Ctrl+c** to copy the Token's name.

11. Click **Close** to close the Token Builder window.

12. Click in the Notification's Body text section at the point where you want to insert the Smart URL.

13. Press **Ctrl+v** to paste the Smart URL's Token in the Body section.

    The figure below shows the Project URL in the Body section of an HTML-format Notification.



14. Click **OK** to close the Add Notification for Task window.

15. Click **OK** to close the Task Information window.

    The email Notification sent from this Task will contain a URL to open a specific Project or Task.

Nested Tokens in Notifications

Notifications can be configured to include Project information using Tokens. As Project hierarchies become more complex, Token syntax can become correspondingly involved. For example, consider a Project with the following structure:

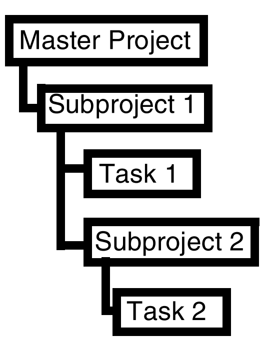


Figure 5-1 Project Structure

A Notification from Task 2 can use Tokens to refer to Project information on any level above it. The sample Notification below displays the Project Name for the Master Project and its Subprojects.

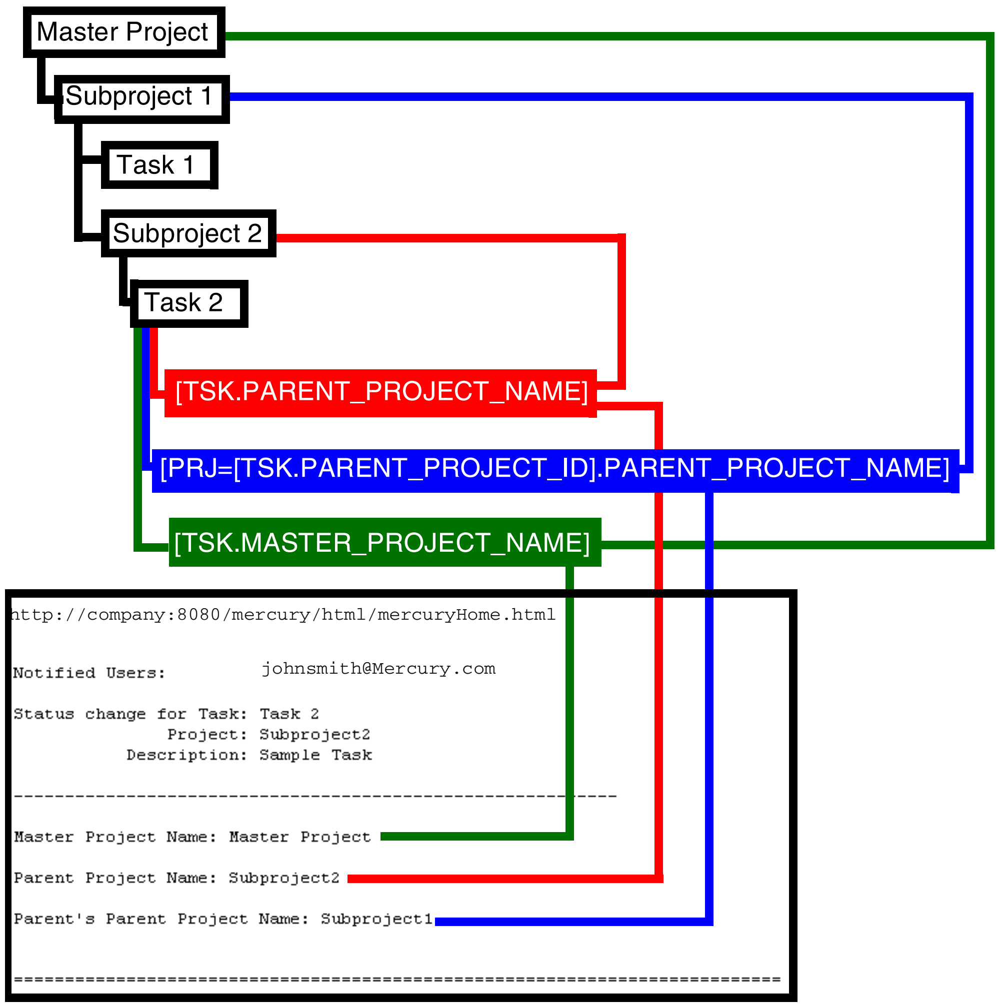


Figure 5-2 Sample Notification

Entering Cost Data

If Project Management's Financial Management capability has been enabled for this Project, you can track and enter Actual Cost data in the Project window. See *"Entering Actual Cost Data"* on page 240 for more detailed information.

Attaching References to Tasks

Project Management features a number of methods for capturing additional information, or References, related to your Projects. References are attached from the Task Information window.

To attach References to a Task:

1. Open the Task Information window.
2. In the Task Information window, click the **References** tab.
3. Attach the Reference.

   In the Workbench, users can perform the following Reference activities for their Tasks:

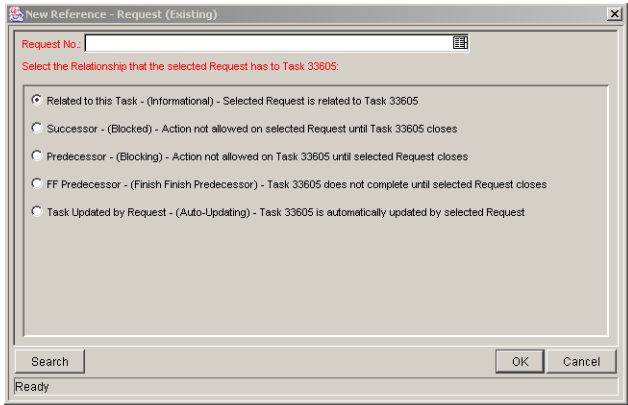
   - *"Attaching Existing Requests"* on page 100
   - *"Attaching New Requests"* on page 103
   - *"Attaching Packages"* on page 104
   - *"Attaching New Packages"* on page 107
   - *"Attaching Tasks"* on page 108
   - *"Attaching Releases"* on page 110
   - *"Attaching Documents"* on page 111
   - *"Attaching URLs"* on page 112

Attaching Existing Requests

To attach an existing Request to a Task:

1. Open the Task Information window.
2. Click the **References** tab.
3. Select **Request (Existing)** from the New Reference drop down list.
4. Click **Add**.

   The New Reference - Request (Existing) window opens.



5. To select the Request to attach, use one of the following methods:

   - Enter the Request Number in the Request No. field or click the Request No. auto-complete list icon to locate and select the Request in a Validate window. (Hold down **Ctrl+Click** or **Shift+Click** to select more than one Request.) The selected Request displays in the Request No. field. If you selected multiple Requests, they all display in the Request No. field separated by semi-colons.

   - Click **Search** to search for Requests in a separate query window and follow the procedure in *"Searching for Requests to Attach"* on page 102.

6. Select the type of relationship you want to assign between the Task and its Reference from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached Request displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

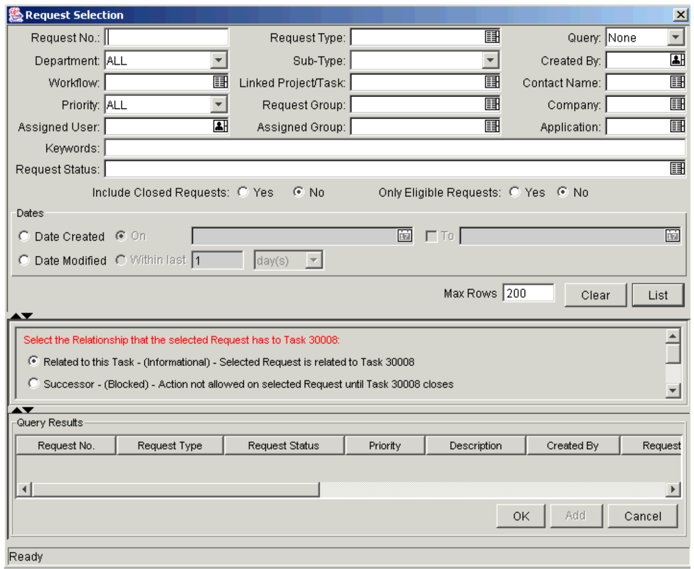
9. Click **Save** to save the attached Request as a Reference in the Project.

Searching for Requests to Attach

To search for Requests to attach to a Task:

1. From the New Reference - Existing Request window, click **Search**.

   A new query window opens.



2. Query for the Request(s) you want to use by entering search criteria in the appropriate fields.

3. Click **List**.

   The Requests that match your search criteria display in the Query Results section of the window.

4. Select the Request(s) in the Query Results section that you want to attach to a Task.

5. Select the type of relationship you want to assign between the Task and its Request.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

6. Click **OK** to attach the Request(s) to the Task and close the current window.

   You return to the **References** tab in the Task Information window.

7. After you return to the Task Information window, the new attached Request displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

9. Click **Save** to save the attached Request as a Reference in the Project.

Attaching New Requests

A new Request can be created from the **References** tab and immediately attached to a Task. This saves time from having to create a new Request in Demand Management, searching for it, and attaching it to the Task.

To attach a new Request to a Task:

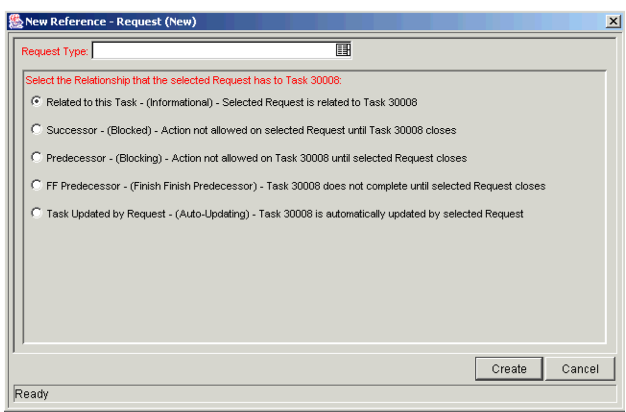
1. Open the Task Information window.

2. Click the **References** tab.

3. Select **Request (New)** from the New Reference drop down list.

4. Click **Add**.

   The New Reference - Request (New) window opens.



5. Select a Request Type from the Request Type auto-complete list.

6. Select the type of relationship you want to assign between the Task and its Reference from the list.

See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

7. Click **Create**.

   The standard interface opens with the Request Type loaded.

8. Enter any necessary information in the Request's fields.

9. Click **Save**.

   The Request is submitted. You return to the **References** tab in the Task Information window. The new attached Request displays as a Reference.

10. Click **OK** to close the Task Information window.

    You return to the Project window.

11. Click **Save** to save the attached Request as a Reference in the Project.

Attaching Packages

To attach a Package to a Task:

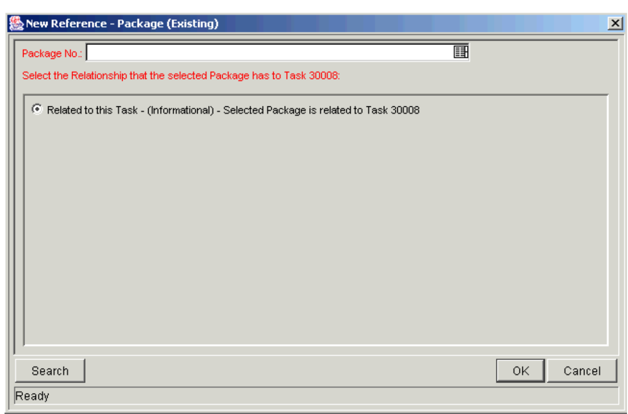
1. Open the Task Information window.

2. Click the **References** tab.

3. Select **Package** from the New Reference drop down list.

4. Click **Add**.

   The New Reference - Package window opens.



5. To select a Package for an attachment, use one of the following methods:

   - Enter the Package Number in the Package No. field or click the Package No. auto-complete list icon to locate and select the Package in the Validate window. (Hold down **Ctrl+Click** or **Shift+Click** to select more than one Package.) The selected Package displays in the Package No. field. If you selected multiple Packages, they all display in the Package No. field separated by semi-colons.

   - Click **Search** to search for Packages in a separate query window and follow the procedure in *"Searching for Requests to Attach"* on page 102.

6. Select the type of relationship you want to assign between the Task and its Reference from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached Package displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

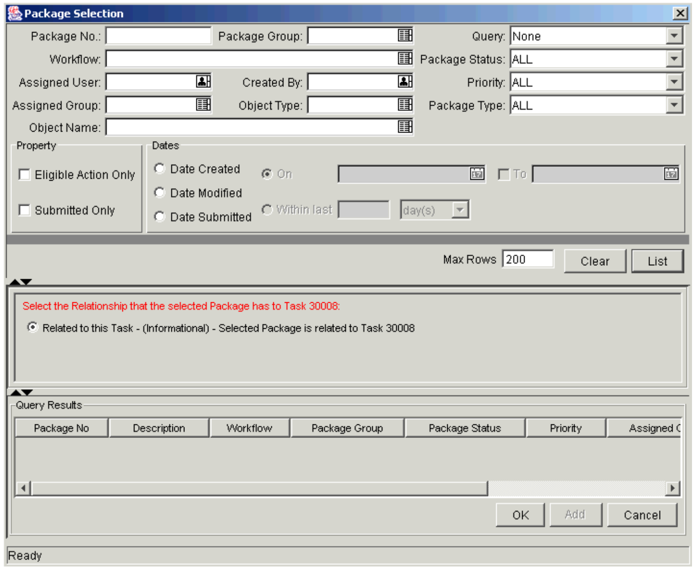
9. Click **Save** to save the attached Package as a Reference in the Project.

Searching for Packages to Attach

To search for Packages to attach to a Task:

1. From the New Reference - Existing Package window, click **Search**.

   A new query window opens.



2. Query for the Package(s) you want to use by entering search criteria in the appropriate fields.

3. Click **List**.

   The Packages that match your search criteria display in the Query Results section of the window.

4. Select the Package(s) in the Query Results section that you want to attach to a Task.

5. Select the type of relationship you want to assign between the Task and its Reference from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

6. Click **OK** to attach the Package(s) to the Task and close the current window.

   You return to the **References** tab in the Task Information window. The new attached Package displays as a Reference.

7. Click **OK** to close the Task Information window.

   You return to the Project window.

8. Click **Save** to save the new Package as a Reference in the Project.

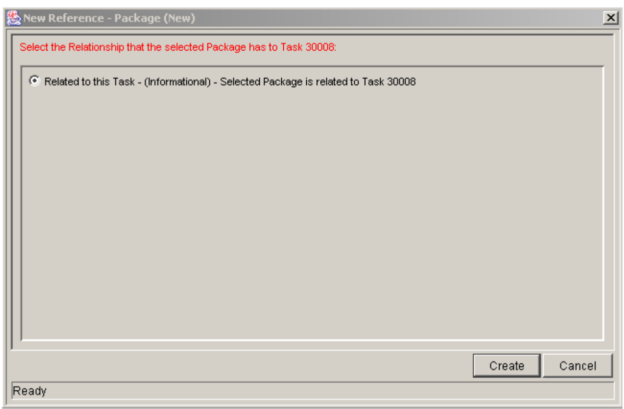
Attaching New Packages

A new Package can be created from the **References** tab and immediately attached to a Task. This saves time from having to create a new Package in Change Management, searching for it, and attaching it to the Task.

To attach a new Package to a Task:

1. Open the Task Information window.
2. Click the **References** tab.
3. Select **Package (New)** from the New Reference drop down list.
4. Click **Add**.

   The New Reference - Package (New) window opens.



5. Click **Create**.

   The Package window opens.

6. Enter any necessary information in the Package's fields.
7. Click **Save**.

   The Package is submitted. You return to the **References** tab in the Task Information window. The new attached Package displays as a Reference.

8. Click **OK** to close the Task Information window.

You return to the Project window.

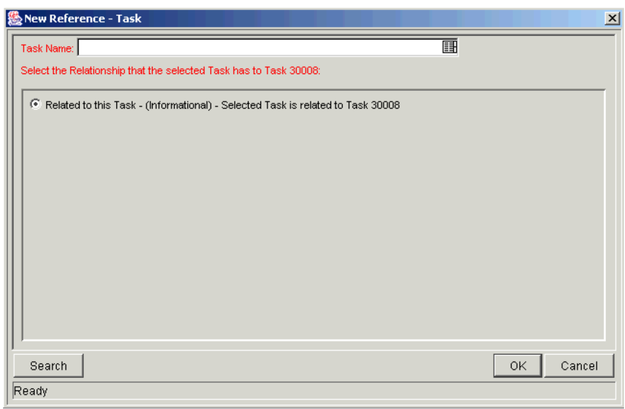
9. Click **Save** to save the attached Package as a Reference in the Project.

Attaching Tasks

To attach a Task to a Task:

1. Open the Task Information window.
2. Click the **References** tab.
3. Select **Task** from the New Reference drop down list.
4. Click **Add**.

   The New Reference - Task window opens.



5. To select a Task for attachment, use one of the following methods:
   - Enter the Task Name in the Task Name field or click the Task Name auto-complete list icon to locate and select the Task in a Validate window. (Hold down **Ctrl+Click** or **Shift+Click** to select more than one Task.) The selected Task displays in the Task Name field. If you selected multiple Tasks, they all display in the Task Name field separated by semi-colons.
   - Click **Search** to search for Tasks in a separate query window and follow the procedure in *"Searching for Requests to Attach"* on page 102.

6. Select the type of relationship you want to assign between the Task and its Reference from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached Task displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

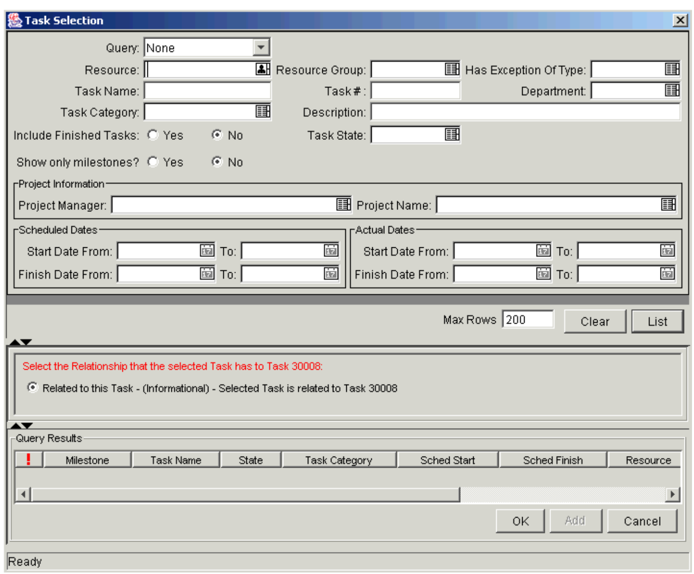
9. Click **Save** to save the attached Task as a Reference in the Project.

Searching for Tasks to Attach

To search for Tasks to attach to a Task:

1. From the New Reference - Task window, click **Search**.

   A new query window opens.



2. Query for the Task(s) you want to use by entering search criteria in the appropriate fields.

3. Click **List**.

   The Tasks that match your search criteria display in the Query Results section of the window.

4. Select the Task(s) in the Query Results section that you want to attach to a Task.

5. Select the type of relationship you want to assign between the Task and its attachment from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

6. Click **OK** to attach the Task(s) to the Task and close the current window.

   You return to the **References** tab in the Task Information window. The new attached Task displays as a Reference.

7. Click **OK** to close the Task Information window.

   You return to the Project window.

8. Click **Save** to save the attached Task as a Reference in the Project.

Attaching Releases

To attach a Release to a Task:

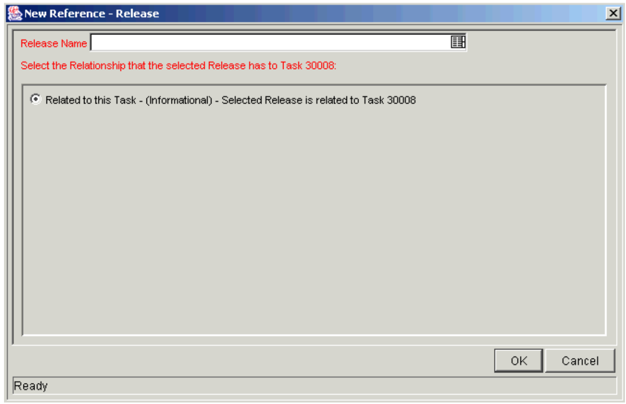
1. Open the Task Information window.

2. Click the **References** tab.

3. Select **Release** from the New Reference drop down list.

4. Click **Add**.

   The New Reference - Release window opens.



5. To select a Release for an attachment, enter the Release Name in the Release Name field or click the Release Name auto-complete list icon to locate and select the Release in a Validate window. (Hold down **Ctrl+Click** or **Shift+Click** to select more than one Release.) The selected Release displays in the Release Name field. If you selected multiple Releases, they all display in the field separated by semi-colons.

6. Select the type of relationship you want to assign between the Task and its Reference from the list.

   See *"Dependency Relationships"* on page 113 for a description of the various relationships that can be assigned.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached Release displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

9. Click **Save** to save the attached Release as a Reference in the Project.

Attaching Documents

To attach a Document to a Task:

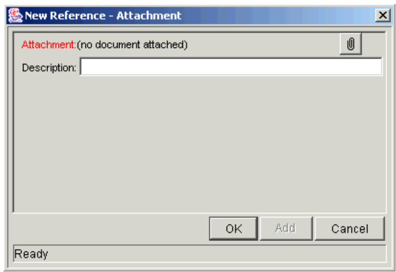
1. Open the Task Information window.

2. Click the **References** tab.

3. Select **Attachment** from the New Reference drop down list.

4. Click **Add**.

   The New Reference - Attachment window opens.



5. To select a Document for an attachment, click the File Chooser icon.

   Open the drive and directory where the file you want to attach is located and select it. The name of the Document displays in the Attachment field.

6. Enter a description in the Description field.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached Document displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

9. Click **Save** to save the attached Document as a Reference in the Project.

Attaching URLs

To attach a URL to a Task:

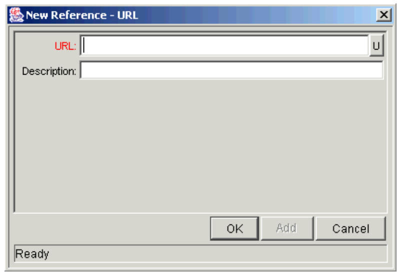
1. Open the Task Information window.

2. Click the **References** tab.

3. Select **URL** from the New Reference drop down list.

4. Click **Add**.

The New Reference - URL window opens.



5. Enter the name of the URL in the URL field.

6. Enter a description in the Description field.

7. Click **OK**.

   You return to the **References** tab in the Task Information window. The new attached URL displays as a Reference.

8. Click **OK** to close the Task Information window.

   You return to the Project window.

9. Click **Save** to save the attached URL as a Reference in the Project.

Dependency Relationships

The dependency relationships available when you attach References of various types to a Task are described in *Table 5-3*.

Table 5-3. Dependency Relationships

Relationship	Description
Adding Requests to Tasks	
FF Predecessor	The Task does not complete until the selected Request closes.
Predecessor	Action is not allowed on this Task until the selected Request closes.
Related to this Task	The selected Request is related to this Task.
Successor	No Action is allowed on the selected Request until this Task closes.

Table 5-3. Dependency Relationships

Relationship	Description
Task Updated by Request	This Task is automatically updated by the selected Request.
Adding Packages to Tasks	
Related to this Task	The Referenced Package is related to this Task.
Adding Projects to Tasks	
Related to this Task	Referenced Project is related to this Task.
Adding Releases to Tasks	
Related to this Task	Referenced Release is related to this Task.
Adding Tasks to Tasks	
Related to this Task	The Referenced Task is related to this Task.

Configuring Task Predecessors

Task predecessors are configured from the Project Plan Panel. A predecessor is a Task or Project that has a defined relationship between its start or finish date, and the start or finish dates of the Task that is dependent on it.

When Request References are attached to a Task, they can also act as predecessors for the dependency relationship you assign to them. For instance, if you assign a Predecessor relationship between a Task and a Request that has been attached to the Task as a Reference, action is not allowed on this Task until the Request closes.

See *"Attaching References to Tasks"* on page 100 for more information on how to assign relationships between Tasks and References.

See *"Dependency Relationships"* on page 113 for a list of the dependency relationships and their descriptions.

See *"Setting Up Project Dependencies"* on page 63 for more detailed information on setting Task and Project Predecessors.

Changing the Task State

There are two methods for changing a Task's state. A Task's state can be changed from inside the Project window, or in its Task Information window.

To change a Task's state from the Project window

1. States can be changed for existing Tasks and new Tasks.
   - If you are changing the state of an existing Task, query and open an existing Project.
   - If you are changing the state of a newly created Task, you are already in the Project Plan Panel.
2. In the Project Plan Panel, select a new state for the Task from the drop down list in the State column.

To change a Task's state from its Task Information window

1. Open the Task Information window.
2. Select the new Task state from the Task State drop down list at the top of the window.
3. Click **OK**.
4. Click **Save** to save the Task state changes.

Setting Scheduling Constraints

Scheduling constraints prevent certain changes to a schedule. If a Project Manager attempts to schedule a constrained Task outside of its constraint, Project Management will alert the user to the conflict and reset the date to its previous value. Scheduling constraints are set in the Task Information window.

To set a Task's scheduling constraints:

1. Open the Task Information window.
2. Click the **Details** tab in the Task Information window.

3. Under Scheduling Constraints, select the type of constraint you want to use from the Constraint Type drop down list.
4. Enter a date in the Constraint Date field.
5. Click **OK**.

Configuring User Data

User Data is the set of custom fields that can be defined for various Project Management entities. User Data fields can be used to capture data not covered by the default Project/Task information fields, such as Cost. These fields are accessed through the **User Data** tab in the Task Information window. If no User Data has been defined for a particular entity, the tab is disabled.

Project/Task User Data Roll-Up

Values from Task User Data fields can be configured to "roll up" (combine/process values in a meaningful way) into parent Project User Data fields. The following types of Task User Data can roll up into Project User Data:

- Numeric fields (Text Field component type with Numeric data mask)
- Date fields

For each Project, a Project User Data field can show a roll-up of Task User Data values using one of the following methods:

- **Average**
  Shows the average of all values of a specified Task User Data field for every Task under the Project (Numeric fields).
- **Maximum**
  Shows the largest of all values of a specified Task User Data field for every Task under the Project (Numeric and Date fields).
- **Minimum**
  Shows the smallest of all values of a specified Task User Data field for every Task under the Project (Numeric and Date fields).
- **Sum**
  Shows the summation of all values of a specified Task User Data field for every Task under the Project (Numeric fields).

Project/Task User Data Roll-Up can be used to capture various important aspects of a Project.

Example

Using the “Average” Roll-Up Method, the average cost of all a Project’s Tasks can be easily determined and automatically recalculated each time a Task is updated.

Using the “Maximum” Roll-Up Method, the latest date out of a Project’s Tasks can be captured.

Using the “Minimum” Roll-Up Method, the earliest date out of a Project’s Tasks can be captured.

Using the “Sum” Roll-Up Method, the total cost of a Project’s Tasks can be easily determined and automatically recalculated each time a Task is updated.

Creating Project/Task User Data Roll-Up

User Data must be configured for Projects and Tasks before specifying Roll-Up Methods.

1. Create and configure Project and Task User Data fields.

2. Link Project and Task User Data fields with Roll-Up Method.

Example: Using Project/Task User Data Roll-Up

Company X would like to capture total cost for its Projects. Total Project cost in this case is to be calculated by adding the costs of individual Tasks. User Data fields for Task cost and Project total cost are each defined. The relationship is illustrated below:

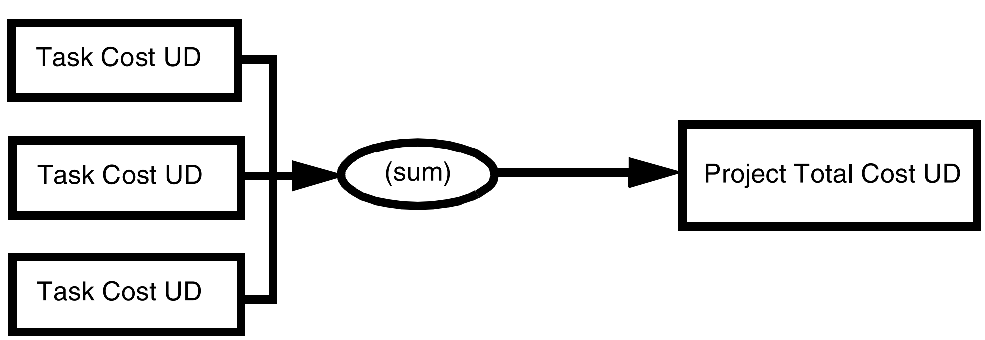


Figure 5-3 User Data Roll-Up

Each Task has its own Cost User Data field. The values for each Task Cost User Data field are rolled up using the “Sum” Roll-Up Method into the Project Total Cost User Data field.

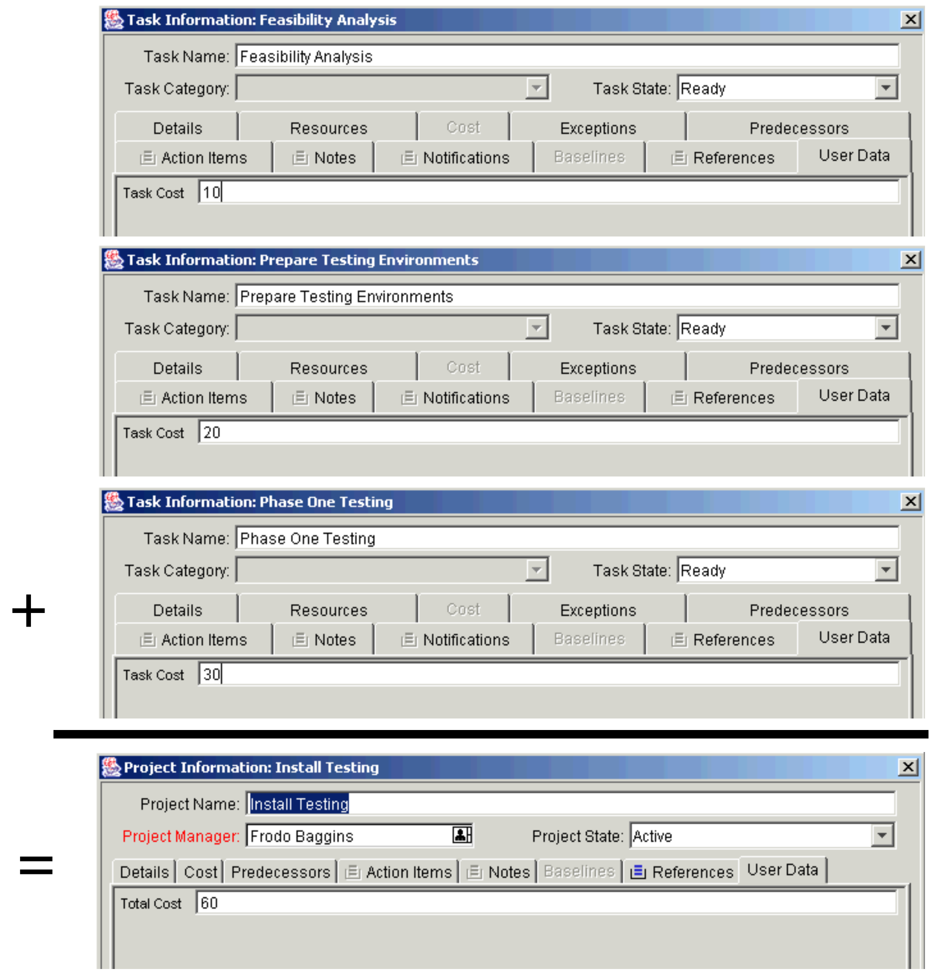


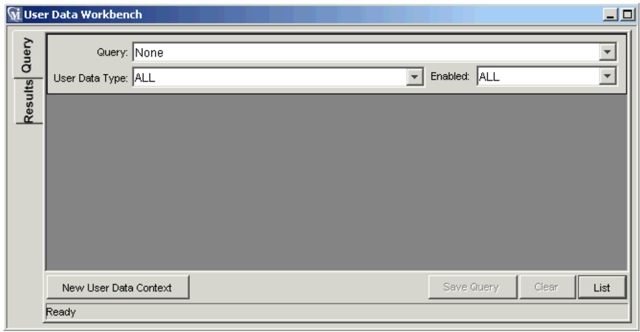
Figure 5-4 User Data Roll-Up Example

Once Project and Task User Data fields have been configured and saved, the Roll-Up relationship can be specified.

To specify the Roll-Up Method:

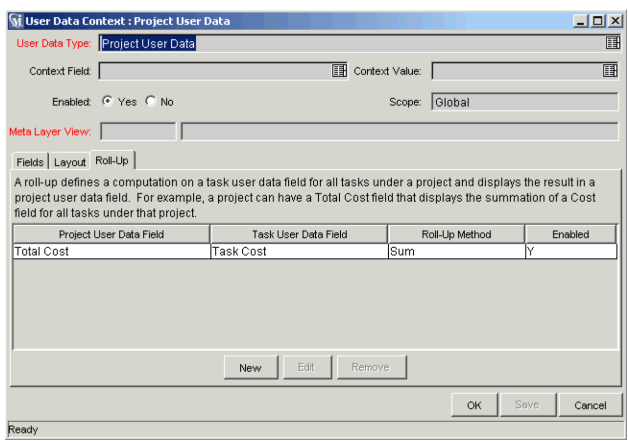
1. In the Workbench, click the **Configuration** screen group.
2. Click the User Data icon.

   The User Data Workbench opens.



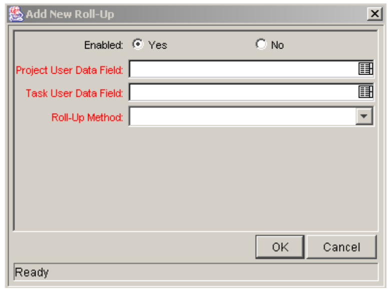
3. Select **Project User Data** from the User Data Type drop down list.
4. Click **List**.

   The **Results** tab opens with the Project User Data Type loaded.
5. Select the Project User Data and click **Open**.
6. Click the **Roll-Up** tab.



7. Click **New**.

   The Add New Roll-Up window opens.



8. Select the Project User Data Field that will contain rolled-up Task User Data values.

9. Select the Task User Data Field whose values will roll up into the chosen Project User Data Field.

10. Select the Roll-Up Method from the drop down list.

    The drop down list will only display valid options for the data types of the Project and Task User Data Fields.

11. Select **Yes** to enable the Roll-Up.

12. Click **OK**.

    The Roll-Up relationship is added to the **Roll-Up** tab.

13. Click **Save**.

Note

Only two User Data fields of the same type can be selected for Roll-Up (for example, a Numeric field cannot roll up into a Date field, nor vice versa).

While a Task User Data field can have multiple Roll-Up relationships associated with it, a Project User Data field cannot have more than one Roll-Up relationship defined.

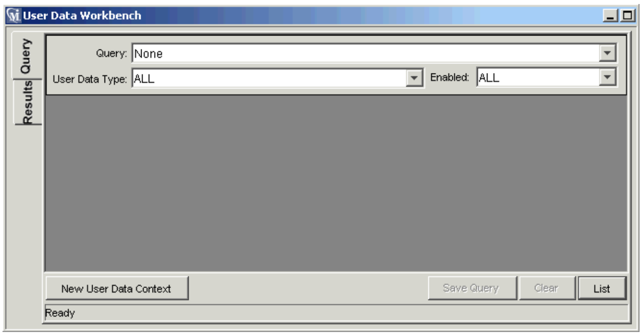
Editing Project/Task User Data Roll-Up

Project/Task User Data Roll-Up can be edited from the Workbench once it has been created.

To edit a Project/Task User Data Roll-Up relationship:

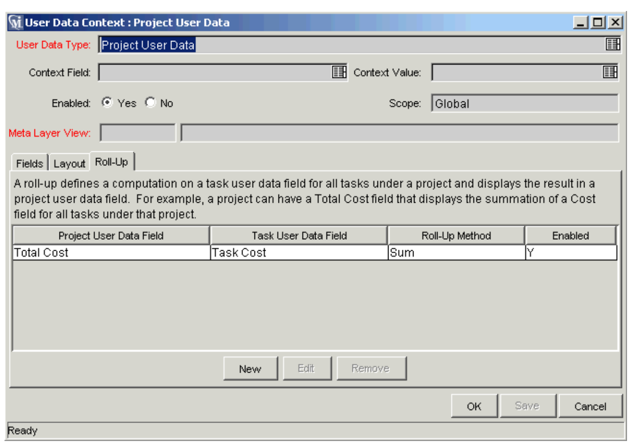
1. In the Workbench, click the **Configuration** screen group.
2. Click the User Data icon.

   The User Data Workbench opens.



3. Select **Project User Data** from the User Data Type drop down list.
4. Click **List**.

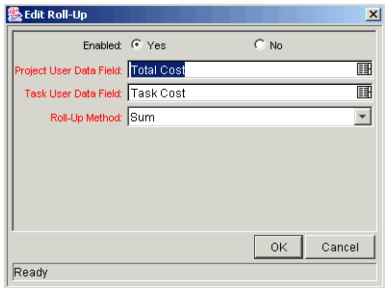
   The **Results** tab opens with the Project User Data Type loaded.
5. Select the Project User Data and click **Open**.
6. Click the **Roll-Up** tab.



7. Select the Roll-Up relationship to edit.

8. Click **Edit**.

   The Edit Roll-Up window opens.



9. Make any desired changes to the Project/Task User Data Field or Roll-Up Method.

10. Click **OK**.

    The Roll-Up definition is updated in the **Roll-Up** tab.

11. Click **Save**.

Deleting Project/Task User Data Roll-Up

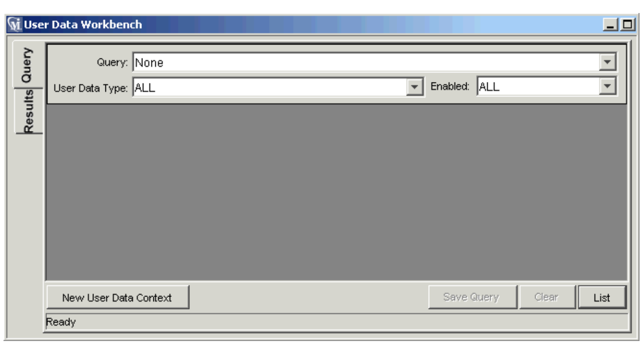
Project/Task User Data Roll-Up can be deleted. This deletion only removes the Roll-Up relationship; it does not delete the referenced User Data fields.

To delete a Project/Task User Data Roll-Up relationship:

1. In the Workbench, click the **Configuration** screen group.

2. Click the User Data icon.

   The User Data Workbench opens.



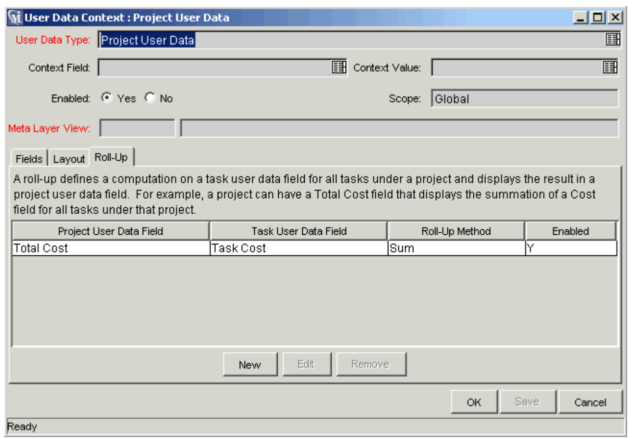
3. Select **Project User Data** from the User Data Type drop down list.

4. Click **List**.

   The **Results** tab opens with the Project User Data Type loaded.

5. Select the Project User Data and click **Open**.

6. Click the **Roll-Up** tab.



7. Select the Roll-Up relationship to remove.

8. Click **Remove**.

9. Click **Save**.

Example: Creating and Using Project/Task User Data Roll-Up

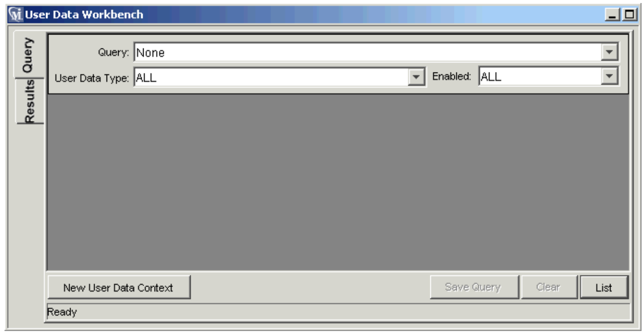
Company X wants to capture the total cost of any Project. This value will be calculated as the sum of all Task costs. They also want the calculated cost to be updated every time a Task cost is changed. They will accomplish this using Project/Task User Data Roll-Up.

To create Project/Task User Data Roll-Up that will calculate total Project cost:

1. In the Workbench, click the **Configuration** screen group.

2. Click the User Data icon.

   The User Data Workbench opens.



3. Create the Project User Data field.

   a. Select **Project User Data** from the User Data Type drop down list.

   b. Click **List**.

      The **Results** tab opens with the Project User Data Type loaded.

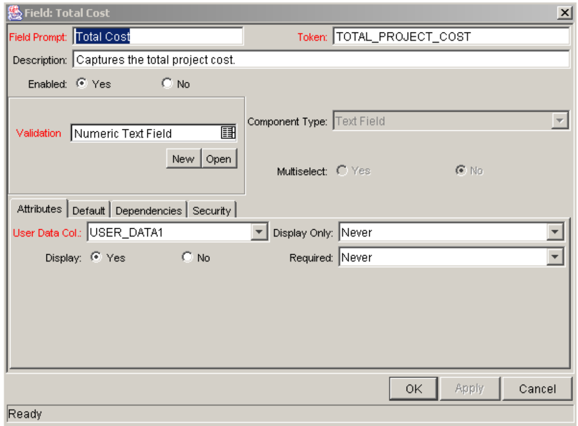
   c. Open the Project User Data Type.

   d. Click **New** in the **Fields** tab.

      The Field: New window opens.

   e. Fill in the following information:

Field	Value
Field Prompt	Total Cost
Token	(any useful token)
Description	(any useful description)
Validation	Numeric Text Field
Enabled	Yes
User Data Col	(any available User Data column)
Display Only	Never
Display	Yes
Required	Never
Workbench Only	No



f. Click **OK** in the Field: New window.

g. Click **OK** in the Project User Data window to save the new field.

4. Create the Task User Data field.

   a. In the User Data Workbench **Query** tab, select **Task User Data** from the User Data Type drop down list.

   b. Click **List**.

      The **Results** tab opens with the Task User Data Type loaded.

   c. Open the Task User Data Type.

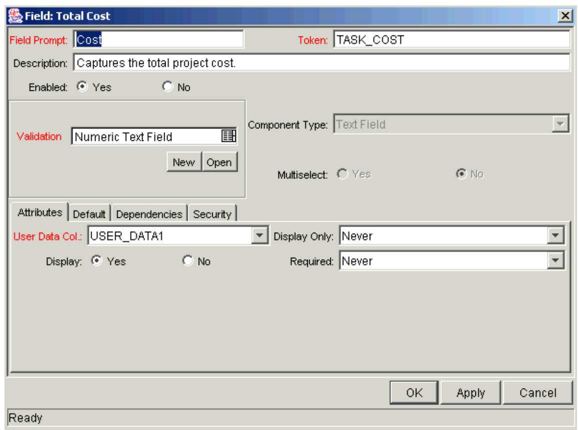
   d. Click **New** in the **Fields** tab.

      The Field: New window opens.

   e. Fill in the following information:

Field	Value
Field Prompt	Cost
Token	(any useful token)
Description	(any useful description)
Validation	Numeric Text Field
Enabled	Yes
User Data Col	(any available User Data column)

Field	Value
Display Only	Never
Display	Yes
Required	Never
Workbench Only	No



f. Click **OK** in the Field: New window.

g. Click **OK** in the Task User Data window to save the new field.

5. Create the Roll-Up relationship between the Task and Project User Data fields.

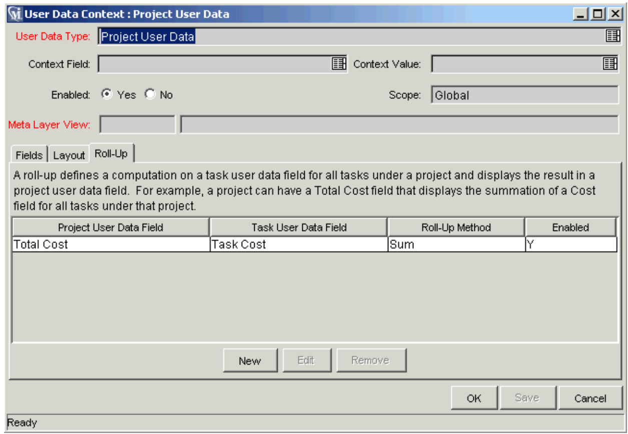
   a. In the User Data Workbench **Query** tab, select **Project User Data** from the User Data Type drop down list.

   b. Click **List**.

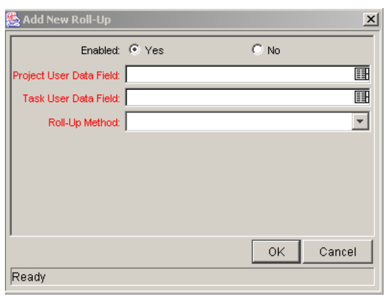
      The **Results** tab opens with the Project User Data Type loaded.

   c. Open the Project User Data Type.

   d. Click the **Roll-Up** tab.



e. Click **New**. The Add New Roll-Up window opens.



f. Select the Total Cost Project User Data Field that will contain the rolled-up Cost Task User Data cost values.

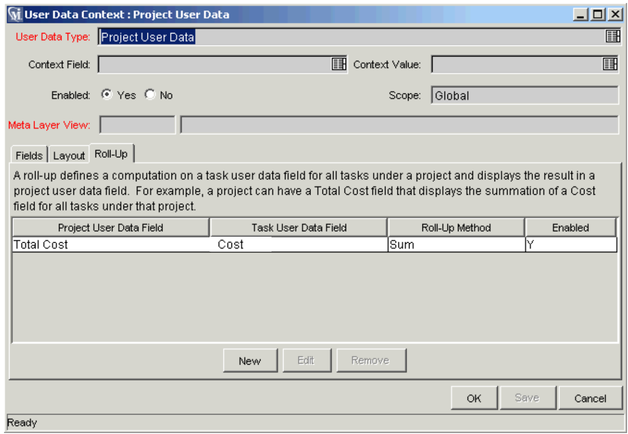
g. Select the Cost Task User Data field whose values will roll up into the Total Cost Project User Data field.

h. Select **Sum** from the Roll-Up Method drop down list.

i. Click **OK**.

The Roll-Up relationship is added to the **Roll-Up** tab.

j. Click **Save**.



To use the Roll-Up relationship, no further configuration is necessary. The rolled-up fields are accessible from the **User Data** tab of the respective Project or Task.

Each Task has its own Cost User Data field. The values for each Task Cost User Data field are rolled up using the “Sum” Roll-Up Method into the Project Total Cost User Data field.

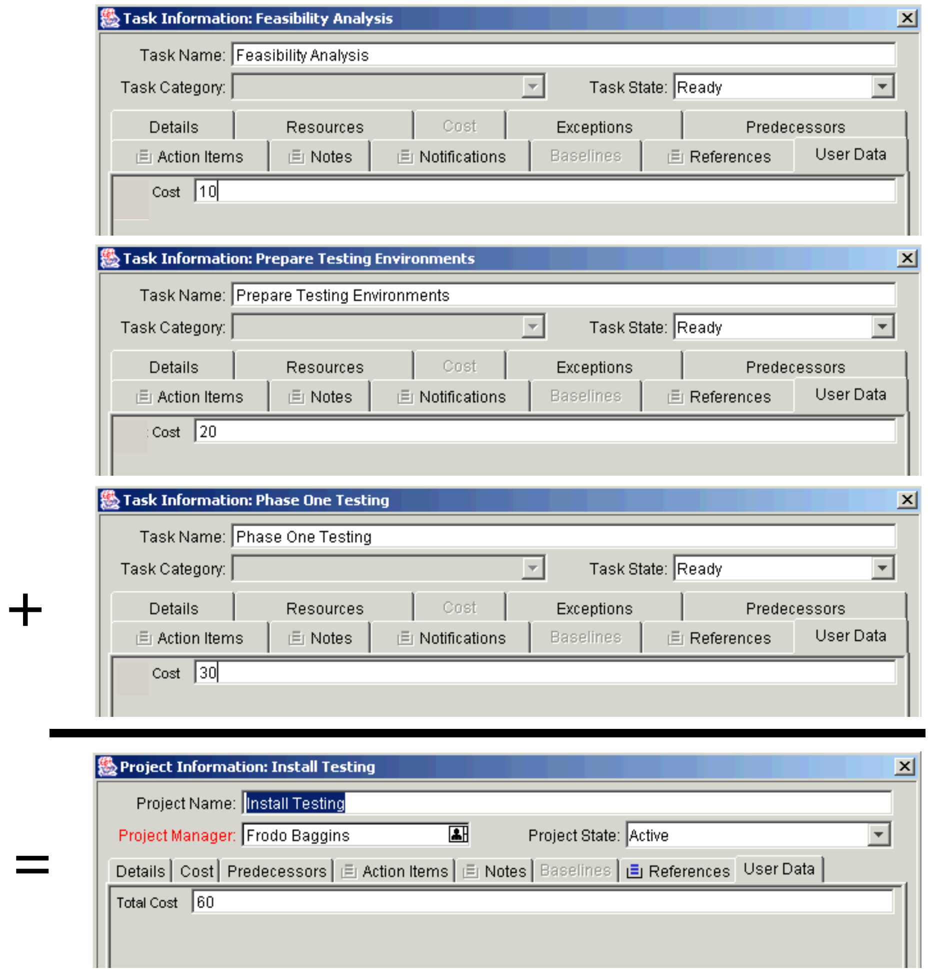


Figure 5-5 User Data Roll-Up Example

Chapter 6
Managing a Project

This chapter describes how to oversee a Project from inception to completion using Project Management.

The following topics are covered:

Managing a Project, An Overview

Business initiatives can be divided into a set of goals that must be met through the completion of measurable tasks by an assigned group of people. The tasks must be monitored to determine if they are on schedule. In order to provide organization and structure for these activities, a Project Manager is responsible for managing the work group and Project.

Some common responsibilities for Project Managers include:

- Organizing and assigning Tasks.
- Tracking Task and Project progress, and ensuring that assigned Tasks are completed on time.
- Communicating Project status to participants and stakeholders, including the appropriate escalation of Project-related issues.

Project Managers can integrate and streamline these responsibilities using the features of Project Management. The following sections provide instructions for performing common Project Management tasks, such as setting up a Project and tracking its status.

Note

In Project Management, Project Managers are those users who have Power licenses and specific Project Manager Access Grants. See Security Model Guide and Reference for details.

This chapter discusses:

- *Setting Up a Project*
  Every Master Project contains a set of options to configure that are specific to the Project, such as what information is tracked and displayed, the rules for the display of indicators and exceptions, scheduling, and who can view Tasks and Projects.
- *Adding Tasks to a Project*
  After the global options have been configured for a Master Project, Tasks and Subprojects can be arranged and ordered into a meaningful hierarchy.
- *Taking a Baseline*
  Project Managers can take a baseline of their Projects, which can be used to monitor a Project plan's changes as it moves through its life cycle.
- *Revising the Project*
  Project Managers can move their Projects into different Project "states." These states help Managers to maintain visibility and control over a Project.

- *Updating the Schedule*
  After making revisions, a Project Manager might find it necessary to reschedule the Project. This includes recalculating Start and Finish dates.
- *Viewing Project and Task Progress*
  Managers can search for Projects and Tasks, as well as track a particular Project's progress using its Summary Condition. Any exceptions that have been triggered can also be displayed.
- *Analyzing Project Costs*
  Project Cost data can be collected and analyzed by the Project Manager to track budgets, compare Project sizes, or spot potential trouble.
- *Tracking Project History*
  Project history is maintained and can be viewed for Projects and Tasks.
- *Creating a URL to Open the Project Window*
  Project Managers and can construct a URL that opens their Project in the Workbench.
- *Printing a Project Gantt Chart*
  Project Managers can print the Project Gantt chart, with a wide range of filtering options. The Project Gantt chart can also be exported to an image file and used in presentations.

Note

When a user creates or edits a Project or Subproject, that user is the only one able to save changes.

In the case of two users wanting to edit two different Subprojects under one Master Project, opening and editing only the desired Subprojects will enable each user to save changes without interfering with each other.

See *"Concurrent Editing"* on page 142 for more detailed information.

Note

When you import a large Microsoft Project (or a large number of projects) into Project Management, tables in the Mercury ITG database are updated to handle this new configuration. Because of the scope of database changes, you should re-run the Database Statistics on your Mercury ITG Database. Contact your application administrator for help with this procedure.

Setting Up a Project

Project Management's Master Project entity is made up of the following components:

- Tasks
- Subprojects
- Activities
- Notes
- Packages
- Requests
- References

These components are used to define and process a specific business initiative. The Master Project also contains a number of global settings that can be configured to suit a particular Project's objectives. See the following sections for more information on setting up a Project:

- *"Selecting Information to Track and Display"* on page 30
- *"Setting Up Exception Behavior"* on page 31
- *"Setting Up Indicators"* on page 37
- *"Setting Scheduling Options"* on page 38
- *"Setting Security Restrictions"* on page 43
- *"Setting Up the Project Team"* on page 46
- *"Setting Up Microsoft Project Integration"* on page 48
- *"Configuring Cost in the Project Settings Window"* on page 237
- *"Establishing a Project Baseline"* on page 74

Adding Tasks to a Project

Once the Master Project has been configured, the Project Manager can add Tasks to the Project and specify Task details, including assigning resources or resource groups. Tasks can be added individually or in a pre-sequenced group with a Project Template. Tasks can also be organized in a hierarchical fashion quickly and easily.

Note

See the following chapters and sections for more details on including Tasks in a Project:

- *"Adding Tasks to a Project"* on page 52
- *"Creating a Task From a Request"* on page 84
- *"Configuring Tasks"* on page 81
- *"Using Project Templates"* on page 199
- *"Entering Actual Cost Data"* on page 240

Taking a Baseline

A baseline is the original approved Project plan for a Project. As scope changes happen, the baseline is updated to reflect those changes as part of the approved plan. A Project Manager uses baselines to continuously monitor the health of their Project in terms of schedule and cost by comparing the current Project plan to the baseline plan.

See *"Establishing a Project Baseline"* on page 74 for more detailed information about taking and using Project baselines.

Revising the Project

Project plans rarely remain unchanged during a Project's life. Revisions are commonly made to accommodate Project updates, reorganizations and reassignments. Project Management enables Project Managers to revise their plan quickly. This section discusses the following aspects of revising a Project:

- *Viewing and Modifying Project Hierarchy*
- *Project States*
- *Updating Scheduling and Dependencies*
- *Concurrent Editing*

> **Note**
>
> When a user creates or edits a Project or Subproject, that user is the only one able to save changes. All other users will be warned of this before attempting to edit a Project or Subproject that is already open.
>
> In the case of two users wanting to edit two different Subprojects under one Master Project, opening and editing only the desired Subprojects from the Project Workbench will enable each user to save changes without interfering with each other.

Viewing and Modifying Project Hierarchy

The ordering and grouping of Tasks and Subprojects is graphically displayed in the Project Plan Panel.

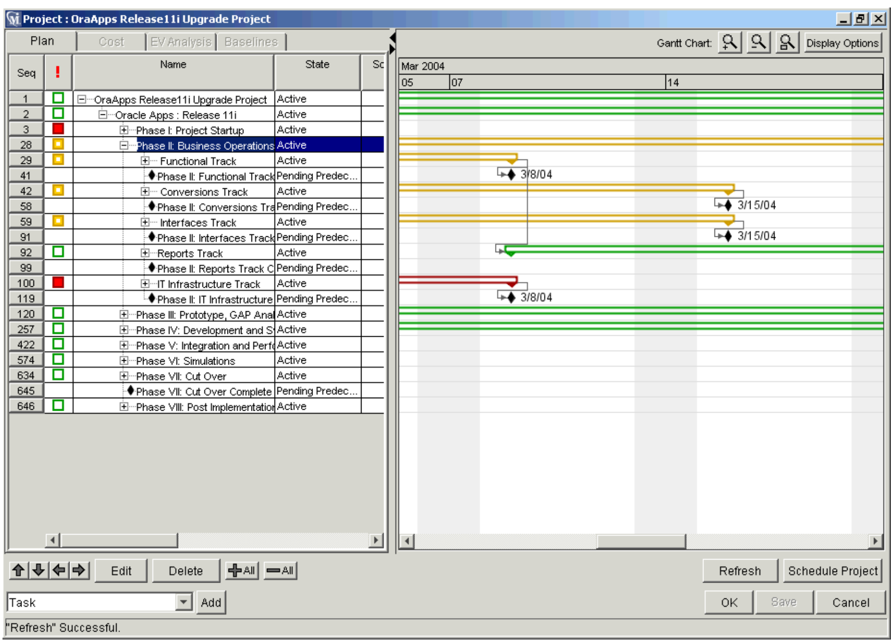


Figure 6-1 Project Window with Project Plan Panel

Use the directional arrow buttons to reorganize the Project hierarchy. Tasks can be grouped and ordered into Subprojects, using the right arrow to indent. Subprojects can have their tasks removed and made into separate Tasks using the left arrow to outdent. Top-to-bottom reordering can be performed on Subprojects and Tasks as well, using the up and down arrows. For step-by-step instructions, see *"Setting Up Project Hierarchy"* on page 55.

Project States

To display the different stages in a Project's life from planning to completion, a Master Project can have various states associated with it. These states are New, Plan, Active, Completed and Cancelled. Project Managers can move Projects into different states to facilitate the work associated with that stage of the Project. The following table describes the various Project states, their behaviors, and applications.

Table 6-1. Project States and Descriptions

Project State	Behavior	Application
New	Projects and their Tasks are not shown in the My Tasks Portlet or the Dashboard. Notifications are not sent and Exceptions are not triggered. All Projects start in this state. Once a Project is moved out of the 'New' state it becomes permanently visible and cannot return to this state.	This state allows a Project Manager to manipulate the Project without having to notify Participants or Stakeholders.
On Hold	Projects and their Tasks are displayed in My Tasks and the Dashboard but cannot be edited. Notifications are not sent and Exceptions are not triggered. Hierarchy can be modified.	This state allows a Project Manager to manipulate the Project (such as changing project hierarchy and revising predecessors). This state informs Participants and other Managers that a rework is being done.
Active	Projects and their Tasks can be seen in My Tasks and in the Dashboard. Notifications are sent and Exceptions are triggered. Project structure can change.	This is the state of a Project that is actively being managed.
Completed	Projects and their Tasks can be seen in the Dashboard but not in My Tasks. Notifications are not sent and Exceptions are not triggered.	This is the state of a Project that has been worked to completion. The Project can be edited but will not show up as a Project or Task that needs attention.

Table 6-1. Project States and Descriptions [continued]

Project State	Behavior	Application
Cancelled	Projects and their Tasks can be seen in the Dashboard but not in the My Tasks Portlet. Notifications are not sent and Exceptions are not triggered.	This state is used for Projects that are not complete but will not be worked on.

Project Management also features a set of Task states. For a list of Task states, see *"Task States"* on page 83.

Modifying States

Project Managers can change states at the Master Project, Subproject, or Task level at any time.

To change the state of the Master Project:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, select the row at the top of the hierarchy.

   This is the Master Project.

3. Select a new State for the Master Project from the drop down list in the State column.

4. Click **Save**.

To change the state of a Task, Subproject, or group of Tasks or Subprojects:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, select the Task or Subproject whose state you want to change.

When selecting a group of Tasks or Subprojects, be sure they are all in the same state.

3. Select a new State for the Task or Subproject from the drop down list in the State column.

4. Click **Save**.

Updating Scheduling and Dependencies

Project Managers are able to update aspects of a Project at any time to reflect the changing state of a business initiative. The following sections discuss updating Project scheduling and dependencies in more detail:

- *Changing Scheduled Duration, Start, Finish, and % Complete*
- *Changing Predecessors*
- *Changing Resource Assignments*

Changing Scheduled Duration, Start, Finish, and % Complete

The Scheduled Duration, Scheduled Start, Scheduled Finish, and % Complete fields are viewed in the Project Plan Panel.

To change Scheduled Duration, Start, Finish, or % Complete for a Task:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, select the Task to update.

   - Tasks can be edited directly inside the Project Plan Panel. Click on a field to edit its contents.

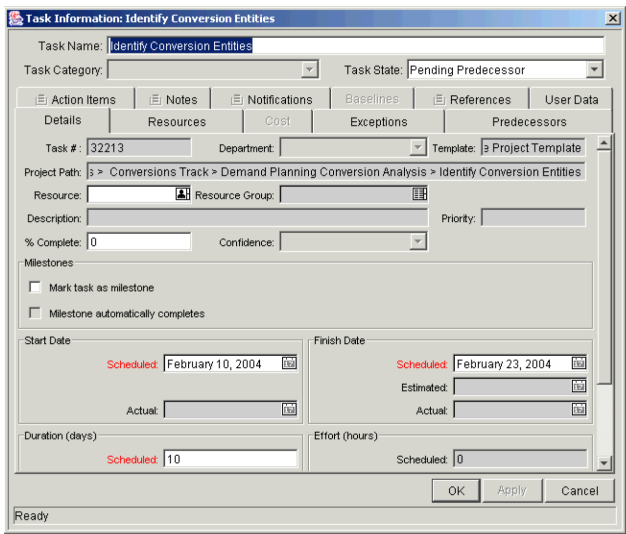
   - Tasks can also be edited through the Task Information window, which displays more detailed information on a Task.

3. Click **Edit**.

   The Project or Task Information window opens, depending on whether you have selected a Project or Task.

> **Note**
> If you want to update a Subproject's Scheduled Duration, Start, Finish, or % Complete, you must update its individual Tasks' values. This is accomplished by selecting a Task in the Project window and clicking **Edit**. You can then follow the process described below.

4. In the Task Information window, click the **Details** tab.



5. Update fields in the **Details** tab.

   To update Scheduled Start and Finish dates, enter the desired date in the appropriate date field. To make sure these dates are set explicitly and will not change after the **Schedule Project** button is clicked, select a Constraint Type (such as **Start No Earlier Than** or **Finish No Earlier Than**) from the Constraint Type drop down list.

   To update Scheduled Duration and % Complete, enter the new information into the appropriate text field.

6. Apply the changes.

   To apply changes to the Task and continue to update the Task without closing, click **Apply**. To apply changes and close the window, click **OK**.

Changing Predecessors

You can specify which Tasks must be completed before beginning another Task. The Tasks that first need to be completed are Predecessors of the dependent Task. Predecessors can be changed directly in the Project Plan Panel.

External Tasks, Projects, and Requests can also be set as Predecessors for Tasks. For more information on setting these types of Predecessors, see *"Setting Up Project Dependencies"* on page 63.

To change the Predecessors for a particular Task:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, click the row that contains the Task or Subproject to update.

3. To update Predecessors, enter the sequence numbers of the new Predecessors, separated by semicolons, into the text field of the dependent Task.

Changing Resource Assignments

Resources can be changed directly in the Project Plan Panel.

To update Resources:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, click on the Resource field of the Task to update.

3. Update the field with the new information.

   To update Resources, select the user that you want to assign from the Resource auto-complete list.

Concurrent Editing

Project Management allows users to edit and update parts of Projects simultaneously, allowing for more efficient representation of changes to a Project. The following scenarios help illustrate how concurrent editing in Project Management works:

- *Unrelated Subprojects in a Master Project*
- *Simultaneous Edits on a Project*
- *Simultaneous Editing and Updating of a Task*
- *Updating an Unrelated Task*

Unrelated Subprojects in a Master Project

Yukio and Bob are Project Managers with access to the same Master Project.

1. Yukio opens the Master Project and begins working on one of its Subprojects.
2. Bob opens the same Master Project and begins working on a different Subproject.
3. Yukio and Bob are both able to save their changes.

Simultaneous Edits on a Project

Yukio and Bob are Project Managers with access to the same Master Project.

1. Yukio opens the Master Project and begins working on one of its Subprojects.
2. Bob opens the same Master Project and tries to edit part of the same Subproject Yukio is working on.
3. Bob receives a message that another user is currently editing that part of the Project. Bob cannot make changes.

Simultaneous Editing and Updating of a Task

Yukio is a Project Manager and Carlos is a Resource assigned to one of the Tasks in Yukio's Master Project.

1. Yukio opens the Master Project and begins working on one of its Subprojects.

2. Carlos would like to update his Task, which is part of the Subproject Yukio is currently editing.

3. Carlos receives a message that another user is currently editing that part of the Project. Carlos cannot make changes.

Updating an Unrelated Task

Yukio is a Project Manager and Carlos is a Resource assigned to one of the Tasks in Yukio's Master Project.

1. Yukio opens the Master Project and begins working on one of its Subprojects.

2. Carlos opens his Task, which is not part of the Subproject Yukio is working on, and makes his changes successfully.

3. Yukio opens Carlos's Task.

4. Yukio receives a message that the Task has been updated, and the newest data will be loaded.

5. The information for Carlos's Task is refreshed in Yukio's Workbench window, while the other changes Yukio made persist.

Updating the Schedule

If you have modified any of your Project's hierarchy, dependencies, resources or dates, you might want to re-level the schedule. Project Management generates a new schedule based on the updated dates, and whatever preferences have been set in the Settings window.

For more detailed information on updating a schedule, see *"Generating the Schedule"* on page 71.

You can also want to create a new baseline for the Project. See *"Taking a Baseline"* on page 76 for more detailed information.

Note

When a user creates or edits a Project or Subproject, that user is the only one able to save changes.

In the case of two users wanting to edit two different Subprojects under one Master Project, opening and editing only the desired Subprojects will enable each user to save changes without interfering with each other.

See *"Concurrent Editing"* on page 142 for more detailed information.

Viewing Project and Task Progress

As a Project moves through its life, Managers can keep track of:

- Projects and Tasks as they are completed
- Exceptions that have been triggered
- High-level and low-level accounts of progress

Project Management provides this information through Project Management Reports and the Summary Condition View.

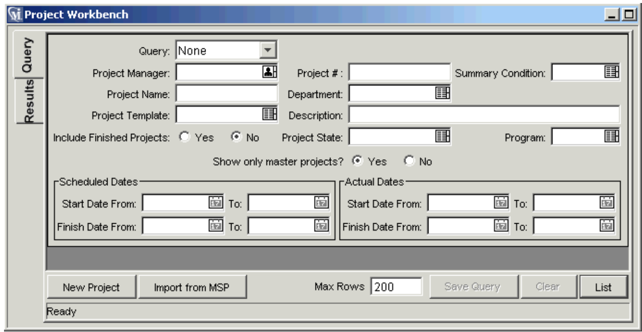
Searching for Projects in the Workbench

The **Query** tab in the Project Workbench window is used to locate and open Projects.

To open Projects in the Workbench:

1. Click the **Project Mgmt** screen group.
2. Click the Projects icon.

   The Project Workbench opens.



3. Enter search criteria into the appropriate fields in the **Query** tab.

4. To save your query, click **Save Query**.

   You can then perform a quick search using these specified criteria later. To clear all information entered into the Project Query fields, click **Clear**.

5. Click **List** to return the matching results in the **Results** tab.

6. From within the **Results** tab you can:

   - Sort the results based on any field in the table by clicking on the column header.

   - View a Project by double-clicking on the desired Project or selecting it and clicking **Open**.

   - Open multiple Projects by selecting a group (using **Shift+Click** or **Ctrl+Click** from your keyboard) and clicking **Open**.

Searching for Tasks in the Workbench

You can locate Tasks using the **Query** tab in the Task Workbench window.

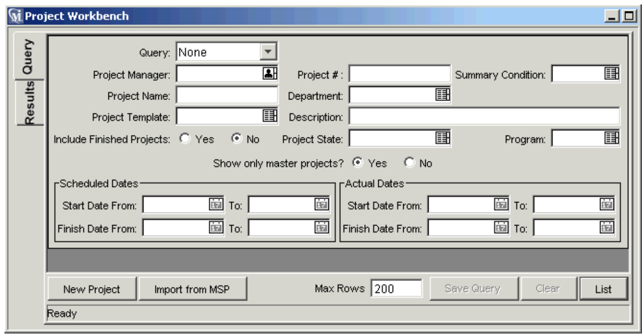
To locate specific Tasks in the Workbench:

1. Click the **Project Mgmt** screen group.

2. Click the Projects icon.

   The Project Workbench opens.

3. Select the Task Workbench, behind the Project Workbench, by either clicking on its title bar or the **Task Workbench** button at the bottom of the Workbench window.



4. Enter search criteria into the appropriate fields in the **Query** tab.

5. To save your query, click **Save Query**.

   You can then perform a quick search using these specified criteria later. To clear all information entered into the Task Query fields, click **Clear**.

6. Click **List** to return the matching results in the **Results** tab.

7. From within the **Results** tab you can:

   - Sort the results based on any field in the table by clicking on the column header.
   - View a Task by double-clicking on the desired Task or selecting it and clicking **Open**.
   - Open multiple Tasks by selecting a group (using **Shift+Click** or **Ctrl+Click** from your keyboard) and clicking **Open**.

Viewing the Summary Condition

The Summary Condition is a graphical indicator of the health of a Project, located next to the Project name. A Project's Summary Condition color begins as green and changes to yellow or red depending on the percentage of Tasks within a Project that have triggered Exceptions. This percentage is configurable in this tab by the Project Manager. A Project's Summary Condition is not calculated until the Project is saved.

The Summary Condition View appears in its own column next to the names of all Projects in the **Results** tab of the Project Workbench. For more detailed information, see *"Summary Condition"* on page 35.

Viewing Milestones

In the Workbench, Milestones are visible in the Project window as black diamonds in the Gantt chart.

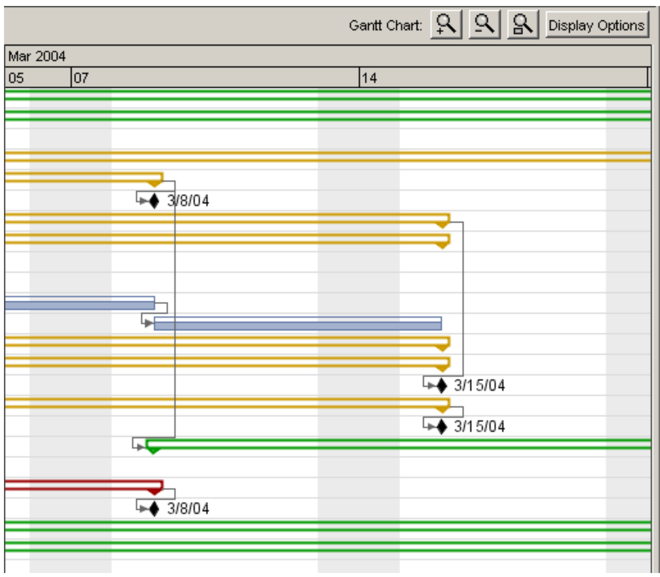


Figure 6-2 Gantt Chart with Milestones

The Project Overview page in the standard interface contains two Portlets that display Milestones:

- The Project Milestones Portlet lists the Milestones in a Project.

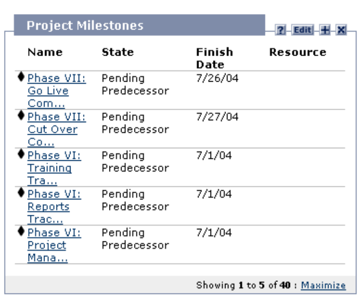


Figure 6-3 Project Milestones Portlet

- The Project Overview Gantt Portlet shows the Project's Gantt chart, including Milestones.

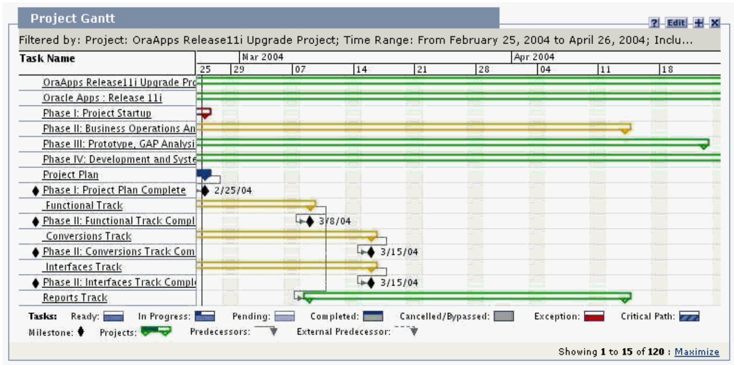


Figure 6-4 Project Overview Gantt Portlet with Milestones

Viewing the Project Critical Path

A Project's critical path is composed of all of the Tasks in a Project that determine its duration. In Project Management, the critical path of a Project can be displayed in the Project window's Gantt chart. Tasks that are part of the critical path are cross-hatched.

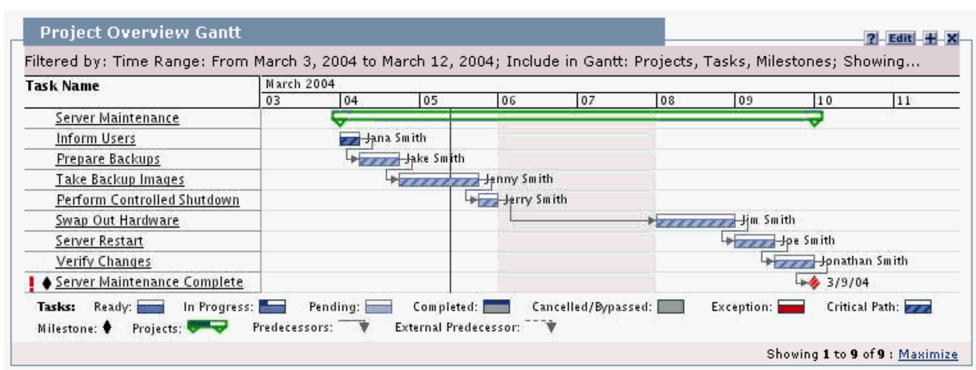


Figure 6-5 Gantt Chart With Critical Path

There are several ways to display or access a Project's critical path. See the following sections for more detailed information:

- *Viewing the Critical Path in the Project Window*
- *Viewing the Critical Path from the Project Overview Gantt Portlet*
- *Obtaining a Critical Path Table*

Viewing the Critical Path in the Project Window

A Project's critical path can be displayed in the Project window's Gantt chart.

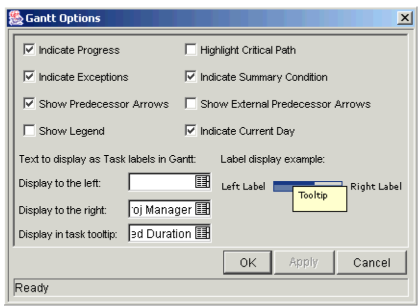
To see a Project's critical path:

1. In the Workbench, open the Project.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. Click **Display Options** in the upper-right corner of the Project window.

   The Gantt Options window opens.



3. Select the Highlight Critical Path check box.

4. Click **OK**.

5. The Project window's Gantt chart displays the Project's critical path.

Viewing the Critical Path from the Project Overview Gantt Portlet

A Project's critical path can also be viewed from the Project Overview Gantt Portlet in the Project Overview page of the standard interface.

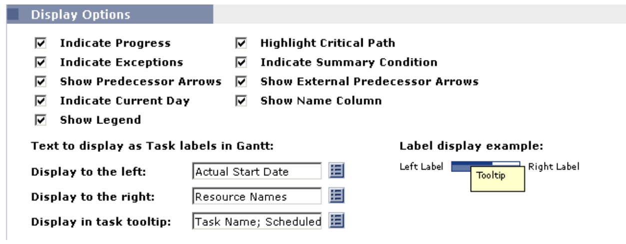
To see a Project's critical path in the Project Overview Gantt Portlet:

1. Navigate to the Project Overview page of the Project.

   For more detailed information, see *"Searching for Tasks and Projects"* on page 168.

2. Scroll down to the Project Overview Gantt Portlet and click **Edit**.

   The filter page for the Project Overview Gantt Portlet opens.



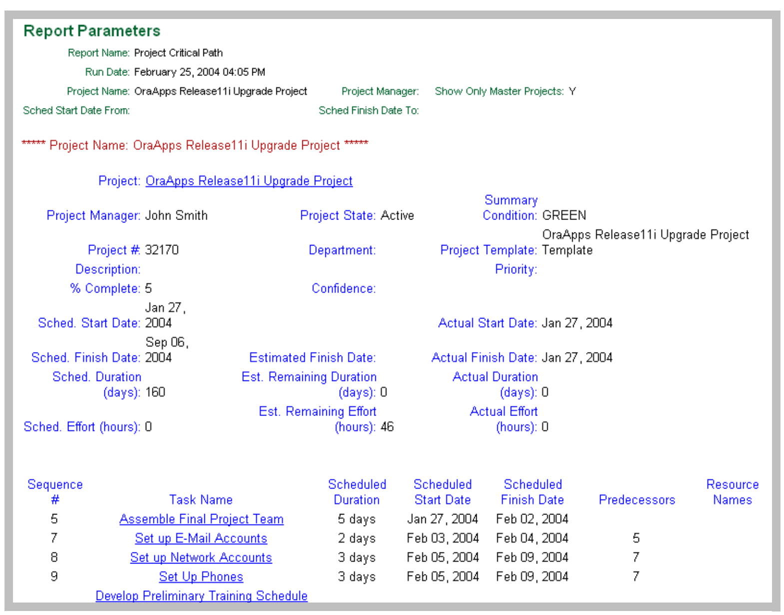
3. In the Display Options section of the filter page, select the Highlight Critical Path check box.

4. Click **Done**.

5. The Project Overview page opens, refreshing all of the Portlets including the Project Overview Gantt Portlet.

Obtaining a Critical Path Table

The Project Critical Path Report generates a list of all the Tasks that comprise a Project's critical path in convenient HTML form.



Report Parameters

Report Name: Project Critical Path
Run Date: February 25, 2004 04:05 PM
Project Name: OraApps Release11i Upgrade Project   Project Manager: Show Only Master Projects: Y
Sched Start Date From: Sched Finish Date To:

***** Project Name: OraApps Release11i Upgrade Project *****

Project: OraApps Release11i Upgrade Project
Project Manager: John Smith   Project State: Active   Summary Condition: GREEN
Project #: 32170   Department: Project Template: OraApps Release11i Upgrade Project Template
Description: Priority:
% Complete: 5   Confidence:
Sched. Start Date: Jan 27, 2004   Actual Start Date: Jan 27, 2004
Sched. Finish Date: Sep 06, 2004   Estimated Finish Date: Actual Finish Date: Jan 27, 2004
Sched. Duration (days): 160   Est. Remaining Duration (days): 0   Actual Duration (days): 0
Sched. Effort (hours): 0   Est. Remaining Effort (hours): 46   Actual Effort (hours): 0

Sequence #	Task Name	Scheduled Duration	Scheduled Start Date	Scheduled Finish Date	Predecessors	Resource Names
5	Assemble Final Project Team	5 days	Jan 27, 2004	Feb 02, 2004		
7	Set up E-Mail Accounts	2 days	Feb 03, 2004	Feb 04, 2004	5	
8	Set up Network Accounts	3 days	Feb 05, 2004	Feb 09, 2004	7	
9	Set Up Phones	3 days	Feb 05, 2004	Feb 09, 2004	7	
	Develop Preliminary Training Schedule					

Figure 6-6 Project Critical Path Report

For more information on running Reports in Project Management, see *"Project Management Reports"* on page 249.

Viewing Exceptions

Exceptions indicate that a rule that has been defined in the Project has been violated for a particular Task. For example, Resources have not been assigned to a Task that is due to begin soon, or a Task is being completed a certain number of days late. Exception Rules are configurable; for more detailed information, see *"Setting Up Exception Behavior"* on page 31.

Exceptions that have been triggered display as a red exclamation mark in the first column on the left in the **Results** tab of the Task Workbench.

To view a particular triggered Exception for a Task:

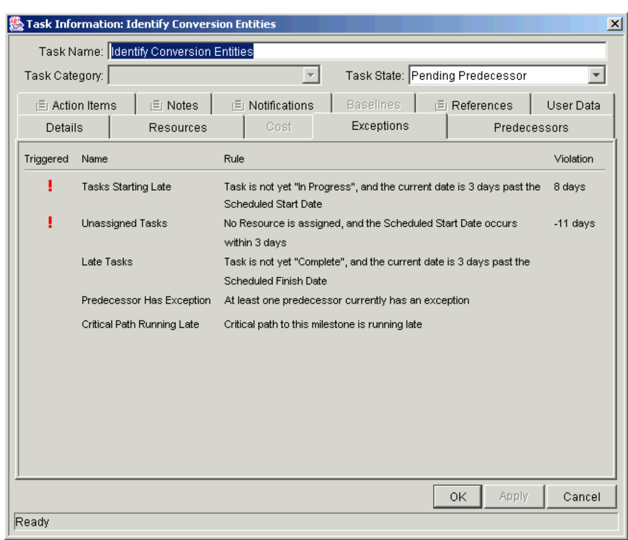
1. Select a Task in the Project Plan Panel.
2. Click **Edit**.

   The Task Information window opens.

Note

Depending on whether you have the proper Access Grant to edit the Task, the button in the Project Window might read **Edit** or **View**. Users who can only **View** a Task include Project Participants who have not been assigned to that particular Task, as well as Project Managers who are not managing the Project within which that particular Task is contained.

3. Click the **Exceptions** tab.



The **Exceptions** tab lists the Exception Rules for the Project containing that particular Task.

- The red exclamation point in the Triggered column indicates that the Task has triggered an Exception.
- The Violation column displays the number of days the Task is from the Exception.

Using the Mercury ITG Dashboard to View Progress

Project Managers can also view Projects using the standard interface. This interface comes with a configurable set of application windows, known as Portlets, through which common Project Management queries and actions can be performed.

This interface can be expanded to include the Mercury ITG Dashboard, which offers an expanded set of Portlets that feature additional functionality, such as the Project List Portlet.

Project Management Reports

Project Management is capable of generating a wide range of reports for project management purposes. For example, a Manager could query for the custom fields being used in a Project. A Manager can also generate reports on any Tasks that had triggered Exceptions, the Resources assigned to a Project or which Security Groups are associated with a Project. Project Management features the following Reports:

- Project Critical Path Report
- Project Custom Detail Report
- Project Detail Report
- Project Detail Report (Filter by Custom Fields)
- Project Exception Detail Report
- Project Resource Report
- Project Schedule Change Report
- Project Status Report
- Project Status Detail Report
- Project Summary Report

- Project Task Assignment Report
- Project Template Detail Report
- Report Type Detail Report
- Resource Availability Report
- Security Group Detail Report
- User Data Detail Report
- User Detail Report
- Validations Report

For more information about Project Management Reports, see *"Project Management Reports"* on page 249.

Comparing Against the Baseline

If you have taken a baseline of your Project, you might want to compare it to your current Project. This can be done using the Project Schedule Change Report, which can compare the current Project to any baseline, or baselines to each other.

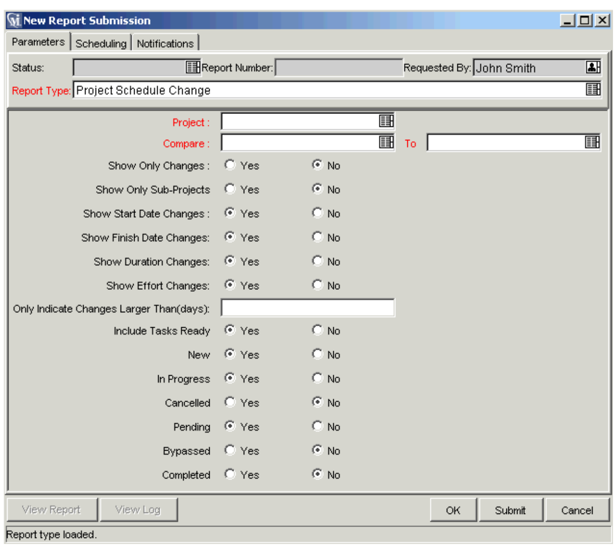


Figure 6-7 Project Schedule Change Report

For more information on running Reports in Project Management, see *"Project Management Reports"* on page 249.

Analyzing Project Costs

Project Management provides useful interfaces for visualizing Project Costs using Financial Management and the Mercury ITG Dashboard. The primary visualization tools are discussed below:

- *Project Cumulative Cost Metrics*
- *Project Current Cost Metrics*
- *Viewing the Earned Value Analysis for a Project*

Project Cumulative Cost Metrics

The Analyze Cumulative Cost Metrics page can be reached by selecting **Analyze > Projects > Cumulative Cost Metrics** from the **Cost** menu group in the menu bar.

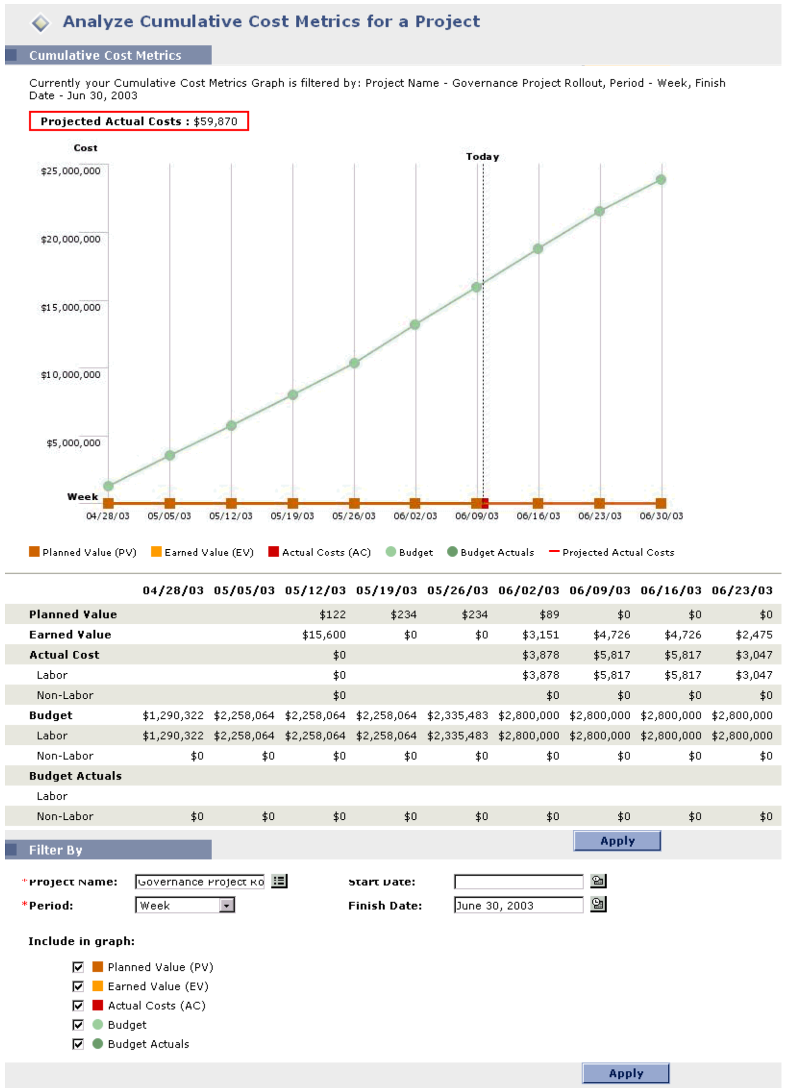


Figure 6-8 Analyze Cumulative Cost Metrics page

The Analyze Cumulative Cost Metrics page can be filtered according to the criteria described in *Table 6-2*.

Table 6-2. Analyze Cumulative Cost Metrics Page Parameters

Field	Description
Project Name	The name of the Project being analyzed.
Period	The period to be used in the graph's time axis. Possible values: **Week**, **Month**, **Year**.

Table 6-2. Analyze Cumulative Cost Metrics Page Parameters

Field	Description
Start Date	The date at which to start the graph.
Finish Date	The date at which to end the graph.
Include in Graph:	
Planned Value (PV)	Graphs the portion of the Baseline Cost planned to be spent between the Project's start date and each data point.
Earned Value (EV)	Graphs the portion of the Baseline Cost for the entire Project that has theoretically been spent by each data point. (Baseline Cost * % Complete)
Actual Costs (AC)	Graphs the total dollar cost for the Project. (Actual Labor Cost + Actual Non-Labor Cost)
Budget	Graphs the Budget for the Project at each data point.
Budget Actuals	Graphs the Budget actual values, if any have been entered, at each data point.

Use the Analyze Cumulative Cost Metrics page to get a look at a Project's performance in terms of different Cost variables over time. The Project's projected Actual Cost is also calculated by Project Management and displayed at the top of the chart.

Project Current Cost Metrics

The Analyze Current Cost Metrics page can be reached by selecting **Analyze > Projects > Current Cost Metrics** from the **Cost** menu group in the menu bar.

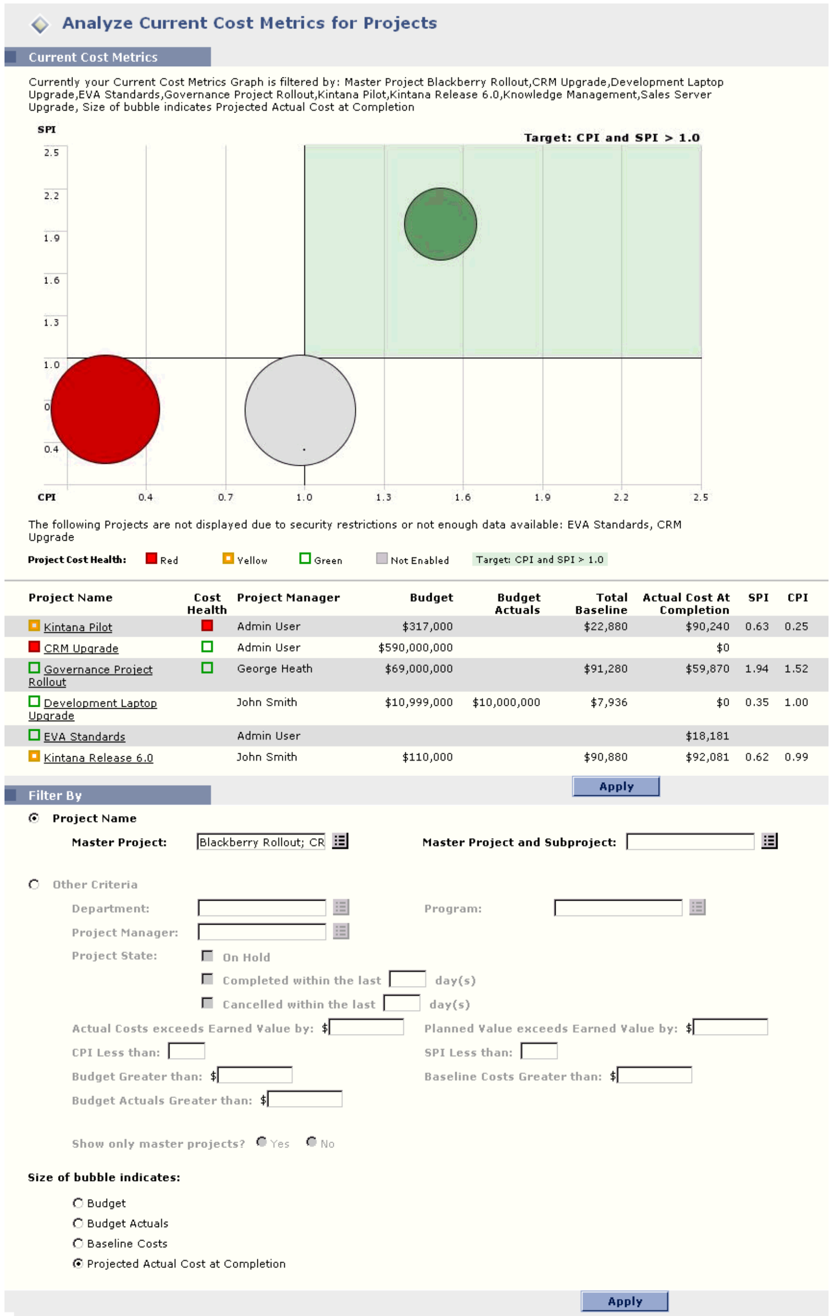


Figure 6-9 Analyze Current Cost Metrics page

The Analyze Current Cost Metrics page can be filtered according to the criteria described in *Table 6-3*.

Table 6-3. Analyze Current Cost Metrics Page Parameters

Field	Description
Project Name	
Project Name	Select a Project to be displayed.
Master Project and Subproject	Select a Master Project and/or Subproject to be displayed.
Other Criteria	
Department	Select Projects from a certain Department to be displayed.
Project Manager	Select Projects with a certain Manager to be displayed.
Project State	Select Projects of a certain State to be displayed.
Actual Costs exceed Earned Value by	Select Projects with a Cost variance greater than a certain amount to be displayed.
Planned Value exceeds Earned Value by	Select Projects with a schedule variance greater than a certain amount to be displayed.
CPI Less Than	Select Projects with a CPI under a certain value to be displayed.
SPI Less Than	Select Projects with an SPI under a certain value to be displayed.
BUDGET GREATER THAN	Select Projects with a Budget greater than a certain amount to be displayed.
BASELINE COSTS GREATER THAN	Select Projects with baseline costs greater than a certain amount to be displayed.
BUDGET ACTUALS GREATER THAN	Select Projects with Budget actual values greater than a certain amount to be displayed.
SHOW ONLY MASTER PROJECTS?	Select only Master Projects to be displayed.
Size of Bubble Indicates	
BUDGET	Bubbles representing Projects will vary in size based on the size of their associated Budgets.
BUDGET ACTUALS	Bubbles representing Projects will vary in size based on the size of their actual Budget values, if any have been entered.
BASELINE COSTS	Bubbles representing Projects will vary in size based on the size of their last baseline costs.
PROJECTED ACTUAL COST AT COMPLETION	Bubbles representing Projects will vary in size based on the size of their projected Actual Cost at completion.

Use the Analyze Current Cost Metrics page to compare the sizes and Cost health of one or more Projects.

Viewing the Earned Value Analysis for a Project

Use the **EV Analysis** tab in the Project window to view EV Analysis data for the of the Project. *Table 6-4* defines the fields on this tab.

Note

All fields within the **EV Analysis** tab are read-only and cannot be edited. Values within these fields are not propagated dynamically.

Table 6-4. EV Analysis tab fields

Field	Description
Seq	Number of a Subproject or Task in the hierarchy.
Name	Name of a Task or Project.
Cost Health	Indicates cost health based on Cost Summary Condition settings.
Actual Cost (AC)	Total dollar cost incurred in completing a Task or Project during a given time period.
Planned Value (PV)	Portion of the Baseline Cost, in the latest Baseline of the Project Plan, that is planned to be spent on the Project or Task between the start and status dates.
Earned Value (EV)	Portion of the Baseline Cost planned for the entire Project or Task that should have been spent on the status date for the current percentage of work completed. This value is calculated by multiplying Baseline Cost by % Complete (EV = BC * % Complete).
Cost Variance (CV)	Difference between the estimated cost and the actual cost for the Project or Task during a given time period. This value is calculated by subtracting Actual Cost from Earned Value (CV = EV - AC).
Schedule Variance (SV)	Difference between the scheduled completion and the actual completion of the Project or Task. This value is calculated by subtracting Planned Value from Earned Value (SV = EV - PV).
CPI	Cost Performance Index. Cost efficiency ratio of Earned Value to Actual Cost. Used to predict the magnitude of possible cost overrun. The value is calculated by dividing Earned Value by Actual Cost (CPI = EV / AC).

Table 6-4. EV Analysis tab fields [continued]

Field	Description
SPI	Schedule Performance Index. Schedule efficiency ratio of Earned Value accomplished against Planned Value. Describes what portion of the planned schedule was actually accomplished. This value is calculated by dividing Earned Value by Planned Value (SPI = EV / PV).

Tracking Project History

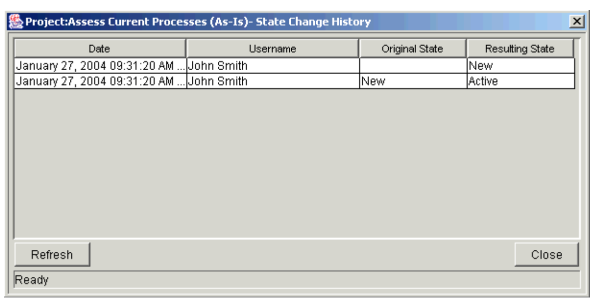
Project Management maintains a State Change History for both Projects and Tasks. The transaction history includes the Date, User Name, Project or Task Name, and Project or Task State.

To view the State Change History for a particular Task:

1. In the Project Plan Panel, select the Task whose State Change History you want to view.

2. Select **Project > View > State Change History** from the View drop down list.

   The State Change History window opens.



3. Click **Refresh** to update the history list.

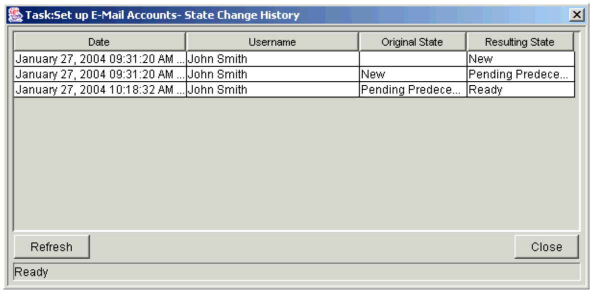
4. Click **Close** to close the window.

To view the State Change History for a particular Subproject:

1. In the Project Plan Panel, select the Subproject whose State Change History you want to view.

2. Select **Project > View > State Change History** from the View drop down list.

   The State Change History window opens.



3. Click **Refresh** to update the history list.

4. Click **Close** to close the window.

Completing, Cancelling, and Deleting Projects

All Projects must reach an endpoint. The Project can either be brought to completion, or reach a point where no more work can be done. Project states provide distinct ways of differentiating between Projects that have been Completed or Cancelled. For more detailed information on Project states, see *"Project States"* on page 137.

This section contains information on:

- *Completing Projects*
- *Canceling Projects*
- *Deleting Projects*

> **Note**
>
> When a user creates or edits a Project or Subproject, that user is the only one able to save changes.
>
> In the case of two users wanting to edit two different Subprojects under one Master Project, opening and editing only the desired Subprojects will enable each user to save changes without interfering with each other.
>
> See *"Concurrent Editing"* on page 142 for more detailed information.

Completing Projects

Project Managers can set the Project state to **Completed**. For more information, see *"Modifying States"* on page 138.

If a Project is manually set to **Completed**:

- Any incomplete Tasks under that Project are set to **Bypassed**.
- Any incomplete projects under that Project are set to **Completed**.

Reopening a Completed Project

A Project that is Completed can be moved to **On Hold**.

- Upon moving the Project from Completed to **On Hold**:
  - o Bypassed tasks will move to a Task state of **New**.
- If the Project is moved to **Active**:
  - o Task states will be recalculated.
  - o Tasks previously **In Progress** will not regain the Task state of **In Progress**.

To change a Completed Project's state:

1. Open the Project to edit.

   For more details on searching for and opening Projects, see *"Searching for Projects in the Workbench"* on page 144.

2. In the Project Plan Panel, select the Project at the top of the hierarchy.

   This will be the Master Project.

3. Select a new State for the Master Project from the drop down list in the State column.

4. Click **Save**.

Canceling Projects

Occasionally, all work on a particular business initiative can be stopped. The endeavor might have been found to be unprofitable, it might not be feasible given current resource limitations or there might be another business reason. Projects can have their states changed to **Cancelled** to reflect this circumstance.

- If a Project is manually set to **Cancelled**, any incomplete Tasks or Projects under it are set to **Cancelled**.
- From **Cancelled**, a Project can be moved back to **On Hold** using the same procedure as *"Reopening a Completed Project"* on page 162. Upon moving the Project from **Cancelled** to **On Hold**, bypassed Tasks will move to a Task state of **New**.
- Once the project is moved into an **Active** Project state:
  - o Task states will be recalculated.
  - o Tasks previously **In Progress** will not regain the Task state of **In Progress**.

Deleting Projects

Once a Project has been completed, it continues to reside in the Mercury ITG database. It might not be necessary to archive completed Projects in the Mercury ITG system. Projects can be deleted from the **Results** tab of the Project Workbench.

Note

Subprojects cannot be deleted from the **Results** tab of the Project Workbench.

To delete a Project:

1. Locate the Project that you want to delete using the **Query** tab of the Project Workbench.
2. In the **Results** tab of the Project Workbench, select the Project you want to delete.
3. Click **Delete**.

Creating a URL to Open the Project Window

Project Managers and can construct a Web address (URL) that opens their Project in the Workbench. They can then use this URL to access the Project from the World Wide Web or from their Intranet.

Users can construct this URL manually using either of the following formats:

```
http://host:port/mercury/servlet/SmartURL?screen=PRJ&pkid=PROJE
CT_ID
http://host:port/mercury/servlet/SmartURL?screen=PRJ&pkname=PRO
JECT_NAME
```

You can also configure your Task Notifications to automatically create and send these URLs in an email message. Include the following Token in the Message area in the Notification window. When the email is sent, the full URL will be displayed.

```
[PRJ.WORKBENCH_PROJECT_URL]
```

See *"Using Smart URLs in Notifications"* on page 96 for more information on setting up Task Notifications and using Smart URLs.

Printing a Project Gantt Chart

A Project Gantt chart can be printed or exported to an image file for use in presentations. The following sections discuss printing and exporting in more detail:

- *Printing a Gantt Chart*
- *Exporting a Gantt Chart to an Image File*

Printing a Gantt Chart

To print a Project Gantt chart, select **File > Print** from the menu at the top of the Workbench. The Print Gantt Chart wizard opens, allowing you to select options for the Gantt chart's Project display, time range, Project Plan columns, and generic printer settings.

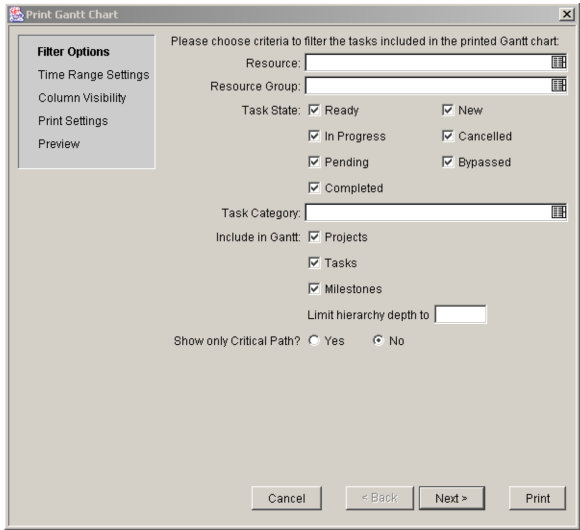


Figure 6-10 Print Gantt Chart Wizard

Exporting a Gantt Chart to an Image File

A Project Gantt chart can also be exported to an image file with the same options as normal printing. The following file formats are supported:

- JPEG
- PNG
- GIF
- BMP

To export a Project Gantt chart to an image, select **File > Export to Image** from the menu at the top of the Workbench. The Export Gantt Chart Wizard opens, allowing you to select options for the Gantt chart's Project display, time range, Project Plan columns, and generic image settings.

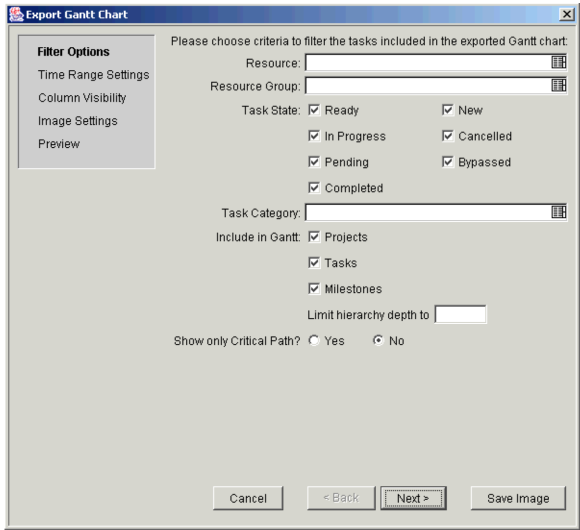


Figure 6-11 Export Gantt Chart Wizard

Chapter 7

Updating Tasks: Project Participant Activities

This chapter explains how Project Participants locate, update, modify, and report on Tasks to which they are assigned.

The following topics are covered:

- *Locating Tasks*
- *Viewing Project Information*
- *Updating Tasks*
- *Viewing and Adding Notes*
- *Viewing and Modifying References*
- *Viewing Reports*

Locating Tasks

Project Management defines Project Participants as users who work on Tasks as part of a Project team, but do not have the administrative responsibilities of a Project Manager. Project Participants view and update their Tasks using the standard Project Management interface.

Project Participants update their Task status in Project Management. Project Management provides several different ways for Participants to locate their Tasks:

- *Searching for Tasks and Projects*
  Project Participants can search for Tasks directly, or they can search for Projects in order to get to the Tasks they want through the Projects that contain them.

- *Finding Tasks Using the My Tasks Portlet*
  The My Tasks Portlet allows users to update multiple Tasks at once, as well as providing links to individual Task details.
- *Finding Tasks Using Notifications*
  Tasks can be reached from a Notification simply by clicking on the link provided in the body of the email, or by copying and pasting it into any Web browser.
- *Finding Tasks in the Workbench*
  Project Participants can also search for and update Tasks in the Workbench.

Searching for Tasks and Projects

Participants can search for Tasks and Projects that match certain criteria using the Task Search and Project Search pages. The following sections provide instructions for locating tasks and projects:

- *Locating Tasks Using the Task Search Page*
- *Locating Projects Using the Project Search Page*

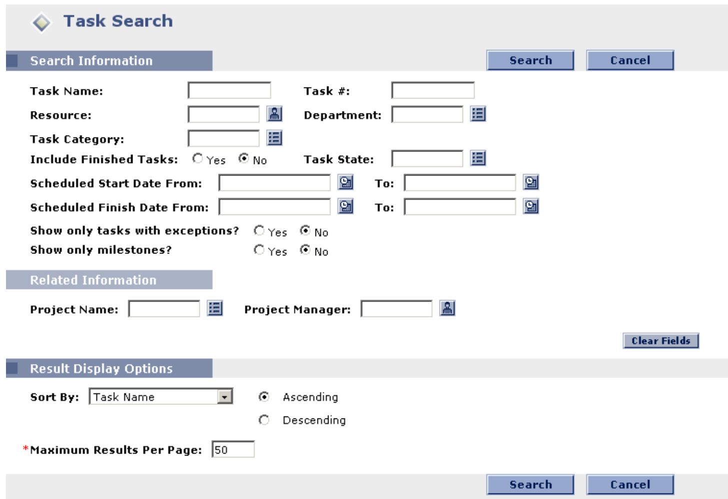
Locating Tasks Using the Task Search Page

Participants can search for Tasks using the Task Search page.

To locate Tasks in Project Management:

1. From the **Search** menu group in the menu bar at left, select **Tasks**.

   The Task Search page opens.

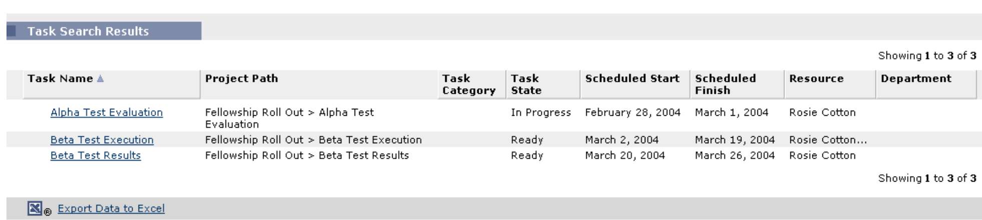


2. Enter the search criteria for the desired Task.

   You can search for an existing Task based on any of the fields located on the Task Search page. Limiting the maximum number of results in the Maximum Tasks Displayed field can yield quicker results.

3. Click **Search**.

   The Task Search Results page opens, displaying the results matching your search criteria.



4. Click on the name of any Task in the list to view its Details page.

   See *"Viewing and Updating Task Details"* on page 184 for more information. To clear all fields in the Task Search Query page and reset to default values, click **Clear Fields**.

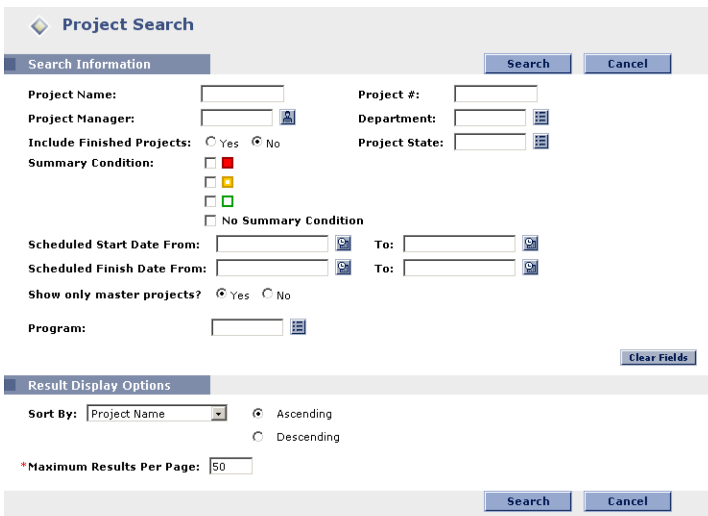
Locating Projects Using the Project Search Page

While Project Participants can locate and view Projects, only Participants with a Project Manager Access Grant can edit Projects, through the Workbench interface. Participants can locate Projects using the Project Search page.

To search for Projects in Project Management:

1. From the **Search** menu group in the menu bar at left, select **Projects**.

   The Project Search page opens.



2. Enter the search criteria for the desired Project.

   You can search for an existing Project based on any of the fields located on the Project Search page. Limiting the maximum number of results in the Maximum Projects Displayed field can yield quicker results.

3. Click **Search**.

   The Project Search Results page opens, displaying the results matching your search criteria.

4. Click on the name of a Project to view its Project Overview page.

   See *"Viewing Project Overview"* on page 176 for more information. To clear all fields in the Project Search page and reset to default values, click **Clear Fields**.

Finding Tasks Using the My Tasks Portlet

The My Tasks Portlet is available to all Project Management users. This Portlet is included on your Mercury ITG Home page by default. It shows a configurable list of the Tasks currently assigned to the user.

Participants can update Task States and fill in information that the Project Manager would like to collect for all Tasks displayed. In this way, the My Tasks Portlet can save valuable time by providing a single point for multiple Tasks to be updated at once.

The Participant can also click on the name of a Task in the Task List to view its Details page. See *"Viewing and Updating Task Details"* on page 184 for more information.

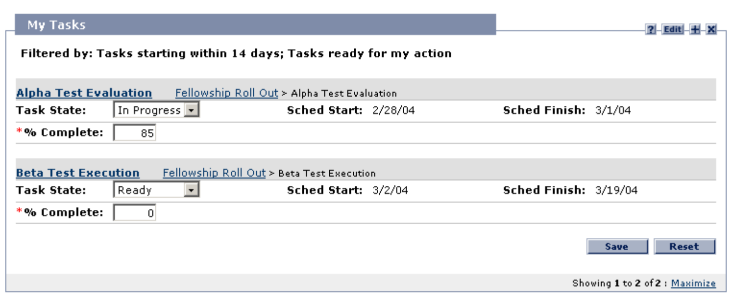


Figure 7-1 My Tasks Portlet

Finding Tasks Using Notifications

Email Notifications can be configured by Project Managers to include hyperlinks to Tasks in Project Management. If you have received an email containing a link to a Task, click on it, and it will open to that Task's Details page in your Web browser. If your email client doesn't handle HTML links directly, copy and paste it into your Web browser.

Finding Tasks in the Workbench

The Workbench is the Java application that allows for configuration as well as creation and processing of Projects, Project Templates, and Tasks. Project Participants can also search for and update Tasks in the Workbench.

Note

Only Mercury ITG users who have been given a Power license can access the Workbench. Project Participants with a Power license can access the Workbench, but as in the standard interface, they will not be able to edit Project information or update Tasks they have not been assigned.

Project Participants can find Tasks by searching for them directly, or by looking for the Projects that contain them.

The following sections contain more detailed information on searching for Tasks and Projects, as well as updating Tasks, in the Workbench:

- *Searching for Tasks in the Workbench*
- *Searching for Projects in the Workbench*
- *Updating Tasks in the Project Plan Panel*
- *Updating Tasks in the Task Information Window*

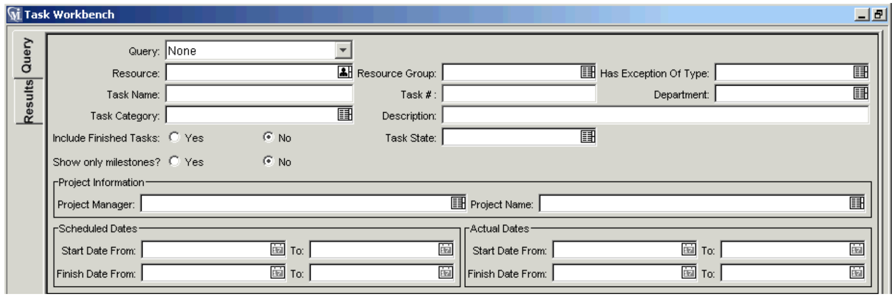
Searching for Tasks in the Workbench

You can locate Tasks using the **Query** tab in the Task Workbench window.

To search for Tasks from within the Workbench:

1. Click the **Project Management** screen group.
2. Click the Projects icon.

   The Project Workbench opens.
3. Select the Task Workbench, behind the Project Workbench, by either clicking on its title bar or clicking **Task Workbench** at the bottom of the Workbench window.



4. Enter search criteria into the associated fields.

   To save your query, click **Save Query**. You can then perform a quick search using these specified criteria anytime later.

5. Click **List** to return the matching results in the **Results** tab.

6. From within the **Results** tab:

   - View a Task by double-clicking on the desired Task or selecting it and clicking **Open**. The Task Information window opens.

   - Open multiple Tasks by selecting a group (using **Shift-Select** or **Ctrl-Select**) and clicking **Open**. Many Task Information windows open, one for each selected Task.

7. Update Task information in the Task Information window.

   For details on updateable fields, see *"Updating Tasks in the Task Information Window"* on page 175.

Searching for Projects in the Workbench

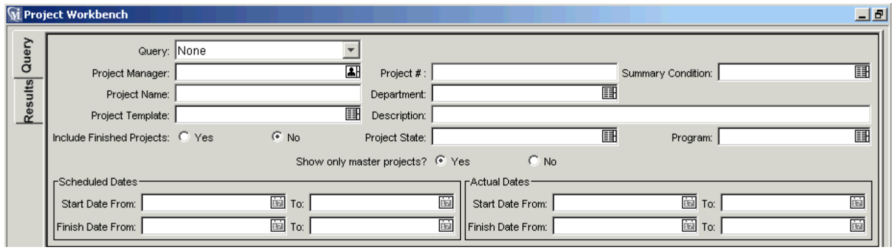
The **Query** tab in the Project Workbench window is used to locate and open Projects.

To search for Projects from within the Workbench:

1. Click the **Project Management** screen group.

2. Click the Projects icon.

   The Project Workbench opens, with the **Query** tab defaulted to appear on top.



3. Enter search criteria into the associated fields.

4. To save your query, click **Save Query**.

   You can then perform a quick search using these specified criteria anytime later.

5. Click **List** to return the matching results in the **Results** tab.

6. From within the **Results** tab:

   - View a Project by double-clicking on the desired Project or selecting it and clicking **Open**. The Project window opens.

   - Open multiple Projects by selecting a group (using **Shift-Select** or **Ctrl-Select**) and clicking **Open**. Multiple Project windows open, one for each selected Project.

7. From within the Project window, you can edit Tasks directly, or edit them in the Task Information window.

   See *"Updating Tasks in the Project Plan Panel"* on page 174 and *"Updating Tasks in the Task Information Window"* on page 175 for more information.

Updating Tasks in the Project Plan Panel

Project Participants can update Tasks displayed in the Project Plan Panel.

To update Task information from the Project Plan Panel:

1. Select the Task to update.

2. Click on the desired field to update its contents directly.

Project Participants can only update the fields that have been enabled for them to edit by the Project Manager. This set of fields can vary. Additionally, Participants can only update those Tasks that have been assigned to them. All other Tasks will be view-only. This is also true for Project Managers viewing Tasks and Projects that they are not in charge of.

Updating Tasks in the Task Information Window

Project Participants can also update Tasks inside each Task's Information window.

To edit Task information in the Task Information window:

1. Open the Task Information window by one of the following ways:
   - Query and open the Task directly from the Task Workbench. The Task Information window opens.
   - Query and open an existing Project. Double-click the Task to edit, or select it and click **Edit**. The Task Information window opens.
2. Make all necessary changes in the Task Information window.
3. Click **OK**.

   Project Participants can only update the fields that have been enabled for them to edit by the Project Manager. This set of fields can vary. Additionally, Participants can only update those Tasks that have been assigned to them. All other Tasks will be view-only. This is also true for Project Managers viewing Tasks and Projects that they are not in charge of.

Viewing Project Information

Project Participants might want to view the Projects they are part of in the standard interface, as a way of setting context for their own Tasks, checking on other dependent Tasks, or keeping track of deadlines. Participants can view the following Project information at any time:

- *Viewing Project Overview*
- *Viewing Project Details*
- *Viewing Project Hierarchy*

- *Viewing Exceptions*
- *Viewing Project References*
- *Viewing the Project Gantt Chart*
- *Viewing the Critical Path*
- *Viewing Project Milestones*

Viewing Project Overview

The Project Overview page displays a wide range of information about a particular Project: its Subprojects and Tasks, its State and Project Manager, and any Exceptions it might have triggered. All of this data and more is presented and arranged through the following Portlets:

- **Project Summary**
  Displays the Project's name, state, % complete, manager, description, scheduled start, and scheduled finish. It also contains a link to the Project Details page. See *"Viewing Project Details"* on page 177.
- **Project Overview Gantt**
  Displays the Gantt chart for a Project. See *"Viewing the Project Gantt Chart"* on page 181.
- **Project Milestones**
  Lists the Milestones in a Project. See *"Viewing Project Milestones"* on page 182.
- **Subprojects and Tasks Summary**
  Provides a list of all Subprojects and Tasks included in that Project, and a link to the Project Plan, located on the Project Hierarchy page. See *"Viewing Project Hierarchy"* on page 179.
- **Exception Summary**
  Shows the number and kinds of Exceptions triggered and links to the Exception Details Portlet. See *"Viewing Exceptions"* on page 180.
- **Project References**
  Provides a list of all References linked to the Project (Requests, Packages, Tasks, Projects, Releases, Attachments, URLs) and where in the Project they are Referenced from. See *"Viewing Project References"* on page 181.
- **Project Related Actions**
  Displays links to a Project's Assignment visualizations and Staffing Profiles. See Managing Your Resources (Resource Management) for more details.

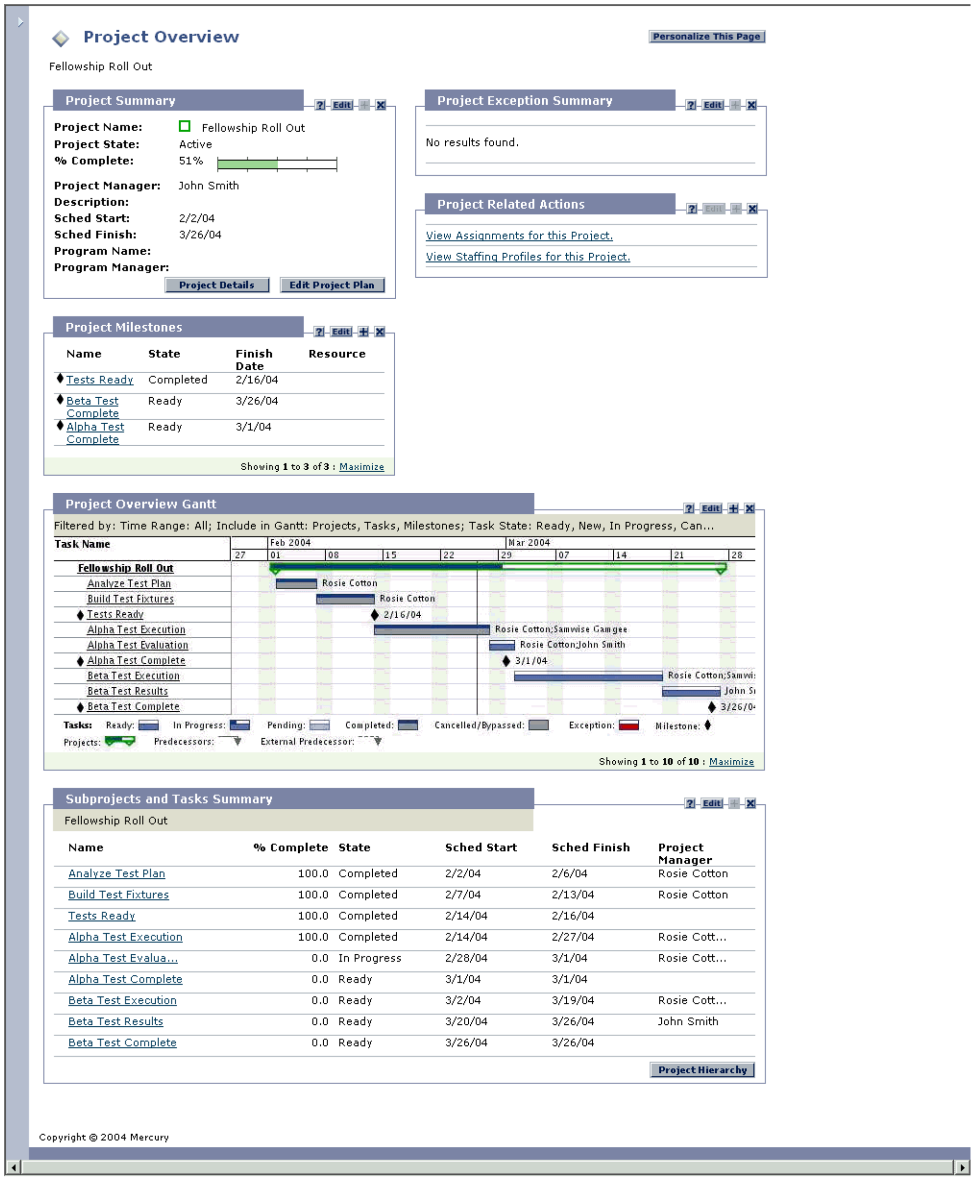


Figure 7-2 Project Overview Page

Users can access the Project Overview page through the Project Search Results page, as well as the Project List Portlet, which is available for display on the Participant's Mercury ITG Home page as part of the Mercury ITG Dashboard.

Viewing Project Details

The Project Details page contains detailed information on a particular Project, grouped into the following categories:

- **Progress**
  % complete, confidence, start date (scheduled and actual), finish date (scheduled, estimated, and actual), duration (scheduled, estimated remaining, and actual), and effort (scheduled, estimated remaining, and actual).

- **Details**
  Project number, Project Template, department, description, priority, complete and incomplete predecessors.

- **Action Items**
  Action item names, states, and priorities.

- **Notes**
  Any notes.

- **References**
  Requests, Packages, other Projects, URLs, and attachments.

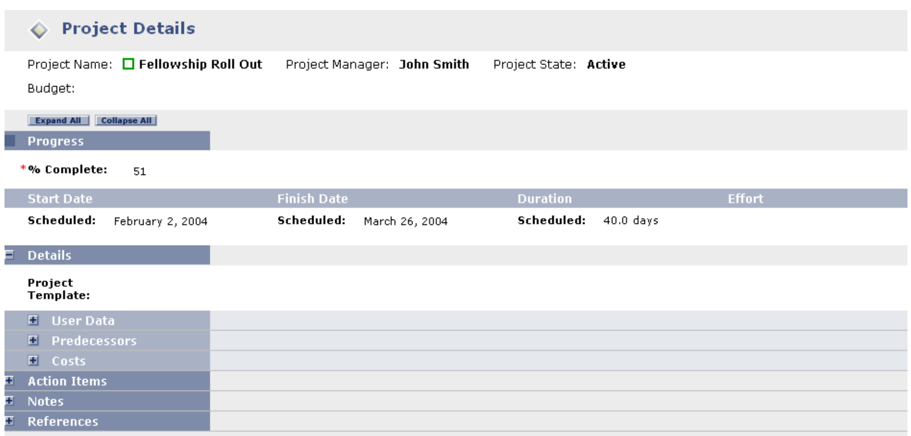


Figure 7-3 Project Details Page

The Project Details page can be accessed through the Project Summary Portlet in the Project Overview page, which contains a link to the Project Details page. Click **Project Details** to go to the Project Details page.

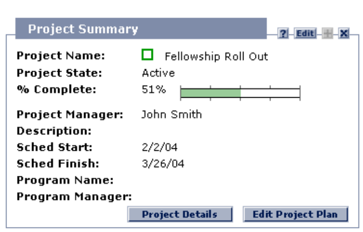


Figure 7-4 Project Summary Portlet

Viewing Project Hierarchy

The Project Hierarchy page displays the Project's hierarchical organization of Tasks and Subprojects (its Project Plan) as well as information such as:

- Task or Subproject name
- Task or Subproject state
- Task or Subproject scheduled duration, start, and finish
- Task or Subproject predecessors
- Task or Subproject Resource or Manager
- Task Exceptions or Subproject Summary Condition

The Project Hierarchy page is useful for providing context for Participants in terms of the location of their Tasks in the overall Project framework, as well as indicating Summary Conditions and Exceptions at a glance.

Clicking on any Task within the Project Hierarchy page takes the user to that Task's Details page. See *"Viewing and Updating Task Details"* on page 184 for more detailed information.

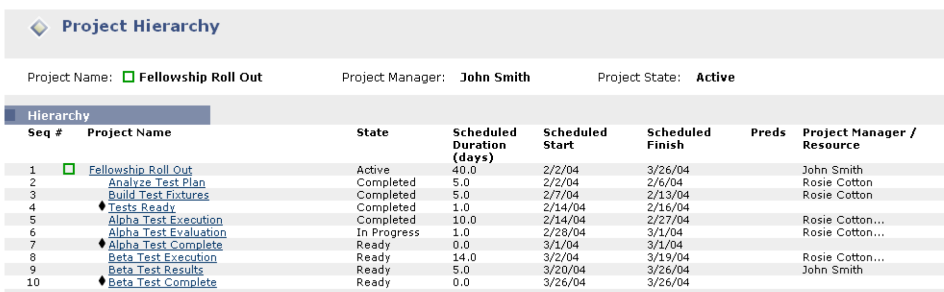
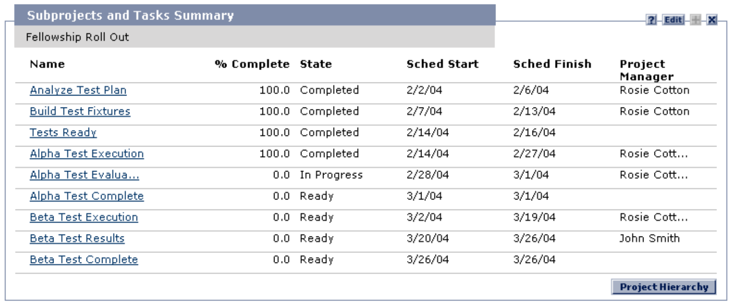


Figure 7-5 Project Hierarchy Page

The Project Hierarchy page can be accessed through the Subprojects and Tasks Summary Portlet in the Project Overview page, which contains a link to the Project Hierarchy page. Click **Project Hierarchy** to go to the Project Hierarchy page.



Subprojects and Tasks Summary

Fellowship Roll Out

Name	% Complete	State	Sched Start	Sched Finish	Project Manager
Analyze Test Plan	100.0	Completed	2/2/04	2/6/04	Rosie Cotton
Build Test Fixtures	100.0	Completed	2/7/04	2/13/04	Rosie Cotton
Tests Ready	100.0	Completed	2/14/04	2/16/04	
Alpha Test Execution	100.0	Completed	2/14/04	2/27/04	Rosie Cott...
Alpha Test Evalua...	0.0	In Progress	2/28/04	3/1/04	Rosie Cott...
Alpha Test Complete	0.0	Ready	3/1/04	3/1/04	
Beta Test Execution	0.0	Ready	3/2/04	3/19/04	Rosie Cott...
Beta Test Results	0.0	Ready	3/20/04	3/26/04	John Smith
Beta Test Complete	0.0	Ready	3/26/04	3/26/04	

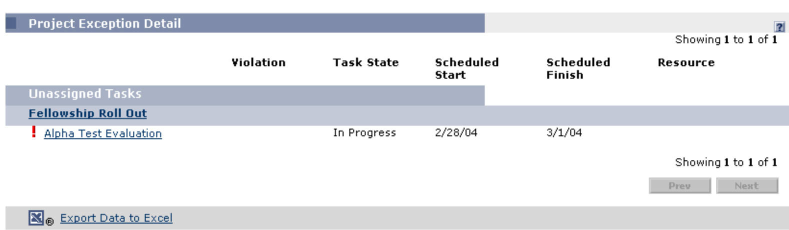
Figure 7-6 Subprojects and Tasks Summary Portlet

Viewing Exceptions

The Project Exception Detail Portlet displays the Exceptions that have been triggered for the Project being viewed, breaking each triggering Task down according to:

- Exception Type and number of days violated
- Task state, resource, scheduled start and finish
- Project path

This is useful for Participants in that it provides specific context for every Exception in a Project, telling them what Task has gone wrong (or what might go wrong, depending on the Exception Rules enabled), when it went wrong, and where the problem Task is located.



Project Exception Detail

Showing 1 to 1 of 1

	Violation	Task State	Scheduled Start	Scheduled Finish	Resource
Unassigned Tasks					
Fellowship Roll Out					
! Alpha Test Evaluation		In Progress	2/28/04	3/1/04	

Figure 7-7 Project Exception Detail Portlet

Getting to the Exception Details Portlet

The Project Exception Summary Portlet in the Project Overview page contains a link to the Project Exception Detail Portlet. Click **Details** to go to the Project Exception Detail Portlet.

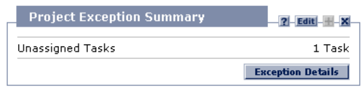


Figure 7-8 Project Exception Summary Portlet

Viewing Project References

The Project References Portlet in the Project Overview page displays all entities linked to the Project as References. References (Requests, Packages, Tasks, Projects, Releases, Attachments, and URLs) are listed with details including:

- Reference Type
- Description
- Referenced By

The Project References Portlet provides a convenient single point of access for all entities referenced by a Project.

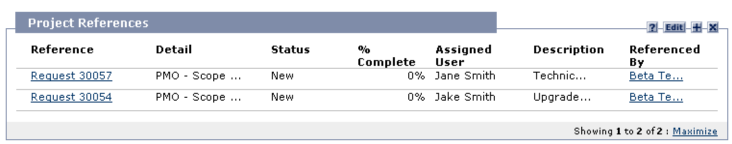


Figure 7-9 Project References Portlet

Viewing the Project Gantt Chart

The Project Overview Gantt Portlet, displayed on the Project Overview page, shows the Project's Gantt chart including Milestones.

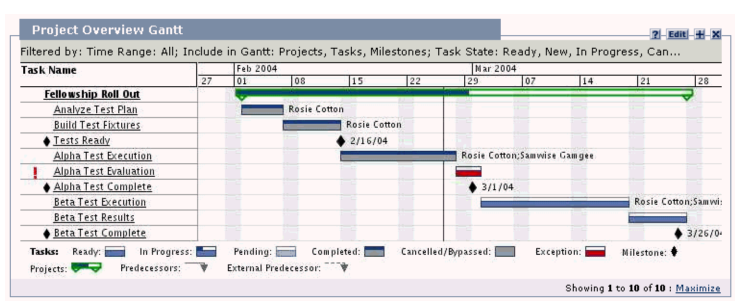


Figure 7-10 Project Overview Gantt Portlet

Display criteria for the Gantt chart can be configured by clicking **Edit**, which opens the Portlet's filter page.

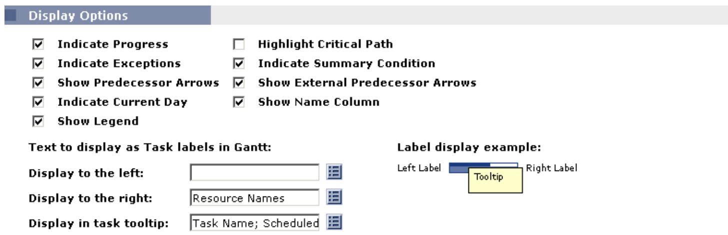


Figure 7-11 Project Overview Gantt Portlet filter page - Display Options section

Viewing the Critical Path

The critical path of a Project is made up of the Tasks that define its duration. A Project's critical path can be displayed in the Project Overview Gantt Portlet by clicking **Edit** and selecting the Highlight Critical Path checkbox.

Viewing Project Milestones

Milestones are used to mark significant events in a Project, often the completion of a deliverable or arrival of a deadline. In the Project Overview Gantt Portlet, milestones appear as black diamonds.

Milestones are also listed in the Project Milestones Portlet, displayed on the Project Overview page.

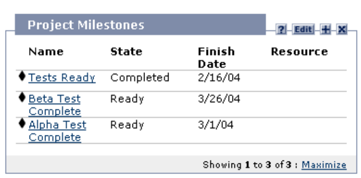


Figure 7-12 Project Milestones Portlet

Viewing Resource Information

Resources can view information on their current assignments using the View Resource page. The View Resource page includes a chart of their capacity and a customized Gantt chart illustrating their assignments for the next two weeks.

Project Managers with the proper level of access can also view information on Resources including their Cost rate and workload capacity. *Figure 7-13* illustrates a View Resource as shown to a Manager with access to Cost data.

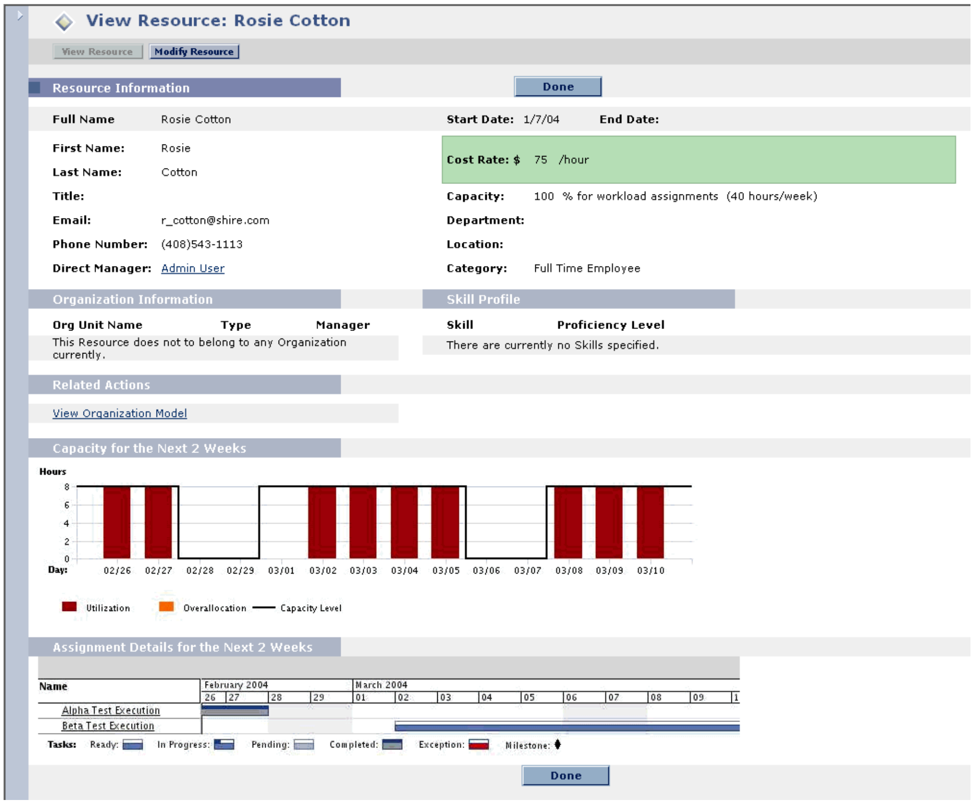


Figure 7-13 View Resource page for a Manager with Cost Access

To open the View Resource page, select **Search > Resources** from the menu bar. Enter any search criteria into the Search Resources page and click **Search**.

Updating Tasks

Project Management makes it easy for Project Participants to report on different aspects of Tasks in multiple levels of detail:

- *Viewing and Updating Task Details*
  Participants can view their Tasks in detail, updating and saving information such as Task progress, attachments, and action items.
- *Viewing and Updating Multiple Tasks*
  Multiple Tasks can also be updated simultaneously, with information deemed essential by the Project Manager available to update immediately.

Updating a Task can trigger events in the Project that move it along its path to completion.

Example

A Task in a Project that has predecessor Tasks associated with it cannot be marked **Complete** until its predecessors have been completed, unless a Project Manager attempts it.

Viewing and Updating Task Details

The Task Details page contains detailed information on multiple aspects of a single Task. Many fields in the Task Details page are updateable by Project Participants.

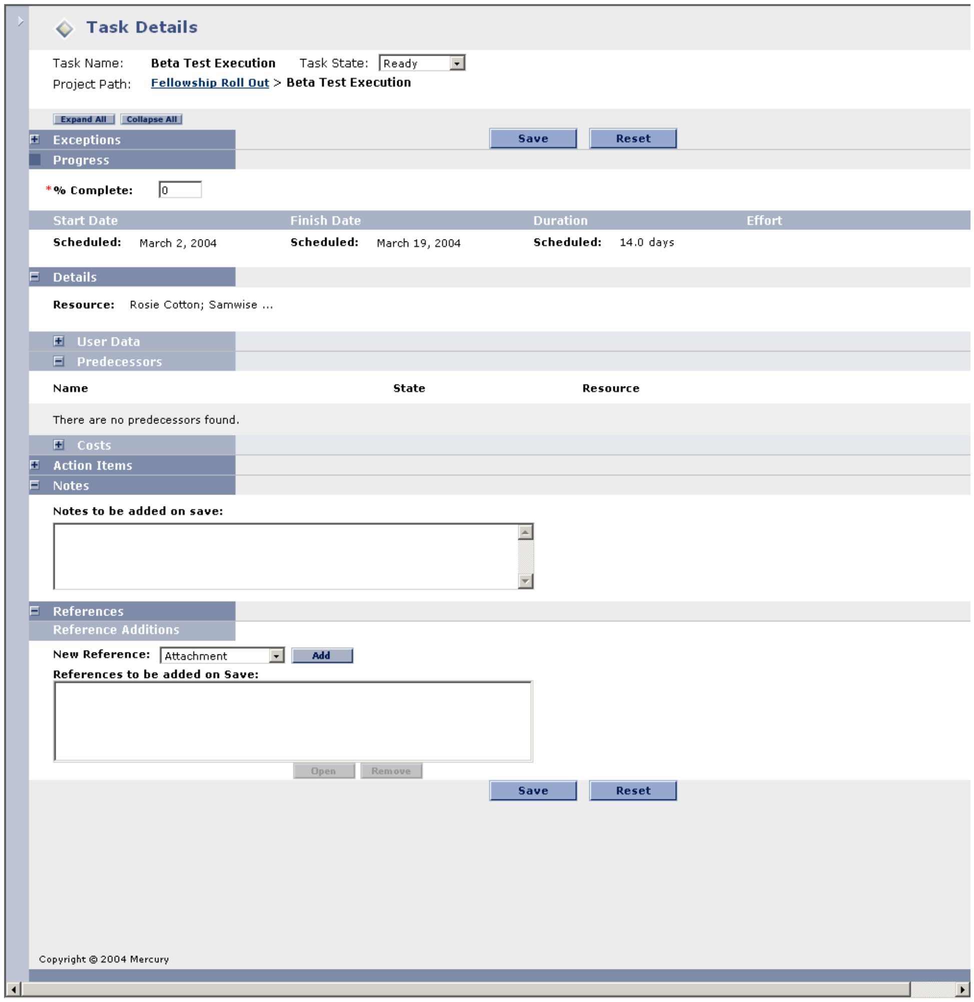
To update fields in the Task Details page:

1. Make the update in the desired field.
2. Click **Save**.

Note

In order for updates to take effect, the Participant must click **Save**. Only then will Project Management take into account the updates that have been made.

To clear all changes and reset all fields to their previous values, click **Reset**.



Getting to the Task Details Page

A relevant Task must first be located in order to get to its Details page and update its information. There are several ways for Participants to locate and view details for any Tasks that might require their attention:

- *"Searching for Tasks and Projects"* on page 168
- *"Finding Tasks Using the My Tasks Portlet"* on page 171
- *"Finding Tasks Using Notifications"* on page 171

Any Task's Details page can also be reached from the Project Hierarchy page. See *"Viewing Project Hierarchy"* on page 179 for more detailed information.

Viewing and Updating Multiple Tasks

Sometimes it might be necessary for a Project Participant to only update a specific Task detail, such as the Task State or % Complete. The My Tasks Portlet is perfectly suited to this need, and has the added advantage of being able to show multiple Tasks at once.

The fields collected by the Portlet can be configured by Project Managers. See *"Selecting Information to Track and Display"* on page 30 for details.

The My Tasks Portlet displays information for multiple Tasks. The maximum number of Tasks displayed can be specified by the user, as well as the Portlet title. Most fields in the My Tasks Portlet are updateable by Project Participants.

To update fields in the My Tasks Portlet:

1. Make the update in the desired field.
2. Click **Save**.

Note

In order for updates to take effect, the Participant must click **Save**. Only then will Project Management take into account the updates that have been made.

To clear all changes and reset all fields to their previous values, click **Reset**.

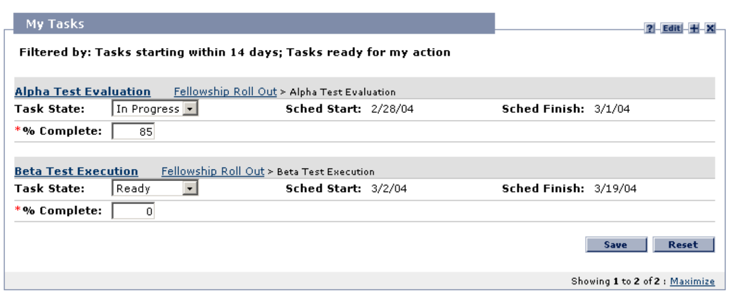


Figure 7-14 My Tasks Portlet

Getting to the My Tasks Portlet

The My Tasks Portlet is defaulted to display on a Project Participant's Homepage. The Homepage can be reached at any time by selecting **Dashboard > My Pages > Front Page** from the menu bar at left.

Viewing and Adding Notes

Notes are available for viewing and editing in the Task Details page. See *"Viewing and Updating Task Details"* on page 184 for information on the Task Details page.

To create a new Note:

1. Get to the Details page of the Task to update.
2. Type the new note into the New Note text field.
3. Click **Save**.

Viewing and Modifying References

Project Management features a number of methods for capturing additional information, or References, related to your Projects. Tasks can include references to other entities or points of information, allowing easy access and visibility to data related to the current Project. The following References can be attached to a Task:

- Requests
- Packages
- URLs
- Attachments (anything that can be placed on a server: PDF files, JPEG images, Java .class files, etc.)
- Tasks
- Projects
- Releases (referenced from the Workbench only)

References are attached from the Task Details page. References can be added and modified using both the standard interface and the Workbench. The following sections provide instructions for adding, modifying and deleting references using the standard Project Management interface:

- *Adding References to Tasks*
- *Viewing and Editing References*

- *Deleting References*

Adding References to Tasks

You can reference a Web accessible file or attach a file from your local machine to the current Task. You can also reference an existing Mercury ITG entity (Request, Package, Project, or Task).

To attach References to a Task:

1. Open the Task Details page using one of the following methods:
   - Search for and open the Task directly using the **Search > Tasks** menu option.
   - Query and open an existing Project using the **Search > Projects** menu option. Locate the Task within the Project and open the Task Details page.
2. Scroll down to the **References** section of the page.
3. Select a Reference type from the New Reference drop down list.
4. Click **Add**.

   A page corresponding to the selected Reference type opens. Enter the Reference on this page. For certain Reference types, you have the option of searching for a Reference.
5. Attach the Reference.
6. Click **Save** on the Task Details page.

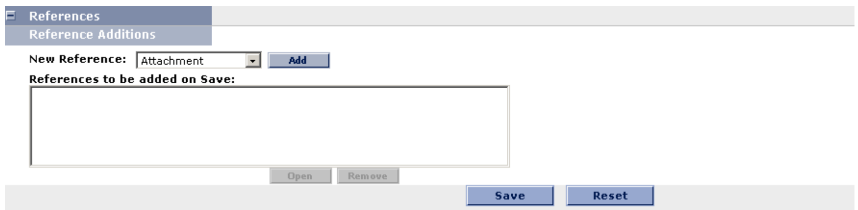
   You can attach different types of References to your Task. See the following sections for instructions on referencing different entities.
   - *Attaching Existing Mercury ITG Entities*
   - *Attaching New Requests*
   - *Attaching Files*
   - *Attaching URLs*

Attaching Existing Mercury ITG Entities

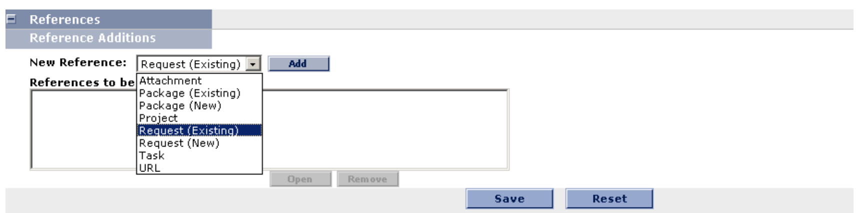
You can attach an existing Mercury ITG entity (Request, Package, Project, or Task) to a Task.

To attach an existing Mercury ITG entity to a Task:

1. Navigate to the Task Details page and scroll down to the **References** section.



2. Select **Entity (Existing)** ("**Entity**" can be Task, Project, Request (Existing), Request (New), Package (New), or Package) to be added from the New Reference drop down list.

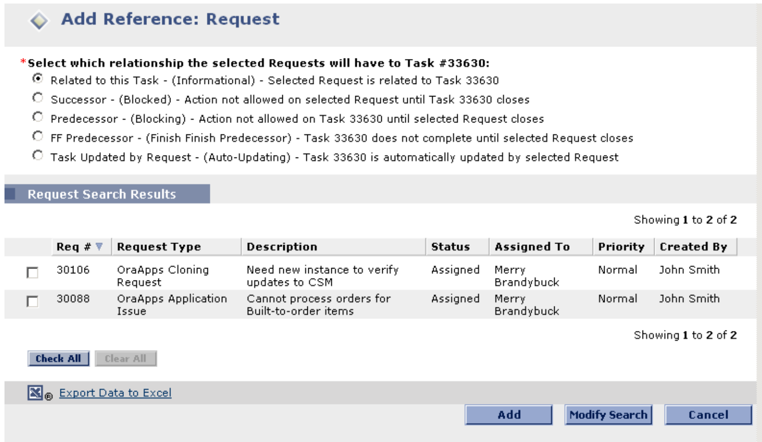


3. Click **Add**.

   A page opens presenting search criteria for the Request, Package, Release, Project, or Task to be referenced.

4. Enter the appropriate information and click **Search**.

   A page opens presenting search results.



5. Select the check box next to the entity or entities to be referenced.

   To check all boxes, click **Check All**. To un-check all boxes, click **Clear All**.

6. Select a relationship for the referenced entities from the drop down list at the top of the page.

   For a complete list of all Reference relationships, see *"Dependency Relationships"* on page 113.

7. Click **Add**.

8. The referenced entities appear in the References to be added on Save list on the Task Details page. *The References have not been added yet*.

9. Click **Save** to add the References to the Task.

Attaching New Requests

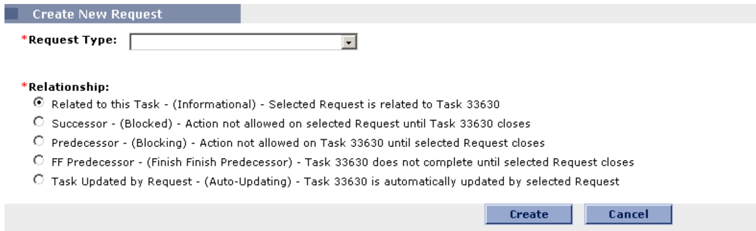
A new Request can be created from the **References** section of the Task Details page.

To create a new Request from the References section of the Task Details Page:

1. Select **Request (New)** from the New Reference drop down list.

2. Click **Add**.

   The Create New Request page opens.



3. Choose the Request Type that you want to generate from the Request Type drop down list in the Create New Request section.

   A description of each Request Type displays below the list. To save time, the most recently created Request Types will be first on the list.

4. Select the relationship for the new Request from the Relationship drop down list.

5. Click **Create**.

6. Enter the information related to your new Request in the Create New Request page.

   Required fields are displayed in red. If you would like to make additional comments on the Request, enter them in the Notes field.

7. Save and submit the new Request.

   The referenced Request appears in the References to be added on Save list on the Task Details page. *The Reference has not been added yet*.

8. Click **Save** to add the Reference to the Task

Attaching Files

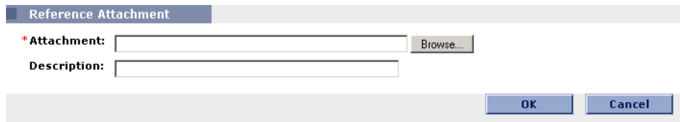
To add a file as a Reference:

1. Navigate to the Task's Details page and scroll down to the **References** section.

2. Select **Attachment** from the New Reference drop down list.

3. Click **Add**.

   The Reference Attachment page opens.



4. Select the desired file from your local machine and enter a description if desired.

5. Click **Add** to add the selected Attachment as a Reference.

   The referenced Attachment appears in the References to be added on Save list on the Task Details page. *The Reference has not been added yet.*

6. Click **Save** to add the Attachment to the Task.

Attaching URLs

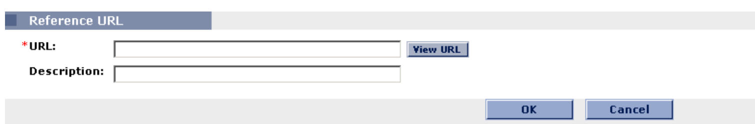
To add a URL as a Reference:

1. Navigate to the Task Details page and scroll down to the **References** section.

2. Select **URL** from the New Reference drop down list.

3. Click **Add**.

   The Reference URL page opens.



4. Type the URL into the URL field and enter a description if desired.

5. Click **Add** to add the specified URL as a Reference.

   The referenced URL appears in the References to be added on Save list on the Task Details page. *The Reference has not been added yet*.

6. Click **Save** to add the Reference to the Task.

Viewing and Editing References

You can view the References that have been linked to a Task. The References are listed in the **References** section of the Task Details page.

To view the References currently linked to the Task:

1. Open the Task Details page.
2. Scroll down to the **References** section.

   Expand and collapse sections by clicking the + and - icons to view additional details.
3. Click on the name of the Reference you want to view.
   - If the Reference is a URL, it opens inside your Web browser.
   - If the Reference is a file of any other kind, it is handled by your Web browser in the usual fashion, either opening directly or asking to be saved to your local machine.
   - If the Reference is a Project, its Project Overview page opens, displaying summary information related to that particular Project.
   - If the Reference is another Mercury ITG entity (Request, Package, or Task) it will open the entity's Details page.

Note

> If you have licenses for Demand Management and Change Management, you can click the Request or Package to access their detail pages. You can then update those entities according to normal Mercury ITG operation.

If you have permission to edit the Task, you can modify the Task's References. In addition to adding new References, you can delete and change the Relationships of existing references. The following figure illustrates the functionality related to References.

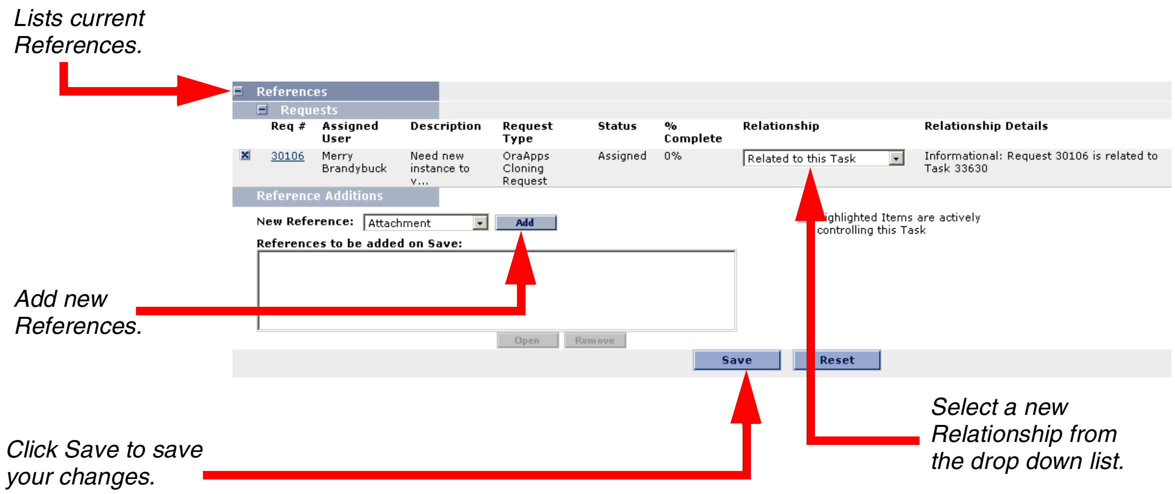


Figure 7-15 References section

You can also view References related to your Tasks and Projects using the Project References Portlet on your Mercury ITG Dashboard. Add the Portlet to your Dashboard and then personalize it to show the References that are relevant to your activities. The Portlet can be personalized to display References based on the following information: Reference Types, Relationship, time period when they were added, and whether or not they are preventing actions on Tasks.

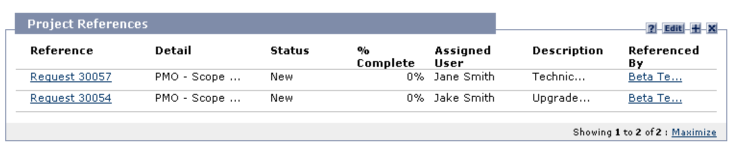


Figure 7-16 Project References Portlet

Deleting References

If you have permission to edit the Task, you can delete the Task's References.

To delete a Task Reference:

1. Navigate to the Task Details page and scroll down to the **References** section.
2. Click the **X** to the left of the Reference.

   A message will appear asking you to confirm the deletion.

3. Click **Yes**.

   The Reference is removed from the Task.

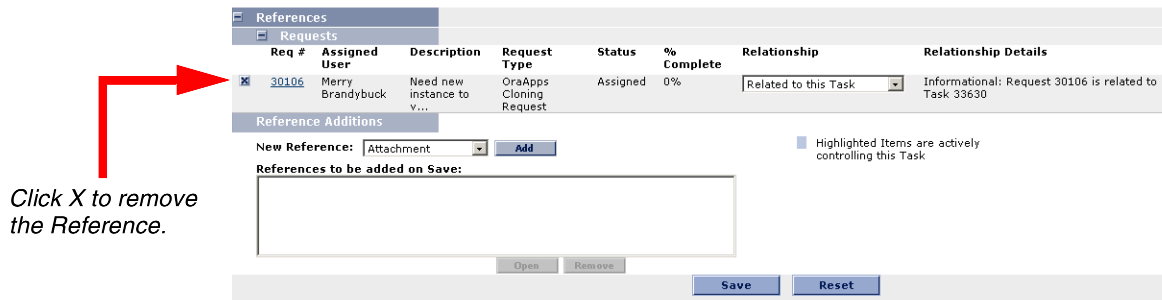


Figure 7-17 References section

Visibility Between Projects and Programs

Mercury Program Management provides a way for managers to link multiple Projects together as Programs, and to submit and track Requests against them.

Organizations implement a Program Management Office in order to:

- Ensure alignment of IT projects with business objectives
- Eliminate duplicate and non-priority efforts
- Improve operational efficiency
- Leverage resources
- Ensure on-time and on-budget delivery

Programs can be tracked and analyzed with the same kind of familiar Cost metrics as Projects.

Viewing Reports

You can run reports on your Project Management information from the **Reports** menu group in the menu bar.

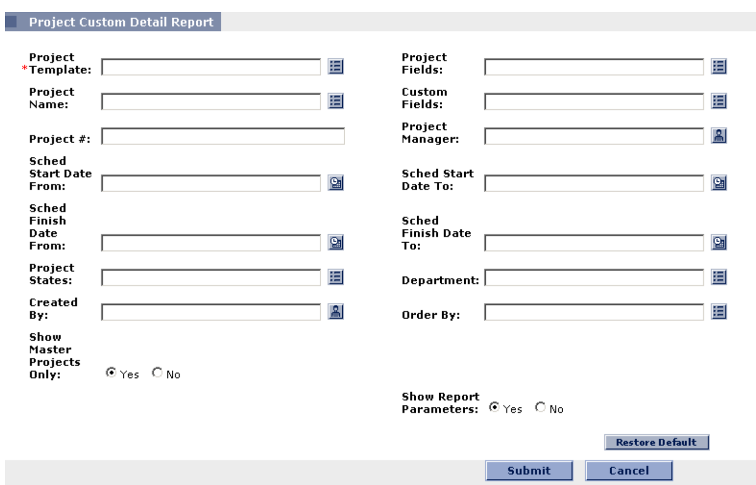
To run a Project Management report:

1. From the **Reports** menu group in the menu bar, select **Project Reports**.

   The Available Reports page opens.

2. Choose the Report to be submitted from the list of Report Types by clicking on its name.

   The Report's creation page opens.



This example of a Report creation page shows the required and optional fields for the Project Custom Detail Report. Each Report Type has its own set of required and optional fields. The Report creation page always displays a different set of fields depending on which Report Type is selected. See *"Submitting a Report from the HTML Interface"* on page 253 for more information.

3. Enter information in the Report creation page's required fields.

4. Enter any information in the Report creation page's optional fields.

5. Click **Submit**.

   The Report Submitted page opens and displays the Report contents in a new window.

Chapter 8

Using Project Templates

This chapter explains how to create and use Project Templates in Project Management.

The following topics are covered:

- *Setting up a Project Template*
- *Creating a Project Template from an Existing Project*
- *Creating a Master Project from a Project Template*
- *Creating a Subproject from a Template*

Setting up a Project Template

Project Templates are used in Project Management to create repeatable processes to be used in Projects. They can be used as a model and serve as a basis for numerous Master Projects. Templates can also be created and then imported as a Subproject into a Master Project.

Project Templates speed up the process of setting up your Projects. A repeated set of Tasks are bundled into a Template and dropped into any Project while preserving its Notifications, project plan, and any custom fields the template can have.

Example

A company with several different software products might use the same process for all development efforts. A Project Template could be used to create the Master Project for each one, as opposed to creating them all individually every time a project is planned. Information for each individual Project can then be modified by a particular Project Manager as needed.

Project Templates consist of three parts:

- **Project Plan**
  An ordered list of Tasks. The sequence of Tasks is identical in form and function to the Project Plan Panel.
- **Any custom fields created by the user**
  Configurable custom fields define and collect any necessary information that is not already covered by standard Task or Project detail fields.
- **Project Template settings**
  Settings for a Project Template work the same way as settings for a Master Project.

The following sections provide instructions for creating and configuring Project Templates:

- *Adding Tasks to a Project Template*
- *Creating Custom Fields for Project Templates*
- *Configuring Tasks in a Project Template*
- *Configuring Settings for a Project Template*
- *Setting Ownership for a Project Template*
- *Creating a Master Project from a Project Template*
- *Creating a Subproject from a Template*

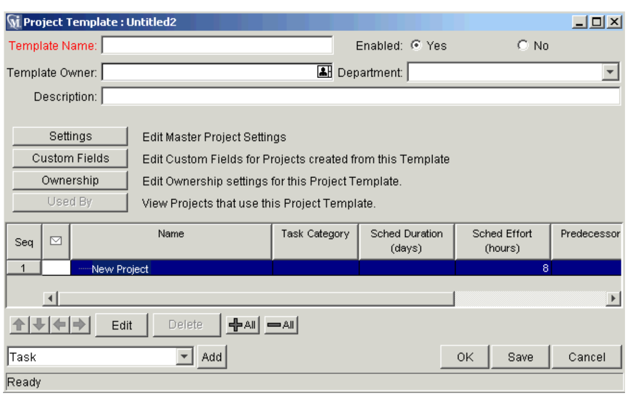


Figure 8-1 Project Template Window

Adding Tasks to a Project Template

The process of adding Tasks to a Project Template is identical to adding Tasks in the Project Plan Panel. See *"Adding Tasks to the Project Plan Panel"* on page 53 for details.

Note

Project Templates do not contain References, Action Items, or Notes, and some fields are not updateable.

Creating Custom Fields for Project Templates

Project Managers can create custom fields that collect information not covered by Project or Task detail fields. Custom fields are unique to each Template. Custom fields are added and modified by:

- *Defining Custom Fields for Project Templates*
- *Modifying the Layout of Custom Fields*

Defining Custom Fields for Project Templates

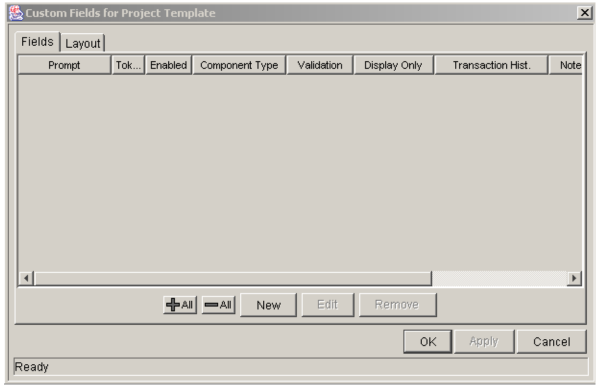
To add a custom field to a Project Template:

1. Click the **Project Management** screen group.
2. Click the Project Templates icon.

   The Project Template Workbench opens.
3. Open an existing template by searching for and double-clicking the template, or create a new template by clicking **New**.

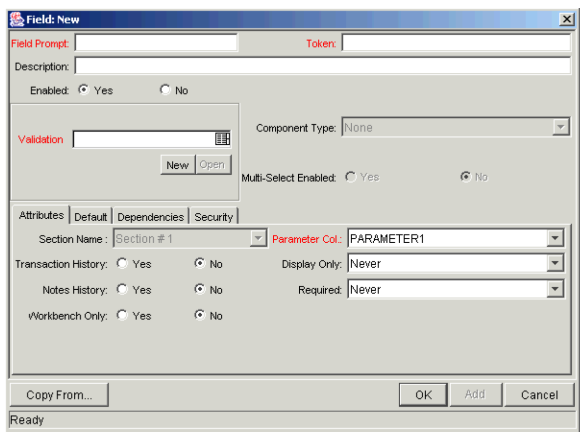
   The Project Template window opens.
4. Click **Custom Fields**.

   The Custom Fields for Project Template window opens.



5. Click **New.**

   The Field: New window opens.



6. Enter the general field information which includes the following:

   - Field Prompt
   - Token
   - Validation

7. In the **Attributes** tab, enter information as described in the following table.

Field	Description
Parameter Col.	Used to determine the place in the internal database column where the field value is stored. Fields in a Project Template cannot use the same column number.
Transaction History	Controls the transaction auditing facility for this field. If set to **Yes**, whenever this field changes in a Project, the change is logged in a transaction history table.
Display Only	Determines if the field is only displayed and cannot be updated. To use the logic defined in the **Dependencies** tab, select **Use Dependency Rules**.
Notes History	Turns notes auditing on or off for this field. If set to **Yes**, whenever this field changes in a Project, the change will be logged in the Notes.
Required	Determines if the user is required to specify a value for this field. To use the logic defined in the **Dependencies** tab, select **Use Dependency Rules**.
Workbench Only	Determines if the field is visible in the Workbench only and not in the HTML interface.

8. Click the **Default** tab.
9. Enter information as described in the following table.

Field	Description
Default Type	Defines if the field will have a default value. Either defaults the field with a constant value by selecting **Constant**, or with a value from another field by selecting **Parameter**.
Visible Value	If Default Type is set to **Constant**, enter the constant value in this field. This value should be what the user would normally enter in the field.
Depends On	If the Default Type is set to **Parameter**, select the token name of that field. At runtime, any value that is entered or updated in the source field will automatically be entered or updated in this destination field.

10. Click the **Dependencies** tab.
11. Enter information as described in the following table.

Field	Description
Clear When Changes	Indicates that the current field should be cleared when the specified field changes (the field needs to be on the Project Template).
Display Only When	Indicates that the current field should only be editable when certain logical criteria are satisfied. This field functions with two adjacent fields: a drop down list containing logical qualifiers and a text field. To use this functionality, select **Use Dependency Rules** in the **Attributes** tab.
Required When	Indicates that the current field should be required when certain logical criteria are satisfied. This field functions with two adjacent fields: a drop down list containing logical qualifiers and a text field. To use this functionality, select **Use Dependency Rules** in the **Attributes** tab.

12. Click the **Security** tab to define the field security.

    See *"Setting Visibility at the Field Level"* on page 204 for details.

13. Click **Add** to save the configuration for this custom field and create additional custom fields, or click **OK** to save the configuration for this custom field and close the Field: New window.

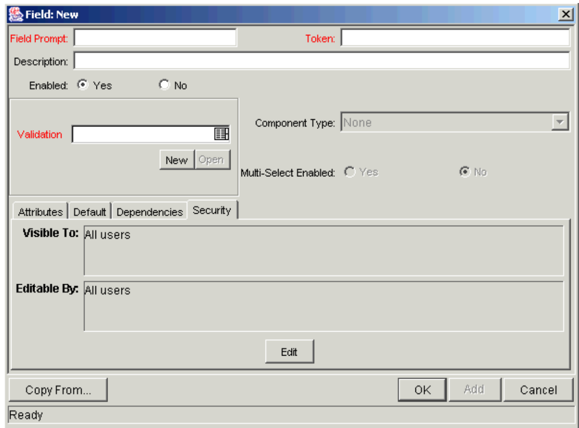
Setting Visibility at the Field Level

By default, all fields are set to be visible to all users and editable by all users. Field visibility and editability can be controlled from the Field window's **Security** tab using the Edit Field Security window. To configure field visibility from the Field window:

1. Open the desired Project Template.
2. Click **Custom Fields** to open the Custom Fields for Project Template window.
3. Select the desired field and click **Edit**.

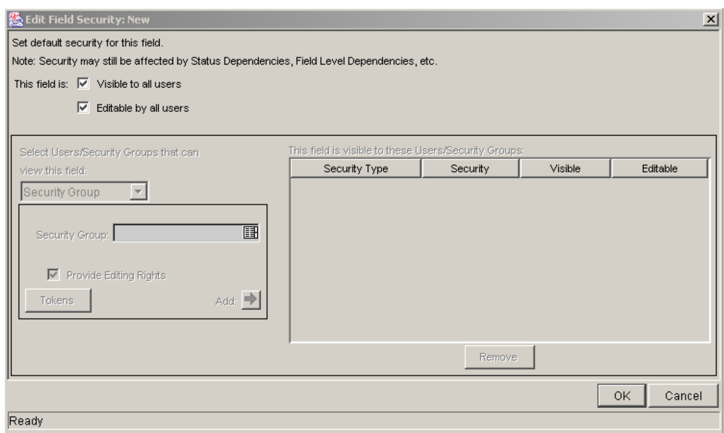
   The Field window opens.

4. Click the **Security** tab.



5. Click **Edit**.

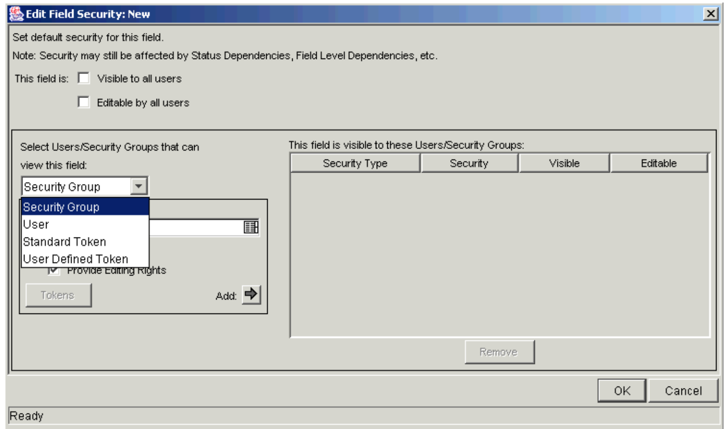
   The Edit Field Security window opens.



6. Un-check the Visible to all users box to begin fine-tuning field properties.

7. Make a choice from the Select Users/Security Groups that can view this field drop down list.

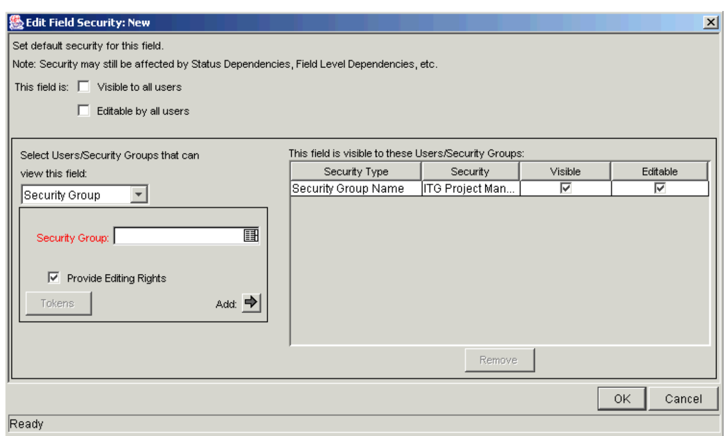
   You can select a **User**, **Security Group**, **Standard Token**, or **User Defined Token**.



8. Once you have made your choice from the drop down list, select the User, Security Group, or Token from the auto-complete list.

   If you want to assign the selected User, Security Group, or Token editing rights as well as viewing rights to the field, check the Provide Editing Rights box.

9. Click the **Add** arrow button to add the selected User, Security Group, or Token to the This field is visible to these Users/Security Groups area.

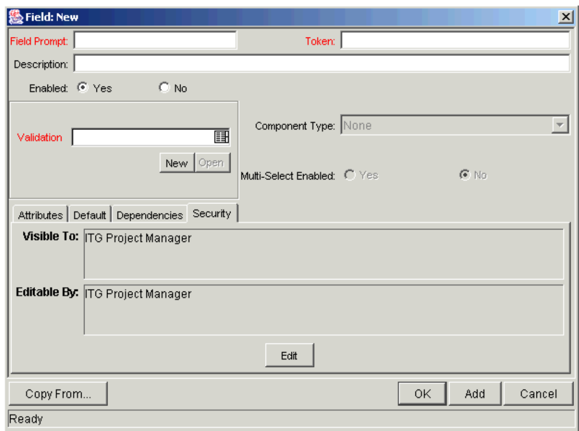


   If you change your mind about granting the selected User, Security Group, or Token editing rights, you can un-check the box in the Editable column of the This field is visible to these Users/Security Groups area. The field will then be visible but not editable to the selected User, Security Group, or Token.

To remove viewing rights entirely, select the User, Security Group, or Token and click **Remove**.

10. When you are finished adding Users, Security Groups, or Tokens to the This field is visible to these Users/Security Groups area, click **OK** to save changes and return to the **Security** tab.

    The **Security** tab is updated with the list of Users, Security Groups, or Tokens with viewing or editing rights to the field.



Modifying the Layout of Custom Fields

You can modify the graphical representation and placement of the custom fields in the Project Template. These changes are made in the **Layout** tab in the Custom Fields for Project Template window.

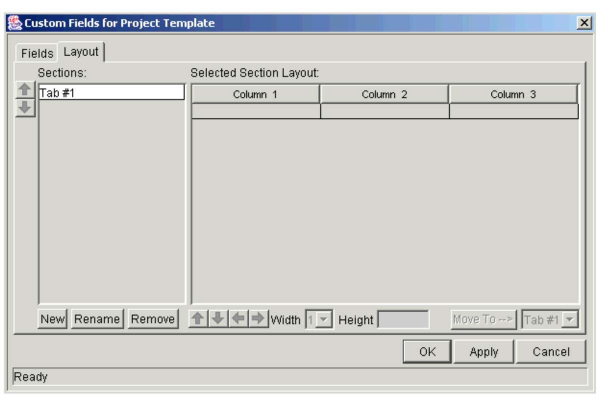


Figure 8-2 Custom Fields for Project Template Layout Tab

Field layout can be modified in the following ways:

- *Modifying Custom Field Widths*
- *Moving Fields*
- *Adding Sections*
- *Previewing Layouts*

Modifying Custom Field Widths

To change the column width of a Project Template's custom field:

1. Click the **Project Management** screen group.
2. Click the Project Templates icon.

   The Project Template Workbench opens.
3. Query for and open the Project Template that you would like to modify.

   The Project Template window opens.
4. Click **Custom Fields** to open the Custom Fields for Project Template window.
5. Click the **Layout** tab.
6. Select the custom field.
7. Select either the **1**, **2**, or **3** choice in the Width drop down list.

Note

The Layout editor will not allow changes to be made if the change conflicts with another field in the layout. For example, a field's width cannot be changed from one to two if another field exists in column two on the same row

For custom fields of component type **Text Area**, the number of lines the text area displays can be specified. Select the field in the **Layout** tab and change the value in the Component Lines attribute. If the selected custom field is not of the type **Text Area**, this attribute will be blank and non-updateable.

Moving Fields

To move a custom field or set of custom fields:

1. Click the **Project Management** screen group.
2. Click the Project Templates icon.

   The Project Template Workbench opens.
3. Query for and open the Project Template that you would like to modify.

   The Project Template window opens.
4. Click **Custom Fields** to open the Custom Fields for Project Template window.
5. Click the **Layout** tab.
6. Select the custom field(s).

   To select more than one custom field, press the Shift key while selecting the last custom field in a set. Only a group of adjacent fields can be selected.
7. Use the directional arrow buttons to move the custom fields to the desired location.

Note

Custom fields cannot be moved to an area where other fields already exist. The other fields must be moved out of the way first.

Adding Sections

To add a section to a Project Template:

1. Click the **Project Management** screen group.
2. Click the Project Templates icon.

   The Project Template Workbench opens.
3. Query for and open the Project Template that you would like to modify.

   The Project Template window opens.

4. Click **Custom Fields** to open the Custom Fields for Project Template window.

5. Click the **Layout** tab.

6. Click **New** in the Sections frame.

   The Input dialog opens.

7. Enter a Section Name.

8. Click **OK**.

   The name of the new section appears in the **Layout** tab. When Project Templates are used to create a Master Project, the sections with the appropriate custom fields are displayed. To change a section name, click on a field that resides in that section and click **Rename** to enter a new value in the Input dialog. The change is reflected immediately.

Previewing Layouts

Click **Preview** to view the layout. This opens a small window that shows the fields as they will appear.

Remember that:

- If all of the custom fields have a width of one column, all displayed columns will automatically span the entire available area when the Template is displayed.
- Any rows with no custom fields are ignored. They do not show up as a blank line.
- Any non-displayed custom fields do not affect the layout. The layout engine considers them the same as blank fields.

Adding Fields to Existing Projects

Custom fields can be imported into an existing Project at any time without simultaneously importing the Project Template they come from. This allows you to capture whatever information is needed without having to deal with a superfluous set of Projects or Tasks. Custom fields appear in the Project or Task Information window on their own tab.

For information on adding custom fields to existing Projects, see *"Importing Custom Fields from a Project Template"* on page 51.

Configuring Tasks in a Project Template

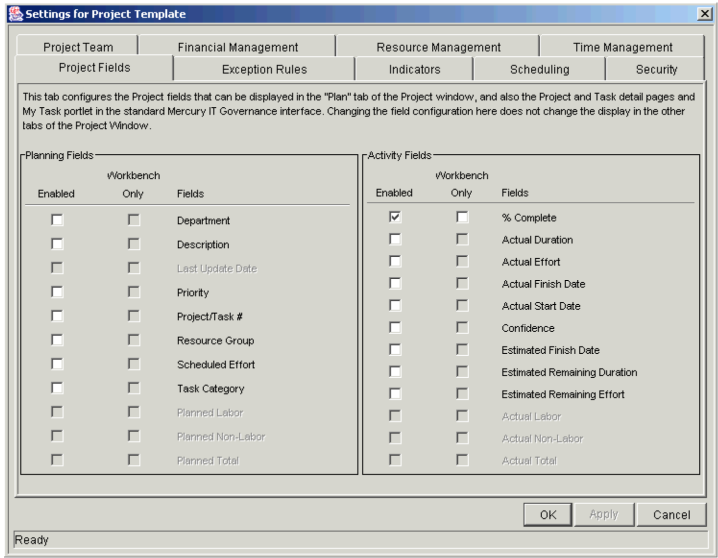
Tasks and Notifications in a Project Template can be configured the same way as they are in the Project Plan Panel. See *"Editing Task Information"* on page 89 for details.

> Note: Project Templates do not contain References, Action Items, or Notes, and some fields are not updateable.

Configuring Settings for a Project Template

Project Templates contain settings identical to the settings for a Master Project. The process of configuring these settings is also identical. From the Project Template window, you can access the Settings for Project Template window where you can configure the following:

- Project Fields
- Exception Rules
- Indicators
- Scheduling
- Security
- Project Teams
- Financial Management



See *"Setting Up a Master Project"* on page 28 for detailed instructions on configuring the Project Template settings.

Note

If a Master Project is created from a Project Template, that Master Project will have all of the Template's settings.

However, if a Project Template is used to create a Subproject inside a Master Project, then that Template's settings will be overridden by the current Master Project's settings.

Setting Ownership for a Project Template

Different groups of users can have exclusive control over the Project Templates used by their group. These groups are referred to as Ownership Groups. Members of the ownership group are the only users who can edit, delete or copy the Project Template. Each Project Template can be assigned multiple ownership groups.

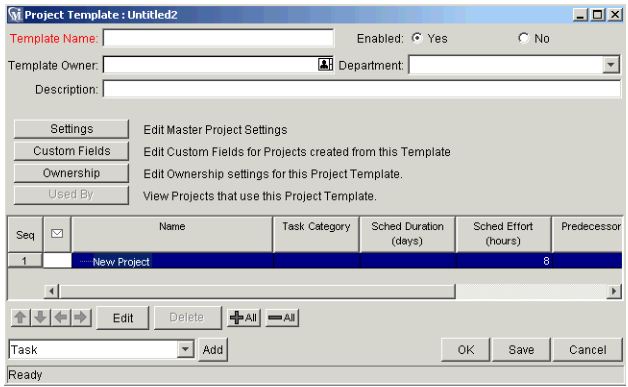
Ownership groups are defined in the Security Group window in the Workbench.

To set the Ownership for a Project Template:

1. Click the **Project Management** screen group.

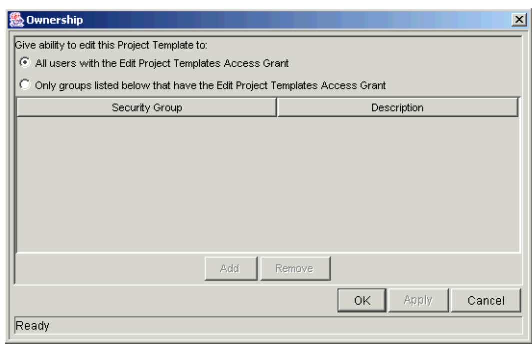
2. Click the Project Templates icon.

   The Project Template Workbench opens.



3. Click the **Ownership** button.

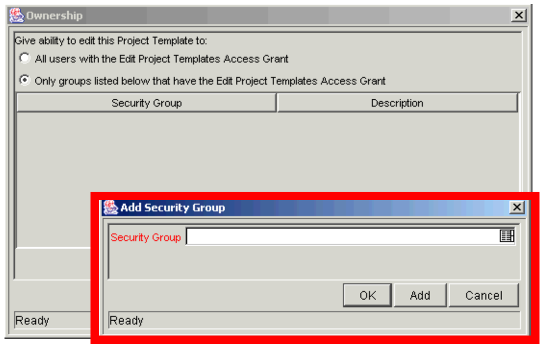
   The Ownership window opens.



4. Select the Only groups listed below that have the Edit Project Templates Access Grant option.

5. Click **Add**.

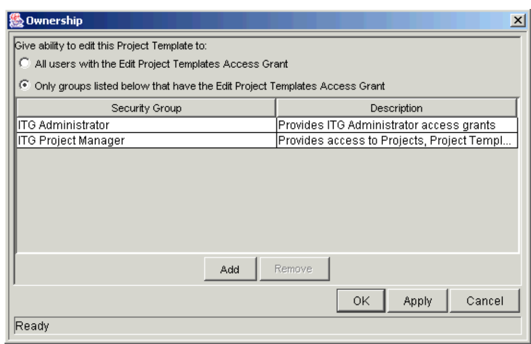
   The Add Security Groups window opens.



6. Select a Security Group from the Security Group auto-complete list.

   The name of the Security Group you selected is displayed in the Security Group field.

7. Click **OK** to close the Add Security Group window.



8. Click **OK**. The Security Groups are added to the Ownership Group and the Ownership window closes.

   Now only members of the Security Group(s) specified in the Ownership window can edit, delete or copy this Project Template.

Note

If no Ownership groups are associated with the entity, the entity is considered global and any user with the Edit Access Grant for the entity can edit, copy or delete it.

Application administrators have the Ownership Override Access Grant and can access configuration entities even if the application administrator is not a member of one of the Ownership Groups and does not have the Edit Access Grant.

If a Security Group is disabled or loses the Edit Access Grant, that group will no longer be included in the ownership group.

Creating a Project Template from an Existing Project

Project Managers can create a new Project Template from an existing Project. Project Managers who want to convert their Microsoft Projects into Project Management Templates can first import their Microsoft Project into a Mercury ITG Project and then convert it into a template. See *“Integrating Project Management with Microsoft Project”* on page 257 for detailed instructions on converting a Microsoft Project into a Mercury ITG Project.

To create a Project Template from an existing Project:

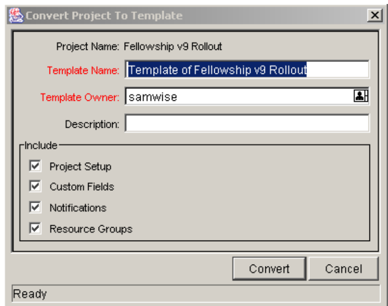
1. Click the **Project Management** screen group.
2. Click the Project icon.

   The Project Workbench opens.
3. Locate and open the Project that you would like to convert to a Project Template.
4. Select **Project > Convert Project to Template** from the menu.

   The Convert Project to Template window opens.

Note

In order to successfully convert a Project to a Template, you must be the only user editing the Project. If other users are editing the Project, a message will appear stating that the “Project is being edited by another user” and the conversion stops.



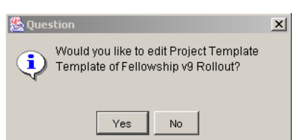
5. Enter a new Template Name, Template Owner and Description for the new Project Template.

6. Select whether to include Project Setup, Custom Fields, Notifications and Resource Groups by checking the associated box.

   See *“Project to Template Conversion Details”* on page 217 for a list of items copied from the Project to the Template.

7. Click **Convert**.

   When the conversion is complete, a message window opens.



8. Click **Yes** to edit the new Project Template.

Note

In the Project to Template conversion, not all Project details are copied to the new Template. The Project actuals information is discarded during the conversion, such as the actual duration, efforts, start date and end date of the Project and Tasks. The resource, Task notes and all References in the Project are also discarded because the Project Template cannot represent these data.

Project to Template Conversion Details

Table 8-1 describes the items that are copied or created in the Project Template when converted from an existing Project.

Table 8-1. Items Copied or Created During the Project to Template Conversion

Item in Project Template	Description
The new Template Name	Provided by the user.
Enabled	Initially set to not enabled.
Template Owner	Set to the username of the user performing the conversion
Description	Provided by the user.
Default Project Settings	Uses the standard default or copies the settings from the Project, depending on the choice the user makes. Project settings include all of following: • Project fields (Planning fields and activity fields) • Exception rules • Indicators • Scheduling settings • Security settings
Custom Fields and Layout	The user can select to copy custom fields and their layout. For custom fields defined at the Master Project level, the field definitions are copied into the new Template. For custom fields defined at the Subproject level, only the references to the source Projects are copied.
Notifications	Optional setting in the ‘Convert Project To Template’ window.
Project Hierarchy	Copied based on the Project.

Table 8-1. Items Copied or Created During the Project to Template Conversion [continued]

Item in Project Template	Description
Project Info	• Project Name: copied • Project Manager: set to blank • Project State: clear to default value • Department: copied • Template: converted (blank for Master Projects) • Project Path: converted • Description: copied • Priority: copied • % Complete: set to 0 • Confidence: set to blank • Predecessors: converted • Start Date/Actual: set to blank • Finish Date/Estimate: set to blank • Finish Date/Actual: set to blank • Duration/Scheduled: copied • Duration/Est. Remaining: set to blank • Duration/Actual: set to blank • Effort/Scheduled: copied • Effort/Est. Remaining: set to blank • Effort/Actual: set to blank

Table 8-1. Items Copied or Created During the Project to Template Conversion [continued]

Item in Project Template	Description
Task Info	• Task Name: copied • Task Category: copied • Task State: cleared to default value • Department: copied • Template: copied • Project Path: converted • Resource: set to blank • Resource group: copied • Description: copied • Priority: copied • % Complete: set to 0 • Confidence: set to blank • Predecessors: converted • Start Date/Actual: set to blank • Date/Estimate: set to blank • Finish Date/Actual: set to blank • Duration/Scheduled: copied • Duration/Est. Remaining: set to blank • Duration/Actual: set to blank • Effort/Scheduled: copied • Effort/Est. Remaining: set to blank • Effort/Actual: set to blank • Scheduling Constraint: all constraints are removed

Note

Task Notes and all References are dropped, since the Project Template cannot represent this data.

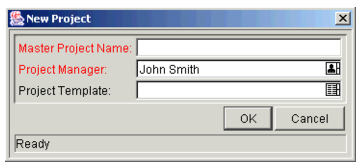
Creating a Master Project from a Project Template

If a company has a business process that is used repeatedly, it will be easier to create and manage if it has its own Template containing preconfigured settings.

To create a new Master Project from a Project Template:

1. Click the **Project Management** screen group.
2. Click the Project icon.

   The Project Workbench opens.
3. Click **New Project**.



4. Enter a Master Project name in the Master Project Name field.
5. Select the desired template from the Project Template auto-complete list.
6. Click **OK**.

   A new Master Project is created, including the Project Plan, all of the fields to be collected, Indicators, Exception Rules, Custom Fields, Notifications, Financial Management and scheduling parameters defined in the Project Template.

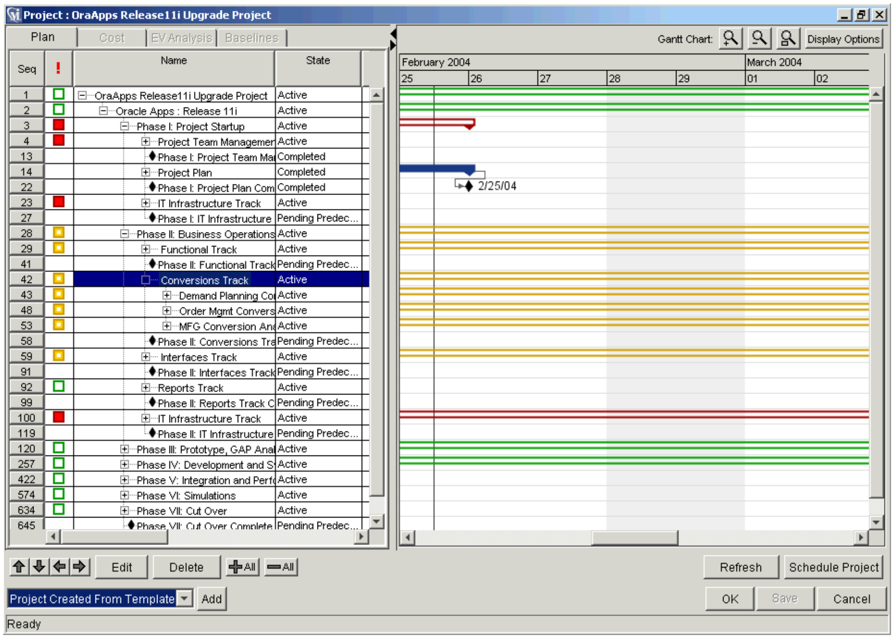
Creating a Subproject from a Template

Project Templates can be used to add Subprojects to a Master Project, adding Tasks in a predefined order and hierarchy. The new Subprojects added will include Notifications, custom fields, and default values for Scheduled Effort and Duration.

To add a set of Tasks to a Project using a Project Template:

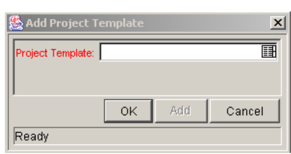
1. Open the Project window for the Project that you would like to change.

2. Select **Project Created from Template** from the drop down list.



3. Click **Add**.

   The Add Project Template window opens.



4. Select a Project Template from the auto-complete list and click **OK**.

   The selected Template is added to the Project Plan as a collapsed Subproject. If the Subproject is not in the place you want it to be, you can move it with the arrows in the Project Plan Panel (See *"Setting Up Project Hierarchy"* on page 55 for more details).

5. Modify the information in any Task inside the Subproject by double-clicking on it.

   The Task Information window for that Task opens.

6. Edit the information.

7. Click **OK** to save the information and close the Task Information window, or click **Save** to save the changes without closing the window.

Chapter 9

Creating and Using Project Budgets

This chapter explains how to create, modify, and compare Budgets for use with Projects in Project Management.

The following topics are covered:

- *Defining a Budget*
- *Modifying Project Budgets*
- *Comparing Budgets*

Defining a Budget

Project Management's Financial Management capability allows users to capture and track Planned and Actual cost information for their Projects, giving visibility into Project performance from a financial standpoint. Budgets are a key component of Financial Management.

A Budget indicates an allocation of money between specific start and finish dates. Between these dates, the Budget specifies the money available for each time period (usually a calendar month).

Budgets have many key aspects that can be configured:

- A Budget can be associated with a Project or Organization Unit.
- A Budget has lines that can be modified individually.
- Users who can access the Budget can be specified.
- Budgets have states associated with them (New, Proposed, Under Review, etc.).

Note

Budget amounts are always entered in terms of whole thousands.

The following sections discuss creating and configuring Budgets:

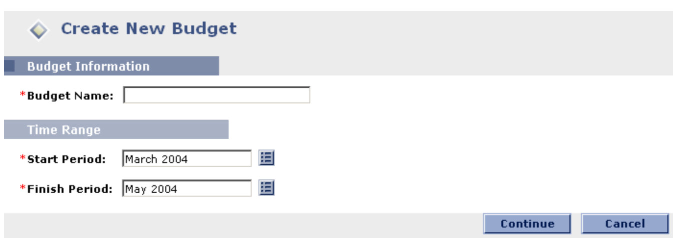
- *Creating a Budget*
- *Associating a Budget with a Project*
- *Configuring Access to a Budget*

Creating a Budget

To create a new Budget:

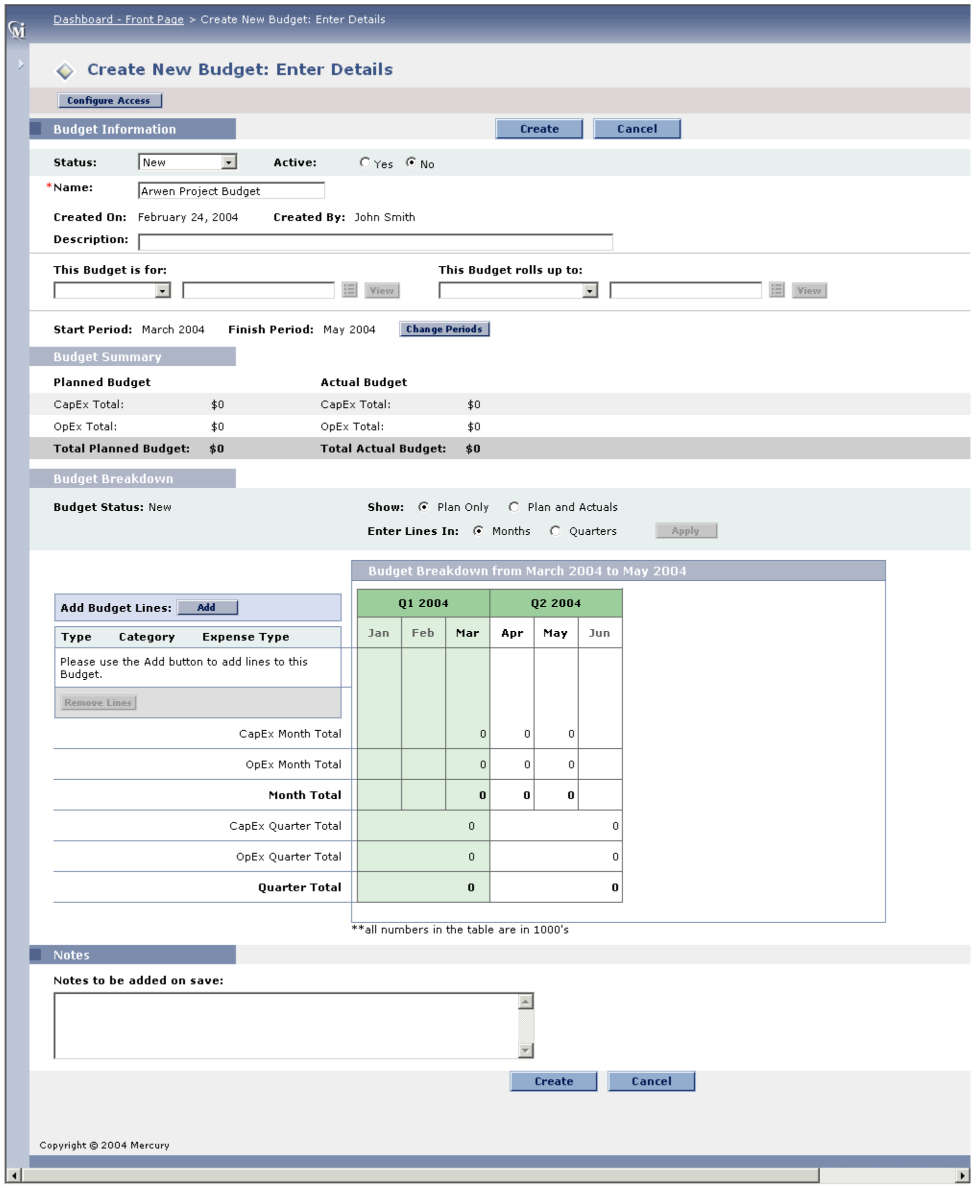
1. Log onto Project Management.
2. From the menu bar, select **Create > Budget**.

   The Create a New Budget page opens.



3. Enter the Budget Name, Start Period, and Finish Period.
4. Click **Continue**.

   The Create a New Budget: Enter Details page opens.



5. (optional) Enter any desired information in the Budget Information section.

6. To add lines to the Budget, scroll down to the Budget Breakdown section.

    a. Click **Add**.

       The Add Lines to Budget page opens.

b. Specify a Type and Category for the Budget line.

c. Click **Add**.

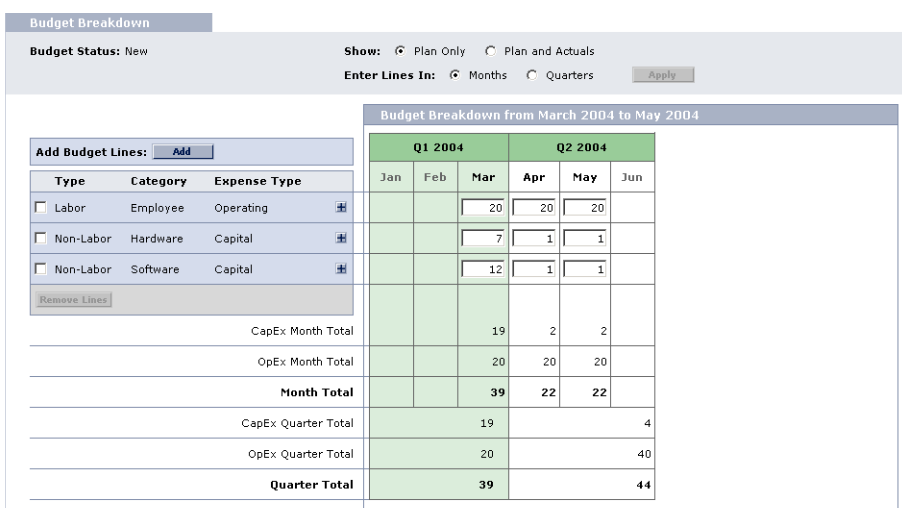
d. Repeat as necessary.

   You can add more than one line to the Budget at a time without returning to the Create a New Budget: Enter Details page by clicking **Add Another** once you have filled in the values for one line.

7. The Create a New Budget: Enter Details page reloads with the Budget lines added.

8. Enter amounts for each Budget line and period and click **Save**.

9. (optional) If you want to track actual amounts for your Budget alongside the planned amounts, click the Planned and Actuals option in the Show line and click **Refresh**. The Create a New Budget: Enter Details page will reload with Act fields allowing you to fill in actual values next to the planned amounts in the Budget's columns.



Associating a Budget with a Project

A Budget can be associated with a Project from two places:

- *Linking a Budget from the Modify Budget Page*
- *Linking a Budget from the Project Information Window*

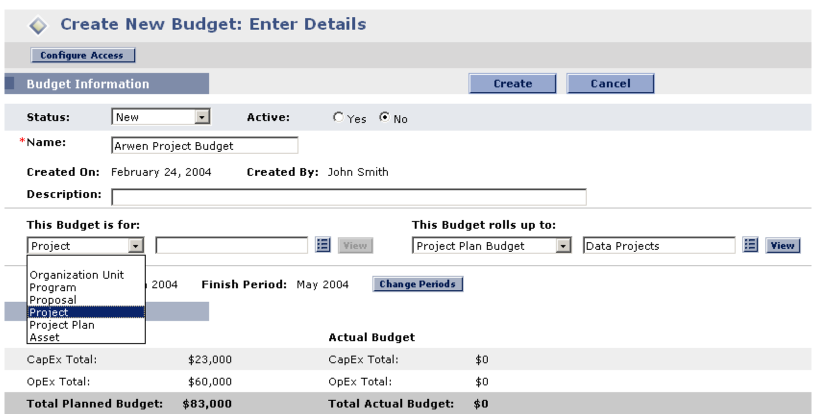
Linking a Budget from the Modify Budget Page

To link a Budget to a Project from the Modify Budget page:

1. Navigate to the Budget you want to link.

2. Click **Modify Budget**.

   The Modify Budget page opens.



3. In the Budget Information section, specify **Project**.

4. Click **Save**.

Linking a Budget from the Project Information Window

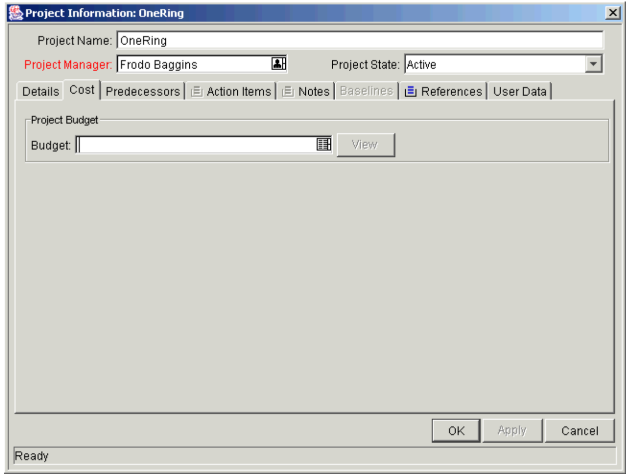
To link a Budget from the Project Information window:

1. In the Workbench, open the Project to link.

2. Double-click the Master Project line.

   The Project Information window opens.

3. Click the **Cost** tab.



4. Choose the desired Budget from the Budget auto-complete list.

Configuring Access to a Budget

Configuring access to a Budget consists of the following operations:

- *Granting Access to a User*
- *Configuring Existing User Access*

Granting Access to a User

To grant a user access to a Budget:

1. Create a new Budget or open an existing one.
2. Click **Configure Access** at the top of the page.

   The Configure Access for Budget page opens.

3. Select a user from the Give Access to Username auto-complete list.

4. Click **Add**.

   The user is added to the View Access list.

5. Click **Save**.

   The user has been granted View access to the Budget. To configure further Budget security options for the user, see *"Configuring Existing User Access"* on page 229.

Configuring Existing User Access

User access to a Budget can be further configured once the user has been added to the View Access list. The available options are listed in *Table 9-1*.

Table 9-1. Additional Editing Access for a Budget

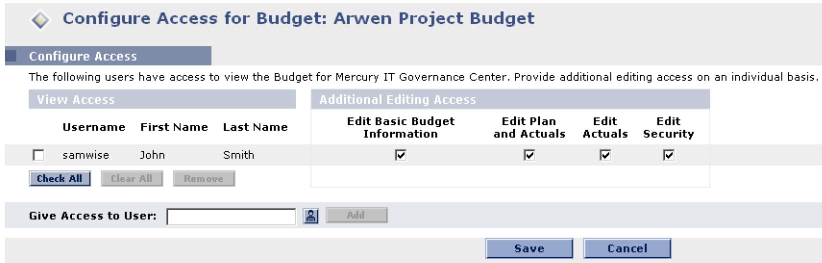
Field	Description
Edit Basic Budget Information	Allows the user to edit basic Budget information such as Name, Description, Status, etc.
Edit Plan and Actuals	Allows the user to edit the Budget's lines and enter new values in the Actuals fields.
Edit Actuals	Allows the user to enter new values in the Actuals fields.
Edit Security	Allows the user to configure access to the Budget.

To configure existing user access:

1. Create a new Budget or open an existing one.

2. Click **Configure Access** at the top of the page.

   The Configure Access for Budget page opens.



3. Check or un-check the desired boxes in the **Additional Editing Access** section.

   See *Table 9-1* for descriptions of each category.

4. Click **Save**.

Modifying Project Budgets

Budgets can be accessed from the standard interface from at least two locations:

- Selecting **Search > Budgets** from the menu bar, you can search for and open existing Budgets to which you have access.

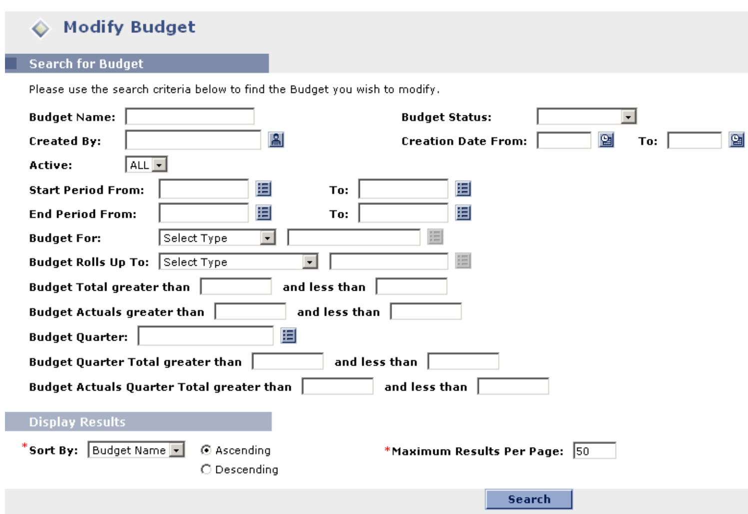


Figure 9-1 Modify Budget

- Selecting **Financial Management > Budgets > Modify Budgets** opens a search page that can be used to locate and open existing Budgets to which you have access. You can also delete Budgets and create new Budgets directly from this page.

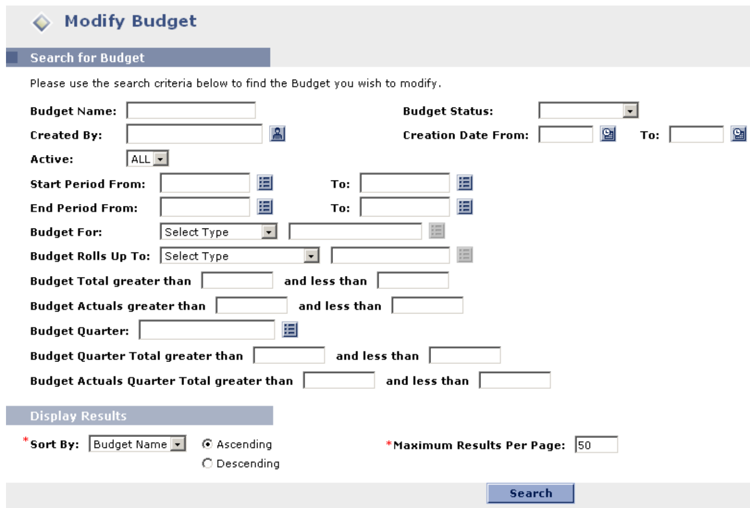
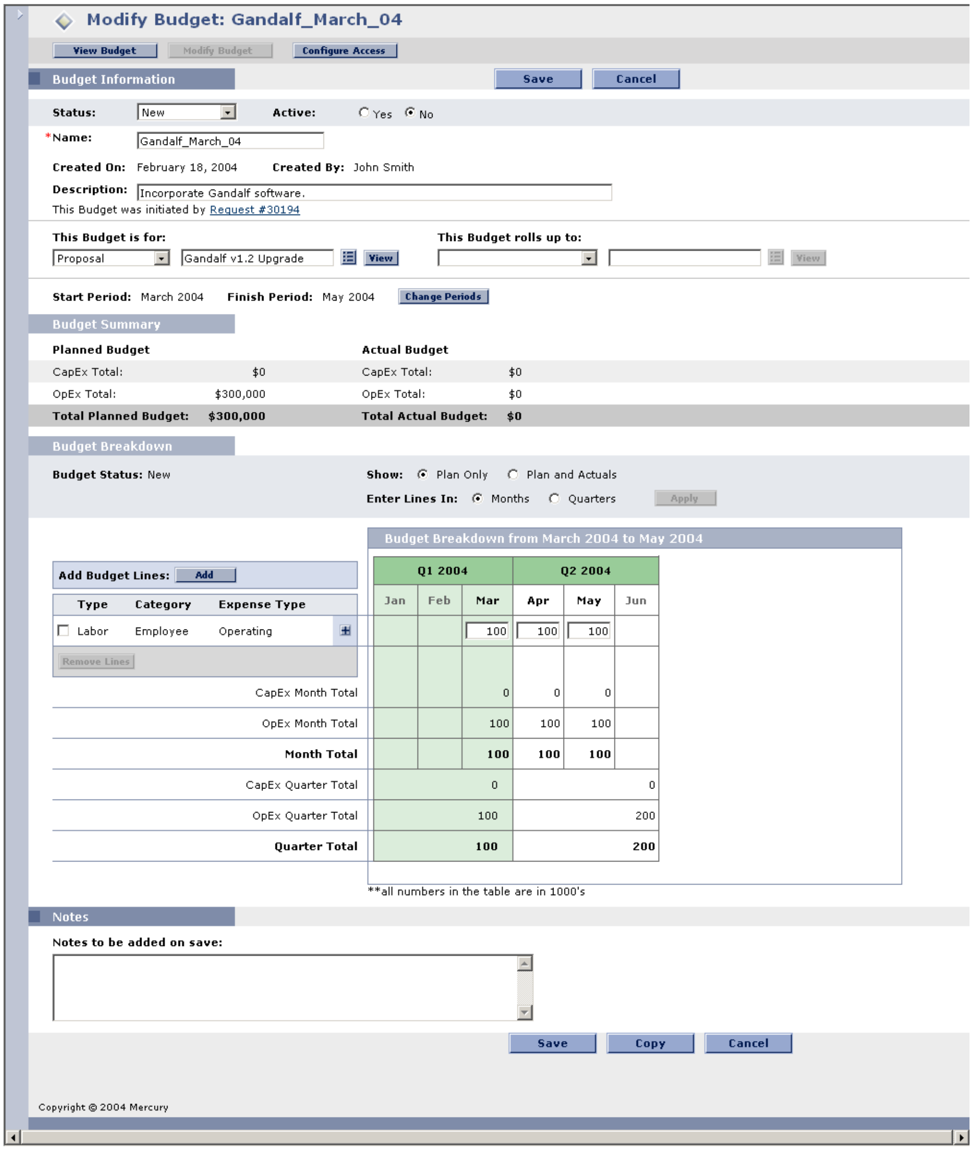


Figure 9-2 Modify Budget

To modify an existing Budget:

1. Open the Budget and click **Modify Budget** to open the Modify Budget page.



2. Make any necessary changes.

3. (optional) Click **Configure Access** to open the Configure Access for Budget page and configure security options for the Budget.

4. Click **Save**.

Comparing Budgets

The Budget to Budget Comparison Portlet allows you to make a number of comparisons between Budgets, as well as compare a Budget's planned values to its actuals.

As with all Portlets, the Budget to Budget Comparison Portlet's Edit page allows you to choose parameters for the Portlet's filtering and display of information. These parameters are listed in *Table 9-2*.

Table 9-2. Budget to Budget Comparison Portlet parameters

Field	Description
Compare One or More Budgets	A multi-select auto-complete field that allows you to select one or more Budgets.
To Actuals	Compares the selected Budget(s) to its actual values, assuming any have been entered.
To Active Child Budgets	Compares the selected Budget(s) to the Budgets that roll up into it (child Budgets).
To Active Child Budget Actuals	Compares the selected Budget(s) to the actual values entered for its child Budgets.
Another Set of Budgets	Compares the selected Budget(s) to another set of Budgets. This is another multi-select auto-complete list.
Use Budget	The Budget(s)'s planned values will be used in the comparison.
Use Actuals	The Budget(s)'s actual values will be used in the comparison.
Time Period Covered by Budgets	Limits the Portlet's display range to the time period covered by the selected Budget(s).
Show From/To	Allows you to select a date range to display.

The following sections illustrate two uses for the Budget to Budget Comparison Portlet.

- *Comparing Planned to Actual Values*
- *Comparing Related Budgets*

Comparing Planned to Actual Values

The Budget to Budget Comparison Portlet can be used to compare a Budget's planned values to its actual values, if actual values are being captured. To see how to capture actual values for a Budget, see *"Creating a Budget"* on page 224.

You can compare a single Budget's planned and actual values, as shown in *Figure 9-3*. This is accomplished by selecting a Budget from the Compare One or More Budgets field and the To Actuals radio button on the Budget to Budget Comparison Portlet's Edit page.

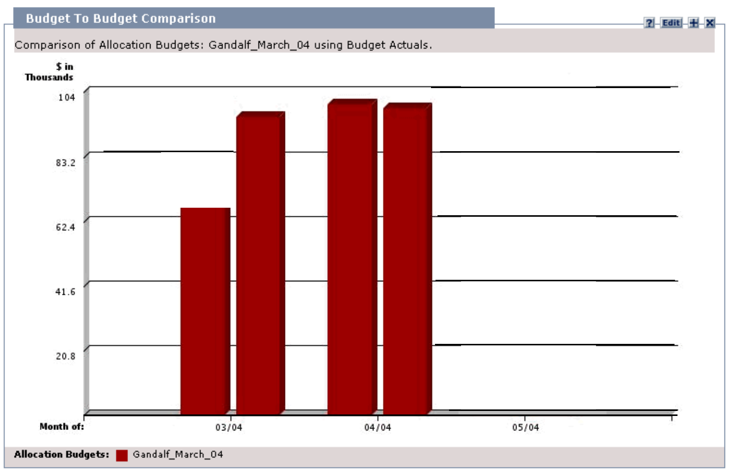


Figure 9-3 Budget to Budget Comparison Portlet - Single Budget planned vs. actual values

In this case, we can see that the actual values for the first month of this Budget went over its planned amounts by a fairly significant margin, while the second month stayed even, and no values have been entered for the last month.

You might also find it useful to compare a set of Budgets' planned and actual values, as shown in *Figure 9-4*. This is accomplished by selecting multiple Budgets from the Compare One or More Budgets field and the To Actuals radio button on the Budget to Budget Comparison Portlet's Edit page.

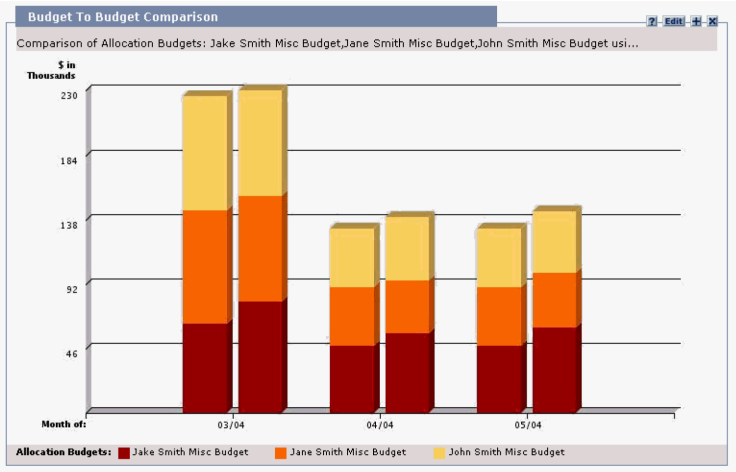


Figure 9-4 Budget to Budget Comparison Portlet - Multiple Budget planned vs. actual values

In this case, we can see that user "jakesmith's" miscellaneous Projects always seem to go over budget, while "janesmith" is consistently under budget.

Comparing Related Budgets

The Budget to Budget Comparison Portlet can also be used to compare sets of related Budgets, as shown in *Figure 9-5*. This is accomplished by selecting a Budget or Budgets from the Compare One or More Budgets field and the To Another Set of Budgets radio button and multi-select auto-complete list on the Budget to Budget Comparison Portlet's Edit page.

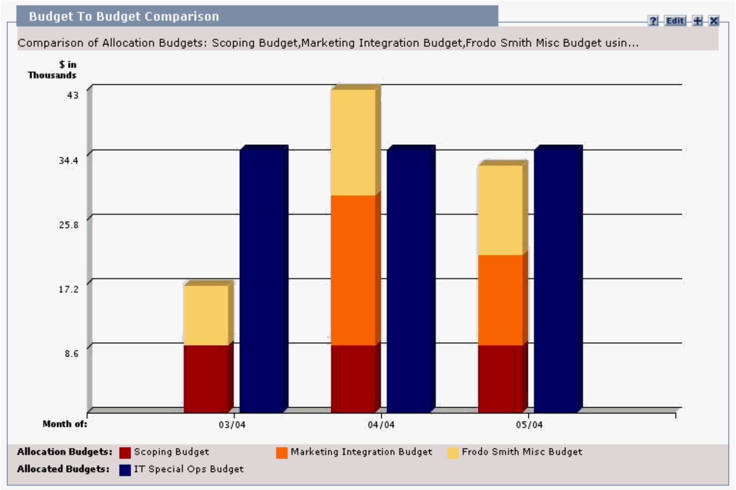


Figure 9-5 Budget to Budget Comparison Portlet - Comparing related Budgets

What we have here is a Portlet comparing the Budget for an entire IT Organization Unit with three Project Budgets owned by its members. We can see that during almost every month, the combined Budgets for these Projects exceeds the Organization Unit's, in some cases by a wide margin.

Chapter
10
Project Costs

This chapter explains how to use Project Management's Financial Management capabilities to track Project costs. Additional Project- and cost-related visualizations are accessible from the standard interface.

The following sections discuss Project-based Financial Management in more detail:

- *Configuring Cost in the Project Settings Window*
- *Entering Actual Cost Data*
- *Analyzing Costs in Project Management*

Configuring Cost in the Project Settings Window

Selecting **Settings** from the **Project** menu at the top of the Workbench opens the Project Settings window.

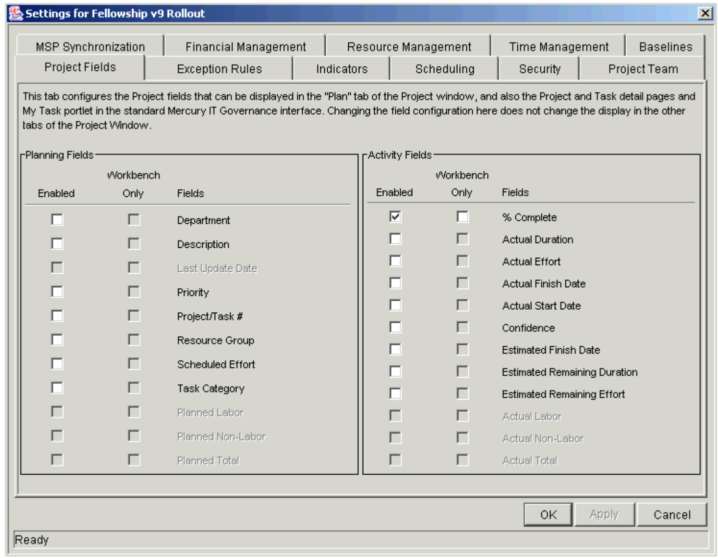


Figure 10-1 Project Fields Tab of the Project Settings window

The Project Settings window contains tabs controlling various aspects of a Master Project. Two tabs in particular focus on Financial Management:

- The **Financial Management** tab lets you configure how cost data is calculated on the Project/Task level, and what level of manual entry is needed.
- The **Security** tab lets you control which users can see cost data for the Project.

For more detailed information on configuring Financial Management from the Project Settings window, see:

- *Financial Management Tab*
- *Security Tab*

Financial Management Tab

The **Financial Management** tab in the Project Settings window determines whether or not cost data is tracked for a Project.

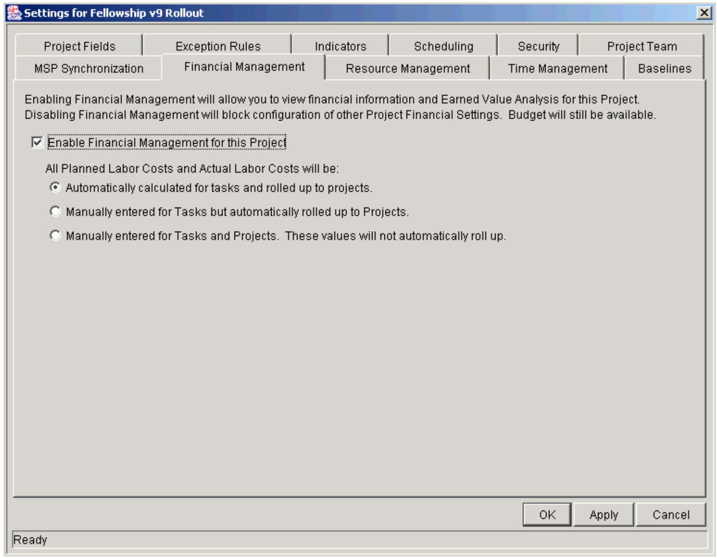


Figure 10-2 Financial Management Tab of the Project Settings window

Selecting the Enable Financial Management for this Project check box turns on Financial Management. You must then choose from the following options for the tracking of cost data:

- **Automatically calculated for tasks and rolled up to projects**
  Planned and Actual Labor Costs for Tasks will be automatically calculated and rolled up to Projects. These values are not calculated until a Resource is assigned to a Task. For definitions of Planned and Actual Labor Costs and how Project Management calculates them, see *"Financial Management"* on page 17.

- **Manually entered for Tasks but automatically rolled up to Projects**
  Planned and Actual Labor Costs for Tasks will be entered by the Project Manager or other user with the proper level of access. These values are rolled up to Projects automatically.

- **Manually entered for Tasks and Projects**
  Planned and Actual Labor Costs for Tasks and Projects will be entered by the Project Manager or other user with the proper level of access. These values do not roll up.

Security Tab

The **Security** tab in the Project Settings window determines the users allowed to view cost data for a Project.

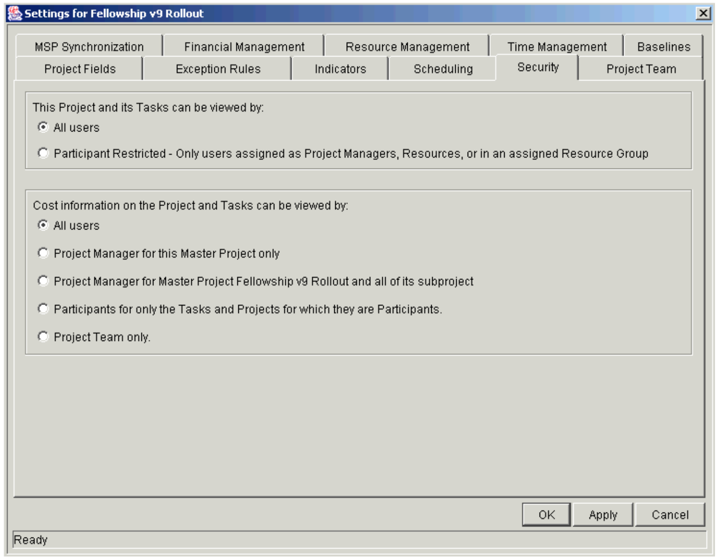


Figure 10-3 Security Tab of the Project Settings window

You can choose from the following options:

- All users (default)
- Project Managers for this Master Project only
- Project Managers for this Master Project <Project Name> and all of its Subprojects
- Participants for the Tasks and Projects for which they are Participants
- Project Team only

Entering Actual Cost Data

Actual Labor Cost data can be automatically calculated by Project Management as a function of time spent on a Task multiplied by the Rate of the Resource assigned to that Task. The values for Tasks can be rolled up to their parent Projects.

Example

Developer Bob has a Rate of $20/hour. He spends 4 hours on a Task in a bug-fixing Project.

The Task's Actual Labor Cost is computed as $20/hour * 4 hours = $80 for the Task.

The bug-fixing Project has a total of 5 Tasks identical to Bob's. The Total Actual Labor Cost for the Project comes to $400 with no Actual Non-Labor Costs incurred.

Actual Non-Labor Costs, which represent miscellaneous costs incurred in performing work on a Task, are manually entered by the user.

Example

Developer Bob needs to spend $100 on RAM to upgrade his machine so he can finish his Task. This is an Actual Non-Labor Cost.

Actual Non-Labor Costs can be entered manually at any time.

For more detailed information about entering Actual Labor Costs, see the following sections:

- *Actual Labor Cost Settings*
- *Entering Actual Labor Costs*

Actual Labor Cost Settings

Depending on the **Financial Management** tab setting in the Project Settings window, Actual Labor Costs can be entered manually for Projects or Tasks.

- **Automatically calculated for tasks and rolled up to projects**
  Actual Labor Costs for Tasks are calculated by Project Management and rolled up to parent Projects. Actual Labor Cost values for Tasks and Projects cannot be updated.

- **Manually entered for Tasks but automatically rolled up to Projects**
  Actual Labor Costs are entered manually by the user, and the values are rolled up to parent Projects. Project Actual Labor Costs cannot be updated, since they are rolled up from subordinate Tasks.

- **Manually entered for Tasks and Projects**
  Actual Labor Costs are entered manually by the user for Tasks and Projects. No roll-up takes place, which means that there can be some variance between the sum of Task Actual Labor Costs and the Project's Actual Labor Cost.

Note

Before attempting to enter Actual Labor Cost values for a Project, check the Project Settings window's **Financial Management** tab to verify the Financial Management settings.

Entering Actual Labor Costs

Actual Labor Costs can be entered from the following locations:

- *Entering Cost Data in the Project Window - Cost Tab*
- *Entering Cost Data in the Project Window - Plan Tab*
- *Entering Cost Data in the Project or Task Information Window*

Entering Cost Data in the Project Window - Cost Tab

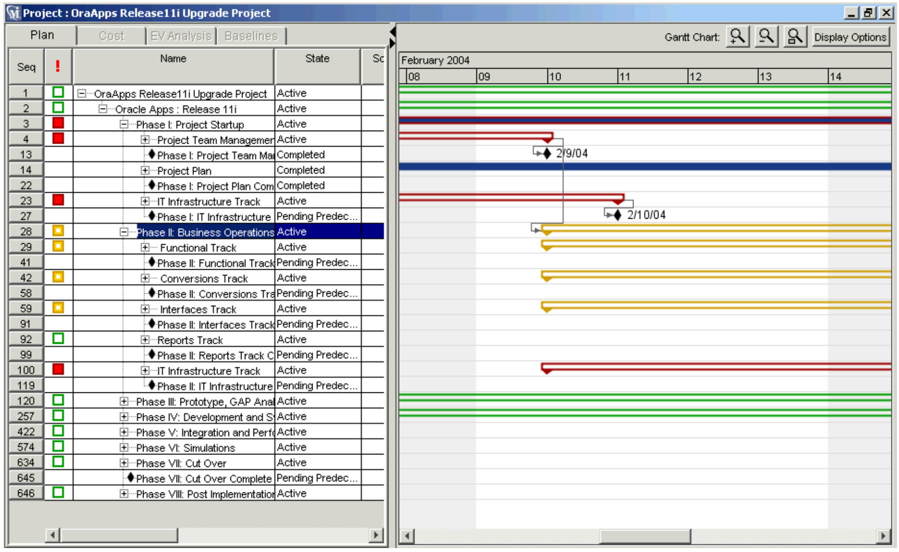
Actual Labor Cost data can be entered in the **Cost** tab of the Project window.

Note

Financial Management must be turned on from the Project Settings window's **Financial Management** tab in order for the **Cost** tab to be enabled.

To enter Actual Labor Cost data in the Cost tab of the Project window:

1. Open the desired Project in the Workbench.



2. Verify in the Project Settings window's **Financial Management** tab that you can enter Actual Labor Cost values for Tasks or Projects.

   The All Planned Labor Costs and Actual Labor Costs will be radio button should be set to one of the last two options, depending on what level of control is desired.

   Upon verifying, click **OK**. The Project Settings window closes, returning you to the Project window.

3. Click the **Cost** tab.

4. Enter the Actual Labor Cost values in the appropriate Task or Project lines as described in the *Table 10-1 on page 243*.

5. Save the changes.

   Click **Save** to save changes to the Project and continue editing it. Click **OK** to save changes to the Project and close the Project window. Click **Cancel** to close the Project without saving any changes.

Table 10-1. Project Information window - Cost tab fields and controls

Field	Description
Project Cost Health	Indicates cost health based on Cost Summary Condition settings.

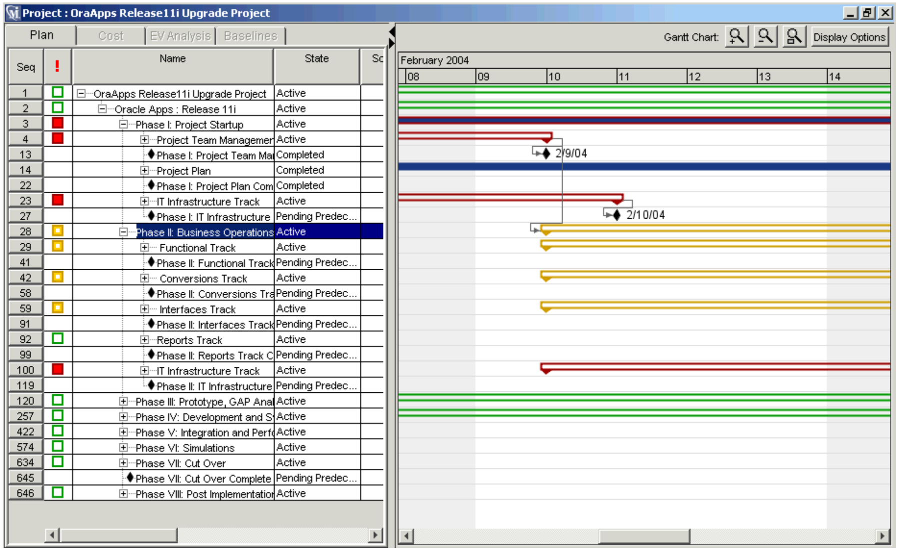
Table 10-1. Project Information window - Cost tab fields and controls

Field	Description
Baseline Labor	Labor cost for the Task or Project in the latest Baseline of the Project.
Baseline Non-Labor	Non-Labor cost for the Task or Project in the latest Baseline of the Project.
Baseline Total	Total cost planned for the Task or Project in the latest Baseline of the Project.
Planned Labor	Dollar cost planned to be spent on the amount of scheduled effort involved to complete the Task or Project.
Planned Non-Labor	Dollar cost planned to be spent on miscellaneous costs required to complete the Task or Project.
Planned Total	Total dollar cost planned to be spent on the Task or Project.
Actual Labor	Dollar cost of the effort performed on a Task or Project during a given time period.
Actual Non-Labor	Dollar cost of the miscellaneous costs acquired in completing a Task or Project.
Actual Total	Total dollar cost incurred in completing a Task or Project during a given time period.
Budget	Name of the Project Budget.

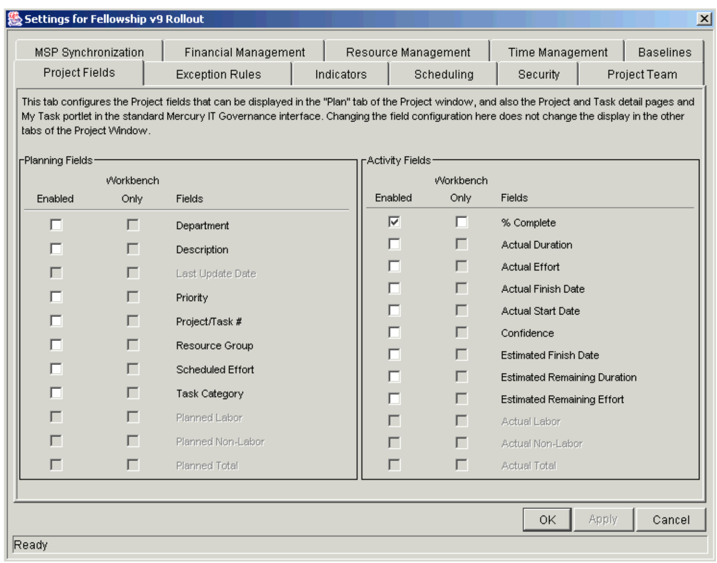
Entering Cost Data in the Project Window - Plan Tab

To enter Actual Labor Cost data in the `Cost` tab of the Project window:

1. Open the desired Project in the Workbench.



2. Open the Project Settings window.



3. In the **Project Fields** tab, enable the desired fields (Actual Labor, Actual Non-Labor, Planned Labor, Planned Non-Labor).

4. Verify in the **Financial Management** tab that you can enter Actual Labor Cost values for Tasks or Projects.

The All Planned Labor Costs and Actual Labor Costs will be radio button should be set to one of the last two options, depending on what level of control is desired.

Upon verifying, click **OK**. The Project Settings window closes, returning you to the Project window.

5. Click the **Plan** tab.

6. Enter the Actual Labor Cost values in the appropriate Task or Project lines.

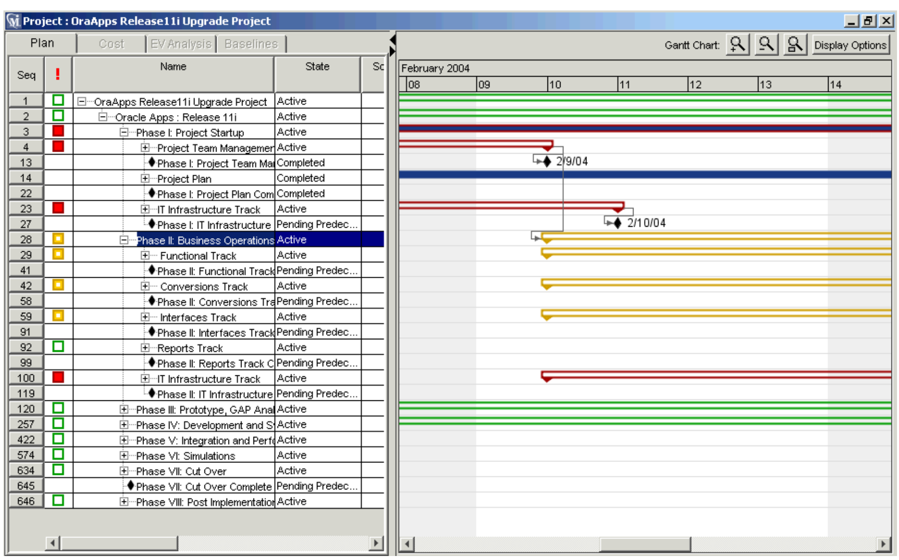
7. Save the changes.

   Click **Save** to save changes to the Project and continue editing it. Click **OK** to save changes to the Project and close the Project window. Click **Cancel** to close the Project without saving any changes.

Entering Cost Data in the Project or Task Information Window

To enter Actual Labor Cost data in the Cost tab of the Project or Task Information window:

1. Open the desired Project in the Workbench.



2. Verify in the Project Settings window's **Financial Management** tab that you can enter Actual Labor Cost values for Tasks or Projects.

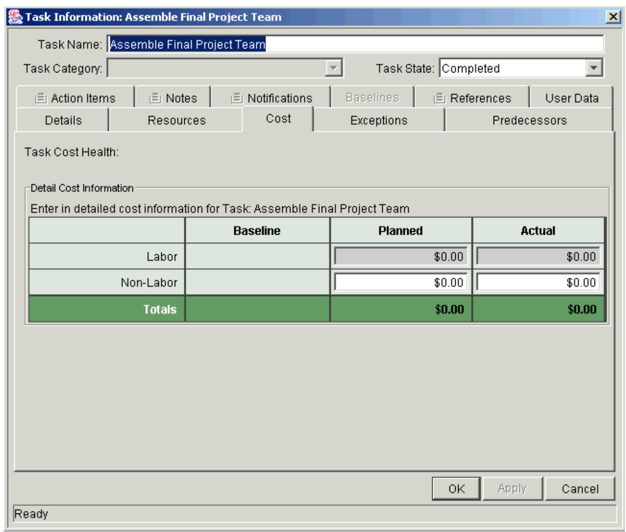
The All Planned Labor Costs and Actual Labor Costs will be radio button should be set to one of the last two options, depending on what level of control is desired.

Upon verifying, click **OK**. The Project Settings window closes, returning you to the Project window.

3. Double-click the Project or Task you want to update.

   The Project or Task Information window opens.

4. Click the **Cost** tab.



5. Enter the Actual Labor Cost values in the appropriate Task or Project lines.

6. Save changes to the Project or Task.

   Click **Apply** to save changes to the Project or Task and continue editing it. Click **OK** to save changes to the Project or Task and close the Project or Task Information window.

7. Save changes to the Project.

   Click **Save** to save changes to the Project and continue editing it. Click **OK** to save changes to the Project and close the Project window. Click **Cancel** to close the Project without saving any changes.

Analyzing Costs in Project Management

Project Management provides convenient and powerful tools for visualizing your Project Cost data. Using specialized Project Management pages and Portlets, you can:

- Display Projects being managed by a particular user, arranged according to the size of their Budget. The Projects' Cost health, and CPI/SPI performance are also indicated.
- Display Projects in a particular Department, arranged according to their Baseline cost. The Projects' Cost health, and CPI/SPI performance are also indicated.
- Display Projects being managed by a particular user, arranged according to their projected Actual Cost at completion. The Projects' Cost health, and CPI/SPI performance are also indicated.
- Display a chart for a single Project graphing any of the following values over a configurable period of time:
  - Planned Value
  - Earned Value
  - Actual Costs
  - Budget
  - Budget Actuals

For more information on analyzing Project Costs in Project Management, see *"Analyzing Project Costs"* on page 154.

Chapter 11

Project Management Reports

Mercury Project Management features a pre-defined set of HTML-based Reports that are accessed through a Web browser. The Reports provided with Project Management allow users to view the current detailed status of their deployment data at any point in time.

This chapter describes the procedures used to submit and view Reports using both the standard interface and the Workbench.

This chapter covers the following topics:

- *"Reports Overview"* on page 249
- *"Processing Reports"* on page 252

Reports Overview

The standard Reports that ship with Mercury Project Management and a brief description are listed in the following table. These Reports can be accessed through both the Workbench and the HTML interface.

> Note: The following table lists all standard Report Types that have a product scope of **Project Management** or **All Products**.

Table 11-1. Standard Project Management Reports

Report	Description
Portlet Detail Report	Returns the definitions of selected Portlets, including columns, filter fields, access security, ‘used by,’ and the Portlets’ full SQL query.
Project Schedule Change Report	Compares the current Project schedule to that of a baseline, or baselines to each other.
Project Critical Path Report	Lists the Tasks that make up a Project’s critical path.
Notification History Report	Lists Notifications that have been sent or are pending.
Portlet Detail Report	Returns the definitions of selected Portlets, including columns, filter fields, access security, ‘used by,’ and the Portlets’ full SQL query.
Project Custom Detail Report	Lists only the specified columns from the header fields and custom field parameters in HTML table format.
Project Detail Report	Provides the details of each Project.
Project Detail (Filter by Custom Fields) Report	This report is similar to the Project Detail Report. The only difference is the report can filter by custom fields.
Project Exception Detail Report	Lists all the task details for the tasks that have triggered Exceptions and need attention by a Project Manager.
Project Resource Report	Lists all the resources working on a project and the tasks that the resources are working on.
Project Status Detail Report	A summary of Project statuses of selected Projects and Tasks.
Project Task Assignment Report	Shows which users or groups have been assigned to the Tasks for a given Project.
Project Summary Report	Provides a summary of all the Projects that meet criteria entered in the header fields.
Project Template Detail Report	Lists the parameters and parameter details for every Project Template.
Report Type Detail Report	Lists the parameters and parameter details for each Report Type as well as the commands used to run the Report.
Resource Availability Report	Provides a high level view of the availability of Resources in Project Management.

Table 11-1. Standard Project Management Reports [continued]

Report	Description
Report Type Detail Report	The parameters and parameter details for each Report Type, as well as the exact commands used to run the report.
Run Field Security Denormalization	Runs Field Level Security related denormalization tasks for particular entities.
Run ITG Organization Unit Interface	Imports data from the organization unit interface tables or an LDAP server.
Run ITG Package Interface Report	Validates and loads Package data from the Package open interface tables into the standard Mercury Change Management data model.
Run ITG User Interface Report	Imports data from the user interface tables or an LDAP server.
Run License Usage report	View current License usages.
Run Workflow Transaction Interface Report	Validates and runs Workflow transactions based on data in the Workflow open interface tables. Used to kick-off process steps from outside the end-user screens
Security Group Detail Report	Lists the set-up information for a single Security Group or a group of Security Groups. It also lists which users belong to the group and what Workflow Steps the Security Group has access to.
Special Command Detail Report	This report lists details for a special command or a range of special commands.
Synchronize Meta Layer Report	Assesses or synchronizes the Meta Layer.
User Data Detail Report	Reports on the definition of each custom field.
User Detail Report	Lists the users defined in your Mercury ITG system as well as the Security Groups attached to each user.
Validation Report	A System Administration report on the various custom Validations that your application administrator has entered into the system or which come standard with the Mercury ITG Center.
Workflow Detail Report	Use this report to view the complete definition of a specific Workflow or a set of Workflows.
Workflow Statistics Report	Uses a given date range and a Workflow (or a range of Workflows) to provide statistical information regarding the usage of the Workflow.

Note

All Report Types that end with 'Report' are textual reports that list details about specific entities. Report Types that end with 'Program' perform some activity and then report on their results.

Processing Reports

Mercury Project Management reports can be run either from the Workbench or the standard (HTML) interface. Similarly, previously run reports can be viewed from either interface. The following sections provide instructions for processing and viewing reports:

- *Submitting a Report from the Workbench*
- *Submitting a Report from the HTML Interface*
- *Viewing Previously Submitted Reports*

Submitting a Report from the Workbench

To submit a report from the Workbench:

1. Click **Project Mgmt**.
2. Click the **Reports** icon.
3. The Report Submission Workbench opens.
4. Click **New Report**.

   The New Report Submission window opens.
5. Select the type of report to submit from the Report Type auto-complete list.

   After selecting the Report Type, report-specific parameters appear in the **Parameters** tab of the New Report Submission window.

Note

You might not have access to all Report Types. If you need access to a Report Type, but do not see it listed, contact your application administrator for permission.

6. Fill in all the required parameters (as indicated by the red field label) and any optional parameters for the report.

7. Set up the schedule for running the report:

   a. Click the **Scheduling** tab and specify when the report is to be run. If no scheduling information is entered, the report runs immediately.

   b. Enter the frequency with which the report should be re-run.

8. Set up the Notification:

   a. Click the **Notifications** tab.

   b. Click **New**.

   c. Select any users who should be informed of the report results.

   d. Click **OK** to close the Add Notification for Report Submission window.

9. Click **Submit** to run the report.

10. Click **View Report** to view the results in your Web browser.

11. If the report fails, click **View Log** to view the technical details of the report execution.

Submitting a Report from the HTML Interface

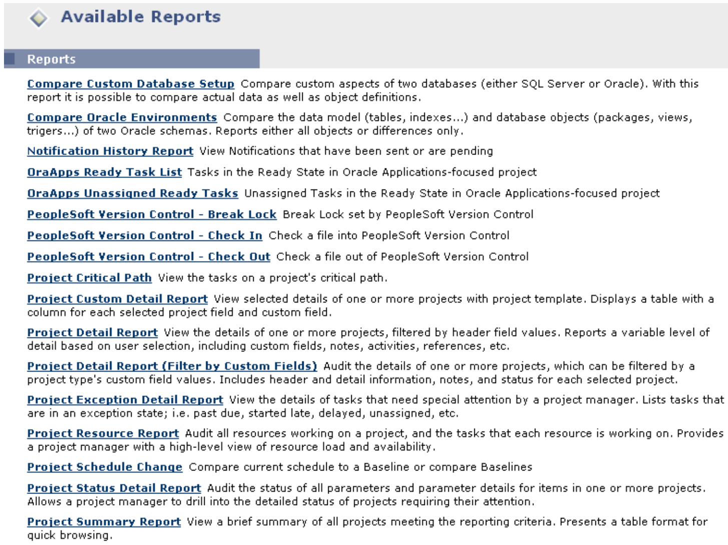
Mercury Project Management reports can be run from the standard (HTML) interface.

To run a report from the standard interface:

1. Logon to Mercury Project Management.

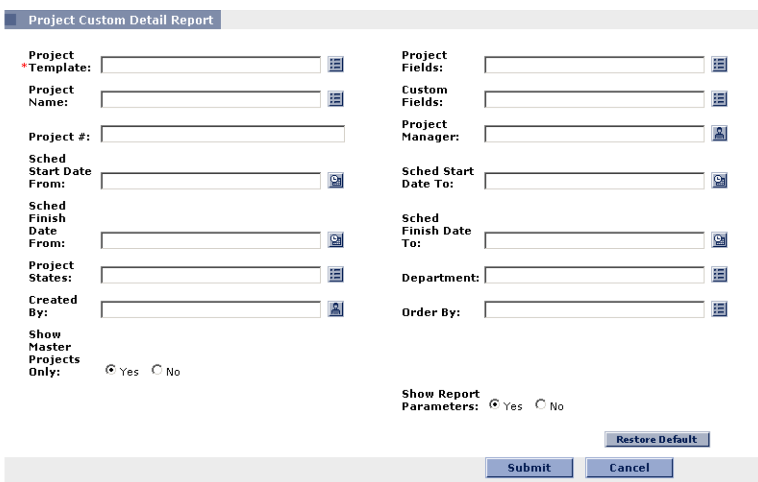
2. From the menu bar, select **Reports > Project Reports**.

   The Available Reports page opens.



3. Choose the report to be submitted from the list of Report Types by clicking on its name.

   The report's creation page opens.



   This example of a Report page shows the required and optional fields for the Project Custom Details Report. Each Report Type has its own set of required and optional fields. The Report creation page always displays a different set of fields depending on which Report Type is selected.

4. Enter information in the Report creation page's required fields.

5. (Optional) Enter information in the Report creation page's optional fields.

6. Click **Submit**.

   The Report Submitted page opens. The report's output is displayed in a separate page.

Viewing Previously Submitted Reports

You can view previously submitted reports. This section discusses the following topics:

- *Viewing Reports from the Workbench*
- *Viewing Reports from the HTML Interface*

> Note: You might not have permission to view all reports. If that is the case, contact your application administrator to get permission for reports that are restricted by Security Groups. You might also not have access to any reports that are restricted to Creator only.

Viewing Reports from the Workbench

To view previously submitted reports:

1. Enter search criteria in the **Query** tab of the Reports Workbench.

2. Click **Search**.

   All matching report submissions are listed in the **Results** tab.

3. Click **Open** to view the criteria used for the report.

4. Click **View Report** to view the report output.

> Note: It is not possible to modify the values used for a previous report submission. However, it is possible to select a particular report submission on the **Results** tab of the Report Submissions Workbench and click **Copy**. This makes an exact duplicate of the report submission. The duplicate report submission can be modified and submitted.

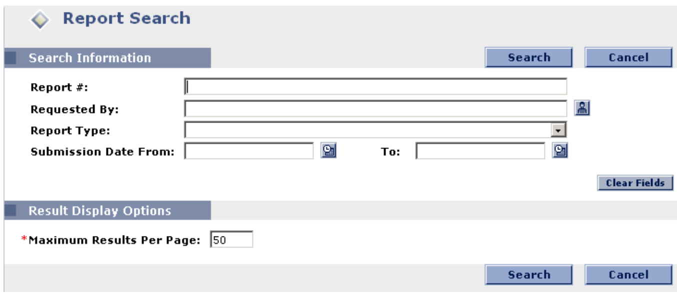
Viewing Reports from the HTML Interface

To view a previously submitted report from the standard (HTML) interface:

1. Logon to Mercury Project Management.

2. Select **Search > Reports.**

   The Report Search page opens.



3. In the Search Information section, enter search criteria in the appropriate fields.

4. Under Result Display Options, enter the maximum number of results to be displayed.

5. Click **Search**.

   The Report Search Results page opens. The page displays summary information about any reports that match your search criteria.

6. Click the Report Number under the Report # column to see the output details of any report.

Chapter 12
Integrating Project Management with Microsoft Project

This chapter explains how to integrate Project Management with Microsoft Project. The Project Management - Microsoft Project interface allows Project Managers to import project information from Microsoft Project to a new Mercury ITG project. Project information can also be exported from Project Management to Microsoft Project, creating a new project in Microsoft Project. Projects that have been imported or exported can be synchronized. Any information that is shared between projects in both applications is updated during synchronization.

Note

The Project Management - Microsoft Project interface is only compatible with Microsoft Project 98 and 2000, North American localization. It is not compatible with earlier versions of Microsoft Project such as Project Central.

The following topics are covered:

- *Synchronization Modes*
- *Project Management Strategies*
- *Requirements for the Project Management - Microsoft Project Interface*
- *Exporting to Microsoft Project from Project Management*
- *Importing from Microsoft Project*
- *Synchronizing Microsoft Project and Project Management*
- *Synchronization of Resources*
- *Impact of Microsoft Project Rules on Fields*
- *Conditional Editing Allowed In Project Management*

- *Summary of Synchronization Behavior*
- *Integration with Other Mercury ITG Products*
- *Available Reports*
- *Troubleshooting*

Synchronization Modes

By importing, exporting and synchronizing information between Project Management and Microsoft Project, you have the advantage of using the "best of both possible worlds." Depending on your project management strategy, you can use one application to perform all planning and tracking activities, and then use the other for publishing project information to managers, participants and stakeholders. See *"Project Management Strategies"* on page 259 for more information about different project management strategies.

The Project Manager can select from three synchronization modes for importing/exporting information between Project Management and Microsoft Project. Each mode offers a different strategy for communication between the two applications and has its own set of advantages. The three modes are:

- *Project Management controlled*
- *Microsoft Project controlled*
- *Project Management controls actuals*

Project Management controlled

The Project Manager initially creates a project in Project Management to perform planning and tracking activities. These activities include defining the project, scheduling tasks and tracking actuals. The first time the project is synchronized, Project Management creates a new project file on the Project Manager's desktop computer. For each subsequent synchronization, all of the information in the Microsoft Project project that is also contained in the Mercury ITG project is replaced with the current information in Project Management. Other information in the Microsoft Project project (custom fields, resource cost rates, etc.) is not altered.

After exporting, the Project Manager can distribute the Microsoft Project file or use it to run reports for managers and other people in the organization.

Microsoft Project controlled

The Project Manager creates a project in Microsoft Project to perform project planning and tracking activities and then synchronizes it in the Workbench. The synchronized Mercury ITG Project automatically rolls up into the Mercury ITG Dashboard. Also, participants can create references from tasks in the synchronized project to other Mercury ITG information (Requests and Packages). These references can provide information back to the Project Manager, or can automatically inform external participants of project events they are monitoring.

For all subsequent synchronizations, information in Project Management is updated with current information from Microsoft Project.

Project Management controls actuals

The Project Manager plans and schedules the project in Microsoft Project while using Project Management to track actuals. Participants in the project directly report actuals data using the Task Update Portlet in the standard interface. Each subsequent synchronization updates the Microsoft Project file with actuals data from Project Management. The Mercury ITG Project is updated with changes to the project structure or schedule in Microsoft Project.

See *"Synchronizing Microsoft Project and Project Management"* on page 275 for more information about synchronization.

Project Management Strategies

The following scenarios demonstrate how Project Managers can use different project management strategies offered by the Project Management - Microsoft Project interface.

- *Converting a Microsoft Project File to a Mercury ITG Project - Overview*
- *Publishing a Mercury ITG Project through Microsoft Project*
- *Publishing a Microsoft Project File through Project Management*
- *Using Project Management to Track Actuals in Microsoft Project*

Converting a Microsoft Project File to a Mercury ITG Project - Overview

A Project Manager who has previously used Microsoft Project but is adopting Project Management can use the interface to convert a Microsoft Project project to a Mercury ITG Project. Conversion is a one-time action, but the Project Manager might want to keep the Microsoft Project project and the Mercury ITG Project synchronized after conversion.

To convert a Microsoft Project file to a Mercury ITG Project:

1. Save the Microsoft Project project to a local file on your computer.
2. Open the Workbench and start an import from the Project window.
3. Follow the instructions from the Import Wizard. (See *"Importing from Microsoft Project"* on page 269 for detailed instructions.)
   a. Browse for the Microsoft Project project file.
   b. Enter additional information about the new Project in the Wizard as you go through the steps of the Import.

When the Import Wizard completes the procedure, the Project Manager can see the new project in Project Management and can decide whether or not to save the project. The Microsoft Project project has been updated with hyperlinks to the related pages in the standard interface. The Project Manager can decide whether to save these changes also. Both projects will have unsaved changes.

Initially, the Project Manager might want to keep the project under the control of Microsoft Project, and periodically synchronize the Mercury ITG Project with Microsoft Project information. (See *"Publishing a Microsoft Project File through Project Management"* on page 261 for more information about synchronizing projects.) This allows the Project Manager to see how the project is presented in Project Management. Later, when the Project Manager is more comfortable with Project Management, the Project Manager can change to the Project Management controlled mode, and can decide to stop synchronizing the project with Microsoft Project entirely.

Publishing a Mercury ITG Project through Microsoft Project

A Project Manager who uses Project Management to manage projects can use the Project Management - Microsoft Project interface to publish the projects. Publishing can simply mean distributing the Microsoft Project project file to external audiences (such as a PMO group). Publishing could also mean synchronizing the Microsoft Project project file with Project Management, and then running Microsoft Project reports for distribution. The projects can be published on a regular basis (weekly or quarterly) or at defined milestones (such as design completion).

To publish a Mercury ITG project through Microsoft Project:

1. Open the project to be exported in Workbench.

2. Export the project into a new Microsoft Project project file. (See *"Exporting to Microsoft Project from Project Management"* on page 265 for detailed instructions.)

   Since a project created in Project Management defaults to the synchronization settings for Project Management controlled mode, the Project Manager will probably not need to change any project settings.

3. A new Microsoft Project project is created and opens.

   You can then save the project and run reports as usual.

After the first export, you will synchronize the Mercury ITG project with the Microsoft Project project. This will effectively overwrite shared information, but will not affect additional information in the Microsoft Project project that is added manually after the export has occurred (such as a baseline).

Note

If you want to export a new project each time, the Project Manager can simply rename the Microsoft Project file on the computer before clicking the **Synch** button, which causes Project Management to export into a new file.

Publishing a Microsoft Project File through Project Management

A Project Manager who uses Microsoft Project to manage projects can publish those Projects using Project Management. Publishing means loading the project data into the Project Management repository, which has the following benefits:

- The Project Status appears in the Mercury ITG Dashboard. Project Management calculates exceptions and stoplight status (red/yellow/green) based on the project settings on the Mercury ITG project.

- Project participants and external audiences can see the project in various interfaces such as the My Tasks Portlet and the search screens. Although these participants cannot use Project Management to update Project Status, this is an effective way to increase visibility of project information through the standard interface.
- Project Management users can create references from other Mercury ITG entities (such as Requests and Packages) to tasks in the synchronized project. These references could be used to monitor the state of a particular task, and block progress on a Request or Package until the predecessor task is complete.

The Project Manager is likely to publish the project to Project Management on a regular basis. The Project Manager's actions are identical to the scenario described in *Publishing a Mercury ITG Project through Microsoft Project*, except that synchronization is left in Microsoft Project controlled mode for all shared project data.

Using Project Management to Track Actuals in Microsoft Project

A Project Manager who uses Microsoft Project to plan and manage projects can use Project Management to collect actuals from participants. In addition to the benefits described in *Publishing a Microsoft Project File through Project Management*, this integration shifts some of the effort of collecting and entering actuals information from the Project Manager to the participants. The Project Manager will need to periodically synchronize the projects, either to publish a re-planned project to Project Management or to collect new actuals updates into Microsoft Project.

To use Project Management to track actuals from Microsoft Project:

1. Import the Microsoft Project project into Project Management.
2. During the import, select the ‘Project Management controls actuals’ synchronization mode.

   Initially, the Mercury ITG project is identical to the Microsoft Project project. After the import, participants or the Project Manager can enter actuals information into Project Management.
3. The Project Manager synchronizes the two projects, and the Microsoft Project file is updated with the new actuals in Project Management.

This causes some changes to schedule dates in the Microsoft Project project. For example, an actual start date entered into Project Management will overwrite a scheduled start date in Microsoft Project.

The Mercury ITG Project is updated to match the project structure and schedule information of the modified Microsoft Project project. Both Projects are shown to the Project Manager in their respective applications, and the Project Manager can choose whether to save either or both projects. If necessary, the Project Manager can adjust the Microsoft Project project. This can mean shifting assignments, changing schedule dates (using the Microsoft Project resource leveling feature), or other changes. The Project Manager saves the changed Microsoft Project project and synchronizes it with Project Management a second time to publish these schedule changes to participants.

Requirements for the Project Management - Microsoft Project Interface

The Project Manager configures the interface behavior and performs synchronizations from the Workbench. The Project Management - Microsoft Project interface is transparent from the Microsoft Project side, with the exception of task hyperlinks added to Project Management Web pages. To perform import, export and synchronization procedures, the following requirements must be met:

- *Microsoft Project Requirements*
- *Access Grants*
- *Required Software*

Microsoft Project Requirements

The Microsoft Project requirements for the interface are:

- Microsoft Project must be installed on the desktop PC.
- The saved project file must either be on the local PC, or on a mapped network drive.

Access Grants

The Project Manager needs a Mercury ITG Power license and the appropriate Access Grants. The Project Management - Microsoft Project interface relies on two Project Management Access Grants: Edit Projects and Project Manager.

The Edit Projects Access Grant allows a user to edit planning data for a Mercury ITG project, but only if that user is identified as one of the Project Managers. (Each Mercury ITG project has a distinct list of one or more Project Managers.)

The Project Manager Access Grant is a skeleton-key grant that allows the user to edit planning data for all Mercury ITG projects. Both grants allow the user to create new projects.

In order to use the Project Management - Microsoft Project interface, a user needs to have either:

- The Edit Projects Access Grant and be a Project Manager for the specific project.

Or

- The Project Manager Access Grant.

Note

The Security model for the Project Management - Microsoft Project interface is as follows:

- If the user is allowed to edit the planning data for the Project Management master project, then that user can export or synchronize the project. Any user who can create a Mercury ITG project in the Project Management application can also create a Mercury ITG project by importing an Microsoft Project project.
- The Project Manager Access Grant is an easy way to give global permissions to the Program Management Office (PMO) staff.

Required Software

In order for the Workbench to communicate with the Microsoft Project installation on the Project Manager's desktop computer, an additional file must be installed.

A Windows Dynamic Link Library (.DLL) file must be installed on the Project Manager's desktop computer. This .DLL file needs to reside somewhere in the PATH of the Windows operating system.

- If your browser is Internet Explorer, the process of installing the .DLL file is automatic.
- If your browser is Netscape, you will be prompted to manually download and install the .DLL file. The first time you try to use the Microsoft Project Integration feature, a dialog box opens that contains a link to the file. Click the link and follow the download/install procedure. You can download the file from the Mercury ITG Web server to an appropriate location such as C:\WINDOWS, C:\WINNT, or the SYSTEM or SYSTEM32 directories. Then restart your Netscape browser.

Exporting to Microsoft Project from Project Management

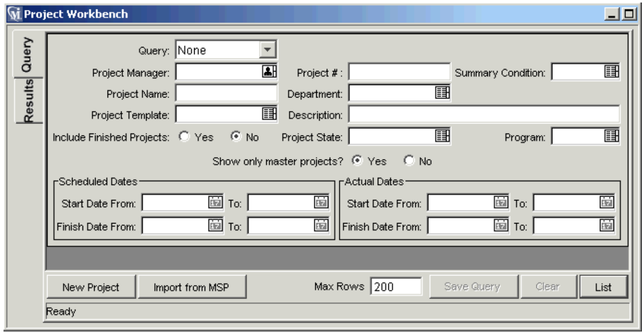
The following procedure describes how to export a Mercury ITG project to Microsoft Project. This creates a new project in Microsoft Project using the exported project's information.

Note

Before exporting or synchronization, the Project Manager can select a synchronization mode from the **MSP Synchronization** tab in the Settings window or accept the default, **Project Management controlled**. See *"Setting Up Microsoft Project Integration"* on page 48 for more information about selecting a synchronization mode in the Settings window.

1. Click the **Project Mgmt** screen group.
2. Click the Projects icon.

   The Project Workbench opens.

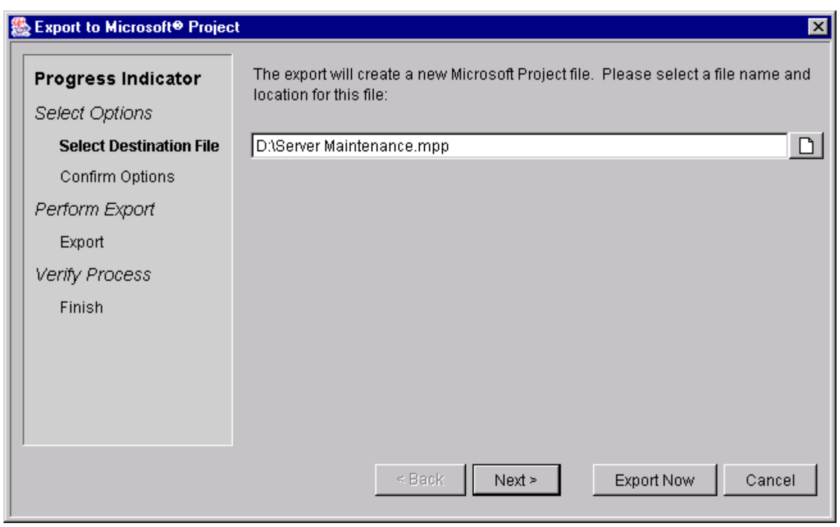


3. Query for and open the project to be exported.

   When the Project window opens, a menu option **File > Export to Microsoft Project** is available if the project was not originally imported from Microsoft Project or if it has never been exported to Microsoft Project. If the project does not meet these criteria, then the option displays as **Synch with MSP**.

4. Select the menu option **File > Export to Microsoft Project**.

   The Export to Microsoft Project Wizard opens.



The various steps of the Export process are shown in the Progress Indicator column on the left side of the Wizard. The current step of the Export process always displays in bold. Each step has its own interface that displays within the Export to Microsoft Project wizard. After each step is completed, a check mark appears by the name of the step. At this point, you should be at the Select Destination File step of the process.

You can click **Next** after completing each step of the Wizard or click **Export Now**.

- Click **Next** to go to the next interface for selecting options for the Export.
- Click **Export Now** at any step to bypass the remaining steps and begin exporting the Mercury ITG project file. The Wizard uses the system default settings the first time you export a project. For each subsequent Export, the Wizard uses the settings from the last time you exported a Mercury ITG project.

5. Select a drive/directory as a destination for the new Microsoft Project file.

   Either enter a new file name or select an existing file name for the Microsoft Project file to be created during the export.

   The path and name of the new Microsoft Project file appears in the File Chooser field.

6. Click **Next**.

   The Confirm Options interface displays in the Export to Microsoft Project Wizard. It displays the following information:

   - The path and name of the Microsoft Project file to be created during the Export.
   - The properties selected by the user on the **MSP Synchronization** tab of the Project Settings window.

7. If the options presented on this interface are not correct, click the **Back** button, go to the appropriate step in the Export process and change the options. (Or close the Wizard to access the Microsoft Synchronization Project Settings. These are located on the **MSP Synchronization** tab of the Project Settings window.)

   If the options presented on this interface are correct, click **Export Now**.

   The Microsoft Project file is created from the Mercury ITG project and displays as an icon on the Windows taskbar. The Finish interface displays in the Export from Microsoft Project Wizard. This interface informs you whether or not the export was successful and if there are warnings in the Synchronization Report.

8. To see the Synchronization Report, click **Show Synchronization Report**.

   The report displays in a separate browser window, as shown in the example below.

Mercury Project Management®
Microsoft® Project Synchronization Report

Synchronization Settings

Run Date: Thu Mar 04 16:54:43 PST 2004
Project Name: Software Release
Last Update Date: 2004-03-04 16:49:18.0
Project Manager: John Smith
Microsoft Project File Location: D:\
Microsoft Project File Name: Software Release.mpp
Synchronization control mode: Mercury Project Management controlled
Resource Identification: Mercury username

Synchronization Summary

Result: **Success**

Links: Messages | Unsuccessful Resource Matches | Successful Resource Matches | Trace Log

Messages

Message Source	Message Type	Description

Unsuccessful Resource Matches

Successful Resource Matches

   See *"Available Reports"* on page 290 for more information about the Synchronization Report.

9. (Optional) Go to the Messages section of the report to see any warnings created during the Export process.

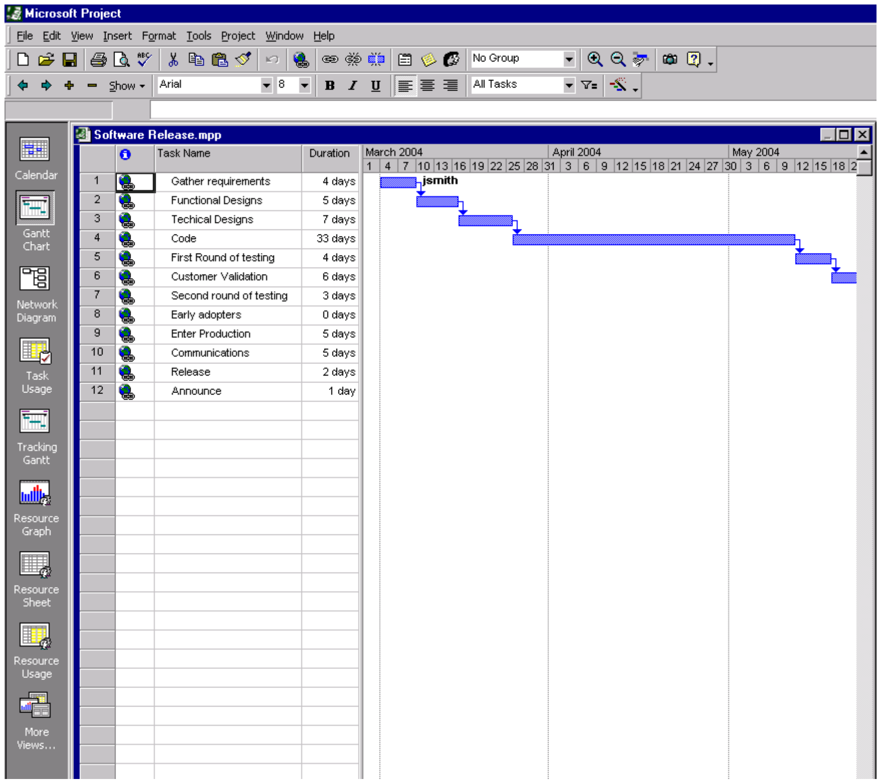
10. Click **Finish** to close the Export from Microsoft Project window.

Note

> To see the most recent Synchronization Report after the Export from Microsoft Project window has been closed, select **View > Latest Synchronization Report** from the **Project** menu.

11. Verify the project data in both Project Management and Microsoft Project and either save or abandon the projects.

    An example of a Microsoft Project file created by exporting a Mercury ITG project is shown below.



Importing from Microsoft Project

The following procedure describes how to import a Microsoft Project file into Project Management. This creates a new project in Project Management using the imported project's information.

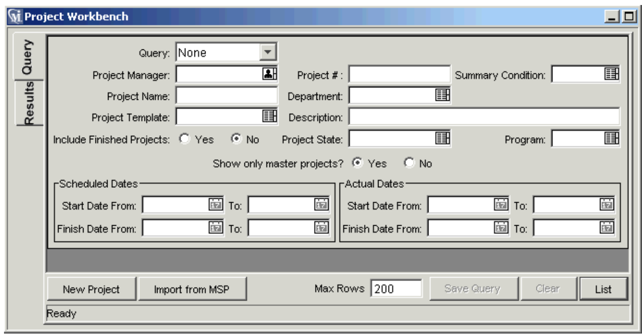
Note

When you import a large Microsoft Project (or a large number of projects) into Project Management, tables in the Mercury ITG database are updated to handle this new configuration. Because of the scope of database changes, you should re-run the Database Statistics on your Mercury ITG Database. Contact your application administrator for help with this procedure.

To import a Microsoft Project file into Project Management:

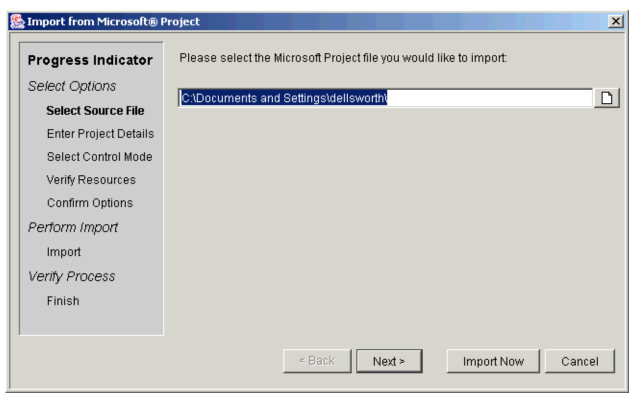
1. Click the **Project Mgmt** screen group.
2. Click the Projects icon.

   The Project Workbench opens.



3. Click **Import From MSP**.

   The Import from Microsoft Project Wizard opens.



The various steps of the Import process are shown in the Progress Indicator column on the left side of the Wizard. The current step of the Import process always displays in bold. Each step has its own interface that displays within the Import from Microsoft Project Wizard. After each step is completed, a check mark appears by the name of the step. At this point, you should be at the Select Source File step of the process.

You can click **Next** after completing each step of the Wizard or click **Import Now**.

- Click **Next** to go to the next interface for selecting options for the Import.
- Click **Import Now** at any step to bypass the remaining steps and begin importing the Microsoft Project file. The Wizard uses the default settings the first time you import a project. For each subsequent Import, the Wizard uses the settings from the last time you imported a Microsoft Project file.

4. Select the appropriate drive/directory and choose the Microsoft Project file to be imported.

   The path and name of the Microsoft Project file to be imported appears in the File Chooser field.

5. Click **Next**.

   The Enter Project Details interface displays in the Import from Microsoft Project Wizard.

6. Enter a unique Project Name for the new Mercury ITG project in the Project Name field.

7. Select a Project Manager (or Managers) for the new Mercury ITG project from the Project Manager auto-complete list.

8. Click **Next**.

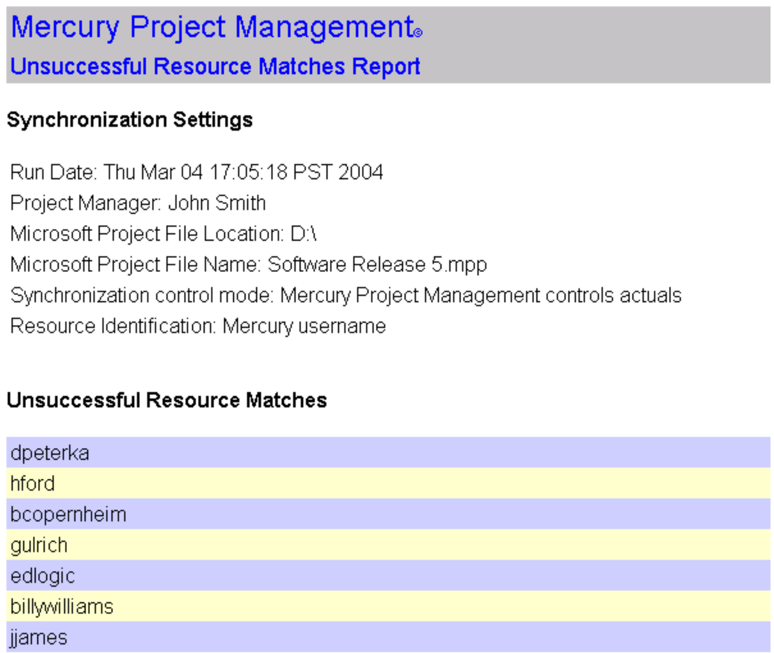
   The Select Control Mode interface displays in the Import from Microsoft Project Wizard.

9. Select the synchronization control mode for the new project by clicking the appropriate radio button.

   Clicking a control mode's radio button displays a description of the control mode in the Description information box. See *"Synchronization Modes"* on page 258 for more information about synchronization modes.

10. Click **Next**.

    The Verify Resources interface displays if there are Microsoft Project resources that could not be matched to Project Management users. The unmatched resources shown in the Wizard and their assignments will not be imported. To display the unmatched resources in a browser window, click **Show Printable Version**. An example of the Unsuccessful Resources Match Report is shown below.



Mercury Project Management®
Unsuccessful Resource Matches Report

Synchronization Settings

Run Date: Thu Mar 04 17:05:18 PST 2004
Project Manager: John Smith
Microsoft Project File Location: D:\
Microsoft Project File Name: Software Release 5.mpp
Synchronization control mode: Mercury Project Management controls actuals
Resource Identification: Mercury username

Unsuccessful Resource Matches

dpeterka
hford
bcopernheim
gulrich
edlogic
billywilliams
jjames

11. Click **Next**.

    The Confirm Options interface displays the following information:

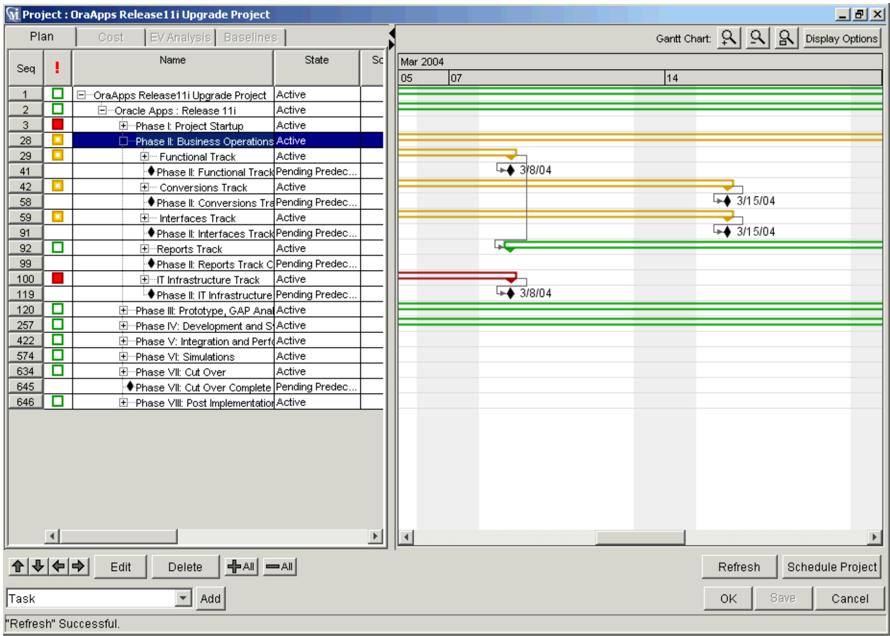
    - The path and name of the Microsoft Project file to be imported.
    - The Project Name and Project Manager of the new Mercury ITG project.
    - The synchronization control mode selected by the user.
    - Whether or not unmatched resources were found.

12. If the options presented on this interface are not correct, click the **Back** button, go to the appropriate step in the Import process and change the options.

    If the options presented on this interface are correct, click **Import Now**.

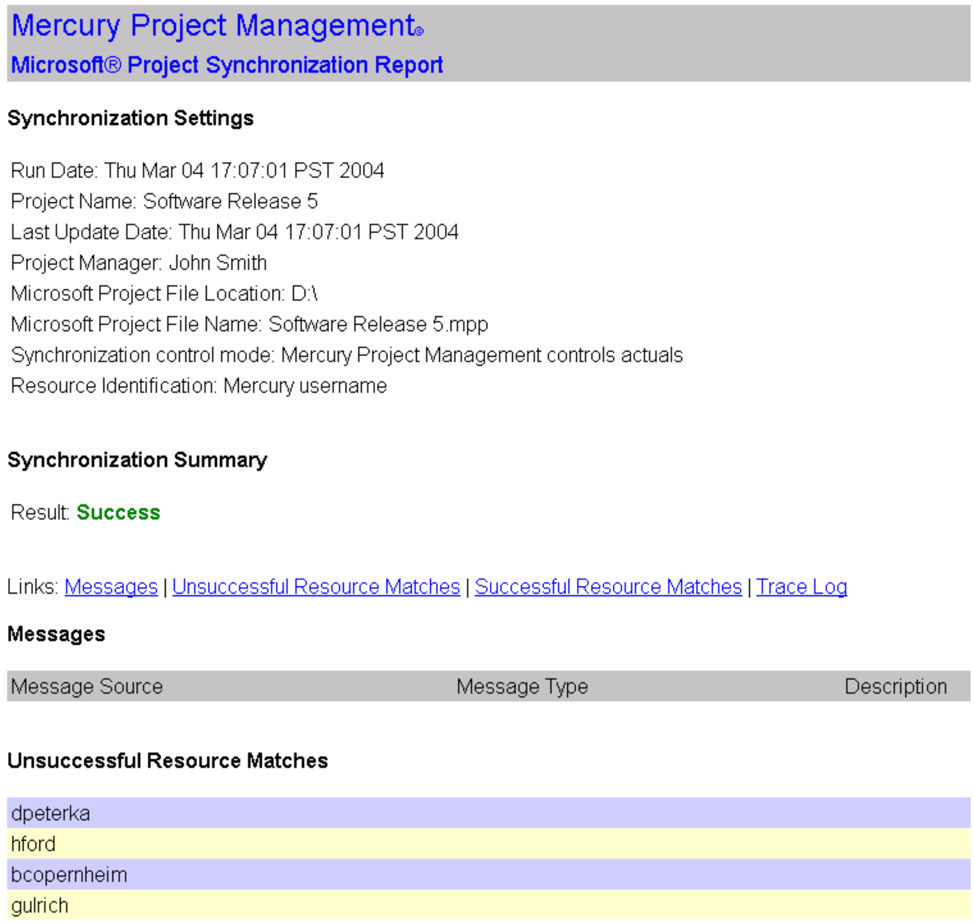
    The Microsoft Project file opens and is imported into Project Management. A new Mercury ITG project is created.

The newly created Mercury ITG project opens. An example of the Mercury ITG project created by importing the Microsoft Project file Software_Release.mpp is shown below. Notice that it has the unique name Software_Release_1.



13. To view the Synchronization Report, click **Show Synchronization Report**.

    The report displays in a separate browser window. See *"Available Reports"* on page 290 for more information about the Synchronization Report.



Mercury Project Management®
Microsoft® Project Synchronization Report

Synchronization Settings

Run Date: Thu Mar 04 17:07:01 PST 2004
Project Name: Software Release 5
Last Update Date: Thu Mar 04 17:07:01 PST 2004
Project Manager: John Smith
Microsoft Project File Location: D:\
Microsoft Project File Name: Software Release 5.mpp
Synchronization control mode: Mercury Project Management controls actuals
Resource Identification: Mercury username

Synchronization Summary

Result: **Success**

Links: Messages | Unsuccessful Resource Matches | Successful Resource Matches | Trace Log

Messages

Message Source	Message Type	Description

Unsuccessful Resource Matches

dpeterka
hford
bcopernheim
gulrich

14. Click **Finish** to close the Import from Microsoft Project window.

> Note: To see the most recent Synchronization Report after the Import from Microsoft Project window has been closed, select **View > Latest Synchronization Report** from the **Project** menu.

15. Verify the project data in both Project Management and Microsoft Project and save the projects.

Note

During the import process, Project Management adds a hyperlink from each Microsoft Project task to the related page in the standard interface (such as a Task Detail, Subproject Summary or Project Summary page). This hyperlink is placed in the standard fields for task hyperlinks, and can overwrite existing hyperlinks.

Existing hyperlinks can be moved to a Microsoft Project custom field of the type “Text.”

Synchronizing Microsoft Project and Project Management

The following procedure describes how to synchronize projects in Project Management and Microsoft. Any information that is shared between them is updated during the synchronization.

Note

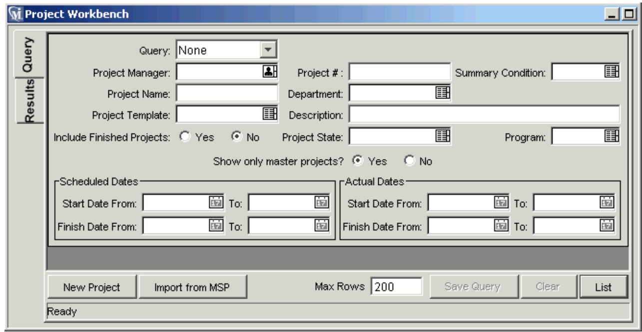
Before exporting or synchronization, the Project Manager can select a synchronization mode from the **MSP Synchronization** tab in the Settings window or accept the default, **Project Management controlled**. See *“Setting Up Microsoft Project Integration”* on page 48 for more information about selecting a synchronization mode in the Settings window.

To synchronize projects in Project Management and Microsoft Project:

1. Click the **Project Mgmt** screen group.

2. Click the Projects icon.

   The Project Workbench opens.

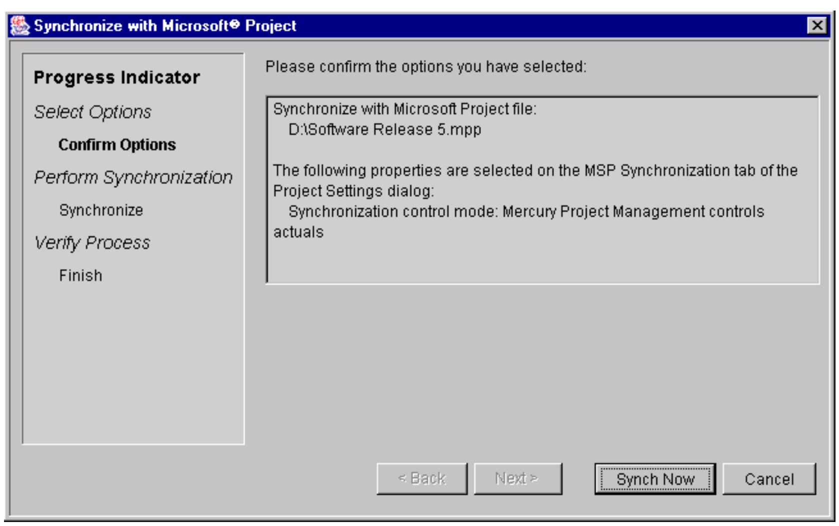


3. Query for and open the project to be exported.

   When the Project window opens, a menu option **File > Export to Microsoft Project** is available if the project was not originally imported from Microsoft Project or if it has never been exported to Microsoft Project. If the project does not meet these criteria, then the option displays as **Synch with MSP**.

4. Select **Synch with MSP**.

   The Synchronize with Microsoft Project Wizard opens.



The various steps of the Synchronization process are shown in the Progress Indicator column on the left side of the Wizard. The current step of the Synchronization process always displays in bold. Each step has its own interface that displays within the Synchronize with Microsoft Project Wizard. After each step is completed, a check mark appears by the name of the step.

5. The Confirm Options interface displays the following information:

   - The path and name of the Microsoft Project file that the current Mercury ITG project will be synchronized with. This will be either a file that was originally imported from Microsoft Project or a file that was exported to Microsoft Project from the current Mercury ITG project.

   - The properties selected by the user on the **MSP Synchronization** tab of the Project Settings window.

6. If the options presented on this interface are not correct, click the **Cancel** button and change the properties in the Settings window.

   If the options presented on this interface are correct, click **Synch Now**.

   The Mercury ITG project is synchronized with the Microsoft Project file.

7. To see the Synchronization Report, click **Show Synchronization Report**.

   See *"Available Reports"* on page 290 for more information about the Synchronization Report.

8. Click **Finish** to close the Synchronize with Microsoft Project window.

Note

> To see the most recent Synchronization Report after the Synchronize with Microsoft Project window has been closed, select **View > Latest Synchronization Report** from the **Project** menu.

9. Verify the project data in both Project Management and Microsoft Project and either save the projects or close them without saving.

Synchronization of Resources

In Project planning, the concept of "resources" can have multiple definitions. A resource can be a team member, time on a mainframe computer, or construction materials. A resource in Project Management is a Project

Management user or group of users capable of performing Tasks. Resources are chosen from the Project Team specified by a Project Manager. Microsoft Project supports tracking and costing of both human and material resources. Project Management supports only human resources.

A project can also contain resources that have not been assigned. In Microsoft Project, unassigned resources appear in some resource-centric project views but have little functional significance. In Project Management, unassigned resources are Project Management users listed in the Project Team who have no task assignments. During synchronization, all assigned human resources are synchronized. Unassigned human resources and unassigned material resources are not synchronized.

Note

Resource synchronization is based on either of two factors:

- A match between the Microsoft Project resource name and Project Management username.

  Or

- A match between the Microsoft Project resource name and the concatenation of Project Management user's first name and last name.

This match is not case-sensitive. In Microsoft Project, it is possible to have two resources with the same name that vary only by which letters are uppercase or lower case. The synchronization mapping logic first checks for a match with the same upper/lower case. If no match with exact case is found, the first case-insensitive match is used.

In Project Management, the synchronization does not guarantee that all assigned resources are part of the Project Team. If the Project Team needs to be maintained, then this must be done manually.

After synchronization, there will be a Microsoft Project resource matching every Project Management resource. If a Project Management resource is missing from the Microsoft Project file, a matching resource will be created. Each Mercury ITG project has a configuration setting (in the **MSP Synchronization** tab of the Settings window) specifying whether Microsoft Project resources created during synchronization are labeled with the Project Management username or the Project Management first/last name. The default value is by Project Management username.

Because the two applications define resources differently, not every Microsoft Resource will be defined in Project Management. After synchronization, there can be some Microsoft Project resources with no matching Project Management resource, because new Project Management resources (which are always users) are not automatically created. These unmatched Microsoft Project resources are listed in the Microsoft Project Synchronization Report. See *"Available Reports"* on page 290 for more information on reports.

When the Import Wizard detects unmatched resources, the Wizard displays a list of these resources (in the Verify Resources step of the process) and offers the option of opening a printable version of this list in a browser window. This is in addition to listing the unmatched resources in the Microsoft Project Synchronization Report. The Project Manager can cancel the import at this point, create the missing users (or have the application administrator create the users) and run the import again.

Impact of Microsoft Project Rules on Fields

Microsoft Project contains a number of internal rules that determine the way field values are calculated in planning and actuals fields. These rules affect the synchronization process between Microsoft Project and Project Management because calculations that work in one application do not necessarily carry over to the other application.

For example, reporting actuals in Microsoft Project is complicated due to its task reconciliation rules. Entering values into several actuals fields triggers automatic revisions of other planning and actuals fields. If you enter more than two or three actuals values, later entries start revising earlier entries in the Project.

Another difference is the method of defaulting logic between Project Management and Microsoft Project. An example is the calculation of actual start date. Microsoft Project assumes that the task starts on the scheduled start date, unless the Project Manager specifically enters other data. This is because actuals are usually entered after-the-fact by the Project Manager. Project Management assumes that work starts when the participant changes the task state from **Ready** to **In Progress**. Project Management assumes that actuals are reported near real-time.

The most common Microsoft Project rules for planning and actuals fields are listed below.

Planning Fields

- Start + Duration = Finish

- Effort = Duration * (sum of resources * units)

Actuals Fields

- Start = Actual Start (if known)
- Finish = Actual Finish (if known)
- Duration = Actual Duration + Remaining Duration
- % Complete = Actual Duration / Duration
- Remaining Duration is zero when task is 100% Complete
- Effort = Actual Effort + Remaining Effort

Solutions for Project Managers

In order to give consistent behavior during synchronization, Mercury ITG Project Managers must:

- Synchronize only those actuals fields (such as % Complete, Actual Start and Actual Finish) that are enabled. See *Enabling/Disabling Fields* for more information about enabling fields.
- Synchronize these fields according to their defined priority order. See *Priority Order* for more information about the field priority order.

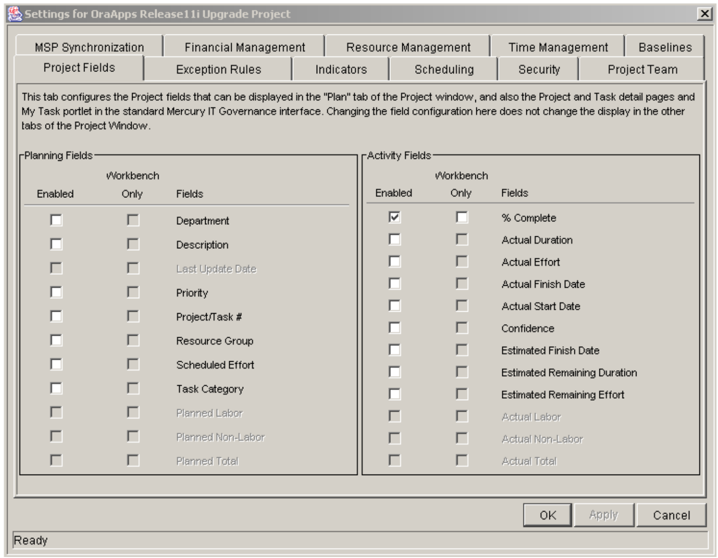
The Project Management - Microsoft Project interface ignores Project Management default values that are not enabled.

Enabling/Disabling Fields

To enable or disable actuals fields:

1. In the Project Workbench, search for and open the project to be exported, imported or synchronized.
2. From the menu at the top of the Workbench, select **Project > Settings**.

   The Settings window opens.



3. Click the **Project Fields** tab.
4. In the Activity Fields pane:
   - Enable a field by selecting the appropriate check box in the Enabled column.
   - Disable a field by deselecting the appropriate check box in the Enabled column.
5. Click **OK**.

Priority Order

The following list of actual fields is ordered from the highest priority to the lowest priority for the purpose of synchronization.

- % Complete
- Actual Start
- Actual Finish
- Actual Duration
- Actual Effort
- Estimated Finish Date

- Remaining Duration
- Remaining Effort

The priority order is the same for all projects. '% Complete' is ranked highest because it is used prominently in the Dashboards and reports of both applications. Thereafter, fields that display actual measures take precedence over estimates, and dates take precedence over durations. Fields with the highest priorities should be enabled in a project more often than those fields with lower priorities.

Setting Up Projects

When setting up Mercury ITG projects for synchronization, Project Managers should:

- Enable as few fields as necessary that will accurately give visibility to the results of a synchronization, export or import.
- Not enable potentially conflicting sets of fields. (See below for potential conflicts.)

Avoiding Potential Conflicts When Setting Up Your Mercury ITG Project

The following guidelines describe strategies for avoiding potential conflicts.

- Enable only two of the three Calendar actuals (Start, Finish and Duration) for a Mercury ITG project.
- Enable only two of the three Calendar estimates (% Complete, Estimated Finish and Remaining Duration) for a Mercury ITG project.
- If Actual Duration is enabled, then enable either % Complete or Remaining Duration.
- Do not enable all three duration actuals (% Complete, Duration and Remaining Duration) for a Mercury ITG project.

See *"Troubleshooting"* on page 294 for more information about unsupported fields and features in the Project Management - Microsoft Project interface.

Conditional Editing Allowed In Project Management

Depending on the synchronization mode that has been selected for a project, the project structure and task information will be controlled by either Project

Management or Microsoft Project. Depending on the synchronization control mode selected for the project, some editing features in Project Management will be disabled. Information controlled by Microsoft Project cannot be edited in Project Management. The following sections describe allowed/restricted types of conditional editing in Project Management for each of the three synchronization modes.

- *Editing Project Management Controlled Projects*
- *Editing Microsoft Project Controlled Projects*
- *Project Management Controls Actuals*

Summaries of the conditional editing restrictions for each synchronization mode are listed in *"Conditional Editing Summary Table"* on page 285.

Editing Project Management Controlled Projects

When Project Management controls the project, the user is allowed to edit all information in Project Management. This includes changing the task structure, adding or deleting new Subprojects and tasks, and editing task scheduling and actual fields.

Editing Microsoft Project Controlled Projects

When Microsoft Project controls all the project planning and tracking activities, the comparable editing functions in Project Management are disabled. The data that is distinct to Project Management and not shared with Microsoft Project can still be edited. This includes User Data, custom project fields and task references.

Workbench Interface

In the Workbench, Subprojects and tasks can be edited in the Project Plan panel in the Project Detail window, the Subproject Detail window, and the Task Detail window (when it is opened in the Project window or the Task Workbench). All the shared fields are disabled in these windows.

Any function that could change the project and task structure is disabled. This includes the following components:

- **Add Task** button
- **Delete** button
- **Indent/Outdent** buttons

- **Move up/Move down** buttons

Since scheduling can change dates and durations, the **Schedule Project** button is disabled. The state of the Mercury ITG Project cannot be changed in this synchronization mode; therefore the Change State is also disabled. The key shortcuts for these buttons are disabled as well.

Standard Interface

In the standard Project Management interface, the My Tasks Portlet and the Task Detail page will not allow users to enter task actuals. The My Tasks Portlets and the Task Search page still return the current incomplete tasks assigned to a user regardless of the control mode. This provides visibility to the project's participants. The actuals collected in Microsoft Project are visible through the My Task Portlet.

Roll-up calculations are disabled through Project Management, whether triggered by actions in the Workbench, the standard interface or any other method.

Project Management Controls Actuals

The 'Project Management controls actuals' mode is more complex than the other two modes when disabling fields. This mode allows users to change the actual fields while keeping the planning fields unchanged.

In the Project Plan panel, Project Detail window, and Task Detail window, only actual fields are editable. The planning fields are disabled. In the Project Detail Window, planning fields in the Subproject/Task table are also not editable.

Similar to the Microsoft Project control mode, any function that could change the project and task structure is disabled. This includes the following components:

- **Add Task** button
- **Delete** button
- **Indent/Outdent** buttons
- **Move up/Move down** buttons

Some roll-up operations are disabled. Roll-up of actuals fields still occurs, but schedule fields will not roll-up. The imported values from Microsoft Project are retained.

The functionality allowed in the Shared control mode is very similar to the functionality allowed to a user who has been given only the Update Tasks Access Grant.

Conditional Editing Summary Table

Table 12-1 summarizes the allowed or restricted conditional editing in Project Management for each of the three synchronization modes.

Table 12-1. Conditional Editing Allowed in Project Management

Fields in Project Management	Project Management controlled	MSP controlled	Project Management controls actuals
Project Plan			
Structure fields	Yes	No	No
Planning fields	Yes	No	No
Actual fields	Yes	No	Yes
Subproject Detail Window			
Structure fields	Yes	No	No
Planning fields	Yes	No	No
Actual fields	Yes	No	Yes
Other non-shared fields	Yes	Yes	Yes
Task Detail Window			
Structure fields	Yes	No	No
Planning fields	Yes	No	No
Actual fields	Yes	No	Yes
Other non-shared fields	Yes	Yes	Yes
Project Window			
Add/Delete Task button	Yes	No	No
Indent/Outdent Task button	Yes	No	No
Move up/Move down Task button	Yes	No	No
Schedule Project button	Yes	No	No
Change State button	Yes	No	No

Table 12-1. Conditional Editing Allowed in Project Management [continued]

Fields in Project Management	Project Management controlled	MSP controlled	Project Management controls actuals
Roll-up			
Schedule fields	Yes	No	No
Actuals fields	Yes	No	Yes
My Tasks Portlet			
Actuals fields	Yes	No	Yes
Task Detail Page			
Actuals fields	Yes	No	Yes

Summary of Synchronization Behavior

The following sections describe the behavior of a Mercury ITG project after a successful export to Microsoft Project.

The task structure and task names for the project in Project Management and the project in Microsoft Project will be identical. There will be a 1-to-1 relationship between tasks, and tasks will appear in the same sequence in both projects. The exception to this rule is that the Microsoft Project project might not have a Master Project row. The synchronization will not create a Master Project row.

The resources assigned to each task will be identical. The predecessors and constraints will be identical, for the types of predecessors and constraints supported by Project Management.

If Project Management is collecting actual start and finish dates, then these dates will be exported to Microsoft Project. Actual dates take precedence over Project Management scheduled dates. Time information will also be synchronized.

If Project Management is collecting “estimated actuals” then this information will be exported to Microsoft Project. Estimated actuals fields deal with estimated time to completion and estimated time of completion. Examples are the % Complete, Estimated Finish Date and Remaining Effort fields. These estimates can cause Microsoft Project to revise the Task duration or schedule dates.

Scheduled start and finish dates for tasks without actuals will be identical in Project Management and Microsoft Project. Roll-up dates are automatically calculated in Microsoft Project, and can not be identical to those in Project Management. Time information will also be synchronized.

If Project Management is tracking task effort, then this will be exported to Microsoft Project. Microsoft Project will infer resource assignment units based on the task duration, effort and number of resources. Roll-up effort is calculated by Microsoft Project, but will be identical.

Duration is calculated by Microsoft Project based both on the start and finish dates and the resource calendars in Microsoft Project. Task durations and roll-up durations will sometimes differ slightly between the two applications.

Integration with Other Mercury ITG Products

Tasks in Mercury ITG projects can include additional references to other Mercury ITG entities (such as Requests and Packages) or points of information, allowing easy access and visibility to data related to the current Task. Summary information for references is viewed as part of the Task. (See *"Attaching References to Tasks"* on page 100 for more information about attaching references to Tasks.) The following sections describe using reference types in Mercury ITG projects.

- *Limitations on References*
- *Allowed Types of References During a Synchronization*
- *References Summary Table*

Limitations on References

The Project Management - Microsoft Project interface supports most of the task-related reference types. Any limitations to supporting those references are described below.

- *Creating New Tasks while Adding a Reference*
- *Task Updated by Request/Request Updates Task*
- *Task-Successor References*

Creating New Tasks while Adding a Reference

Normally, when a user adds a reference to a Mercury ITG project, that user can either attach the reference to an existing task, or the user might create a new task. (The user must also have the right security permissions to do so.) However, in the two synchronization modes where Microsoft Project controls the task structure, this is not allowed. References to existing tasks can still be created.

Task Updated by Request/Request Updates Task

A reference can be configured so that the % Complete of the Request updates the % Complete of the referenced task. In the synchronization mode where Microsoft Project controls the entire project, a reference of this type cannot be created.

Task-Successor References

References can also be created where a Request is the predecessor of a task. This can be either a finish-to-start predecessor or a finish-to-finish predecessor. In the first case, the task could not start (or could not progress if already started) until the request predecessor is completed. In the second case, this means that the task could be 100% complete but cannot reach the “Completed” state until the request predecessor is completed. Both types of references are allowed, but are not visible in the synchronized Microsoft Project project.

Allowed Types of References During a Synchronization

The reference types that are allowed during a synchronization are described below, along with their limitations:

- *Microsoft Project control mode*
- *Shared control mode*

Microsoft Project control mode

All types of references are allowed in this mode except for ‘Task Updated by Request/Request Updates Task.’

If a task that has a reference is marked as 100% complete but the request predecessor is not complete, the potential problem will be flagged as a warning in the Microsoft Project Synchronization Report.

Dependent references will not stop Project Management actuals from being updated by synchronization.

References cannot be created during synchronization.

Shared control mode

All types of references are allowed in this mode.

When a task is 100% complete in Project Management but is pending a finish-finish predecessor, it will be synchronized out to Microsoft Project as only 99% complete. This ensures that any milestone successors of the task will not incorrectly be shown as complete. This correction will be noted as an informational message in the Microsoft Project Synchronization Report.

References cannot be created during synchronization.

References Summary Table

Table 12-2 lists the allowed references during synchronization for each control mode.

Table 12-2. Allowed References During Synchronization

Type of Reference	Project Management controlled	Project Management controls actuals	MSP controlled
Informational	Yes	Yes	Yes
Task is the predecessor of a Request or Package	Yes	Yes	Yes
Task is the finish-to-start successor of a Request or Package	Yes	Yes	Yes, but not enforced in Microsoft Project. Detected during synchronization.
Task is the finish-to-finish successor of a Request or Package	Yes	Yes, but is sometimes synchronized as 99% complete	
Task Updated by Request/Request Updates Task	Yes	Yes	No

Available Reports

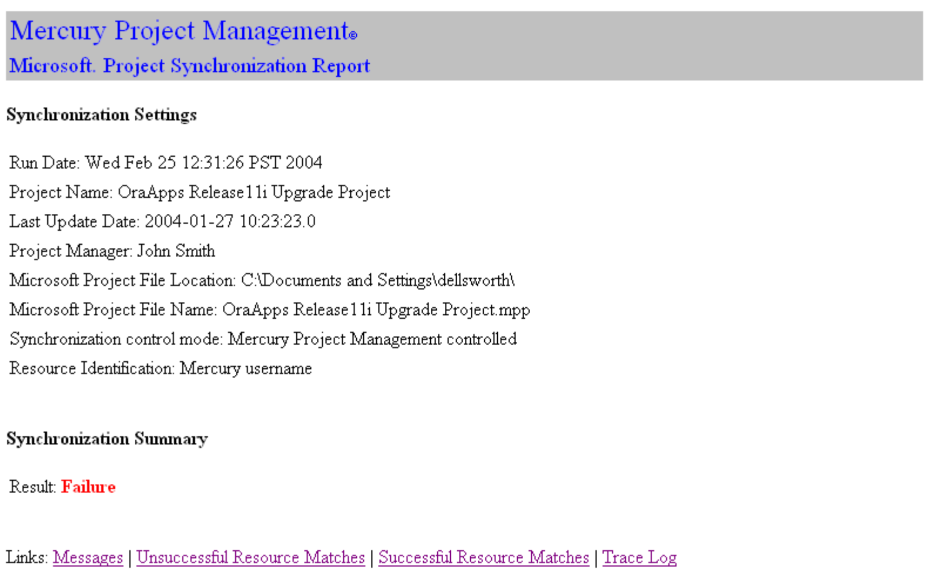
Project Management features three reports that contain information about the Project Management - Microsoft Project interface:

- *Microsoft Project Synchronization Report*
- *Unsuccessful Resource Matches Report*
- *Project Detail Report*

Only the Project Detail Report is available from the Project Management Report Submission Workbench interface. The other two reports are created automatically during an import, export or synchronization.

Microsoft Project Synchronization Report

The Microsoft Project Synchronization Report is created during an import, export or synchronization. The report displays in a separate browser window when requested by the user.



Mercury Project Management®
Microsoft. Project Synchronization Report

Synchronization Settings

Run Date: Wed Feb 25 12:31:26 PST 2004
Project Name: OraApps Release11i Upgrade Project
Last Update Date: 2004-01-27 10:23:23.0
Project Manager: John Smith
Microsoft Project File Location: C:\Documents and Settings\dellsworth\
Microsoft Project File Name: OraApps Release11i Upgrade Project.mpp
Synchronization control mode: Mercury Project Management controlled
Resource Identification: Mercury username

Synchronization Summary

Result: **Failure**

Links: Messages | Unsuccessful Resource Matches | Successful Resource Matches | Trace Log

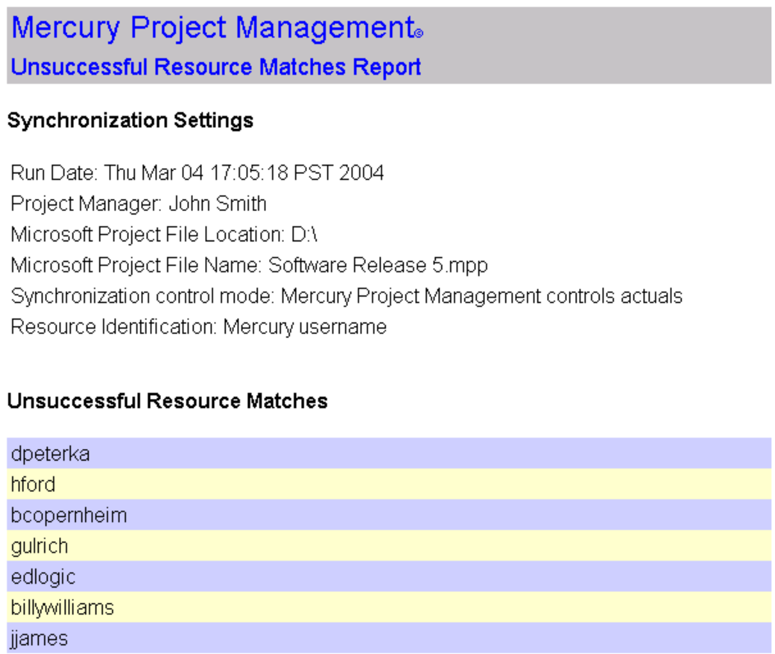
Figure 12-1 Microsoft Project Synchronization Report

Table 12-3. Microsoft Project Synchronization Report Parameters

Sections/Fields	Description
Synchronization Settings	
Run Date	The date and time the report was run.
Project Name	The name of the Project.
Last Update Date	The date and time the Project was last updated.
Project Manager	The name of the Project Manager who performed the synchronization.
Microsoft Project File Location	The drive and path of the Microsoft Project file.
Microsoft Project File Name	The name of the Microsoft Project file.
Synchronization control mode	The synchronization behavior selected by the Project Manager.
Resource Identification	The type of name (either full name or username) given to new Resources created during synchronization.
Synchronization Summary	
Result	Whether the synchronization was successful or unsuccessful.
Messages	Information, warning or error about the export, import or synchronization process. Messages include a Message Source, Message Type and Description.
Unsuccessful Resource Matches	Resources that were unsuccessfully matched during export, import or synchronization.
Successful Resource Matches	Resources that were successfully matched during export, import or synchronization.
Trace Log	A log of successful/unsuccessful processes that occurred during the export, import or synchronization.

Unsuccessful Resource Matches Report

The Unsuccessful Resource Matches Report is created during an import, export or synchronization. It lists any resources that were not successfully matched between the Project Management and Microsoft Project projects. The report displays in a separate browser window when requested by the user.


Mercury Project Management®
Unsuccessful Resource Matches Report

Synchronization Settings

Run Date: Thu Mar 04 17:05:18 PST 2004
Project Manager: John Smith
Microsoft Project File Location: D:\
Microsoft Project File Name: Software Release 5.mpp
Synchronization control mode: Mercury Project Management controls actuals
Resource Identification: Mercury username

Unsuccessful Resource Matches

dpeterka
hford
bcopernheim
gulrich
edlogic
billywilliams
jjames

Figure 12-2 Unsuccessful Resource Matches Report

Table 12-4. Unsuccessful Resource Matches Report Parameters

Sections/Fields	Description
Synchronization Settings	
Run Date	The date and time the report was run.
Project Manager	The name of the Project Manager who performed the synchronization.
Microsoft Project File Location	The drive and path of the Microsoft Project file.
Microsoft Project File Name	The name of the Microsoft Project file.

Sections/Fields	Description
Synchronization control mode	The synchronization behavior selected by the Project Manager.
Resource Identification	The type of name (either full name or username) given to new Resources created during synchronization.
Unsuccessful Resource Matches	Resources that were unsuccessfully matched during export, import or synchronization.

Project Detail Report

This report lets you query projects by their header fields. You can specify whether to include the following aspects of the Project:

- Custom fields
- Status
- Notes
- Activities
- Packages
- Requests
- References
- Transaction History

The Show Project Settings radio button must be set to 'Yes' to display synchronization-related information.

The Project Detail Report parameters are shown in *Figure 12-3*.

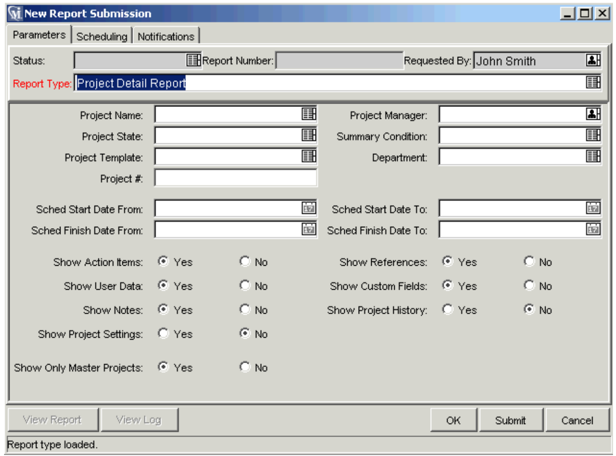


Figure 12-3 Project Detail Report - Parameter Fields

Troubleshooting

Microsoft Project supports many features that are not duplicated in Project Management. Some of these unsupported features relate to information that Project Management does not track or support, such as cost calculation, baseline tracking and earned-value calculations. When a Microsoft Project project is imported into Project Management, this information is not represented.

Information of these types is not affected by the interface. Importing the Microsoft Project project into Project Management does not remove this data from Microsoft Project. Exporting from Project Management does not create or default this data.

Other Microsoft Project features deal with the scheduling and tracking information that is synchronized between the two applications. In these cases, the interface converts the Microsoft Project data into information that Project Management can represent. The interface attempts to maintain the intent of the original Project Plan as closely as possible.

The following sections describe problems that users might encounter while using the Project Management - Microsoft Project interface.

- *Resource Calendars*
- *Units*
- *Advanced Predecessors*

- *Advanced Constraints*
- *Calculation of Roll-up Values*
- *Microsoft Project's Manual Scheduling Mode*
- *Scheduling Your Project in Microsoft Project*

Resource Calendars

Resource calendars are not synchronized between the two applications. Since both duration and effort are a function of both start/finish dates and Resource calendars, the duration and effort values in Project Management and Microsoft Project might not match.

Units

Units are also referred to as resource load percentages. In Microsoft Project, each resource can be assigned to a task with a different load percentage (from zero percent to one hundred percent.) For example, the same resource could be assigned to two different tasks and have a resource load percentage of fifty percent for each one.

Since Project Management does not track assignment units, the load percentage of any resource imported into Project Management will not be recognized.

Advanced Predecessors

Microsoft Project has several advanced predecessor types not available in Project Management: start-to-start (SS), start-to-finish (SF) and finish-to-finish (FF).

Project Management cannot represent these advanced predecessors, but it will represent the scheduled start and finish dates resulting from them. During synchronization, these types of predecessors will be omitted from the Mercury ITG Project Plan. This can cause successor tasks in Project Management to incorrectly appear in a "Ready" state.

To convert a project from Microsoft Project to Project Management, a Project Manager needs to replace unsupported predecessor types with a supported alternative - a constraint, for instance.

Advanced Constraints

Microsoft Project supports several advanced constraint types not available in Project Management: as late as possible (ALAP), must finish on (MFO), finish no earlier than (FNE), and task deadlines.

Project Management cannot represent these advanced constraints, but it will represent the scheduled start and finish dates resulting from them. During synchronization, these types of constraints are omitted from the Mercury ITG Project Plan.

Calculation of Roll-up Values

Microsoft Project allows you to choose between 'automatic' and 'manual' scheduling modes. The default mode is 'automatic,' and many users can not be aware another mode is available. When Microsoft Project is in manual scheduling mode, the **F9** button must be pressed to recalculate Task grouping roll-up values and reschedule tasks.

Microsoft Project's Manual Scheduling Mode

If your Microsoft Project file is in manual scheduling mode and you did not select this option, it could be because:

- You created this project by exporting a Mercury ITG project from Project Management. The Export Wizard turns off automatic scheduling mode in order to have the task dates in Microsoft Project match those in Project Management.
- You opened a project that was in manual mode and then created the new Microsoft Project file. This caused the new project to inherit the manual mode setting as a default.

Scheduling Your Project in Microsoft Project

The synchronization process can sometimes stop in mid-operation because Microsoft Project displays a warning dialog. Microsoft Project is not completely consistent about when it will respond to a COM call with a warning dialog, so this cannot always be avoided.

When the synchronization process stops and the warning dialog appears, the **Microsoft Project** button in the Windows task bar flashes as a signal that the application needs attention. To continue the synchronization process, go to the Microsoft Project file and dismiss the warning dialog.

The best way to prevent the warning dialog from appearing during synchronization is to resolve all planning problems in Microsoft Project (such as violated constraints) prior to synchronization. You might need to manually recalculate the project's schedule by pressing the F9 key before you attempt synchronization.

Appendix A

Integrating Requests and Projects

Mercury IT Governance Center integrates issue tracking with project management using Mercury Demand Management and Mercury Project Management. Mercury Demand Management Requests and Mercury Project Management Projects and Tasks can be linked to each other through a variety of dependent and informational relationships. Utilizing these relationships, Requests can be folded seamlessly into a scalable framework of interlocking initiatives. Linking Tasks to Requests from Mercury Demand Management also gives instant visibility to detailed activities supporting an overall project.

This appendix covers the following topics:

- *Referencing Requests from Projects*
- *Creating Tasks from Requests*
- *Dependencies Between Tasks and Requests*
- *Visibility into Tasks and Requests*

Integrating Requests and Projects Overview

This section lists the components required to integrate Requests and Projects. These components are:

- **Mercury Project Management, A Project Management System**
  Mercury Project Management enables collaborative project management for both repetitive projects, such as installing a new release of your HRMS applications, and one-time projects, such as developing a new e-commerce capability. With Mercury ITG, you accelerate project delivery while reducing your project costs.

- **Mercury Demand Management - A Request Resolution System**
  Mercury Demand Management is a Workflow-driven Request resolution system for business applications. It allows you to effectively capture, route and resolve business Requests.
- **Integration**
  Companies with both Mercury Demand Management and Mercury Project Management can create processes that take advantage of each product's functionality.

Referencing Requests from Projects

Requests can be linked to Projects through an informational Reference relationship. This is done from the **References** tab in the Project Information window in the Workbench, or from the References section of the Project Detail page.

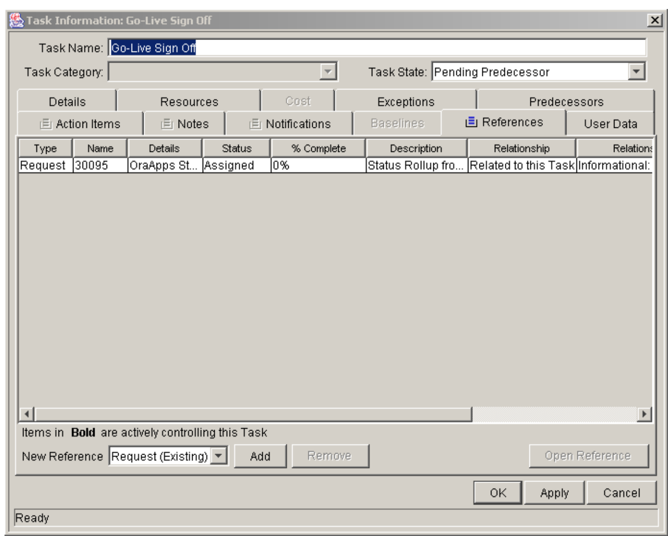


Figure A-1 References tab

Creating Tasks from Requests

Occasionally, a Request can be filed by a user that would be desirable to make into its own Task in a Mercury Project Management Project, creating for it deliverable dates and track-able actuals. Tasks can be created from Requests in the Project Management Workbench. A Task created from a Request behaves like any other Task in the Project, save for that the Tasks's % Complete and State are automatically updated by the originating Request as it moves through its Workflow. The new Task has the dependency relationship Task Updated by Request.

Example

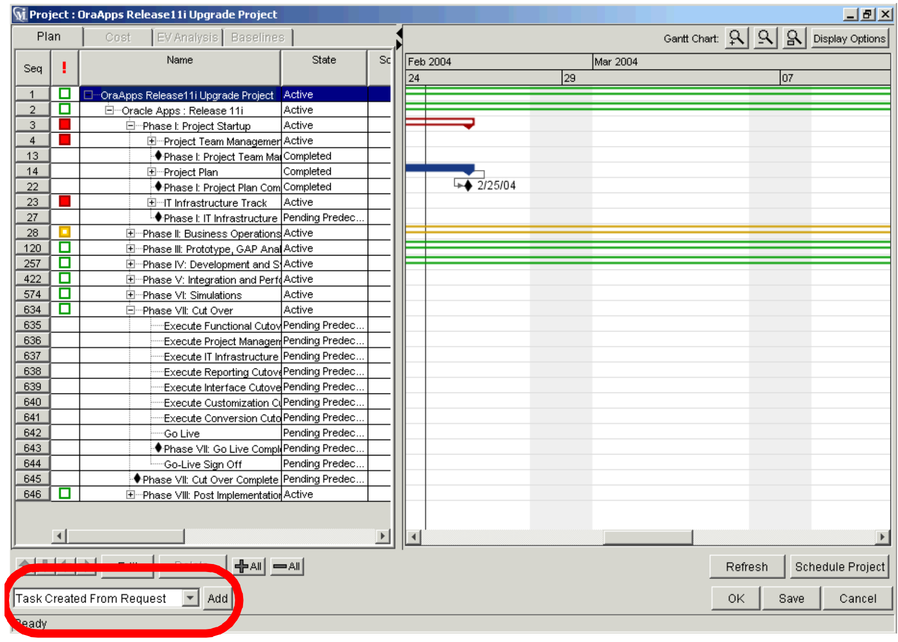
A manager in a software company wants to create a Project that will track all of the bugs currently logged against a particular product. In the Workbench, the manager can search for bug Requests related to the product, and turn them into Tasks in the Project Plan. From there, the manager can perform any typical Project action, such as tracking the completion dates for each Task or monitoring triggered Exceptions.

Note

You must be in the Project Management Workbench in order to create a Task from a Request.

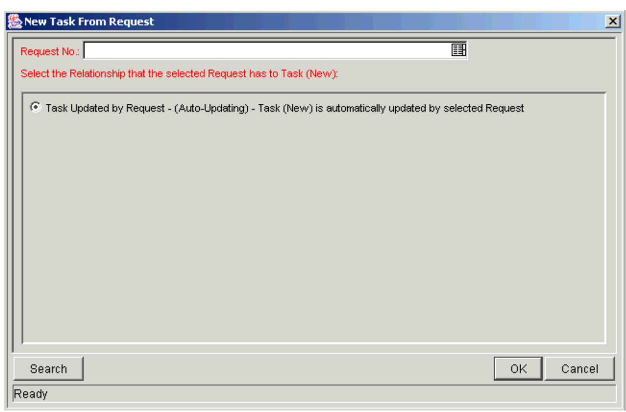
To create a Task from a Request:

1. Open the Project.
2. From the Project window, select **Task Created From Request** from the drop down list at the bottom left corner of the window.



3. Click **Add**.

   The New Task From Request window opens.



4. To select the Request to attach, use one of the following methods:

   - Select a Request number from the Request No. field.
   - Click **Search** to search for Requests to add in a separate query window.

5. Click **OK** to create the new Task and close the window.

The new Task has been created from the selected Request and is part of the current Project. The Task is linked to the Request.

Dependencies Between Tasks and Requests

The dependencies that can be created between Requests and Tasks are described in *Table A-1*.

Table A-1. Dependency Relationships - Requests to Tasks

Relationship	Description
Related to this Task	(Informational) - Selected Request is related to the Task.
Successor	(Blocking) - Action not allowed on selected Request until the Task closes.
Predecessor	(Blocking) - Action not allowed on the Task until the selected Request closes.
FF Predecessor	(Finish Finish Predecessor: Blocking) - The Task and Request complete together.
Task Updated by Request	(Auto-Updating) The Task is automatically updated by the selected Request.

For more detailed information on using these dependencies, see *"Making Tasks Dependent on Requests"* on page 303 and *"Making Requests Dependent on Tasks"* on page 307.

Making Tasks Dependent on Requests

When selecting dependencies between Tasks and Requests, there are many relationships to choose from. These relationships are set by attaching a Request to a Task as a Reference. This is done from the **References** tab in the Task Information window in the Workbench, or from the References section of the Task Detail page in the standard interface.

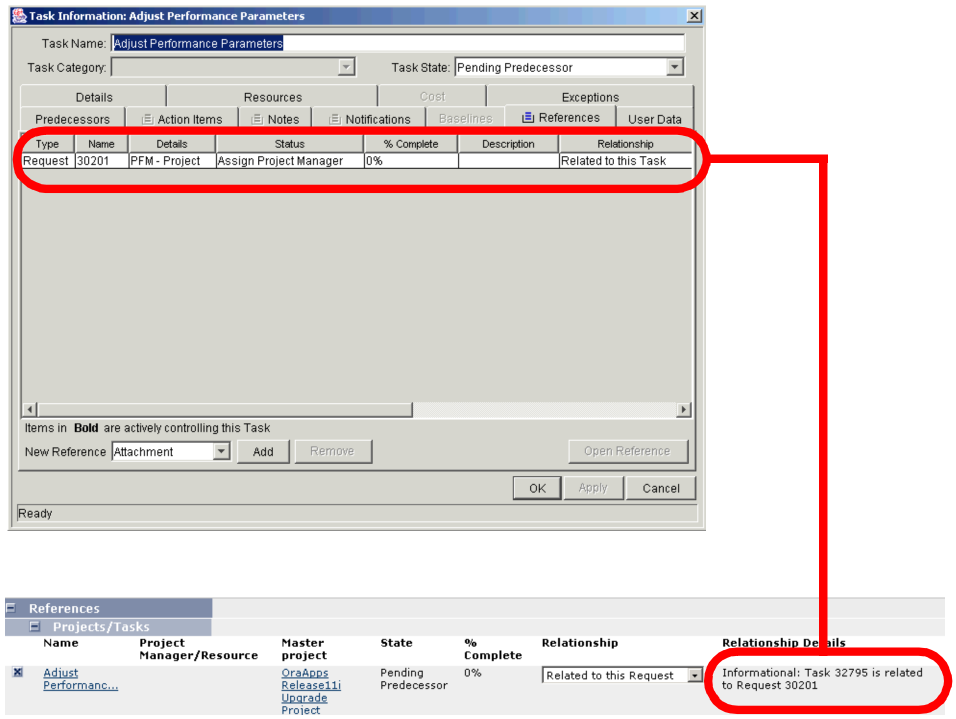


Figure A-2 References Tab and References Section for Tasks

The following sections contain more detailed information on dependencies for Tasks created from Requests.

This section covers the following topics:

- *"Task Waits on Request Closure (Successor Relationship)"* on page 304
- *"Task Can't Complete Until Request Closes (FF Predecessor)"* on page 305
- *"Task Auto-Updated by Request"* on page 306

Task Waits on Request Closure (Successor Relationship)

This Relationship dictates that the Task state cannot change until the associated Request is closed. The Task will immediately move into a "Pending Request" state. When the Request is closed, the Task can be acted upon once more. This does not stop other fields from being edited.

Example

A software company's Support Division makes the decision that no patches will be released without accompanying documentation. The company has an unfortunate history, however, of changing its mind about patches that are to be released, and numerous times there have been documentation changes made to accommodate patches that were cancelled after being initially approved. Patch A's approval Request is moving through its resolution process in Mercury Demand Management. The Documentation team is ready to begin making changes to all documents to account for Patch A, and has created a Project in Project Management. The Project includes the Task Begin Doc Changes for Patch A.

The Documentation Team's manager creates a Reference to Patch A's Request from the Begin Doc Changes for Patch A Task, with the relationship Successor. This way, the Task cannot be moved from its status of Ready to In Progress until Patch A's approval Request is closed, ensuring that the documentation changes are valid and needed.

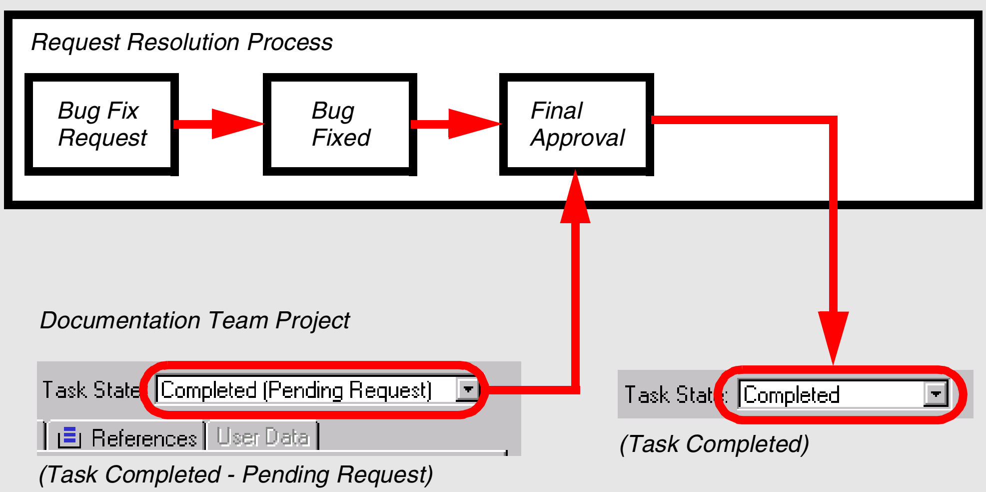
Task Can't Complete Until Request Closes (FF Predecessor)

This Relationship dictates that the Task state cannot change to Complete until the associated Request is closed. When the Resource working on the Task is finished with it, and the State is set to Completed (% Complete will be set to 100%), this Task will move into a Completed (Pending Request) state. When the Request is closed, the Task is then set to 'Completed.' This does not stop other fields from being edited.

Example

A software company's Support Division makes the decision that no patches will be released without accompanying documentation, including bug fixes. The Documentation Team wants to make sure that its documentation is accurate and complete for every bug fix that takes place. The last step in the company's bug fix resolution process is a review by the person who originally filed the bug. A Request to fix Bug 62547 has been filed and nearly completed, necessitating changes to the documentation.

The Documentation Team has a Project in Project Management, one of whose Tasks is Doc Changes Complete. The Documentation Team manager creates a Reference to Bug 62547's Request, with the relationship FF Predecessor. This way, the Task cannot be fully completed until Bug 62547's fix has been approved by the Requestor, closing the Request



Task Auto-Updated by Request

This Relationship is for Tasks created from Requests. As the Request moves through its process, it will update the Task with its status information. When the Request is submitted, the Tasks moves to In Progress. When the Request is completed, the Task is Complete. When the Request is cancelled or deleted, the Task is cancelled. A single Request can drive multiple tasks. If the Request's Workflow has % Complete values defined, the Request will also update the Task with % Complete information.

Note

Since % Complete and Task State are automatically updated by the driving Request(s), users cannot update these two fields. The text “(Updated by Request)” will be appended to the Ready and In Progress states to indicate this.

Making Requests Dependent on Tasks

Requests can be made dependent on Tasks. This is done from the References section of the Request page in the HTML interface.

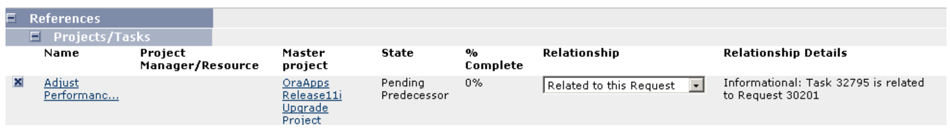


Figure A-3 References Tab and References Section for Requests

The section, *“Request Waits on Task Closure (Predecessor)”* on page 307, contains more detailed information on dependencies for Requests set by Tasks:

Request Waits on Task Closure (Predecessor)

This Relationship dictates that the Request’s user cannot perform any Workflow Actions until the associated Task is closed (completed, bypassed, or cancelled). The Request will immediately move into a ‘Pending Task’ status. When the Task is closed, the Request can be acted upon once more. This does not stop other fields from being edited.

Example

A software company’s Support Division makes the decision that no patches will be released without accompanying documentation. The Documentation Team wants to make sure that any patch Request won’t close until the patch documentation is finished. A Mercury Demand Management user is assigned a Request going through the company’s patch approval/release process. At the same time, the Documentation Team has a Project in Project Management, one of whose Tasks is ‘Patch Docs Completed.’ The user creates a Reference to that Task, with the dependency ‘FF Predecessor.’ This way, the patch Request will not close until the ‘Patch Docs Completed’ Task is complete.

Visibility into Tasks and Requests

Mercury ITG Center provides the following for enabling visibility into Request and Task integration.

- *"Requests Holding Up Progress"* on page 308
- *"Project References Portlet"* on page 308

Requests Holding Up Progress

You can search for Requests that are holding up progress on your projects. Each Portlet in the Dashboard that deals with Requests includes the field Preventing Action on Requests/Tasks. This field can be set to display Requests that are preventing action on other Requests or Tasks.

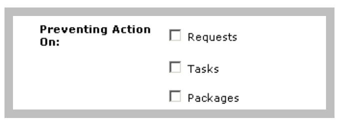


Figure A-4 Request Portlet Filter Page Showing 'Preventing Action On' Field

Project References Portlet

You can also view References related to your Tasks and Projects using the Project References Portlet on your Dashboard. Add the Portlet to your Dashboard and then personalize it to show the References that are relevant to your activities. The Portlet can be personalized to display References based on the following information: Reference Types, Relationship, time period when they were added, and whether or not they are preventing actions on Tasks.

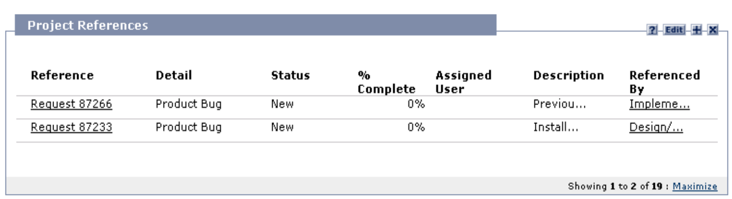


Figure A-5 Project References Portlet

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